The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 1

List View

General Information | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 2024719
Procurement Type: Central Purchase Order
Vendor ID: 000000159840
Legal Name: H F LENZ CO
Alias/DBA:
Total Bid: $0.00
Response Date: 08/06/2026
Response Time: 8:21
Responded By User ID: tinamalas
First Name: Tina
Last Name: Malas
Email: tmalas@hflenz.com
Phone: 814-269-9305

SO Doc Code: CEOI
SO Dept: 0603
SO Doc ID: ADJ2700000001
Published Date: 7/23/26
Close Date: 8/6/26
Close Time: 13:30
Status: Closed
Solicitation Description: EOI - Wheeling AASF#2 HVAC Renovations Design
Total of Header Attachments: 1
Total of All Attachments: 1

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

State of West Virginia
Solicitation Response

Proc Folder:	2024719
Solicitation Description:	EOI - Wheeling AASF#2 HVAC Renovations Design
Proc Type:	Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2026-08-06 13:30	SR 0603 ESR08062600000000806	1

VENDOR

000000159840
H F LENZ CO

Solicitation Number: CEOI 0603 ADJ2700000001

Total Bid: 0 **Response Date:** 2026-08-06 **Response Time:** 08:21:43

Comments:

FOR INFORMATION CONTACT THE BUYER
David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor
Signature X **FEIN#** **DATE**

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

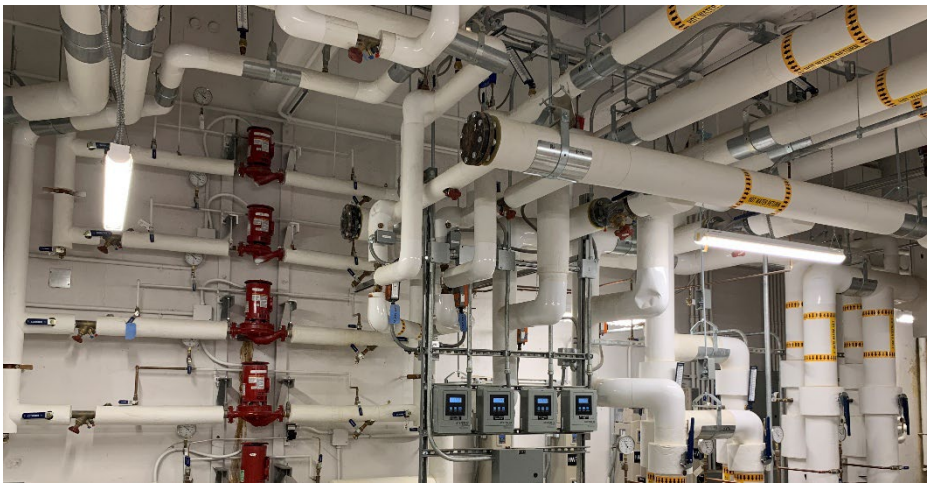
Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Wheeling AASF#2 HVAC Renovations Design				0.00

Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments:

Extended Description:

Provide professional architectural and engineering design services per the attached documentation.



Expression of Interest

A/E Services – Wheeling AASF#2 HVAC Renovations Design

CEOI 0603 ADJ2700000001

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. 2026-1855.00

August 6, 2026

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

August 6, 2026

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

Subject: Response to Qualifications
A&E Services - Wheeling AASF#2 HVAC Renovations Design
HFL File No. 2026-1855.00

Dear Commissioners:

H.F. Lenz Company (HFL) is enthusiastic about the opportunity to provide the Engineering Services required to develop construction documents for the renovation/replacement of the HVAC systems in the Army Aviation Support Facility #2 (AASF#2), located at the WV Army National Guard Base in Wheeling, Ohio County, WV.

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
- Qualified and experienced subconsultant: DRS Architects will be providing architectural support. 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 and current work for DGS Crane Readiness Center and DGS New Castle Readiness Center, PA State Police new headquarters expansion, and U.S. Air Force - 911th Airlift Group. 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 80th 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. H.F. Lenz Co. previously provided engineering services under a mutually negotiated contract. We would like to request the same opportunity for contract negotiation should we be awarded a contract for this project. We look forward to the next steps in the selection process. In the meantime, we will be happy to answer any questions you may have regarding our submission.

Sincerely,

H.F. LENZ COMPANY

Brian D. Schmidt, P.E.
Principal

Table Of Contents

Tab 1: Firm Profiles

H.F. LENZ ENGINEERING

Firm Profile

H.F. Lenz Co.

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 they serve. Our staff consists of 200+ individuals, including 48 Licensed Professional Engineers and 14 LEED Accredited Professionals.

Disciplines/services offered in-house include:

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

Philosophy

Two essential prerequisites lay the foundation for every H.F. Lenz Co. project. First, we take the time to understand the client's business and how it operates. Second, we proactively involve the client in the development of appropriate solutions. In our role as partner, we help the client understand how well the available alternatives satisfy the project's own unique, prioritized set of objectives.

West Virginia Experience

H.F. Lenz Company has a long history of project experience in West Virginia. Our experience includes:

- New and renovated West Virginia Army National Guard Army Reserve Centers
- Multiple projects for a large, confidential federal government campus
- Multiple DOE NETL projects at the Morgantown campus
- WV State Capitol Chiller Plant Upgrades
- New State Office Building in Clarksburg
- Over 25 years of consistent projects for both WVU and WVU Medicine
- Montgomery General Hospital Sleep Lab
- Multiple projects for Mylan Pharmaceuticals
- New Mylan Park Aquatic Center
- New Bridgeport Sports Recreation Complex
- Highlands New Indoor Sports Center-OCDA
- USDA Office Fit-out Project
- Fifth Third Center New Multi-tenant Office Building
- Martinsburg Roundhouse Fit-out
- Multiple Sheetz stores

Johnstown Headquarters
1407 Scalp Avenue
Johnstown, PA 15904
Phone: 814-269-9300
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Pittsburgh Office
1051 Brinton Road
Pittsburgh, PA 15221
Phone: 412-371-9073
Fax: 412-371-9076

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

U.S. GREEN BUILDING COUNCIL MEMBER

HVAC Systems

HVAC System Design Expertise - We are well known throughout the industry for our expertise in HVAC projects and have consistently demonstrated this for hundreds of institutional projects including both state and federal correctional facilities. Our engineers are experts in indoor air quality and understand how HVAC systems can either create or correct indoor air quality problems. Where possible, new technologies are used that provide alternatives to bringing in large quantities of outside air while still meeting the intent of ASHRAE Standards for indoor air quality. An institutional facility uses large amounts of energy on the heating and cooling system. To meet codes for outdoor air introduction, and due to the desire to limit the heating and cooling of outdoor air when not needed, we have successfully employed energy recovery on many projects. Regardless of the type of system, we specify a direct digital control system for the building to control the heating and cooling systems. In specifying the controls, we create specific sequences of operation that are particular to the systems and with the goal of providing energy efficiency.

Focus on Energy Efficiency - We have been a national leader in the design of energy efficient buildings for over five decades. We make energy efficiency a priority in all our designs. We use both tried-and-true and innovative methods to achieve systems that are cost effective, practical, reliable, maintainable, and energy efficient. We are an innovator in the design of energy-efficient mechanical and electrical systems and have won national awards in our five decades of energy conservation achievement. We are staunch supporters of The U.S. Green Building Council's LEED "Leadership in Energy and Environmental Design" system for rating buildings. Our Engineers have designed central heating/cooling plants that use 50% less energy through the proper matching of equipment to loads and by the use of high efficiency equipment. We also incorporate water-side free cooling, high efficiency lighting systems and the controlled use of outdoor air to maintain indoor air quality while limiting energy consumption.

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

Some of our notable clients include:

- University of Pittsburgh
- Slippery Rock University
- Duquense University
- Point Park University
- West Virginia University
- La Roche University
- Indiana University of Pennsylvania
- Grove City College
- Pennsylvania Army National Guard
- Department of Energy, NETL
- Federal Bureau of Investigation
- Pennsylvania State Police
- Baltimore Corps of Engineers
- US Postal Service
- 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 & Alcoa Building

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

Duquense 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

Tab 2: Relevant Experience

H.F. LENZ
ENGINEERING

Department of Defense Experience

U.S. Army Corps of Engineers, Baltimore District

Camp Dawson, Kingwood, WV
- Three new billeting facilities

Army Reserve Center, Beckley, WV
- New 300-member reserve center with training building and maintenance shop

Army Reserve Center, Morgantown, WV
- New 300-member reserve center with training building and maintenance shop

Army Reserve Center, Wheeling, WV
- New 284-member reserve center with training building and maintenance shop

Army Reserve Center, Rainelle, WV
- New 200-member reserve center with training building and maintenance shop

Army Reserve Center, Weirton, WV
- New 200-member reserve center with training building and maintenance shop

Army Reserve Center, Kingwood, WV
- Maintenance shop

Army Reserve Center, Grantsville, WV
- New 100-member reserve center with training building and maintenance shop

Army Reserve Center, Elkins, WV
- New 60-member reserve centers with training building and maintenance shop

Army Reserve Center, Brownsville, PA
- New 200-member reserve center with training building and maintenance shop

Army Reserve Center, Johnstown, PA
- New 200-member reserve center with training building and maintenance shop

Morlock Army Reserve Center, Pittsburgh, PA
- HVAC modifications

Copely Army Reserve Center, Oil City, PA
- Boiler addition

Steele Army Reserve Center, Pittsburgh, PA
- Complete HVAC system replacement

Army Reserve Aviation Facility, Johnstown, PA
- New 120,000 SF multi-building complex including an armed forces reserve center and an aviation maintenance shop

H.F. LENZ ENGINEERING

Department of Defense Experience

Letterkenny Army Depot, Chambersburg, PA
- Six indefinite-delivery contracts for mechanical, electrical, civil, and structural engineering and surveying services

Fort Richie, Fort Ritchie, MD
- Two indefinite-delivery contracts for mechanical, electrical, civil, and structural engineering and surveying services

Ammunition Plant, Scranton, PA
- Upgrade lighting system in production shop

Pennsylvania Army National Guard

Pennsylvania Army National Guard, Johnstown, PA
- New 23,560 SF Regional Maintenance Facility

Pennsylvania Army National Guard, 128th Brigade Support Battalion
- Renovation of the 26,700 SF Crane Readiness Center which houses 250 soldiers

Pennsylvania Army National Guard, 107th Field Artillery Battalion
- Rehabilitation of 23,000 SF New Castle Readiness Center which houses approximately 120 soldiers

Clearfield Army National Guard, Readiness Center
- MEP/Civil/Structural renovation of 49,760 SF Readiness Center; included code upgrades, Force Protection enhancements, energy upgrades, parking area expansion

U.S. Army Corps of Engineers, Norfolk

Walter Reed Army Medical Center, Washington, D.C.
- Renovation and upgrade to Building 12, Provost Marshal's Facility

PA Department of Military Affairs

Ford City Armory, Ford City, PA
- New 24,400 SF training center with classrooms and kitchen/dining facilities

Naval Facilities Engineering Command (Navfac), Southeast Division

P-8A Integrated Simulation/Training Center, Jacksonville, FL
- New $42.5 million, 165,000 SF operational training facility for a new Multi-Mission Maritime Aircraft (MMA)/P8-A located at the Naval Air Station; Project goal is LEED Gold

H.F. LENZ
ENGINEERING

Aviation Experience

U.S. Army Reserve Aviation Facility, Johnstown, PA
The H.F. Lenz Company provided mechanical, electrical, and fire protection engineering; site development; and surveying services for the planning and development of a new $27 million reserve center and aviation support facility at the Johnstown Municipal Airport. The project consists of a 120,000 SF multi-building complex located on a 75-acre site and includes:

The Reserve Center includes modern administrative areas, unit common space, an education facility with assembly hall, classrooms, learning center, library, and flight simulator. The support area will provide storage areas for unit and individual equipment, dining facilities, small arms storage, and maintenance shop.

The 31,000 SF Aviation Maintenance Shop includes administrative offices, conference areas, classrooms, tool and parts storage, battery storage and charging room, flammable storage, four aircraft maintenance hangar bays, special shop areas, a wash bay, and military aircraft and vehicle parking.

Additional project elements:
- Topographic survey and complete site investigation and site plan, including access road, utilities, taxiways, hangar apron areas, compass rose, associated aircraft and taxiway lighting, and site storm drainage collection and retention
- A five-ton crane with a 40 ft. span serves the entire length of the hangar
- A foam water fire suppression system is provided along with a detention area to comply with environmental regulations
- Van pad with support facilities
- Cost estimates using the M-CACES software
- Life cycle cost analysis (LCCA)

Relevant features of the project included:
- Aircraft-related shops and offices, administrative space, and common space
- New 31,000 SF hanger with work bays and wash bays, designed for 24 AH-1 helicopters and four C-12 aircraft
- 5-ton overhead crane with 40-ft. span
- New training building with classrooms and library
- The project included design of hot water radiant floor, fuel/water separator systems, fixed foam fire suppression systems, elevators, structural supports, and tie downs and a new fire pump house and water distribution loop serving the entire site

258th Air Traffic Control Squadron, Airport Water Systems Repairs:
The 258th Air Traffic Control Squadron, a geographically separated unit of the 171st Air Refueling Wing is located at the John P. Murtha Cambria County Airport in Johnstown, Pennsylvania. The primary mission of the Air Traffic Control Squadron is to provide rapid deployment, operation and maintenance of Air Traffic Control and Landing systems to ensure the safe, efficient flying operations in both deployed and non-deployed environments.

H.F. LENZ
ENGINEERING

Aviation Experience

The intent of this project was to eliminate water infiltration issues at the main building at the site. Additional work items included in this project were the replacement of existing roof and installation of a back-up generator and automatic transfer switch.

Key features of the project included:

- Feasibility study
- Design of a new white EPDM 12,800 SF. roof system
- Replacement of all copings and roof flashing
- Masonry water repellant application installations
- Design for installation of a 60 kW/75 kVA back-up generator
- Automatic transfer switch

The project was completed under an Indefinite Quantity/Indefinite Delivery contract with the Pennsylvania Air National Guard.

U.S. Air Force - 911th Airlift Group, Greater Pittsburgh International Airport, Coraopolis, PA

Base Civil Engineering Building: The new 21,700 SF Base Civil Engineering Building for the 911 Airlift Group at the Pittsburgh International Airport provides administrative spaces, shops and storage area to support a permanent engineering staff and 150 reservists.

The project was phased to allow existing facilities to remain in use during construction. The buildings were then demolished, and the site work was completed.

Facilities include:

- Offices
- Locksmith
- Engineering space
- HVAC and liquid fuels shop
- Classrooms
- Carpentry shop
- Drafting room with CADD
- Electrical shop
- Conference room
- Locker rooms
- Print room / reproduction
- Battery shop
- Support facilities
- Fire extinguisher shop
- Civil Engineering Squadron facilities
- Storage facilities
- Plumbing, sheet metal, and welding shop
- Covered storage area
- Paint shop

Site development included parking areas, loading space, landscaping, and relocation of existing utilities.

Corporate Hangar Building 129: H.F. Lenz Company provided the mechanical, electrical, plumbing, and fire protection engineering for the renovation of a corporate hangar at the Pittsburgh International Airport. The project consisted of the remodeling of the office and lounge area and the renovation of the aircraft maintenance and storage area. In the main hangar, new fluorescent high-bay lighting was installed to replace existing mercury-vapor lighting to bring the lighting levels up to current IES standards. A new radiant heating system was installed to provide heat to the large open hangar area. A new security system was installed throughout the building.

H.F. LENZ
ENGINEERING

Aviation Experience

Indefinite Delivery Contract: Under a two-year indefinite delivery A/E contract. Services include site investigations, preliminary and final design, design analysis, and cost estimates. On all projects, operation of the base must be maintained during construction.

Maintain/Repair/Alter Building 300 (Base Exchange)
Insulation and brick veneer was added to the exterior of the building. Three new vestibules were added to the building; one is accessible. Provided accessible toilet rooms. New flooring/ceiling throughout building. New energy efficient light fixtures. New rooftop units with screens. New roof drains. Replace electrical service with underground electrical. Modify site by replacing and modifying sidewalks, replacing pavement, regrading, and landscaping.

Repair/Add to/Alter Building 332: Designed a new vehicle wash building including radiant heating and carbon- monoxide monitoring and exhaust system with new state-of-the-art fuel delivery system with leak detection and monitoring system. Soil testing and removal of contaminated soil. New brick veneer and standing seam roof for existing fuel service building. Landscaping. Provide new electrical service involving pad-mounted transformer, switch, and underground primary and secondary electrical. Modify site by adding pavement.

Construction of Parking Lot: Constructed asphalt paving parking lot along Defense Avenue. Landscaped non-parking areas.

U.S. Air Force, 911th Airlift Group/CE, Greater Pittsburgh International Airport – Coraopolis, PA
H.F. Lenz Company provided design services for the 911 Airlift Group on a two-year indefinite delivery A/E contract which expired in 2003. Services included site investigations, preliminary and final design, the Base were maintained during construction. Major projects included:

Alter Hangar Building 129: H.F. Lenz Company provided HVAC, plumbing, electrical, fire protection and structural engineering design services for the renovations to Hangar Building 129. Electrical system design included new underground electrical service. A manhole and a load interrupter switches were installed and the new service was routed to a pad mounted, liquid-filled transformer. New underground secondary service was extended from the pad mounted transformer to the main distribution panel located within the Building. Other Electrical Systems for the Hangar addition included the installation of receptacles, lighting fixtures, emergency lighting and exit signs and the 28 Volt DC power system. The fire alarm system for the Hangar was also extended to service the addition. A high expansion foam fire protection system was added.

Alter Pharmacy, Building 319: Replaced existing roof with a shed roof, provided a canopy over the loading dock. Insulation and brick veneer was added to the exterior of the building. Removed all asbestos-containing materials. Analyzed the existing footing capacity for brick veneer and added structural column for new canopy. All exposed electrical conduit was placed underground.

Aviation Experience

Provided new dry chemical fire protection system. Removed and relocated all exterior lighting. The entire building was considered hazardous storage. Constructed asphalt paving parking lot along Defense Avenue. Landscaped non-parking areas.

Pressurized Hydrant Fueling System: The pressurized hydrant fueling system project at the Pittsburgh International Airport involved the total design of an aviation fuel transfer, storage, and dispensing facility.

Key features of the project included:

- Central control house to remotely monitor and control all functions of the fuel handling operation
- Quality control building for lab testing of fuel samples
- Complete electrical power and control distribution systems.
- Two 5,000-barrel aircraft fuel storage tanks to provide on-site product storage capabilities
- 1,200 GPM fuel handling capability
- Product receiving pumping station to unload fuel from tanker trucks for transfer to storage facilities
- Truck fill stands for dispensing aircraft fuel to mobile military tanker trucks
- Six hydrant fueling stations located on runway apron for fueling air transport/refueling tanker aircraft
- Product dispensing pumping station for product filtration, monitoring, and flow control with distribution to truck fill stands and hydrant fueling stations
- Approximately one mile of 12-inch diameter stainless steel underground main distribution piping and approximately 2,000 feet of secondary stainless steel distribution piping.
- Access roads and parking facilities for tanker trucks and military personnel and associated roadway low-pressure sodium lighting system
- Waste fuel handling and storage system
- Fire control, ecological protection, pump cavitation, fuel purity, and protection of fuel storage tanks from earthquakes

U.S. Air Force, 911th Airlift Group, Greater Pittsburgh International Airport, 171st Air Refueling Wing – Coraopolis, PA

Water Distribution System: H.F. Lenz Company completed repairs to the water distribution system including distribution lines, valves and other appurtenances by repair and construction.

The project consisted of upgrading/replacing the water distribution system to include all distribution lines, valves, and other appurtenances by repair and construction, reusing parts that are determined reusable. Repair and/or replacement of areas disturbed by waterline installation including existing paved areas, the abandonment of existing waterlines in-place, and grouting the last five feet of abandoned waterline at any tie-in point.

Concrete Apron Repairs/Replacements: The project area lies within the watershed Montour Run, which is designated in the Pennsylvania Code, Title 25, Chapter 93 as TSF – Trout Stocked Fishery. Previously, runoff from the project area drains to existing storm

sewer facilities that are located on and adjacent to the aprons and taxiway. Repairs consisted of:

- Selective removal
- Replacement and repair of damaged concrete on the east and west aprons and taxiway
- Removal and replacement of the bituminous shoulders bordering the east apron and the north side of the taxiway
- Installation of a new storm line on the north side of the taxiway

The work did not create any additional impervious areas, as all repairs were to existing concrete or bituminous surfaces.

This project was designed to avoid any new point source discharges to surface waters of the Commonwealth.

Ohio National Guard - Akron-Canton Regional Airport, Akron, OH
H.F. Lenz Company provided the mechanical, electrical, plumbing, fire protection, and structural engineering services for the expansion and alteration of the existing Army Aviation Support Facility (AASF) hanger. The existing hanger, originally constructed in 1986, did not have adequate capacity to house the newly assigned CH-47 helicopters at the facility. The existing facility was also not equipped with a fire suppression system. The requirements of the project included partial demolition, expansion of the foundation and floor area of the existing hangar by 11,088 SF, a new fire suppression system, modifications to the existing security systems and various interior improvements. The expanded facility is now able to accommodate three CH-47 helicopters.

The project also included the design of a new 26,400 SF aircraft storage facility.

Key features of the project included:

- Design of FAA lighting
- Fuel/water separator systems
- Fixed foam fire suppression systems
- Structural supports
- Tie downs

Erie International Airport, Erie, PA
Erie International Airport, a publicly owned, public use, primarily commercial service facility, serves the aviation needs of Erie County, the Western Region of Pennsylvania, Western New York State, and Northeast Ohio. H.F. Lenz Company has provided mechanical, electrical, plumbing and fire protection engineering services for numerous projects at the airport including:

Terminal Security System - H.F. Lenz Company provided the renovation for relocation of the passenger security checkpoint and equipment that included modifications to the ceiling mechanical and electrical systems and the installation of a cellular phone network throughout the terminal. Construction for this project was completed in 2002.

Operations Room / Generator / UPS Project Scope - The scope of this project was to create a new basement location for the Erie

H.F. LENZ
ENGINEERING

Aviation Experience

International Airport operations room. This room is not a staffed room but houses operations center equipment that does not need to be located in the first floor security area. In addition, this room houses new uninterruptable power system equipment. This room is equipped with environmental systems to maintain the proper temperature and humidity for the operations equipment and the UPS system. H.F. Lenz Company provided the engineering services to install a new UPS system in the operations room to power the security equipment and the computer equipment throughout the airport facility. Also, a new diesel generator was installed to replace the two existing generators. Both the generator and the UPS system were sized to handle the current needs with additional capacity for the anticipated future load associated with the proposed airport expansion.

As a part of this project, a new building electrical power conditioning system was installed to correct the building harmonics. Construction for this project was completed in 2002.
Freight Facilities Study - The airport purchased two old factory buildings and wished to develop these facilities into a modern freight handling and light manufacturing center at the airport.

The goal for this project was to convert the buildings into a complex at the airport that would handle freight shipped by air, trucks or rail cars. H.F. Lenz Company completed a facilities study to determine

the feasibility of converting these buildings and to estimate the cost of the recommended upgrades to the mechanical and electrical systems. The study was presented to the owner in 2001.

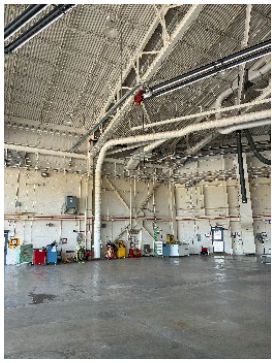
Additional projects for Erie International Airport include:

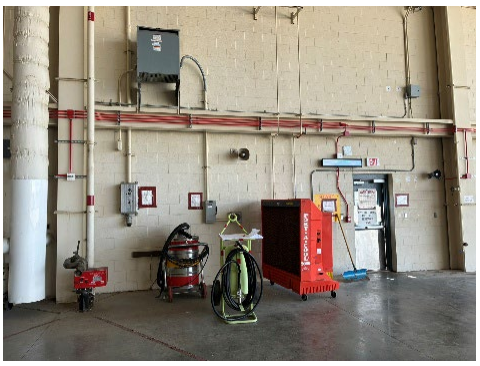
- HVAC, Plumbing, and Electrical design for a new Car Rental Facility
- HVAC, Plumbing, Fire Protection, and Electrical design for additions and renovations to the Ticketing Area
- HVAC, Plumbing, Fire Protection, and Electrical design for the replacement of two existing Jetways
- HVAC, Plumbing, and Electrical design for a new office addition at the existing Customs Building
- HVAC, Plumbing, and Electrical design for a new Ticket Counter for Delta/Comair Airline
- Study of the existing electrical system for the terminal and auxiliary facilities
- Study of the existing energy management system for the terminal and auxiliary facilities
- Plumbing and Electrical design for a new water service and exterior booster pump
- HVAC, Plumbing, and Electrical design for the Second Floor Office Renovations

H.F. LENZ
ENGINEERING

Aviation Experience

- Study of the existing exhaust system for the Restrooms located in the Main Terminal
- HVAC, Plumbing, and Electrical design for multiple TSA Renovations and Additions including:
  - Administrative Offices
  - Regional Offices
  - Security System and Equipment Upgrades
- Electrical design for the new exterior lighting and signage for the existing Main Terminal





Pennsylvania Air National Guard

171st Air Refueling Wing, Repair Fuel Cell Hangar B320

Pittsburgh, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection, Civil

Square Feet
23,350 SF

Completed
2026 (design)
2027 (construction)

Cost
$3,559.000 (est.)

Reference
Shanna Denny, Maj, PA ANG
Deputy Base Civil Engineer
300 Tanker Road
Coraopolis, PA 15108
412-849-9461
shanna.denny.2@us.af.mil

H.F. Lenz Co. provided Mechanical, Electrical, Plumbing/Fire Protection, and Civil engineering services for the repair of a 23,350 SF Fuel Cell Hangar for the Pennsylvania Air National Guard at the Pittsburgh International Airport. The fuel cell hangar (building 320) was constructed in 1997 and had not been renovated since construction and required interior and exterior repair work.

The scope of work consisted of:

- Replacement of lighting, electrical, HVAC and controls, and fixtures including repair to hangar radiant heating system
- Replacement of roof and associated stormwater drainage components
- Replacement of exterior lighting and exterior roll-up doors
- Replacement of interior walls and ceilings
- Removal of the existing AFFF fire suppression system and replace existing fire sprinkler system to comply with new tier 2 fire protection standards
- Repair water tank and piping exterior insulation and coatings.
- Repair hangar ventilation hose pulley system and compressed air system
- Repair insulation to exterior piping between the fire pump house and the fire protection water storage tank
- Replacement of aircraft washing system and water heating
- Addition of fuel spill divertor valve/controls to a modified underground storage tank
- Renovation of offices and expansion of locker/shower rooms
- Civil design for the removal and replacement of asphalt paving on the exterior of Building B320
- Provide recommendations for a tank liner material to protect an existing concrete underground storage tank in the event of aviation fuel overflow

The 171st ARWs' objectives for the project required a complete final design package to include biddable construction documents in accordance with DD Form 1391, dated 1 Nov 2021, and the design service Performance Work Statement (PWS) dated 12 January 2024, which includes, but is not limited to the following activities: planning, site investigations, construction cost estimates, specifications (all related divisions), and construction drawings.

PENN STATE HEALTH MILTON S. HERSHEY MEDICAL CENTER

Emergency Power for Life Lion Hangar

Hershey, PA

Services
Mechanical, Electrical, Plumbing, Fire Protection and Civil

Square Footage
10,180 SF

Completed
2021

Cost
$550,000

Reference
Matthew Grimes
Penn State Hershey Medical Center
717-926-3951

H.F. Lenz Company provided engineering services for renovations and new emergency power system for the 10,180 SF building that houses the Life Lion critical care transport helicopter fleet and flight operations.

The project included developing full construction documents and construction administration for the installation of the emergency power system. Critical items included, but were not limited to, the main hangar door motors and controls, fuel pumping system, landing pad and marker lighting, building emergency lighting and security system.

The design included all aspects of the installation including a site plan identifying the location of generator and natural gas supply line, compatibility of the generator to the building electrical system, consideration of the path for electrical feeders through the building, and the location and size of all other necessary equipment to include additional panels, transformers and transfer switches. .

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.

STATE OF WEST VIRGINIA

Clarksburg State Office Building

Clarksburg, WV

Services
Mechanical, Electrical, Plumbing and Fire Protection

Square Footage
85,250

Completed
2016

Cost
$20 million

Accreditations
LEED Silver Certification

Reference
David Hildreth
State of West Virginia
1409 Greenbrier Street
Charleston, WV 25311
304-558-0510

H.F. Lenz Company provided the mechanical, electrical, plumbing, fire protection, and telecommunications engineering services for the design of a new 85,250 SF five-story office building to house seven West Virginia state agencies.

The HVAC system utilizes a chilled water system with ice storage to save energy costs. The majority of the building is served by three VAV modular air handling units located in the building penthouse. A Direct Digital Control (DDC) System provides the control for the HVAC system. The system interfaces with the current system that the State of West Virginia uses to monitor its buildings from a remote location in Charleston, WV.

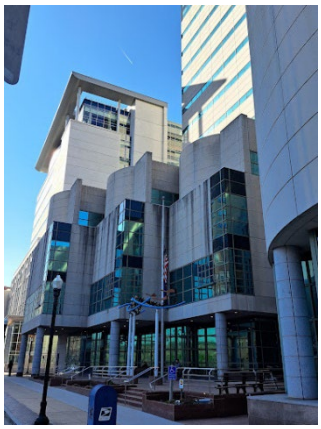
Lighting relay panels provide 24/7 control of the lighting in the larger areas on the various floors. Relay panels are installed on all floors except the basement. Vacancy (Occupancy) sensors are installed in all areas not described above to provide automatic shut off lights. In areas subject to larger amounts of natural light, daylight harvesting sensors are placed near windows to step-dim (reduce light output to 50%) local light fixtures in response to amount of sunlight present within the space and save energy.

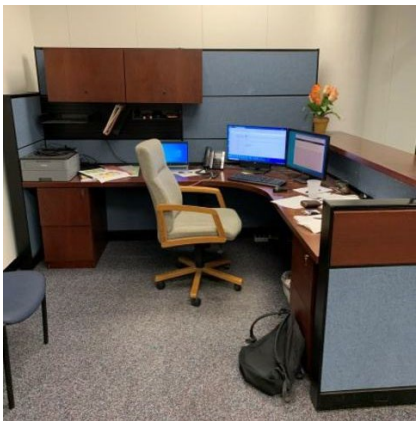
A Main Telecommunications Room (MTR) is provided that houses all the service entrance equipment for signal system demarcation points as well as distribution equipment to provide the buildings signal infrastructure. Intermediate Telecommunications Rooms (ITR), feed from MTR, are constructed on each floor and contain equipment to distribute signal systems to the end user.

The project was designed to achieve LEED Silver Certification. State agencies began moving into the new building in 2016.

Meeting the Project Goals

An important goal of the project was to provide an energy efficient, state-of-the-art facility with sustainable design features capable of achieving LEED Silver Certification. H.F. Lenz Company helped meet this goal by designing an HVAC system that utilizes a chilled water system with ice storage to save energy costs. The lighting system design also contains several energy conserving elements.





RACHEL CARSON BUILDING

HVAC Upgrades

Harrisburg, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection

Square Footage
420,125

Completed
1992 - original design
HVAC upgrades - current project

Cost
$43 million

Reference
Blake Gifford
PA Department of General Services
18th & Herr Street
Harrisburg, PA 17120
717-585-4940

H.F. Lenz Company provided the mechanical, electrical, plumbing and fire protection engineering for the design of the original 17-story, 420,125 SF office building under a previous DGS contract in 1992. The building houses multiple government agencies.

The mechanical, electrical, and interior systems were designed for flexibility and energy conservation. The original building design provided comfort and flexibility for the office floors. The system utilized hot water for heating and chilled water for cooling. Two central VAV AHU's serviced the majority of medium pressure, duct riser serving each floor. Return was routed from the ceiling plenums to the return air shafts and back to the AHU's moduline diffusers to provide the variable air volume to the floors.

In 2024, H.F. Lenz Company was retained to provide the engineering services for HVAC upgrades throughout the building. The facility's existing HVAC system had undergone small incremental improvements of various components including a partial upgrade to the automatic temperature controls, however most of the systems were original to the building. The primary purpose of this project is to replace the existing modular air terminals and modify the distribution ductwork to incorporate the use of single duct VAV air terminals and/or fan powered VAV air terminals to better condition the spaces and provide control of the space conditions.

Additional related scope will include the following:

- New ceiling grid and tile
- New LED lights
- Lighting controls and all new HVAC components will be integrated into the facility's digital Building Automation System
- Minor modifications or relocations of sprinklers as necessary to coordinate the installation of new HVAC components
- Existing ceiling mounted fire alarm devices shall remain active, temporarily supported and reinstalled
- Existing ceiling mounted security and surveillance devices shall remain active, temporarily supported and reinstalled

The project includes a detailed phasing plan to relocate multiple floors of occupants so the building can remain operational throughout construction.

H.F. LENZ
ENGINEERING

HVAC Controls Upgrades

West Virginia University, Morgantown, WV

- Extended chilled water from campus central chiller plant to Eiesland Hall 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
- Renovation to White Hall including a complete Building Automation System
- BAS system included full system graphics and trending ability to alarm and trouble shoot systems
- Eiesland Hall HVAC renovation
- White Hall HVAC & Life Safety renovation
- Agriculture Science Building addition HVAC
- Creative Arts Center AHU replacements
- Stansbury Hall HVAC renovation including 5 new AHUs
- Charles Wise Library: Replacement of seven AHUs and addition of two new central stations as part of 124,000 SF addition and 86,000 SF renovation

Confidential Federal Agency, Eastern US

- Replacement of controls in central utility plant (CUP); included modifications to the existing chilled water distribution system
- Developed the design and a sequence of implementation to replace the existing commercial Building Automation System in the main data center

Robert F. Kennedy Department of Justice Building, Washington DC

- Energy analysis and BAS design for a 1.3 million SF federal building

Social Security Administration, Woodlawn, MD

- Energy analysis and BAS design for the 1.3 million SF Robert M. Ball Federal Building

BNY Mellon Headquarters, Pittsburgh, PA

- Energy analysis and BAS design for three high-rise office buildings

JPMorgan Chase, Midwest, US

- Building Management System/Electrical Power Management System replacement for office and data center campus

University of Pittsburgh, Pittsburgh, PA

- Upgrade/installation of control valves on the chilled water and hot water piping systems in various buildings and floors at Litchfield Towers residential complex. The design included all equipment, piping, controls, and control wiring along with all appurtenances necessary for a complete and functional HVAC system
- Space Research Coordination Center (SRCC) HVAC upgrades

The Lits Building, Philadelphia, PA

- Master plan study including existing system survey documentation, future phase definitions/descriptions, recommended revisions to existing control sequences, recommended BAS type, recommended contractors, and budgetary estimates for 885,000 SF structure

H.F. LENZ
ENGINEERING

HVAC Controls Upgrades

University of Pittsburgh at Greensburg, Greensburg, PA
- Replaced existing pneumatic controls with DDC controls at 52,000 SF Chambers Hall
- Provided DDC controls from Automated Logic. Replaced existing three-way control valves with two-way control valves. Provide VFD drives at all fans and pumps

Pennsylvania Farm Show Complex, Harrisburg, PA
- HVAC Building Automation/Automatic Temperature System (BAS/ATC) – Replace and integrate all HVAC systems into a single open control platform to properly manage all HVAC Systems
- The project also included a comprehensive upgrade and extension of the HVAC controls throughout the 700,000 SF Facility

National City Center, Cleveland, OH
- Energy efficiency recommendations including replacing the existing DDC front end, system controllers, E-P devices, sensors, pneumatic damper actuators, pneumatic control valves and the pneumatic air distribution system of this one million SF office complex

University of Pittsburgh at Greensburg, Greensburg, PA
- HVAC controls upgrade at Millstein Library that included new control layout and new sequences of operation for the existing equipment to provide the most up-to-date operation and energy efficiency
- The new control system is integrated with the existing campus Building Automation System (BAS) by Automated Logic

Capitol One Corporate Campus, Henrico, VA
- Campus-wide BAS design serving 8 buildings totaling 890,000 SF

The Dreyfus Corporation, New York and New Jersey
- BAS design - 200 Park Avenue, NYC, 300,000 SF.
- BAS design - EAB Plaza, Long Island, 90,000 SF
- BAS design - UBS Building, Jersey City, 500,000 SF

Pennsylvania Army National Guard, Various PA Locations
- Clearfield Readiness Center: HVAC renovation including energy upgrades of a 49,760,000 SF readiness center
- Crane Readiness Center: HVAC and electrical renovation of a 26,700 SF reserve center
- New Castle Readiness Center: HVAC and electrical renovation of a 23,000 SF reserve center

Sacred Heart, University Fairfield, CT
- HVAC design for 57,000 SF health and recreational facility
- HVAC design for five new residence halls

University of Pittsburgh, Pittsburgh, PA
- Benedum Hall - Replacement of the HVAC system in a 15-story, 400,000 SF classroom and research lab building
- Included Two 50,000 cfm energy recovery units

H.F. LENZ
ENGINEERING

HVAC Controls Upgrades

University of Connecticut, Mansfield, CT
- HVAC renovations to Public Safety Building
- Modification to Dean's Suite HVAC system
- HVAC design for fit-out of high bay lab space

Yale University, New Haven, CT
- Greeley North Laboratory HVAC renovation
- Dufree Hall mechanical ventilation and cooling for spaces housing sensitive electronics and IT systems
- Troubleshoot and rectify chilled water coil operation for Linsly Chittenden Hall, AHU 3
- Off Broadway, HVAC renovations for theatre space
- Yale Walpole Library HVAC Troubleshooting
- University Commons HVAC Upgrade
- 300 George St. Cooling

Carnegie Mellon University, Pittsburgh, PA
- HVAC renovations to 217,000 SF historic Doherty Hall
- Mechanical and electrical renovation to The College of Fine Arts

Shippensburg University, Shippensburg, PA
- Franklin Science Center - Replacement of five AHUs in conjunction with complete mechanical and electrical renovation of the 118,000 SF building

University of Pennsylvania, Gimbel Gymnasium HVAC Upgrade, Philadelphia, Pennsylvania
- Replacement of the existing HV-5 and HV-6 ventilation systems with new two AHUs and provide cooling through a new chilled water connection

Pennsylvania State University, The Behrend College, Erie, PA
- Science Building HVAC renovation including replacement of one 5,000 cfm AHU and adding a 120-ton chiller

Cabrini College, Radnor, PA
- Dixon Center Renovation and Addition - Modifications to an existing VAV system, new 24,000 CFM VAV rooftop air handling unit with separate energy recovery unit, new heating hot water system to serve VAV boxes and perimeter heat in the addition

Edinboro University of Pennsylvania, Edinboro, PA
- Replace air handling units (5,500 cfm each) in conjunction with complete mechanical and electrical renovation of Dearborn and Earp residence halls.

Westmoreland County Community College, Youngwood, PA
- Replacement of seven AHUs ranging in size from 3,000 cfm to 20,000 cfm in Founders Hall

Heritage Health System, The Medical Center, Beaver, PA
- Replacement of six AHUs ranging from 3,000 cfm to 25,000 cfm as part of facility-wide HVAC upgrades

H.F. LENZ ENGINEERING

HVAC Controls Upgrades

Children's National Medical Center, Washington, DC

- Facility-wide AHU replacement and upgrade program. As the Medical Center's Engineer-of-Record, H.F. Lenz Company is replacing/upgrading all of the 600,000 SF Facility's air handing units. To date, eight AHUs ranging from 6,000 cfm to 30,000 cfm have been replaced

Veterans Affairs Medical Center, Philadelphia, PA

- Replaced four AHUs in Building 2 and the TB/Canteen in Building 1. The units were replaced in the same location and increased the size by 10-20%.
- Developed a phasing plan to keep the spaces in service while the AHUs are being replaced

Consul Energy (Property Manager, Grubb & Ellis), Pittsburgh, PA

- Replacement of six roof-top units which serve a large office building. The project included: VAV; 6 units, each at 24,000 CFM; Energy wheel; and phased construction

Sigma-Aldrich Corporation, Bellefonte, PA

- Supelco Facility Renovations - Replacement of the seven primary AHUs and all of the roof-mounted exhaust fans. Five of the AHUs were custom rooftop units while two were modular indoor units. The units ranged in capacity from 6,700 CFM to 42,000 CFM and the total CFM was approximately 155,000 CFM. Rooftop electrical equipment including MCCs and starters were replaced

National Energy Technology Laboratory (NETL), Morgantown, WV, Pittsburgh, PA, and Albany, OR facilities

Indefinite Delivery Term Contract

H.F. Lenz Company has completed design and construction documents for numerous relevant projects including:

- Building 922 Pittsburgh – Replaced two AHUs and associated return fans and replaced steam heating coils in two AHUs with hot water coils in office building.
- Building 920 Pittsburgh– Replaced 4,500 CFM split air handling unit and 5,500 CFM rooftop air handling unit in office building.
- Building 33 Morgantown – Replaced two indoor split air handling units with two outdoor DX units in laboratory/hazardous storage building.
- Building 25 Morgantown – Replaced four air handling units and return fans, chilled and hot water pumps, and steam to hot water converter. Updated controls throughout building on existing VAV boxes and perimeter heaters in office building.
- Building 1 Morgantown – Complete HVAC, electrical, plumbing, and fire protection renovation to occupied office building conducted in multiple phases. Included the replacement of four indoor air handling units, one rooftop unit, and building steam, hot, and chilled water distribution system.
- Building 35 Albany – Replaced two outdoor AHUs and added laboratory exhaust system to chemical storage/research building.

Pennsylvania Army National Guard
New Castle Readiness Center Renovation

New Castle, Pennsylvania
Construction Cost: $2,200,000
Completed: 2018

This project was the renovation of the two-story, 23,000 square foot New Castle Readiness Center for the 107th Field Artillery Battalion, PA Army National Guard, completed through the Pennsylvania Department of General Services. The stone and brick building was built in 1938 and is listed in the National Register of Historic Places.

The project scope included exterior architectural improvements to repair the stone façade, door replacement, roof replacement over the barrel-vaulted Drill Hall, and other minor roof repairs. Site improvements included updated water and gas services, milling and repaving of the vehicle parking area and access drives, the addition of an accessible parking area, and replacement of the site perimeter fencing. Interior architectural improvements included a complete renovation and reconfiguration of the administrative areas, reconfiguration and upgrades to all the restrooms to modernize and bring them into compliance with current building codes, and improvements including minor space reconfigurations, painting, ceiling replacement, flooring replacement, and door replacements.

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.

Contact

Matthew A. Dubovecky, EIT
Project Manager
PA Dept. of Military & Vet Affairs
814.533.2466
c-mdubovec@pa.gov

This project was completed in collaboration with H.F. Lenz Co.

Butler County Public Safety Training Facility
Butler County Community College

Butler, Pennsylvania
Construction Cost: $2,530,000
Completed: 2001

The Butler County Public Safety Training Facility is currently under construction on a 5.5 acre site on the Butler County Community College Campus. Three structures are located on the site: the Fire Science Building, Fire Training Tower and a Burn Building. In addition to these structures, the site contains a 1.0 acre pond which will be used for storm water management and drafting training (drawing water for fire fighting from a rural pond), ice rescue training and scuba rescue training. Various elements on the site will allow for training evolutions that simulate railroad tanker or truck tanker fires and confined space rescue training, A flammable gas area will be provided for LP gas flange and gas vent piping evolutions.

Fire Science Building

The two story Fire Science Building houses two separate areas within the 10,000 SF split-face block structure. The lower level contains a climate-controlled equipment storage area; an air compressor room; a “wet” classroom and a garage for fire fighting equipment. The upper level, accessible by exterior stairs at both sides of the building from the training pad level, houses four classrooms and office and library space.

Fire Training Tower

The five story Training Tower is a masonry structure with a 20’ by 24’ footprint, using for fire fighting training, including rappelling, equipment handling exercises and smoke delivery systems (portable) to simulate actual conditions.

Burn Building

The Burn Building is a cast-in-place concrete structural frame with replaceable concrete masonry infill walls. This building replicates a residential layout including living, dining and family rooms, kitchen, three bedrooms, two bathrooms, a balcony and attic. This is a protected structure with firebrick floors and thermal lining of walls and ceilings. The internal temperature is monitored to protect the structure from overheating and eventual deterioration of the structure.

Contact

Mr. Brian Opitz, Director of Physical Plant Services
Butler County Community College
(724) 287-8711 Ext. 240

171st Air Refueling Wing – Hangar B320 Fuel Cell Renovations

Coraopolis, Pennsylvania

DRS Architects was selected to provide programming, conceptual design, and schematic design services for the renovation of the Fuel Cell Hangar (Building B320) and associated support facilities at the 171st Air Refueling Wing in Coraopolis, Pennsylvania. The project focused on evaluating and modernizing an existing aircraft maintenance facility to support ongoing military operations while improving building functionality, life safety, and operational efficiency.

The initial phase included comprehensive field verification of existing conditions, development of accurate base drawings from owner-provided documentation, and a preliminary building code analysis. DRS also coordinated a fire flow test of the site's water system to evaluate fire protection capabilities and inform future design decisions. Working closely with Air National Guard personnel and stakeholders, the team developed multiple conceptual design options that addressed facility programming requirements, operational workflows, and long-term maintenance needs.

Following approval of the preferred concept, DRS advanced the project through approximately 35% design development. Services included architectural, structural, mechanical, electrical, plumbing, and fire protection system design; preliminary material and system selections; development of basis-of-design documentation; preparation of preliminary specifications; and an opinion of probable construction cost. Throughout the process, DRS facilitated coordination meetings with the Using Agency, incorporated stakeholder feedback into the evolving design, and positioned the project for subsequent design phases and construction implementation.

Collaborated With:

H.F. LENZ ENGINEERING

Tab 3: Organizational Chart & Team Resumes

Project Team Organizational Chart

WEST VIRGINIA
Army National Guard

H.F. LENZ ENGINEERING

Principal-in-Charge

Brian D. Schmidt, P.E.
20 Years of Experience

Project Manager
Thomas F. Deter, P.E.

H.F. LENZ ENGINEERING
MEP/FP Engineering

William A. Minahan, P.E.
Mechanical Engineer

Eric L. Hoover, P.E.
Electrical Engineer

Gregory D. Rummel, CPD.
Plumbing/FP Designer

David A. Blackner, P.E.
Structural Engineer

Architectural Services

Patrick E. Thornton, AIA
Project Architect

David Bostak, RA
Architectural Designer

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, FL, IN, MD, NC, NJ, NV, NY, 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

Completion of Medium Voltage Drive and Motor Applications Training through TMEIC Corporations America

References
Joseph Yimin
Sr. Project Manager
Carnegie Mellon University
Campus Design & Facility Dev.
417 S. Craig Street 3rd Floor
Pittsburgh, PA 15213
412-268-3334
jyimin@andrew.cmu.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.
Principal-in-Charge

Mr. Schmidt is a Principal of the firm and an experienced Project Manager. He will serve as the main point of contact for the client and consultants for this project. His responsibilities include project scheduling, preparation of reports and cost estimates, coordination and supervision of project design teams, and other project management functions. Mr. Schmidt has over 20 years' experience in electrical engineering, including extensive experience in the design of design of generators, emergency lighting and power distribution systems; exterior medium-voltage underground and overhead pole line distribution systems; building interior and exterior electrical power distribution systems; lightning protection 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. He also has extensive experience in electrical system modeling and computer calculations (SKM Power Tools).

Project Experience

West Virginia Army National Guard Facilities
- Weirton - 16,000 SF D/B Aviation Center
- Wheeling - 24,000 SF D/B Reserve Center
- Camp Dawson - Three new billeting facilities

Letterkenny Army Depot - Baltimore District, Chambersburg, PA
- Building 320 HVAC upgrades and renovations

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

PA Farm Show Complex and Expo Center, Harrisburg, PA
- Comprehensive upgrade and extension of the HVAC controls throughout the 700,000 SF Facility. Included integrating the building's HVAC system into a single open control platform to properly manage all HVAC systems
- New boiler plant

Rachel Carson Building, Harrisburg, PA
- Replacement/modifications of the HVAC zone distribution duct-work, installation new VAV air terminals, control devices and ceiling diffusers throughout the 400,800 SF state office building

Pennsylvania State Capitol Complex, Harrisburg, PA
- Central Plant Upgrades, Electrical and Chilled Water

Pennsylvania Department of Conservation and Natural Resources
- Multiple projects including office buildings, maintenance facilities, and public areas throughout the state

DOE National Energy Technology Lab, Morgantown, WV
- Primary Power Distribution Switchgear Upgrade

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

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

Project Experience

West Virginia Army National Guard Facilities
- Weirton - 16,000 SF D/B Aviation Center
- Wheeling - 24,000 SF D/B Reserve Center
- Camp Dawson - Three new billeting facilities

Pennsylvania Army National Guard Facilities
- Crane - Renovation of 26,700 SF reserve center
- New Castle - Renovation of 23,000 SF Readiness Center, including HVAC renovations
- 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
- Fort Indiantown Gap - Master plan and design for a new auditorium

USACE, Aviation Center, Johnstown, PA
- New 120,000 SF multi-building reserve center

Maryland Army National Guard, Grantsville, MD
- New 15,300 SF training facility and maintenance shop

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

PA Farm Show Complex and Expo Center, Harrisburg, PA
- Various upgrades to the facility, including upgrading and extending the HVAC controls throughout the 700,000 SF facility including boiler plant replacement

U.S. Drug Enforcement Administration, Pittsburgh, PA
- New two-story, 50,000 SF office building

National Energy Technology Laboratory, Pittsburgh, PA
- Two consecutive term contracts for repairs, alterations, studies and new construction throughout three campuses
- Upgrades to the DDC system and replacement of, and integration with the HVAC controls in several buildings

William A. Minahan, P.E.

Mechanical Engineer

Mr. Minahan has over 16 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.

Education

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

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

Project Experience

Pennsylvania Army National Guard Facilities

- Crane - Renovation of 26,700 SF reserve center
- Clearfield - Renovation of 49,760 SF Readiness Center

West Virginia University, Keyser, WV

- Potomac State College, Mary F. Shipper Library Study Rooms addition of a split system cooling unit HVAC

Pennsylvania State Police, Greensburg, PA

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

Rachel Carson Building, Harrisburg, PA

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

PA Farm Show Complex and Expo Center, Harrisburg, PA

- Various renovations throughout the 700,000 SF facility, including a new boiler plant

Temple University Paley Hall Renovation, Philadelphia, PA

- 311,568 SF renovation and addition for the College of Public Health; included new building-wide control system to control all new HVAC equipment

Franklin County Courthouse Archives Storage Facility, Chambersburg, PA

- Renovation and expansion of which was part of a larger project which renovated the existing historic Courthouse, a new Justice Center, and a new separate County Administration building

New Bucks County Justice Center, Doylestown, PA

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

Eric L. Hoover, P.E.

Electrical Engineer

Mr. Hoover is an established electrical engineer who has managed a wide variety of building construction projects. His experience covers a broad range of project sectors including airports, highrise commercial and residential, retail, cultural, higher education, and research laboratories. His skills include design of medium voltage and low voltage power distribution systems, emergency distribution systems, lighting and lighting control systems, fire alarm systems, and telecommunication distribution systems. He strives to collaborate with contractors, architects and owners to ensure that all project needs are met, and has a proven record of completing projects on time and within budget.

Education

Bachelor of Electrical Engineering, Concentration in Power, University of Pittsburgh 2013

Experience

H.F. Lenz Company 2020 – Present, Buro Happold Engineering 2015-2020 Bombardier Transportation 2013-2015

Professional Registration / Certification

Licensed Professional Engineer in PA, AL, AR, DC, DE, IA, KS, KY, LA, MA, MD, MI, MN, MO, MS, SC, TN and UT

Professional Affiliations

IEEE

References

William H. Barnes
Director Capital Projects
Temple University
267-854-4155
william.barnes@temple.edu

Samuel J. Dell, P.E.
Design Project Manager
Department of General Services
717-836-4856
sadell@pa.gov

Project Experience

Pennsylvania State Police, Greensburg, PA
- New 50,000 SF DNA Lab Building

New Bucks County Justice Center, Doylestown, PA
- Lower Bucks Government Service Study and design for renovations/HVAC upgrades and multiple county buildings

Reading City Hall, Reading, PA
- Study and design for HVAC Upgrades

Pennsylvania State Capitol Complex, Harrisburg, PA
- Central plant building renovation, chiller system replacement, and electrical system upgrades

Rachel Carson State Office Building, Harrisburg, PA
- Replacement/modifications of the HVAC zone distribution duct-work, installation new VAV air terminals, control devices and ceiling diffusers throughout the 400,800 SF state office building

Temple University, Philadelphia, PA
- 311,568 SF renovation and addition for the College of Public Health; included new building-wide control system to control all new HVAC equipment

Carnegie Mellon University, Pittsburgh, PA
- Study and design for phased infrastructure upgrades for the 139,480 SF historic College of Fine Arts

State Correctional Institute, Various
- SCI Somerset - Replacement of central heating plant boilers, pumps, and all associated equipment, rooftop units on two cell blocks
- SCI Greene - Upgrades to the existing generator switchgear, upgrades to the existing main feeds from the transfer switch, the existing switchgear PLCs, the remote transfer switches at various locations and upgrades to the remote annunciators for the generators
- SCI Mahanoy - Repair/renovations and replacement to switchgear and generator and required electrical upgrades; large generator and revising the distribution panels as needed and two 1K generator to be replaced by 2K ones

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

PA Farm Show Complex and Expo Center, Harrisburg, PA

- Comprehensive upgrade and extension of the HVAC controls throughout the 700,000 SF Facility. Included integrating the building's HVAC system into a single open control platform to properly manage all HVAC systems and a new boiler plant

Rachel Carson Building, Harrisburg, PA

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

Reading City Hall, Reading, PA

- Study and design for HVAC upgrades

Lower Bucks County Government Services Center, Doylestown, PA

- Approximately 40,000 SF new government office building

Lehigh University, Bethlehem, PA

- New 14,000 SF Campus Police Station

Pennsylvania Turnpike Commission, Harrisburg, PA

- New three-story, 50,000 SF addition and renovation of the 112,000 SF Central Administration Building, which serves as the central operations center and houses the State Police Troop T Command Center - LEED Certified

National Energy Technology Laboratory (NETL), Various Locations

- Indefinite Delivery-Indefinite Quantity (IDIQ) contract for NETL facilities in Morgantown, WV, Bruceton, PA, and Albany, OR - Facilities include 81 buildings on nearly 200 acres; projects included renovation and upgrades - Over 100 projects complete

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.

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. Zamias Developer 1989-1995

Professional Registration / Certification

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

References

Ben Policicchio
Former Facilities Director
Conemaugh Memorial Hospital
Johnstown, PA 15905
814-242-0376

Jonathan Decker
Project Manager
City of Pittsburgh
412-255-8931
jonathan.decker@pittsburghpa.gov

Project Experience

Fifth-Third Center, Charleston, WV
- New 66,000 SF D/B multi-tenant office building with a two-level parking deck

DGS Pennsylvania State Capitol Complex, Harrisburg, PA
- Electrical system upgrades, central plant building renovation and chiller system replacement
- Replacement of the entire rainwater conductor systems for the Forum and Finance Buildings

Letterkenny Army Depot - Baltimore District, Chambersburg, PA
- Building 320 HVAC upgrades and renovations

DGS Pennsylvania Army National Guard Facility, Clearfield, PA
- Clearfield - Renovation of 49,760 SF Readiness Center

BFS Companies, Morgantown, WV
- New 21,000 SF office building for BFS Food Stores

West Virginia University, Morgantown, WV
- New 54,000 SF Alumni Center
- Arnold Hall Boiler - three new natural gas-fired low pressure steam boilers with a steam capacity of 2,760 pounds per hour each
- Downtown Chiller Plant - Installation of a third and fourth 1,400-ton chiller with VFD, a free cooling heat exchanger system, fourth cooling tower, and associated electrical

U.S. Air Force, 911th Airlift Group/CE, Greater Pittsburgh International Airport - Coraopolis, PA
- Expansion of Building 130

USACE Baltimore District, Letterkenny Army Depot, IDIQ Contract - Chambersburg, PA
- Multiple consecutive IDIQ Contracts for repair, renovations, additions, new construction, studies, investigations, and other A/E services for base buildings and site infrastructure at Letterkenny Army Depot; Over 100 projects completed to-date

Patrick E. Thornton, AIA

President, DRS Architects
Partner, Sixmo Companies

Sixmo Companies
1101 Auburn Avenue
Cleveland, Ohio 44113
216-767-5400
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 West Virginia
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 Nebraska
Architect, State of New York
Architect, State of Ohio
Architect, State of Oregon
Architect, State of Pennsylvania
Architect, State of Utah
Architect, State of Wisconsin
Commercial Building Official, State of Ohio
Combination Plans Examiner State of Ohio
Commercial Building Inspector, State of Ohio
Residential Electrical Inspector, State of Ohio
Building Code Plans Examiner, State of West Virginia
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*
*Indicates a project that was completed while under the employment of another organization

David Bostak, RA

Senior Architect | Project Manager

DRS Architects
One Gateway Center, 17th Floor
Pittsburgh, Pennsylvania 15222
412-391-4850
dbostak@drsarchitects.com

David returned to DRS in 2024 after a brief hiatus to provide studio leadership and to bring his technical expertise to bear on our projects. He is a champion of technology in our industry, ensuring our team is leveraging its value on each and every task. As an advanced BIM user, David manages standards and education within our organization.

David is also a strong designer, developing solutions and carefully coordinating with both his in-house teammates and external consultants. His understanding of modern building systems and emerging technologies in the construction industry are evident in his well-crafted technical solutions.

Education:

- Virginia Polytechnic Institute and State University
  - Bachelor of Architecture, 1999
- Anne Arundel Community College
  - Associate in Arts, Cum Laude Honors, 1994
  - Tau Alpha Pi National Honor Society

Current Registrations:

- **Architect, State of Pennsylvania**
- LEED Accredited Professional

Technical Organizations:

- National Council of Architectural Registration Boards (NCARB)
- U.S. Green Building Council (USGBC)
- Autodesk University (2011/2020/2021)

Featured Representative Personal Experience:

- DGS Pennsylvania State Police DNA Facility
  - Greensburg, PA
- University of Pittsburg Salk Hall Renovations
  - Pittsburgh, PA
- DOE/NETL Building 34 Advanced Alloy Facility
  - Albany, Oregon
- DOE/NETL Building 30 Improvements
  - Albany, Oregon
- DOE/NETL Building 94 Lab Renovations
  - Pittsburgh, PA
- Clarion University Moore Hall
- Clarion University Stevens Hall
- Social Security Administration Tenant Improvements
  - Johnstown, PA
- UPMC Children's Hospital TV/Radio and Art Therapy
  - Pittsburgh, PA

TAB 4: PROJECT APPROACH

H.F. LENZ
ENGINEERING

Project Approach

The purpose of this project is to **redesign and replace the current HVAC systems and equipment** in the **Army Aviation Support Facility #2 building in the WV Army National Guard Base located in Wheeling, Ohio County WV**, with new, high-efficiency equipment. This modernization is designed to improve energy performance and ensure reliable climate control. By upgrading to current industry standards, the project will maintain the operational integrity of this mission-critical building.

The HFL Team approach is to assemble a well-qualified team to address the design of the HVAC System Replacement.

Modernization, Recommendations & Project Understanding
The scope of the project is to replace the HVAC systems throughout the building. It is anticipated the design of the renovation will be phased to allow the building to be partially occupied during construction. The design of the new systems will be in accordance with the current West Virginia Codes.

It is our team's understanding that the design recommendations should focus on high-efficiency, sustainable systems that meet or exceed industry standards while maintaining the project budget, which is unknown at this time. Industry standards and codes are assumed to include:

- American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE)
- National Fire Protection Agency (NFPA)
- National Electric Code (NEC)
- International Building Codes (IBC)
- West Virginia Building Codes

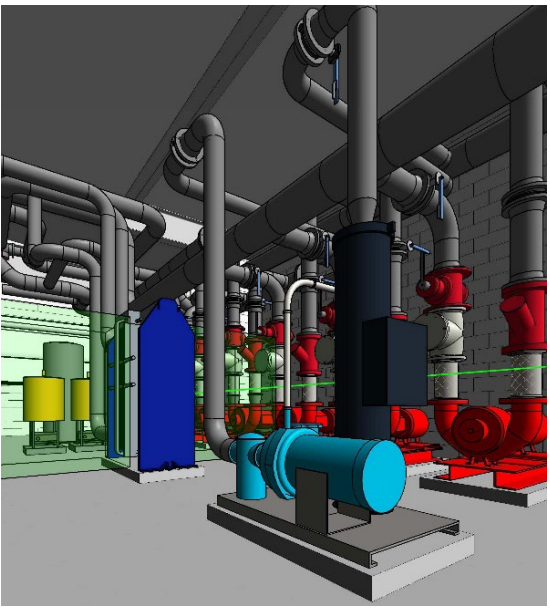
Strategic Project Implementation:

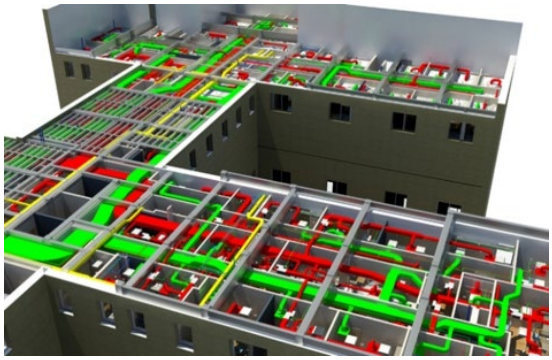
Data Collection

Our team will begin by participating in a project kickoff meeting with the building users and will obtain and review available reference drawings for the Army Aviation Support Facility #2. HFL will review the existing building mechanical and electrical systems to assess their condition and develop conceptual plans for their replacement or modification (if deemed possible) to support the usage of the building. Our team will work closely with the architect and other consultants to know the space layouts, building constraints, budget limitations, and user expectations to make educated decisions with respect to the proposed systems layouts and performance.

H.F. LENZ
ENGINEERING

Project Approach





35% Submission
The 35% submission efforts will include the following tasks:
- Assess building systems and spaces
- Understand building plans and area use types
- Code review
- Develop systems replacement/upgrade options
- Review systems options with the Army Aviation Support Facility #2 personnel
- Review sequencing options with the Army Aviation Support Facility #2 personnel
- Envelope evaluation
- Conceptual equipment layouts
- Reoccurring coordination meetings with stakeholders
- Submission Review Meeting with stakeholders

65% Submission
The 65% submission efforts will include the following tasks:
- Develop sequencing plans
- Develop drawings and specifications
- Conceptualize Sequences of Controls for Building Automation
- Review and reconciliation of design with budget
- Develop Cost Estimate
- Reoccurring coordination meetings with stakeholders
- Submission Review Meeting with stakeholders

95% Submission
The 95% submission efforts will include the following tasks:
- Finalize sequencing plans for final review
- Finalize drawings and specifications for final review
- Develop Sequences of Controls for Building Automation
- Review and reconciliation of design with budget
- Reoccurring coordination meetings with stakeholders
- Submission Review Meeting with stakeholders

100% Submission
The 100% submission efforts will include the following tasks:
- Finalize sequencing plans for bidding/permit
- Finalize drawings and specifications for bidding/permit
- Finalize Sequences of Controls for bidding/permit
- Finalize Cost Estimates
- Reoccurring coordination meetings with stakeholders
- Submission Review Meeting with stakeholders

Construction Administration
Our team has dedicated field personnel who specialize in construction administration. Our field administration team will assist the design team during the project construction period. Construction Administrations efforts will include the following tasks:
- Review shop drawings and submittals
- Review TAB reports
- Respond to requests for information
- Review change orders
- Provide construction observation
- Participate in reoccurring OAC meetings
- Punchlists preparation

Tab 5: Project Management & Construction Phase Services

H.F. LENZ
ENGINEERING

Project Management

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.

Our Project Management Strategy includes:

- **Experienced Project Engineers -** Each of our proposed team members for this project have experience in government projects as well as HVAC 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.

H.F. LENZ ENGINEERING

Project Management

- **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 critical 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.

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ENGINEERING

Construction Administration Services

The H.F. Lenz Company's Field Services Division provides a full range of construction administration services. This group is responsible for completing construction observation and monitoring services for approximately $250 million in construction annually. Individual projects range in size from $10,000 to $130 million in construction costs and include the new construction and renovation of all types of institutional and commercial buildings.

In addition to being responsible for completing construction observation and monitoring services, our staff has demonstrated an ability to effectively manage construction and resolve problems. Their efforts consistently avoid unnecessary deletions, substitutions, and change orders that are common in the construction industry. They have an impressive record of controlling final construction costs to within one percent of the original bid amounts (less owner's program changes).

Field Services representatives are responsible for carrying out the company standard of quality during construction. They have from 10 to 32 years of "hands-on" experience in all types of heating, ventilating, air conditioning, plumbing, fire protection, electrical, building management, site utility, and industrial mechanical systems, as well as in most structural and architectural construction. They have a thorough knowledge of system design concepts and a knowledge of Building Codes; National Electrical Code; SMACNA Standards; and DEP publications for sewer, water, and fuel storage tanks.

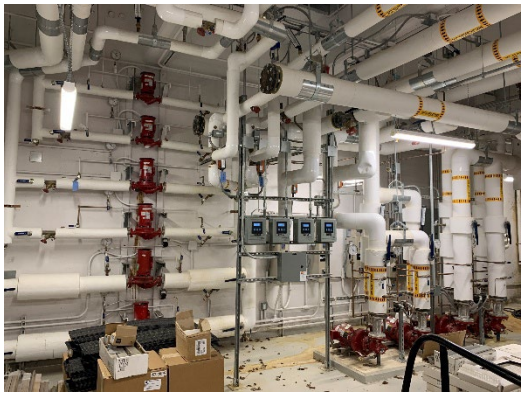
The H.F. Lenz Company's Field Services Division provides the following construction-phase services:

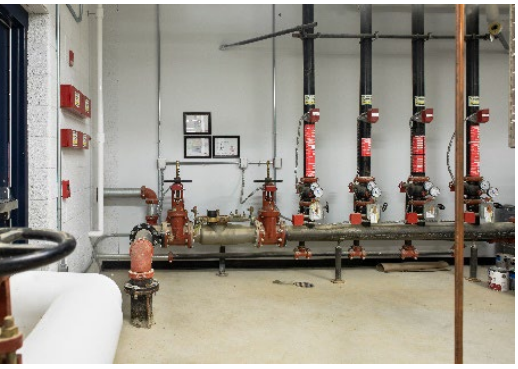
- On-site troubleshooting and testing
- Observe on- or off-site field testing
- Construction cost estimating and review
- Coordination between trades at the site and with the engineer's office, the architect's office, the owner, and all applicable agencies
- Monitor and observe construction workmanship, materials, and equipment to ensure conformity with contract documents
- Monitor applicable code compliance during construction
- Attend and record minutes of construction and coordination meetings
- Evaluate and approve contractor's requests for payment
- Evaluate contractor's estimates for changes in the contract price
- Approve or disapprove vendor/contractor shop drawings
- Maintain accurate field records and reports
- Perform construction inspections and field surveys for work conformance.
- System evaluations including equipment operation schedules, equipment problems, and building operations
- Coordinate and assist in operation and maintenance training

The H.F. Lenz Company's Field Services Staff have demonstrated an ability to effectively manage construction and resolve problems. Their efforts consistently avoid unnecessary deletions, substitutions, and change orders that are common in the construction industry. They have an impressive record of controlling final construction costs to within one percent of the original bid amounts (less owner's program changes).

H.F. LENZ
ENGINEERING

Construction Administration Services





Pre-Construction Services

If required, our in-house staff of professional engineers can provide various types of preconstruction services. This can include reviewing system concepts, performing value engineering, developing or reviewing cost estimates, and reviewing construction specifications for compatibility of design and opportunities for cost containment.

Our engineers can also conduct constructability reviews that will check for completeness of design documents and design coordination between disciplines. An evaluation of the constructability of final construction documents can also be performed. At this stage, sequence of construction, construction timetables, and the need for construction phasing will be determined. Finally, a review of construction cost estimates for completeness, reasonableness, and accuracy can be performed.

Construction Quality Assurance

Our field representatives understand that the required contractor submittals and their submission schedule should be clarified at the start of the construction phase. The objective of the team in the early construction phase needs to be the diligent processing of submittals since this effort has a positive effect on construction progress. The benefits of identifying long lead items during the design phase which were pre-purchased are now realized in the construction schedule.

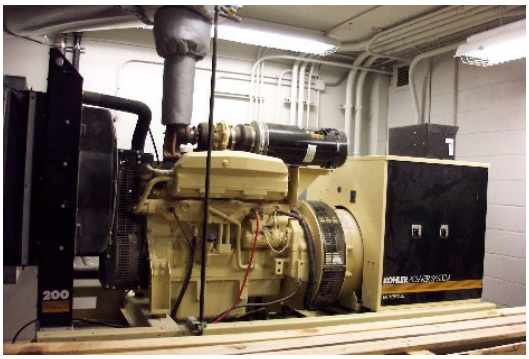
Construction schedules must be compiled and updated on a regular basis to permit the identification of both potential conflicts and opportunities, which when addressed early enough in the process, provide for a project completed within the desired time frame. Schedules must include milestone dates which are used to monitor construction progress.

Regularly scheduled field observations are necessary to review construction quality, monitor compliance with the construction documents, respond to contractor's questions, and to build the team spirit between the contractor and professionals. All observation visits and meetings are documented by written minutes which are distributed to all parties in a timely fashion.
A photographic history of the construction progress is also commonly maintained during the project. As-built information is also maintained and monitored for future incorporation into conformance drawings.

At the completion of the construction effort, the field representatives review the final product and prepare punchlists of work which needs to be completed or corrected. At this project stage, critical systems are performance tested to confirm that they meet the design objectives.

H.F. LENZ
ENGINEERING

Construction Administration Services



Owner's Representative Construction Representation Services Offered

- Oversight of the Project Design Process
  - Monitor the progress of the Work performed
  - Attend design team meetings on behalf of the Owner
  - Perform plan and specification reviews
  - Review for compliance with applicable agency requirements
  - Maintain Project Records including design submittals, and meeting minutes
  - Provide reports to the Owner
  - Review and identify areas of value engineering and perform a value engineering exercise for affected scopes
- Scheduling
  - Develop a master project schedule from design through project closeout
  - Incorporate changes in direction or schedule
  - Maintain accountability to the schedule with each consultant and contractor
- Budgeting
  - Determine budget categories to be tracked from start to completion of program
  - Assist the Owner in monitoring and maintaining the budget
  - Evaluate design options which affect budgets for presentation to the Owner
- Bid Phase Coordination
  - Receive and tabulate bids
  - Assist with the bid evaluation process
  - Assist with construction contract administration
- Construction Contract Administration
  - Review or coordinate independent testing services
  - Oversee the day-to-day construction activities including contractor evidence of insurance coverage, material submittal activities, RFI review, coordination and close-out
  - Report to and advise the Owner on issues of construction costs, schedule, and coordination and Owner occupancy
  - Administer construction contracts, change orders, and pay applications on behalf of the Owner
  - Attend weekly construction coordination meetings representing the Owner and follow-up on Owner required issues
  - Make daily visits to the construction site to observe progress and to respond to construction related questions. Observe the quality of workmanship; quality of materials; conformity with plans and specifications; project schedule vs progress and general progress of the construction project
  - Provide periodic status reports, including monthly reports, summarizing progress, schedule and cost statues, major decisions, changes and other key project information
- Project Closeout
  - Accompany the Architect and Owner during punch list and warranty inspections
  - Coordinate the receipt of record documents
  - Advise the Owner in respect to substantial completion
  - Coordinate training of the Owners staff on operation of the systems and equipment
  - Maintain and submit complete project documentation
  - Verify the lien/claim releases are executed with all progress and final payments

Tab 6: Required Forms

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:	2024719		**Reason for Modification:**
Doc Description:	EOI - Wheeling AASF#2 HVAC Renovations Design		
Proc Type:	Central Purchase Order		
Date Issued	**Solicitation Closes**	**Solicitation No**	**Version**
2026-07-23	2026-08-06 13:30	CEOI 0603 ADJ2700000001	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: 25-1007465

Vendor Name: H.F. Lenz Co.

Address: 1407

Street: Scalp Avenue

City: Johnstown

State: PA **Country : United States** **Zip : 15904**

Principal Contact : Brian D. Schmidt, P.E.

Vendor Contact Phone: 814-269-9300 **Extension: 336**

FOR INFORMATION CONTACT THE BUYER
David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor Signature X  **FEIN# 25-1007465** **DATE 8/6/2026**

All 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) Brian D. Schmidt, P.E. - Principal

(Address) 1407 Scalp Avenue, Johnstown, PA 15904

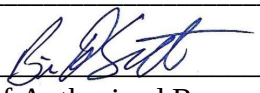
(Phone Number) / (Fax Number) 814-269-9300 / 814-269-9301

(email address) bschmidt@hflenz.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through *wv*OASIS, 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)

Brian D. Schmidt, P.E. - Principal 8/6/2026
(Printed Name and Title of Authorized Representative) (Date)

814-269-9300 / 814-269-9301
(Phone Number) (Fax Number)

BSchmidt@hflenz.com
(Email Address)