

Proposal to the  
WV Office of Miners' Safety and Training  
for Architectural & Engineering Services

for a new

# Mine Safety and Training Facility



RFQ #HST1012 September 10, 2009

RECEIVED

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GROVE & DALL'OLIO  
ARCHITECTS PLLC

PURCHASING DIVISION  
STATE OF WV





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## EXPRESSION OF INTEREST

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### West Virginia Mine Safety and Training Facility

We are pleased to herewith submit design team credentials for consideration for the new West Virginia Mine Safety and Training Facility. We would be honored to provide technical assistance to the State of West Virginia to help meet the requirements of the Mine Act by designing a facility that will maximize mine rescue responses and miner survivability in the wake of mine accidents. The design team assembled includes:

- Grove and Dall'Olio Architects PLLC (GDA), a woman-owned West Virginia design firm for Architecture and Landscape Design. Lisa Dall'Olio, Managing Partner of GDA, comes from a family of Pennsylvania miners. Mine safety and mine incident response times significantly impacted the life of her family. Matthew Grove, a partner with GDA, recently completed MSHA Safety Training and is familiar with the perilous conditions that miners put themselves in on a regular basis.
- H.F. Lenz Company for Civil, Mechanical, Electrical, Structural and Plumbing Engineering

The team has completed projects of a similar type and size. GDA is a design firm that has received AIA design awards for successful West Virginia projects. The project team is well versed at working within strict budgets and timeliness and has the availability to begin work immediately. GDA and HF Lenz have completed projects for both the State and Federal Government.

GDA recently completed a similar project for Essroc-Italcementi, a cement manufacturing plant in Martinsburg, WV. An entire campus build-out was designed by GDA encompassing over 56,000 square feet. These projects which are now nearing completion include a master control room, administrative offices, conference/training facilities, showers, locker facilities, warehouse, shipping, laboratories and more. The facility was designed to be environmentally sensitive and low maintenance while providing modern, safe and cost efficient facilities that will be long lasting.

GDA is familiar with West Virginia purchasing requirements and regulatory agencies. We have experience integrating security into office environments having completed projects including two US District Courtrooms, US Probations Offices, US Circuit Clerk Offices, US Prosecuting Attorney offices, WV Family Courtroom and the offices of Senator Rockefeller.

We have completed West Virginia projects for clients as far away as New York, California, Florida and Italy. We offer video conferencing and web site updates to keep clients up to date on a weekly basis.



## PROJECT APPROACH

West Virginia Mine Safety and Training Facility

### DESIGN STANDARDS

The new design will need to conform to the International Building Code, WV State Fire Code and the American with Disabilities Act. GDA is familiar with these design standards and will provide the State of West Virginia with designs that conform to these requirements.

If the State would like to have a value engineering study (VES) to ensure that design solutions are cost effective, GDA can provide the services of a Certified Value Specialist (CVS).

The design team will utilize standard construction specifications unless performance-based specifications are advantageous for that particular element.

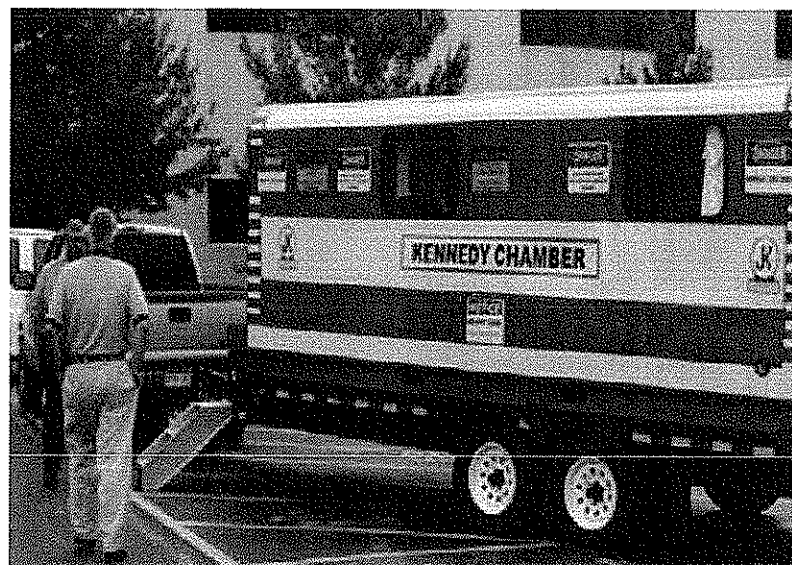
The design of the building HVAC and exhaust systems will include indoor air quality features to ensure a safe environment. The design team will follow American National Standards Institute/American Society of Heating, Refrigerating and Air-Conditioning Engineers (ANSI/ASHRAE) Standard 62.1-2004. The building envelope, mechanical and electrical systems will be designed to be energy efficient in conformance with the Federal UFC 3-400-01, Design: Energy Conservation guidelines.

### DESIGNING A SECURE FACILITY

GDA will design a facility that clusters areas which are functionally compatible.

GDA and the Project team will achieve the required minimum standoff distance from vehicle circulation or parking by creating a buffer zone using design features such as landscape elements and bollards. The design will also address site access and circulation for quick dispatch of emergency vehicles.

Rapid Deploy Systems which may include Seismic Sensing Systems for detecting movement underground, Thermal imagers or electromagnetic sensing systems to detect signals transmitted by trapped miners would need to be able to be secure from theft and at the same time accessible to many authorized users. These are security issues that have been successfully dealt with by the design team on other projects.





## PROJECT APPROACH (continued)

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West Virginia Mine Safety and Training Facility

### ENERGY EFFICIENCY AND GREEN DESIGN EXPERIENCE:

The design team is LEED accredited and has experience with incorporating new energy saving technologies into architecture. Several projects have been completed utilizing passive solar, geothermal systems for heating and cooling, solar hot water systems, and rain water collection and distribution. Our firm also ushered through the State's first Bio-kinetic septic filtrations system for use at the Broomgrass Conservation Community.

The designs for the new facilities at the Essroc plant utilize passive solar heating and shading. A green roof was designed to cover the canteen and circulation corridor to add insulative properties to the roof, to purify and distribute collected rainwater and to extend indefinitely the life of the membrane roof.

GDA recently designed a state-of-the-art swimming pool and poolhouse for a new community called Broomgrass. The pool has automatic salt water chlorine generator, a pebble-tec interior, Titanium glazed self-cleaning ceramic splash tiles and a solar hot water heater which should offer several decades of near maintenance free enjoyment. The landscape design for the pool incorporates native plantings which will require little maintenance and water.

GDA incorporated new elevator technology into an adaptive reuse project in Maryland reducing energy usage by 40%.



### **DESIGN PROCESS**

The Design Team will develop a concept for the WV Mine Safety Training Facility utilizing a design development process encompassing the following basic steps:

#### **A Information Collection**

- The design team will compile information on the existing and proposed vehicles and equipment and review or prepare a space-needs assessment for all current and future functions.
- The design team will meet with project representatives to gain background information about current short and long term plans for the building.
- Design charrettes (intense open thought-provoking design sessions): A charrette would be scheduled for the Project Team and all project representatives.

#### **B Schematic Design and Cost Estimate Phase**

- Upon completion of these Preliminary Charrettes, two or three Schematic Design Alternatives would be developed and presented for comment.
- The approved Schematic Design would be used to develop preliminary construction and operating cost estimates.

#### **C Construction Document Phase**

- Construction Documents (drawings, specifications and contract documents) will then be developed for the proposed improvements.
- The design team will submit the construction documents for review to the appropriate authorities having jurisdiction over the project.



### DESIGN PROCESS (continued)

#### **D Contractor Bidding & Negotiating Phase**

- GDA will assist the State of West Virginia during the Bidding Phase to secure as many competitive bids as possible.
- During the bidding phase GDA and their consulting engineers will respond to questions from contractors through addenda.
- GDA in concert with the State Representatives will host a Pre-Bid Conference at the site to familiarize the bidders with site limitations.
- Upon receiving bids, GDA will compile the bid information and meet with the Owner to determine the next step; go to contract or value engineer. GDA will assist in making minor adjustments to the design for the purpose of negotiating the final construction contract amount.
- At the Owner's request, GDA will prepare the AIA Owner/ Contractor Agreement for signature by both parties.

#### **E Construction Observation Phase**

- GDA will provide construction phase services such as shop drawing review, attend progress meetings, answer contractor questions, and review and process contract documents.

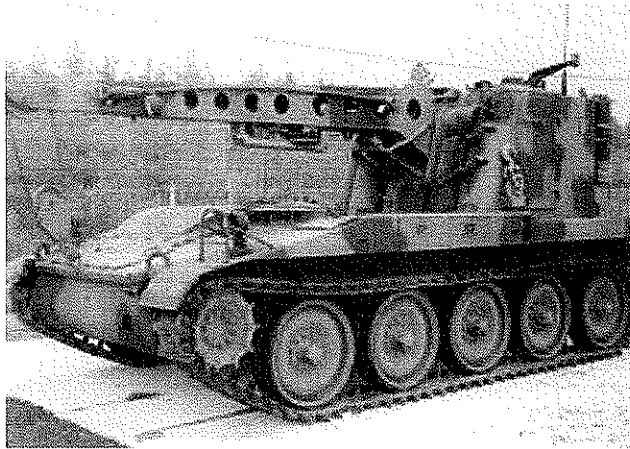


## EXPERIENCE WITH SIMILAR PROJECTS

### West Virginia Mine Safety and Training Facility

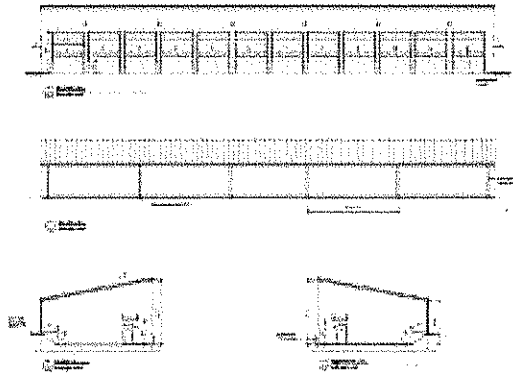
- Feasibility Study for the National Museum of the United States Army –

GDA completed a Conditions Survey/Feasibility Study and Specific Adaptive Reuse Plan for Eastern Panhandle Properties to serve as potential support spaces for the main museum being planned in Fort Belvoir, Virginia. Hundreds of macro artifacts were assessed for a new maintenance, storage and restoration facility.



- Winchester, Virginia Bus Shed

GDA has worked with the City of Winchester to provide design services for the creation of a low cost bus shed and maintenance facility.



- Grave Creek Mound Archaeological Center

GDA completed a site evaluation study, schematic Design Report, construction documents and construction administration for the new Grave Creek Mound Archaeological Storage Facility in Moundsville, WV for the West Virginia Division of Culture & History.





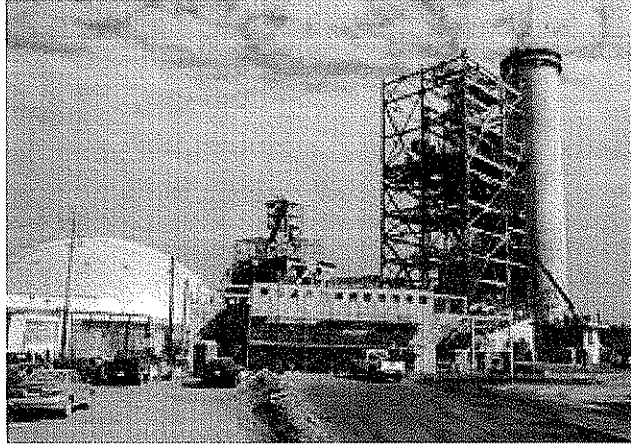


## EXPERIENCE WITH SIMILAR PROJECTS

### West Virginia Mine Safety and Training Facility

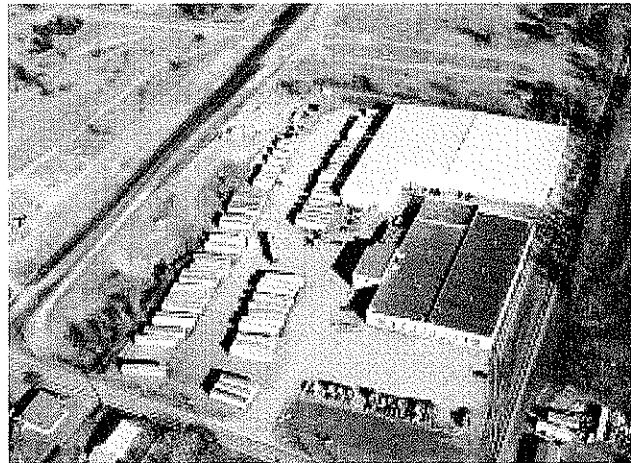
- Essroc-Italcementi Cement Plant

Designed a new campus for the Martinsburg Plant encompassing over 56,000 square feet of space in several buildings. Incorporated green technologies, healthy workplace initiatives and passive solar heating. Buildings include main administration building, shipping office, warehouse, and main control room.



- A&S Warehouse Distribution Center

58,000 square foot addition to a warehouse and distribution center in Inwood, West Virginia. The project also included 2,000 square feet of offices. The design included the use of Galvalume materials for exterior walls and roof surfaces for its long life expectancy without maintenance and its reflectivity for limiting heat gain.





## ABILITY TO WORK WITHIN TIME CONSTRAINTS

### West Virginia Mine Safety and Training Facility

- Many of GDA's projects involve historic properties with funding from State and Federal Grant Sources
- These Grant sources often require strict timetables which must be adhered to in order to not lose funding.
- GDA can easily commit to meeting or exceeding the targeted dates for completion outlined in the schedule presented
- GDA has NEVER caused a project delay by an inability to meet projected deadlines for design or construction documents

The following List represents projects with time constraints for the preparation of the drawings and specification that were completed on time:

PROJECT	LOCATION	DRAWING PHASE	ON TIME
US District Courtroom Renovation	Martinsburg, WV	8 months	✓
Roundhouse Complex	Martinsburg, WV	3 months	✓
• Roof Restoration		6 months	✓
• Masonry Restoration		8 months	✓
• Doors & Windows			
Old B&O Station Hotel Office Suite Conversion	Martinsburg, WV	6 months	✓
• Interior Renovation			
US Multi-purpose Courtroom & US Clerks Offices	Martinsburg, WV	10 months	✓
US Probations Offices	Martinsburg, WV	4 months	✓
Shepherd College Community Technical College	Martinsburg, WV	4 months	✓
Morgan County Library	Berkeley Springs, WV	6 months	✓
Intermodal Transportation Center (ITC) Train Station	Martinsburg, WV	4 months	✓



## ABILITY TO WORK WITHIN A BUDGET

### West Virginia Mine Safety and Training Facility

#### COST ESTIMATING:

- GDA offers MEANS<sup>o</sup> Construction Cost Data Estimates periodically throughout a project
- The scope of work and design development are modified as deemed necessary by the periodic cost estimates.

EXAMPLE: Shepherd CTC scope was decreased based upon cost estimate prepared at 60% completion. The documents were then finalized and the project completed within budget and on time.

- GDA averages less than 5% change orders on projects (excluding add alternates)

#### OFFERING PHASING OPTIONS WITHOUT RE-BIDDING:

- Where project funding may be insufficient at the time of bidding, certain elements are included in the construction bid package as separate add alternates
- Should funding be added later these elements can be incorporated without added expense of creating new docs or re-bidding

The following list represents local projects of a similar nature and scope that were completed within budget:

PROJECT	LOCATION	CONTRACT AMOUNT	WITHIN BUDGET
US District Courtroom Renovation	Martinsburg, WV	750,000	√
Roundhouse Complex	Martinsburg, WV	1,050,00	√
• Roof Restoration		430,000	√
• Masonry Restoration		1,140,000	√
• Doors & Windows			
Old B&O Station Hotel Office Suite Conversion	Martinsburg, WV	1,100,000	√
• Interior Renovation			
US Multi-purpose Courtroom & US Clerks Offices	Martinsburg, WV	1,200,000	√
US Probations Offices	Martinsburg, WV	300,000	√
Shepherd College Community Technical College	Martinsburg, WV	440,000	√
Morgan County Library	Berkeley Springs, WV	740,000	√



Grove & Dall'Olio Architects has developed a wide array of communicative tools to discuss, describe and convey design concepts and technical data. We will use computer modeling, presentation boards, power point, spread sheets, bubble diagrams, organizational diagrams, cardboard models, watercolor renderings, bound booklets and reports, and speaking and listening to mention just a few.

For the Roundhouse Project, GDA developed 10 four color laminated presentation boards to introduce the project and inform the reader of the overall goals and steps needed to get there.

A Schematic Design Report with water color renderings were prepared for the Freshwater Institute to assist in their fund raising efforts to secure money to expand their administrative offices from their current single family residence.

Presentation boards, renderings and cost estimates were prepared by GDA for the owners of an old Interwoven Textile mill complex as a part of an overall masterplan for a mixed use community which would include lofts, office space, retail, restaurants and a community college.

Grove & Dall'Olio Architects have designed many holiday ornaments for their clients to be used for fund raisers including a holiday card that could be cut and pasted into a 3 dimensional model of the proposed structure and pen/ink renderings reproduced on ivory and glass ornaments.

GDA crafted a miniature model of the Roundhouse Complex that was exhibited in the White House during the Save America's Treasures Holiday Tree celebration.



GDA uses communication tools such as 4-color presentation boards for public exhibition.

Old Jefferson County Jail Annex  
Charles Town, West Virginia

Grove & Dall'Olio Architects  
Jefferson County Commission



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

**Request for  
 Quotation**

RFQ NUMBER  
**HST1012**

PAGE  
**2**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**FRANK WHITTAKER  
 304-558-2316**

VENDOR

RFQ COPY  
 TYPE NAME/ADDRESS HERE

VENDOR

**HEALTH, SAFETY AND TRAINING  
 OFFICE OF MINERS'  
 1615 WASHINGTON STREET EAST  
 CHARLESTON, WV  
 25311**

DATE PRINTED <b>08/19/2009</b>	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
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BID OPENING DATE: **09/15/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
NO. 3	.....					
NO. 4	.....					
NO. 5	.....					
<p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p>.....            SIGNATURE  <b>G. GROVE T. DALLOLIO ARCHITECTS</b>            COMPANY            9/11/09            DATE</p>						
<p>REV. 11/96</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION            PURCHASING DIVISION            BUILDING 15</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application\* is hereby made for Preference in accordance with West Virginia Code, §5A-3-37. (Does not apply to construction contracts). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

- 1. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. Application is made for 5% resident vendor preference for the reason checked: Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: GROVE + DALLOU ARCHITECTS Signed: [Signature] Title: PARTNER Date: 9/11/09

\*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA  
Purchasing Division**PURCHASING AFFIDAVIT****VENDOR OWING A DEBT TO THE STATE:**

*West Virginia Code* §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

**PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:**

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

**ANTITRUST:**

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

**LICENSING:**


Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

**CONFIDENTIALITY:**

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

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

Vendor's Name: GROVE AND DALL'OLIO ARCHITECTS PLLC

Authorized Signature:  Date: 9/11/09



## FIRM PROFILE

GROVE & DALL 'OLIO ARCHITECTS PLLC

Grove & Dall 'Olivo Architects PLLC is a full-service, woman owned architectural firm which guides new construction, renovation, restoration, and adaptive reuse projects from inception to completion. The firm began in 1993 and is dedicated to serving the needs of its clients through the development of designs which are appropriate in size, scale and style. The services of the firm include all phases of program analysis, budget preparation, architectural design and drafting, specification writing, contractor bidding negotiation, construction supervision, and public relations.

Matthew Grove and Lisa Dall'Olivo, partners of Grove & Dall'Olivo Architects PLLC, collectively offer more than 36 years of professional architecture experience and are actively involved in the field at the local, state and national levels. Mr. Grove and Ms. Dall'Olivo are members of the American Institute of Architects and are licensed to practice in West Virginia, Maryland, New York, Pennsylvania and Virginia. Both Mr. Grove and Ms. Dall'Olivo are LEED Accredited Professionals as well as members for Historic Preservation.

The firm's experience includes the successful completion of a wide range of new construction, preservation and adaptive reuse projects throughout the eastern United States. Since relocating the practice from New York City to Martinsburg, West Virginia in 1994, Mr. Grove and Ms. Dall'Olivo have focused their efforts toward a variety of municipal, commercial and residential projects in West Virginia. Grove & Dall'Olivo Architects PLLC is experienced in working with government entities and operates in compliance with all applicable state and local contracting requirements.

### **PARTIAL CLIENT LISTING:**

National Museum of the US Army  
US General Services Administration  
WV Division of Culture & History  
Berkeley County Roundhouse Authority  
The City of Martinsburg  
Morgan County Public Library  
Martinsburg-B.C. Public Library

Governor Gaston Caperton  
Tom Seely Furniture  
Flatwoods Factory Stores  
Blue Ridge Outlet Center  
Chatfield-Taylor Corporation  
Nemacolin-Woodlands Resort

Shepherd College  
Community & Technical College at Shepherd

Huntington Bank  
Jefferson Security Bank  
Senior Life Services of Morgan County

### **AWARDS:**

1997 AIA WV Honor Award for Caperton Station  
1997 AIA WV Craftsmanship Award for  
exterior of Caperton Station  
1999 AIA WV Honor Award for new Morgan  
County Public Library  
2009 AIA WV Honor Award for Grove & Dall'Olivo  
Residence





## MATTHEW W. GROVE, AIA, LEED

Partner, Grove & Dall'Olio Architects PLLC

A native of Martinsburg, West Virginia, Mr. Grove studied architecture at Carnegie Mellon University, an institution which is nationally renowned for its academic emphasis in engineering. Upon graduation, he relocated to New York City where he was engaged by such prominent firms as Cabrera-Barricklo, Architects, and later, David Smotrich & Associates. During his employment, he served as Project Architect for the AIA award-winning Woodstock Meadows Residential Community in Woodstock, New York, as well as the restoration of the historic Jewish Community Center in Brooklyn, New York.

While in New York, Grove had the opportunity to serve in leadership roles for a variety of prestigious architectural projects which included the restoration and renovation of Sailor's Snug Harbor Cultural Center on Staten Island, New York; the conversion of the Stuyvesant Hotel in Kingston, New York; the renovation of the Residence Halls at State University of New York in Stony Brook; as well as a number of custom residential and commercial interior projects in Manhattan.

In 1993, Mr. Grove established his own practice in New York City. Realizing the potential for both new construction projects and preservation efforts in West Virginia, Mr. Grove returned to Martinsburg in 1994 where he was joined by his wife and partner, Lisa Dall'Olio. Since that time, the firm of Grove & Dall'Olio Architects has been involved with project work commissioned by United States District Courts, General Services Administration, Shepherd College, Berkeley County Roundhouse Authority, Blue Ridge Outlet Center, The City of Martinsburg, as well as numerous private sector residential and commercial clients.

### EDUCATION

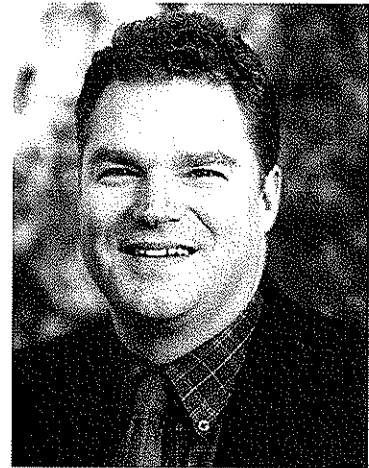
Bachelor of Architecture, 1986  
Carnegie Mellon University, Pittsburgh, Pennsylvania  
LEED Accredited Professional, 2009  
US Green Building Council

### PROFESSIONAL REGISTRATIONS

Registered Architect in the State of West Virginia, 1993  
Registered Architect in the State of New York, 1990  
Registered Architect in the State of Maryland, 1994  
Registered Architect in the State of Pennsylvania, 2003

### PROFESSIONAL AFFILIATIONS

American Institute of Architects, Member  
West Virginia Chapter of the American Institute of Architects, Member  
Preservation Alliance of West Virginia, Member  
Society of Industrial Archaeologist, Member  
International Code Council, Member  
Preservation Maryland, Member





## LISA M. DALL'OLIO, AIA, LEED

Managing Partner, Grove & Dall'Olio Architects PLLC

Lisa M. Dall'Olio's expertise as a preservationist and architectural historian have resulted in her participation in a variety of exciting assignments. In 1993, she served as an architectural consultant to the World Monument Fund to participate in an adaptive reuse study of the Esterháza Palace in Fertőd, Hungary. One year later, she supervised a preservation study of the cast-iron Chelsea Pier 54 in New York City, constructed in 1912 to serve the Cunard luxury liners. She was appointed by Governor Cecil Underwood in 1998 to the State Commission on Archives and History.

A native of the greater New York City metropolitan area, Ms. Dall'Olio studied at the top-rated, University of Texas, School of Architecture, where she obtained her Bachelor's degree and pursued graduate work in the field of preservation. Returning to New York City in 1990, she was employed as a preservationist by the New York City Landmarks Preservation Commission. There, her responsibilities included the review and evaluation of hundreds of proposed historic renovation projects. Using United States Department of Interior Preservation Standards, she consulted NYC Landmarks Preservation Commissioners on projects which ranged from facade and interior improvements made to small, historic private residences – to the extensive restoration of many city landmarks.

Ms. Dall'Olio obtained practical, commercial design experience while employed by Joseph Pell Lombardi, an internationally-renowned architect/preservationist, who is credited with the Soho cast-iron loft residence conversion movement in the 1970s, as well as Cabrera-Barricklo, Architects, where, in other roles, she served as Job Captain for the multi-million dollar restoration and adaptive reuse of Sailor's Snug Harbor Cultural Center on Staten Island, New York. Ms. Dall'Olio relocated to Martinsburg, West Virginia, with her husband and partner, Matthew W. Grove, in 1994, to establish Grove & Dall'Olio Architects. Her expertise in the field of preservation and historic architecture ensures authentication of the firm's restoration assignments and brings timeless, classical architectural qualities to those projects which involve new construction. Recently, Ms. Dall'Olio has led several historic restorations and adaptive reuse projects including the new Community & Technical College of Shepherd and a mixed use master plan study of the old Interwoven property in downtown Martinsburg.

### EDUCATION

Bachelor of Architecture, University of Texas, 1990  
LEED Accredited Professional, 2009, US Green Building Council

### PROFESSIONAL REGISTRATIONS

Registered Architect in the State of West Virginia, 1995  
Registered Architect in the State of New York, 1994  
Registered Architectural Historian in the State of West Virginia, 1994  
Registered Architect in the State of Virginia, 2009

### PROFESSIONAL AFFILIATIONS

American Institute of Architects, Member  
National Trust for Historic Preservation, Member

### CIVIC APPOINTMENTS

Commissioner, West Virginia Archives and History Commission



# Essroc Cement Plant - New Campus of Buildings

Martinsburg, West Virginia

## CLIENT

Italcementi Group, 2007-2009  
Matteo Faggin, Project Coordinator  
Derek Nicholls, V.P. Manufacturing

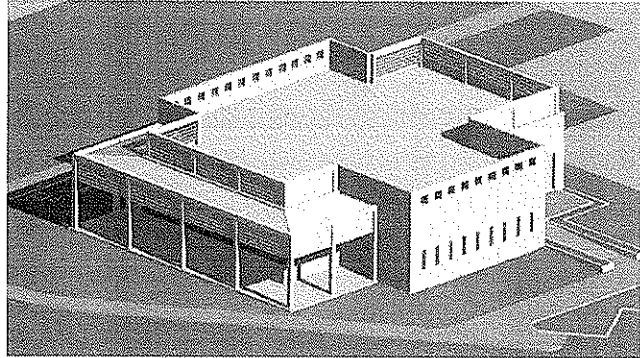


## DESCRIPTION

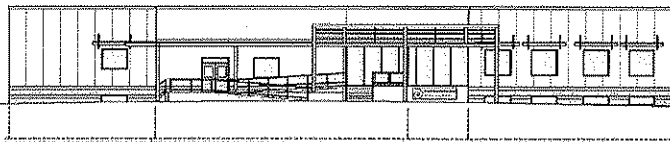
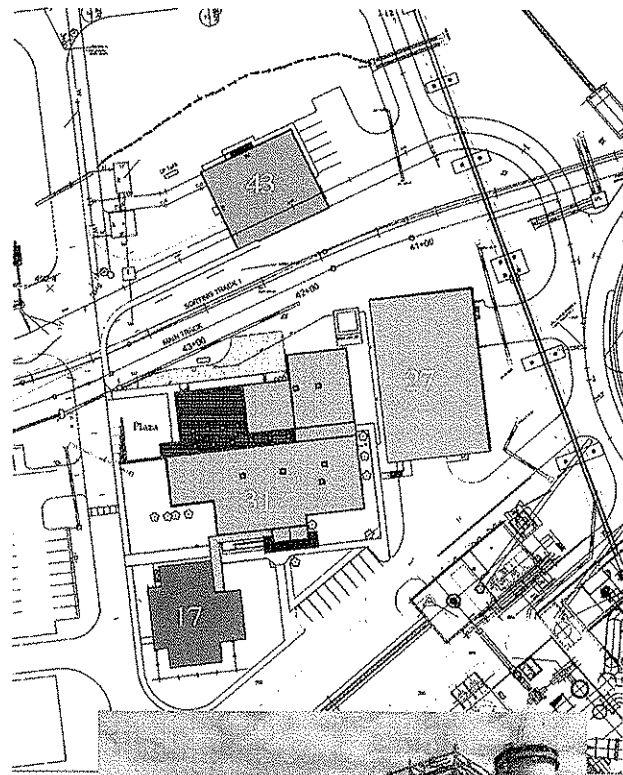
The new owners of this century old plant had visions of remaking the facility with the latest technology and stringent emissions controls. GDA was employed to design multiple buildings for the new campus including the Main Control Room Building(17), new entrance and Shipping Office(32), the Warehouse(27), the Administration Building(31) including offices, laboratories, Canteen and Shower Rooms and the Electrical Maintenance Building (43).

## PROJECT HIGHLIGHTS

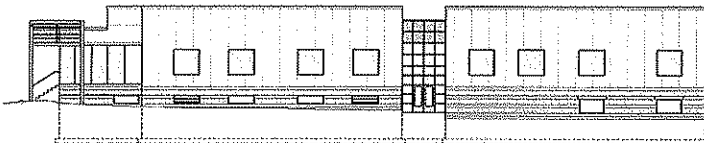
- Initial services included studies of up to seven new structures and renovations of three others.
- Design-Build documents were prepared by GDA for the Main Control Room Building, the Warehouse and the Electrical Maintenance Building. GDA was contracted by Keystruct Construction and Canyon Construction respectively for the completion of these projects.
- GDA issued drawings and specifications to State and Local regulatory officials for building permits.
- Use of Essroc patented self cleaning Tx Active stucco product was used on buildings 17 and 31.
- Design team studied "green" building systems for new structures and employed many of them in the end solutions including daylighting, locally manufactured building materials and a green roof system.
- Water based concrete stains were used for economic and design purposes the Administration Building's offices and locker rooms.



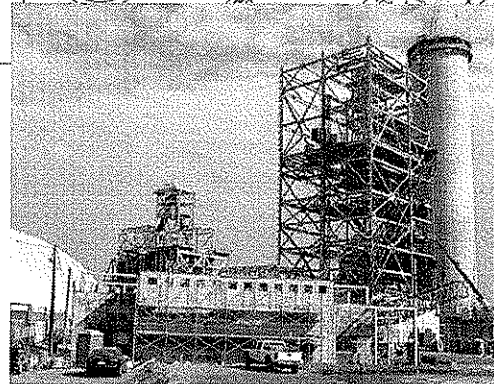
Main Control Room Building 17



Administration Building South Facade



Administration Building East Facade



Main Control Room Building under construction



GROVE & DALL'OLIO  
ARCHITECTS PLLC

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Martinsburg, West Virginia 25401  
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# TOM SEELY/GAT CREEK FACTORY

Berkeley Springs, WV

## CLIENT

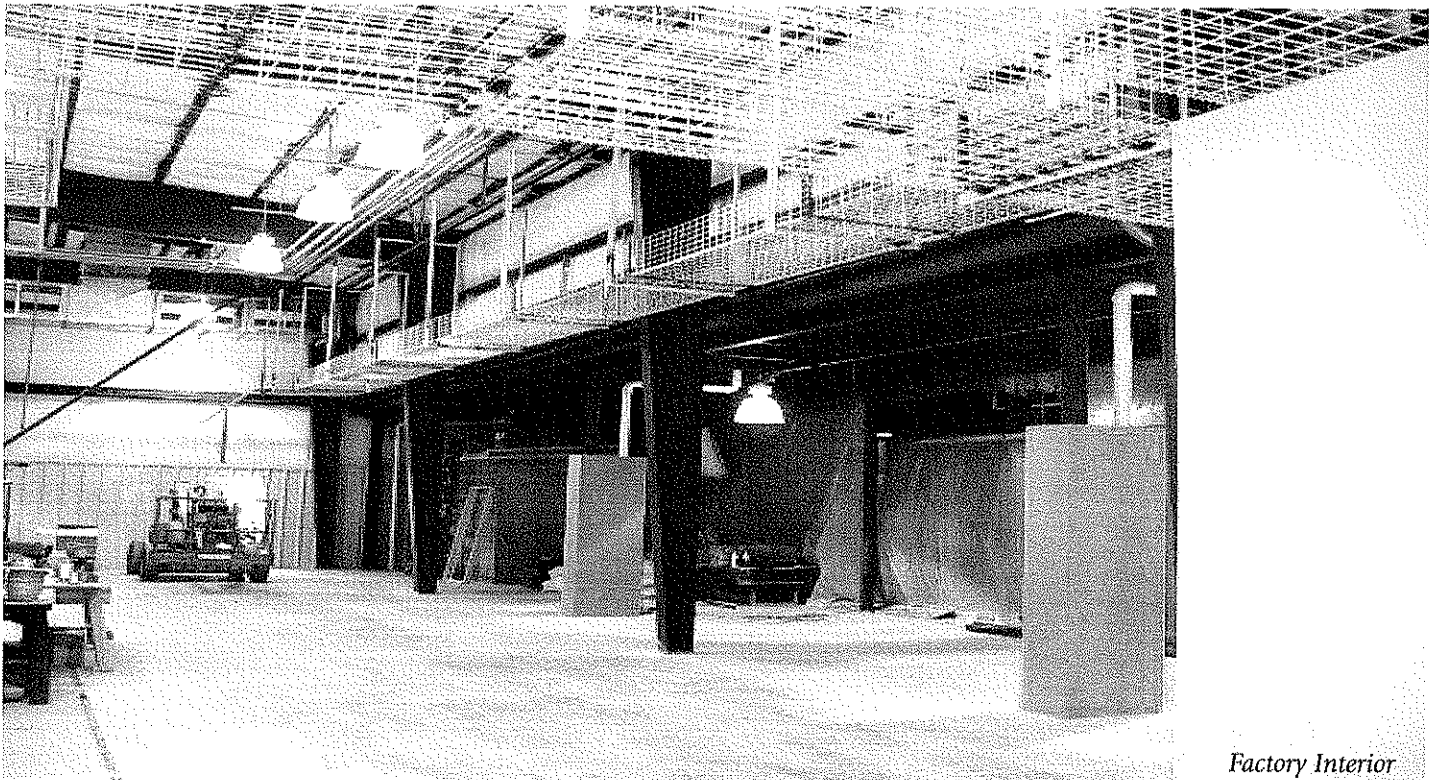
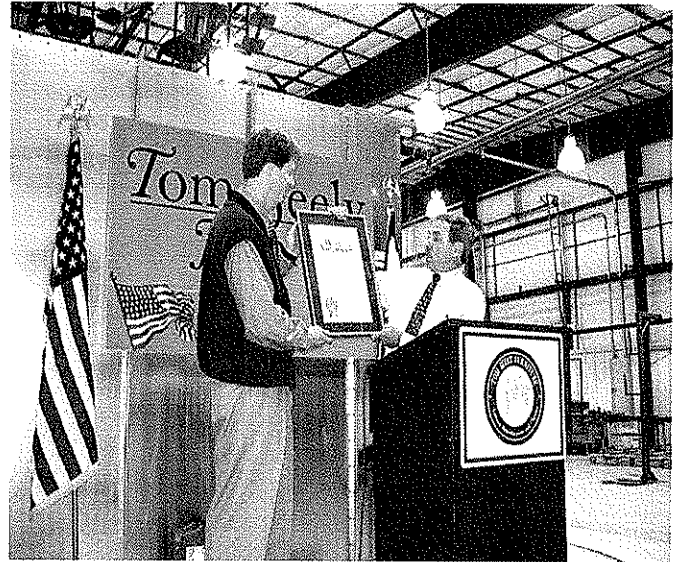
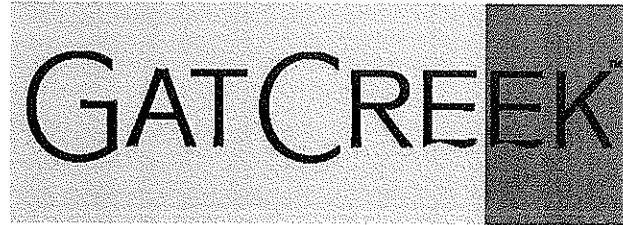
Gat Creek/Tom Seely Furniture Company

## DESCRIPTION

Grove & Dall'Olio was hired to design this factory which turns out 30,000 pieces of handmade furniture each year in styles ranging from antique reproduction to contemporary – both for custom trade orders and retailers around the country.

## PROJECT HIGHLIGHTS

- \* The factory was completed on time and within budget.
- \* A State-of-the art exhaust air system with heat recovery was incorporated into the design.
- \* Factory floor was designed to accommodate a complex conveyor-style furniture finishing system while safely allowing processing work below
- \* Colors were introduced to improve morale and visibility of structure.



*Factory Interior*

# A&S WAREHOUSE AND DISTRIBUTION CENTER

Berkeley County, West Virginia

## CLIENT

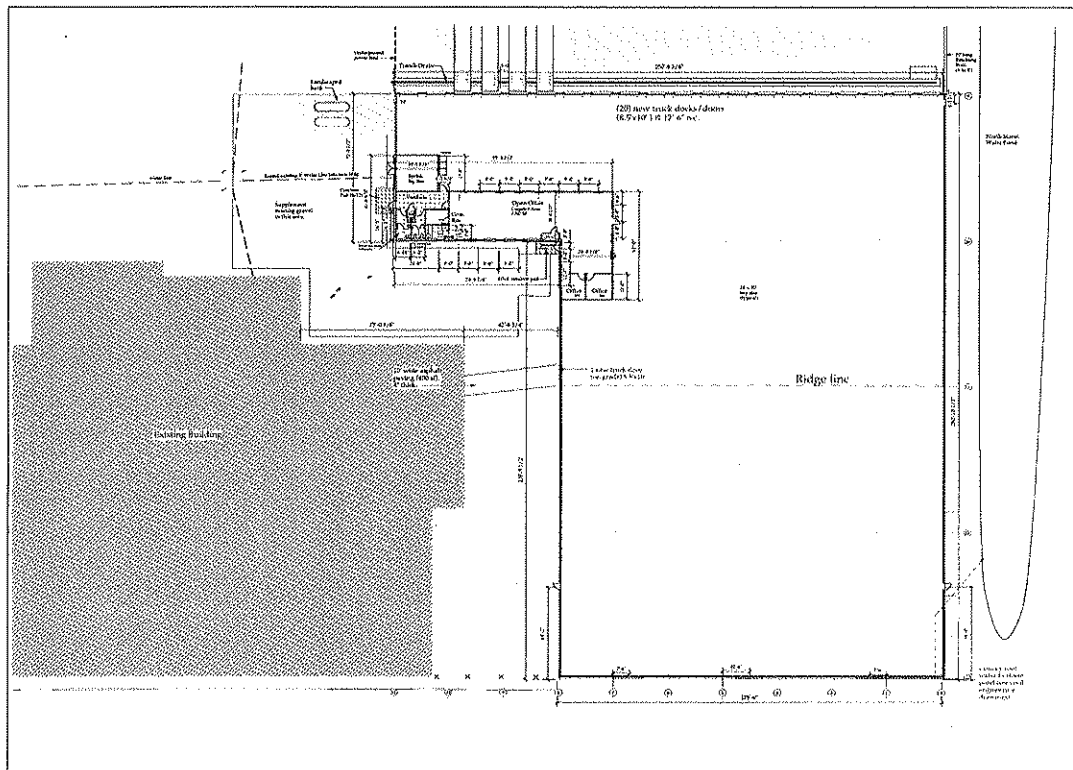
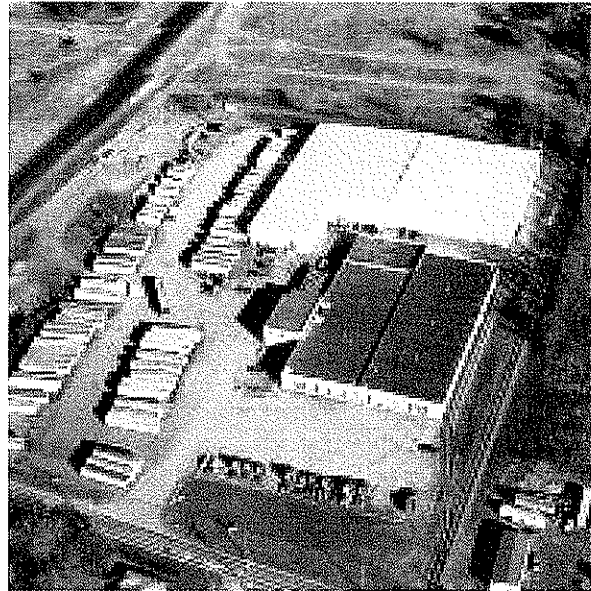
A&S Warehouse Board of Directors

## DESCRIPTION

A \$2,000,000 warehouse and distribution facility designed to accommodate a variety of warehouse tenants and products. Expansive clear spans and 30' ceilings were incorporated into the new metal building.

## PROJECT HIGHLIGHTS

- Situated on a 10-acre parcel, Building 1 was specifically designed and constructed to accommodate future expansion needs.
- A galvalume roof was incorporated for a maintenance free long lasting "cool roof".
- Construction was completed for less than \$40 per square foot.
- The facility was designed to accommodate both truck and rail access.



**A&S**  
WAREHOUSING  
& DISTRIBUTION  
TABLET STATION  
NEW BUILDING  
5191 Tablet Station Road  
Martinsburg, West Virginia

Structural Concepts  
120 W. Flourens St.  
Martinsburg, VA 25401

Vick Engineers  
500 Everett Avenue, Suite 201  
Martinsburg, WV 25401

**GROVE & DALL'OLIO**  
ARCHITECTS  
P.L.L.C.

Floor Plan

**A2**



**GROVE & DALL'OLIO**  
ARCHITECTS P.L.L.C.

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# National Museum of the United States Army – Satellite Facility Study

## Martinsburg, West Virginia

### CLIENT

US Army Museum System, 2002-2003

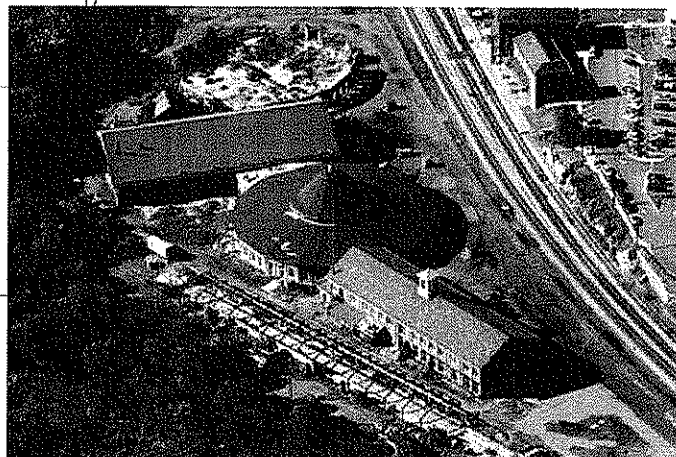
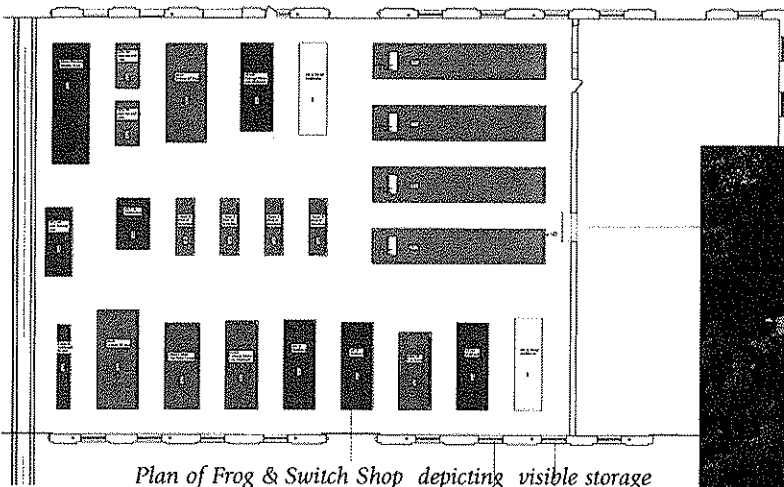
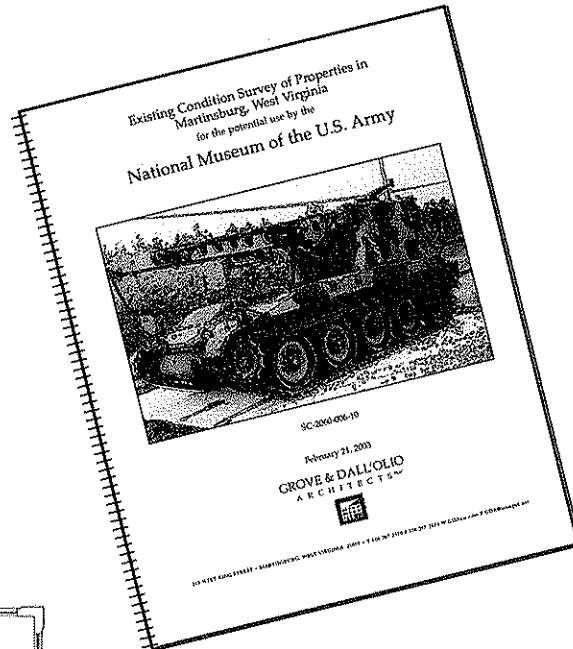


### DESCRIPTION

GDA was a part of an international design team contracted to collect data on existing properties in the Eastern Panhandle and evaluate them for adaptive reuse as the satellite support facility for the new National Museum of the United States Army.

### STUDY HIGHLIGHTS

- Prepared a Conditions Survey Report analyzing each targeted property
- Completed a Preliminary Code evaluation for proposed uses
- Assisted with the Development of a Specific Adaptive Reuse Plan
- Prepared a cost estimate for the reconstruction of the East Roundhouse for use by the Army System as an Object Theater
- Reviewed accessibility of each of the properties in terms of both pedestrian and vehicular traffic
- Evaluated each of the proposed uses for compatibility with historic structures



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# GRAVE CREEK MOUND ARCHAEOLOGICAL COMPLEX

Moundsville, WV

## CLIENT

WV Division of Culture & History,

## DESCRIPTION

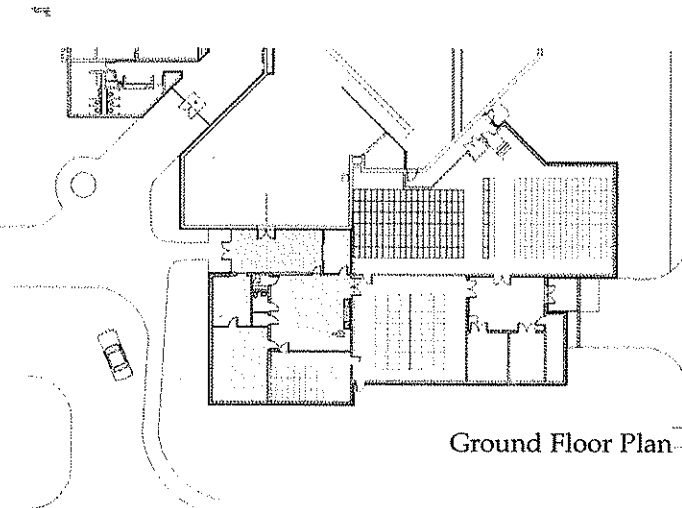
The West Virginia legislature selected this site as the new home for the State's archaeological collections. GDA assessed the storage needs and developed several expansion alternatives for the 1970's structure. GDA prepared plans for a 9,000 sf addition to provide 20 years of archival storage and a research facility.



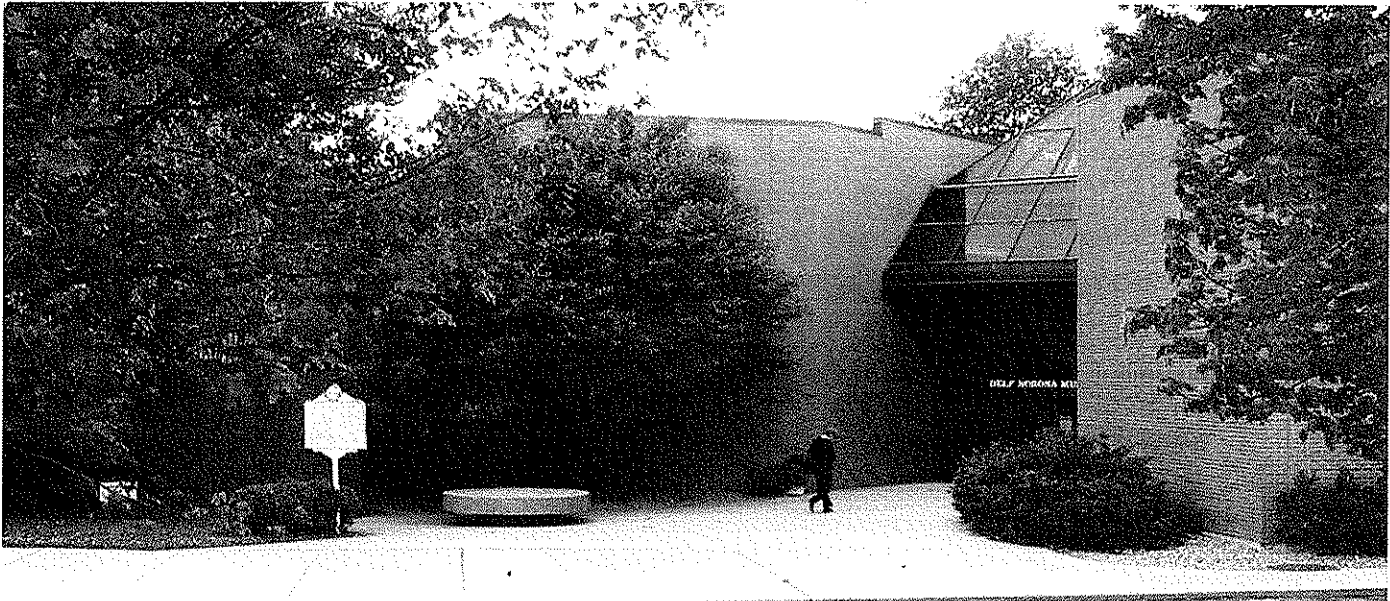
Grave Creek Mound

## PROJECT HIGHLIGHTS

- Designed addition to compliment a modern 1970's structure.
- Project cost estimate was within 1% of the actual bid received.
- Worked with the State Historic Preservation Office to create a design which did not detract from the Nation's largest Indian burial mound.
- Developed a phasing sequence for the temporary isolation of contaminated collections to the ultimate full storage potential at the facility.
- Design included high density storage systems and advanced fire detection systems.



Ground Floor Plan



Existing Main Entrance



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## H.F. LENZ COMPANY

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Johnstown, PA 15904  
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Fax: 814-269-9301  
www.hflenz.com

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1051 Brinton Road  
Pittsburgh, PA 15221  
Phone: 412-371-9073  
Fax: 412-371-9076

**Erie Office**  
1001 State Street,  
Suite 907  
Erie PA 16501  
Phone: 814-455-7435  
Fax: 814-459-8363

## Firm Profile

The H.F. Lenz Company was established in its present form in 1946, and in 1953 the company was incorporated in Pennsylvania. For more than 60 years we have offered a full range of engineering services for building systems, infrastructure, and industry. Our projects span the nation, with the heaviest concentration in the Northeast, and exceed \$300 million in MEP construction annually. Each market sector—corporate, government, health care, education, and industry—is served by a team of specialists who understand the unique needs of the clients they serve. Our 47 professional engineers are registered in a total of 41 states (including West Virginia) and DC.



### Services offered include:

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



Two essential prerequisites lay the foundation for every H.F. Lenz Company 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.

A remarkable 85 percent of our work consists of repeat commissions from clients who appreciate our responsive, value-added service. We've earned their trust by:

- Designing well-functioning systems that work *with* a building's architecture rather than being constrained by it.
- Achieving the optimal balance of system performance with the client's budget through value engineering.
- Designing system infrastructures—including communications—that accommodate growth and changing technology.
- Phasing installations to avoid disrupting normal and critical operations.
- Keeping construction cost and schedule on track with enhanced construction-phase services.
- Commissioning new systems to assure that they function as intended.



The H.F. Lenz Company employs 182 people in our Johnstown, Pennsylvania headquarters and satellite offices in Pittsburgh and Erie, Pennsylvania. The project team for this project will be out of our Johnstown headquarters.





H.F. LENZ  
COMPANY

## Sustainability and Commissioning

H.F. Lenz Company was recently ranked in the "Top 100 Green Design Firms" in the Country, for the second year in a row, by ENR Magazine (June 2009 edition). We have been a member of the United States Green Building Council since 2000 and currently have 22 LEED® Accredited Professionals on staff. Our firm has gained a high level of knowledge in the building green process and we possess the experience to successfully apply these principles to all building projects, whether they are designed to attain LEED Certification or not. In addition, we also became an Energy Star® Partner Firm in 2008, and recently completed our fourth project which has attained an Energy Star® Rating.

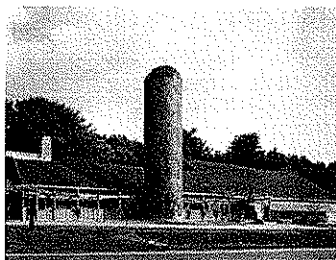
H.F. Lenz Company currently has 17 projects that have attained various levels of LEED Certification, including 5 design projects, 8 commissioning projects, and 4 projects involving both design and commissioning services, and 42 more projects are currently pending LEED Certification. We welcome the opportunity to determine sustainable strategies and options for your unique project.

### Green Building Strategies

- Optimize Building Envelope
- Light Pollution Reduction
- Water Use Reduction
- Ventilation Reduction through CO<sub>2</sub> monitoring
- Optimize Energy Performance
- Evaluate Heat Recovery Opportunities
  - Water source heat pumps
  - General exhaust heat/enthalpy recovery
  - Geothermal potential (aesthetic benefits)
  - Thermal comfort
- Lighting Selection and Lighting Control
- Daylighting Options and Controls
- Building Commissioning/Energy Management Controls
- Controllability of Systems



H.F. Lenz Company has been providing commissioning services for over 30 years. In addition to our own projects, we commonly commission building systems designed by other professionals. Our commissioning personnel each have a minimum of 10 years experience and are well versed in all aspects of the commissioning process from the design phase through the construction phase and operations phase/post acceptance phase. Commissioning services are carried out by our Commissioning Services Division and members of our design teams. We have performed LEED commissioning for numerous LEED registered projects.



The Barn at Fallingwater was selected by the National AIA as one of the top ten Green projects of 2005!



PSU School of Architecture and Landscape Architecture has attained a LEED® Gold Rating.



CMU New House was one of the first residence halls in the country to attain a LEED® Silver Rating.



H.F. Lenz Company has extensive experience designing systems for rescue centers and secure facilities which include the following:

- Emergency Training Centers
- Police Departments
- 911 Centers
- Courthouses (County and Federal)
- Detention Facilities
- U.S. Marshal Service Administration and Prisoner Areas
- Corporate Secure Facilities
- Homeland Security

Through this experience, our engineers are experienced in developing designs that reduce the vulnerability of personnel and facilities to terrorism while balancing defensive measures with mission requirement and available resources. We are accustomed to working in facilities that require extensive security and for clients that require the utmost confidentiality.

#### **PROJECT EXAMPLES:**

##### **EMERGENCY TRAINING CENTER WESTMORELAND COUNTY COMMUNITY COLLEGE WESTMORELAND COUNTY, PENNSYLVANIA**

The Westmoreland County Community College in cooperation with the Westmoreland County Industrial Development Association and the State of Pennsylvania proposed the development of a new emergency training facility on the college's 165 acre property in South Huntingdon Township, Westmoreland County. H.F. Lenz Company was commissioned by the college to provide civil engineering design services for the new \$7.5M Public Safety Training Center.

The center features a six-story, 13,300 square foot tower that can simulate a variety of industrial, commercial and mercantile occupancies with an attached 2 ½ story residential building. Both areas feature state-of-the art, gas-fired simulators with flash-over capability.

The first phase included a 4,500 square foot classroom and administration building that can house a fire engine for indoor training during inclement weather. Additional gas-fired outdoor props were also installed as well as a pond and pump house featuring two, 1,500 gpm electric fire pumps.

The center provides a full range of props, buildings, and training areas to provide comprehensive, hands-on training opportunities for police, fire, hazardous materials, SWAT and emergency medical services personnel.

#### **Civil Services**

- New utility connections
- A new site entrance
- Earthwork to provide a building pad and parking lot
- Construction of various buildings for classroom instruction, active training exercises, and technical control of the facility
- A new system of diversions, inceptor channels, storm sewers and culverts



Also included was the construction of an approximate 1/2-acre pond to serve for storm water detention and water storage for pumped water used during training exercises. The pond also served as a sedimentation basin during construction.

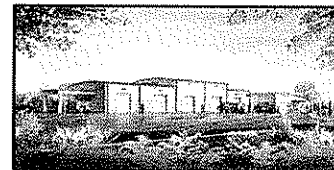
The Erosion and Sedimentation Control Plan was developed in accordance with established conservation guidelines and standards, incorporating those measures which have proven effective in reducing, to a minimum the amount of sediment runoff during the actual construction operations and immediately thereafter. The plan was developed in accordance with available criteria and recommendations as suggested by the Pennsylvania Department of Transportation, the Pennsylvania Department of Environmental Protection, the Pennsylvania Association of Conservation Districts, and the United States Department of Agriculture Natural Resources Conservation Service, along with other published data.

This project was completed in 2003.

**LINCOLN COUNTY EMERGENCY COMMUNICATIONS CENTER  
LINCOLN COUNTY, WEST VIRGINIA**

H.F. Lenz Company provided mechanical, electrical, plumbing, fire protection, and structural engineering services for the Lincoln County Emergency Communications Center, also known as the Lincoln County 911 Center, operates 24 hours a day seven days a week and is responsible for answering all 911 and non-emergency calls for the citizens of Lincoln County, West Virginia. Communications Center personnel dispatch Police, Fire, and Emergency Medical Services for the cities of Hamlin and West Hamlin, West Virginia and Rural areas of Lincoln County. The center is equipped with the latest technology in order to maintain Lincoln County's commitment to quality service. The main components include Enhanced 911, Emergency Medical Dispatch, and a Telecommunications Device for the Deaf (TDD).

**REGIONAL MAINTENANCE FACILITY  
PENNSYLVANIA NATIONAL GUARD FACILITY  
JOHNSTOWN, PENNSYLVANIA**



H.F. Lenz Company was responsible for the design of a New Maintenance Shop for the Pennsylvania National Guard Facility located adjacent to the Airport in Johnstown, Pennsylvania. The building consists of 23,560 square feet with approximately 8,000 square feet of office and maintenance shop area and the remainder for storage and eight vehicle maintenance bays. The Regional Maintenance Shop will allow the National Guard to perform maintenance on military vehicles of all types and sizes.

The building is sited along Airport Road with the main building and parking area located on a 7.41 acre parcel. A second parcel consisting of 6.14 acres, located in the Airport Runway Protection Area, includes an access road to a neighboring facility. The site includes parking for 31 staff vehicles and up to 80 military vehicles of varying sizes.

The project includes flammable storage, general storage areas, and an on-site fuel dispensing station. The entire area is protected by a perimeter fence and automatic access gates entering the site. H.F. Lenz Company was responsible for the preparations and permitting for required erosion and sedimentation control plans as well as stormwater.

The project was completed in 2004 with an estimated construction cost of \$4,200,000.



**LETTERKENNY ARMY DEPOT  
U.S. ARMY CORPS OF ENGINEERS  
CHAMBERSBURG, PENNSYLVANIA**

The H.F. Lenz Company has provided structural, civil, mechanical, electrical, and fire protection design services for new construction, alteration projects and repair projects at Letterkenny Army Depot, Chambersburg, Pennsylvania for over 20 years, under a six consecutive term contracts to date. The projects have included a wide variety of training buildings and spaces and various warehouse and maintenance facilities for this DOD facility.

**IMMIGRATIONS AND CUSTOMS ENFORCEMENT - NATIONAL FIREARMS UNIT  
BALLISTIC TESTING RANGE ADAL  
DEPARTMENT OF HOMELAND SECURITY  
ALTOONA, PENNSYLVANIA**

The primary objective of the project was to replace the HVAC IAW to meet the current INS/NFU Firing Range Design Standard and Lead Exposure and Design Consideration for Indoor Firing Ranges.

The project also included an office addition of approximately 2,300 sq.ft. and a partial basement of approximately 1,400 sq.ft.

Services provided included:

- Design of the site, structure, and architectural features.
- Design of the upgrade of the HVAC system in the existing test range as indicated in the opening paragraph and add a new system for the office addition.
- Design of a Plumbing system for the facility because the facility did not have water or sewer services.
- Extend the existing electrical systems to meet the requirements of the new addition and extend the existing security system to at the site. We also added telephone and data to the facility.

Design During Construction (DDC) services as the designers of record. The DDC services included, but were not limited to, review of Requests For Information (RFI), shop drawing review, and site visits.

**NEW FIRE AND POLICE STATION  
CITY OF ST. MARYS  
ST. MARYS, PENNSYLVANIA**

This project consisted of the design and construction of a new 22,000 sq.ft. facility to house the City of St. Marys Police Department and the volunteer Crystal Fire Department. The ground floor of the facility includes a 6,500 sq.ft. apparatus room to house the fire trucks and emergency vehicles, locker rooms, equipment storage, visitors lobby, and a 24 hour emergency dispatch center. In addition to the ground floor, the fire department occupies the second floor with an 1,800 sq.ft. training area, storage, kitchen/servery area and conference room. The City of St. Marys Police Department is located on the third floor, complete with police administration offices, lunch room, evidence storage, weapons storage, investigation, interview and holding cells.





H.F. Lenz Company was responsible for the design of the mechanical, electrical and communications systems for the complex. Our design included a hot water radiant floor heating system in the apparatus bays to both aid in drying the equipment after use and provide better comfort to the occupants while minimizing energy usage. Additional, to reduce makeup air requirements, the design included a truck exhaust system which connected directly to the truck exhaust system, limiting the exhaust gases entering the building.

**PHILADELPHIA POLICE DEPARTMENT  
6TH DISTRICT STATION  
PHILADELPHIA, PENNSYLVANIA**

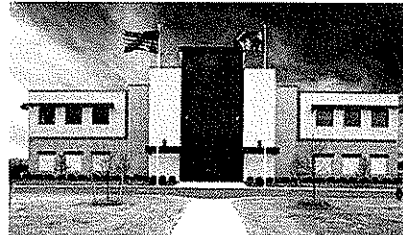
The 6th District is one of the most challenging districts in the Philadelphia Police Department since it is located in center-city and serves over 250,000 people during the business day. The district population contains every facet of American culture including business people, office workers, the homeless, shoppers, millionaires, visitors and sightseers.

In 2009, the H.F. Lenz Company provided a building assessment and recommendations to improve the existing mechanical and electrical systems serving the police station. We also prepared energy analysis and operating cost analysis for proposed building envelope modifications.

Systems evaluated were the steam boiler, terminal heating, rooftop air conditioning units, normal power electrical distribution, emergency power electrical distribution, fire alarm and plumbing.

**NEW U.S. DRUG ENFORCEMENT ADMINISTRATION BUILDING  
PITTSBURGH, PENNSYLVANIA**

H.F. Lenz Company provided HVAC, electrical, plumbing, fire protection/life safety and structural engineering services as part of a design build team for a new two-story, 50,000 sq. ft. office building for the Drug Enforcement Administration. The ground floor of the facility serves as a parking garage and storage space.



The building systems included specialized exhaust systems for carbon monoxide removal from the garage and filtration of exhaust system associated with drug evidence storage rooms. Multiple split systems supplement critical cooling applications throughout the building. Plumbing systems included shower facilities for the workout and clan lab prep areas and penal fixtures in holding cells. Exterior lighting systems were designed to maximize building security to comply with federal guidelines including video monitoring.

In January of 2007, this project achieved a LEED™ Certified rating.



**NEW RESERVE CENTERS  
U.S. ARMY CORPS OF ENGINEERS  
CHAMBERSBURG, PENNSYLVANIA**

Design of three new U.S. Army Reserve Centers each having a Training Building (Armory) and an Organizational Maintenance Shop (OMS) in Morgantown, Elkins and Kingwood, West Virginia. Construction is completed on Morgantown and Elkins and is about 90% complete on Kingwood. The 300-Member Morgantown USAR Center is located on an 8 acre site and contains 21,700 SF of space in the Administration/Training Building and 5,500 SF in the four bay OMS Building. Parking is provided for 107 passenger vehicles and for 188 military vehicles/equipment in a secured area.

The 60-Member Elkins USAR Center is located on a 4.2 acre-site and provides 12,000 SF of space in the Administration/Training Building and 4,200 SF in the three bay OMS Bay. Parking is provided for 48 passenger vehicles and for 32 military vehicles/equipment in a secured area.

The 100-Member Kingwood USAR Center is located on a 4.8 acre site and provides 19,000 SF of space in the Administration/Training Building and 5,000 SF in the four bay OMS Building with 600 SF of covered storage area. Parking is provided for 60 passenger vehicles and for 63 military vehicles/equipment in a secured area.

HFL was part of the Design Team responsible for the site planning, space planning, facility design, all submission requirements, i.e., design analysis, Life Cycle Cost Analysis, cost estimate, construction schedule, construction drawings and specifications for all three of these Reserve Centers.

All three facilities contain the following functional elements:

- Administrative Spaces - Full-Time Staff Offices; Unit Exclusive Offices; Unit Common and Retention Spaces
- Educational Facilities - Classrooms; Learning Center, Library, Comsec Training
- Storage Spaces - Unit and Individual Storage; Comsec Storage
- Assembly Area (Drill Hall) and Support Spaces - Food Preparation, Arms Vault; Chair Storage
- Common Space - Lobby, Toilets and Locker Rooms
- OMS Facility - Work Bays; Wash Bays; Shop Office; Battery Room; Parts & Tool Storage; Flammable Storage; Hazardous Storage

Construction was completed in 1995 at an estimated construction cost of \$5,400,000.

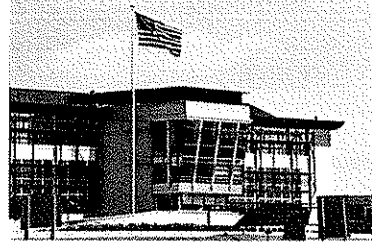
**PENNSYLVANIA TURNPIKE COMMISSION  
HARRISBURG, PENNSYLVANIA**

H.F. Lenz Company provided engineering services for the extensive renovation of an existing 112,000 square foot facility, plus a 50,000 square foot addition to the Central Administration Building, which was originally built in 1957. As a result of the considerable expansion of roadway under the Pennsylvania Turnpike Commission's management, the administration and staff of the Central Administration Building had outgrown the available space. The commissioners sought to create a public visible, high quality working environment for Turnpike employees that would enhance workplace comfort and productivity. This central operations center serves as the primary hub for all data management and emergency response activities. The project was completed in 2001, with a total construction cost of over \$19 million. *In June 2003, this building became LEED™ Certified.*



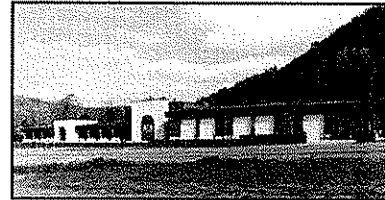
The building houses the following:

- State Police Troop T Command Center
- Various Administrative Depts.
- Communications Center
- Library
- Training Rooms
- Conference rooms
- Cafeteria/Dining
- Various other spaces



**ATA OF NORTH CENTRAL PENNSYLVANIA  
NEW REGIONAL TRANSIT FACILITY  
JOHNSONBURG, PENNSYLVANIA**

H.F. Lenz Company provided mechanical and electrical engineering services for the design of the 37,700 sq.ft. new administration, maintenance, vehicle storage and fleet fueling facility. The project includes:



- The main electric service for the facility is 600A - 480/277V service. Since the facility is part of the region's disaster plan, the facility has been provided with a natural gas-fired generator to provide back-up power to the buildings lighting, communications, dispatch, and fleet fueling equipment.
- Gas-fired, hot water radiant heat consisting of radiant ceiling panels in the administrative area, and radiant floor throughout the maintenance area. Gas-fired make-up air units temper the ventilation air used to exhaust the maintenance and vehicle storage areas.

This project was completed in 1999.

**SOUTH EASTERN PENNSYLVANIA TRANSIT AUTHORITY (SEPTA)  
PHILADELPHIA, PENNSYLVANIA**

H.F. Lenz Company has been awarded multiple projects with SEPTA to provide mechanical and electrical engineering services. Several projects include:



- The SEPTA Transit Museum and Visitors Center
- 1234 Market Street serves as SEPTA's new corporate headquarters
- Market Street subway concourse renovation project
- Canine police facility located within the Market Street subway concourse

This project was completed in 1995. Total square footage of the facility is 660,000 sq.ft.



**NORTH MIDDLETON TOWNSHIP  
CARLISLE, PENNSYLVANIA**

New municipal (11,000 sq.ft.) and public works (24,000 sq.ft.) buildings including municipal offices, meeting hall, and sheriffs holding/processing area.

- The main electrical service for the facility is rate 208Y/120V-30-4W-1000A. It is supplied by a pad-mounted transformer located behind the public works building, it supplies a main service panelboard that distributes power to subpanelboards located throughout the facility.
- A 230 kW generator located in a weatherproof enclosure supplies emergency power to the municipal building and the public works building. This emergency power supply is sized to keep the facility in operation during times of extended power outages. This facility can be used as a disaster recovery center for the community if required. Because the emergency power system is adequately sized to keep the facility operational.
- A zoned fire alarm system serves the municipal building, and a separate zoned fire alarm system serves the public works building.
- The parking lot is lighted adequately for the purposes of public access and security. The facility is protected by a central surveillance system, including cameras, intrusion contact switches and motion detectors.
- HVAC is provided by multiple, commercial grade split system, constant volume air handling units with remote condensers and gas-fired heating sections.

New public works Building (24,000 sq.ft.) including vehicle maintenance and storage areas.

- Heating is provided by multiple gas-fired infrared heaters.

This project was completed in 1997.

**NEW SOCIAL SECURITY ADMINISTRATION OFFICE BUILDING  
JOHNSTOWN, PENNSYLVANIA**

Under a design/build arrangement, the H.F. Lenz Company provided full-service engineering and surveying services for a new three-story building to house the Social Security Administration's field office in Johnstown, Pennsylvania. The design for the 40,000 sq.ft. steel-framed facility allows for a 14,000 sq.ft. parking area on the ground floor. Offices, a video teleconferencing room, a reference library, and storage space are located on the second and third floors.

Design features included:

- Complete HVAC system
- New 208/120 volt electrical distribution system
- Surveillance/security systems
- Manual fire alarm system
- Sprinkler system monitoring, ADA visual alarms, automatic fire emergency notification to the city fire department, and 24-hour emergency battery backup.
- New and extended domestic and fire protection water lines
- Natural gas piping
- Sanitary and storm sewer extensions



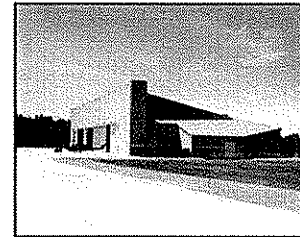


**CONCURRENT TECHNOLOGIES CORPORATION  
HIGH BAY EXPANSION AND POWDER METALLURGY LABORATORY  
JOHNSTOWN, PENNSYLVANIA**

The H.F. Lenz Company was contracted to provide the complete multi-discipline engineering design of the general utility systems for a 110,000 sq.ft. high-bay expansion and completed the architectural/engineering design of 32,500 sq.ft. of specialty space within the high-bay area. HFL also provided mechanical, electrical, and structural engineering, architectural, and construction monitoring services for the construction of a new 10,000 sq.ft. research and development facility for powder metals at CTC's existing facility.

**U.S. ARMY RESERVE AVIATION FACILITY  
JOHNSTOWN, PENNSYLVANIA**

The H.F. Lenz Company provided engineering design services for the design of a new 120,000 sq.ft. U.S. Army Reserve Aviation Facility for both rotary and fixed wing aircraft located at the Johnstown-Cambria County Airport. The multi-building complex is located on an 80-acre site and construction was completed in the spring of 1997.



- The site development also included the entrance roads, site utilities, parking lots, security fencing, and landscaping.
- The scope of the work included design of taxiways, hangar apron areas, parking for twenty-four AH-1's and four C-12's associated aircraft and taxiway lighting, aircraft signage and site storm drainage collection and retention.
- The hangar floor area of 330 x 94 ft. with a safety corridor around the perimeter is comprised of flexible work bays and a wash bay.
- Shop areas include hydraulics, air frames, sheet metal shop, rotor shop, engine shop, battery shop, material and maintenance control, corrosion control, arms vault, unit maintenance and GSE storage. Support spaces for the shop areas include parts storage, tool room, ordinance and extensive storage space.
- Administrative spaces include offices and common administrative area, classrooms, legal medical, computer work area and reserve facilities.
- Common spaces include lobby, break room, toilets and locker rooms.

Construction was completed on this project in 1997, at an estimated construction cost of \$30,000,000.

**BEDFORD COUNTY BUSINESS PARK  
BEDFORD, PENNSYLVANIA**

The H.F. Lenz Company completed a site feasibility study for a proposed business park for the Bedford County Development Association (BCDA). The purpose of the study was to identify the optimal site for development of a business park in the vicinity of Interstate 99 and/or both turnpike interchanges. It was determined that a site located in Bedford Township along the east side of Business Route 220 (SR 4009) and along the north side of State Route 1001 was the best suited. BCDA authorized HFL to proceed with the civil engineering and infrastructure design for the project. The park construction was completed July, 1999. Area: 143 acres





*Alderson*

**Federal Correctional Institution**

- Complete HVAC, electrical, and fire protection for conversion of training rooms into production areas

*Beckley*

**U.S. Army COE, Baltimore**

**Army Reserve Center**

- New 300-member reserve center with training building and maintenance shop

*Bluefield*

**Kee Federal Office Building and Courthouse**

- Building-wide HVAC renovation study and design
- Boiler replacement
- Chiller replacement
- Second floor district courtroom
- First floor magistrate courtroom

*Bridgeport*

**The Pete Dye Golf Club**

- New clubhouse

*Charleston*

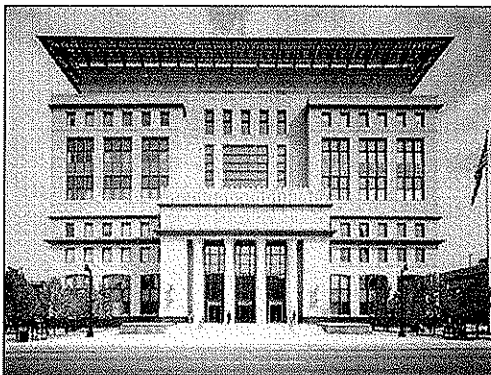
**Health Sciences Center**

**Medical Education Building**

- Evaluation, recommendations, and upgrade of HVAC system

**Robert C. Byrd U.S. Courthouse**

- Mechanical system commissioning activities
- Third party professional opinion review

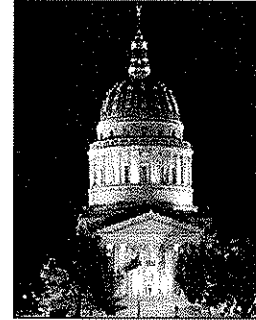


*Robert C. Byrd Courthouse. Selected mechanical system commissioning activities were performed for this new seven-story, 325,000 sq.ft. courthouse.*

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**West Virginia State Capitol.** The Capitol campus buildings comprise a total area of 1.3 million sq.ft.

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**University of Charleston**

- New Design/Build 50,000 sq.ft. dormitory - Fast-track (design start to construction complete; less than one year)

**McJunkin Corporate Headquarters**

- New three-story, 73,500 sq.ft. glass curtain wall structure with an open office plan

**West Virginia State Capitol**

- Chilled water study
- Underground chilled water distribution (Phase I)
- 4,800-ton chiller plant

*Clarksburg*

**Veterans Affairs Medical Center**

- Electrical design

**Waldo Hotel**

- Feasibility study

*Elkins*

**U.S. Army COE, Baltimore**

**Army Reserve Center**

- New 60-member reserve center with training building and maintenance shop

*Evansdale*

**West Virginia University Branch Campus**

- Utility survey

*Fairmont*

**Fairmont State College**

- Electrical distribution upgrade

*Grafton*

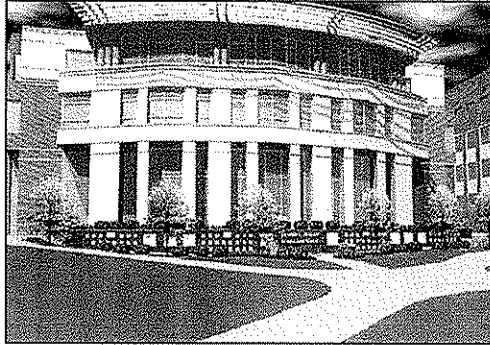
**Grafton High School**

- Addition and renovations

*Huntington*

**First Huntington National Bank**

- Banking facility and data center



*WVU - Charles V. Wise Jr. Library. This project will feature a 124,000 sq.ft. new addition and major renovations to the existing 86,000 sq.ft. library building.*

**Huntington Federal Building**

- Electrical system renovation and study and design throughout entire building
- Toilet room renovations

**Kingwood**

**U.S. Army COE, Baltimore  
Army Reserve Center**

- New 100-member reserve center with training building and maintenance shop

**Martinsburg**

**Martinsburg Computer Center**

- Handicapped accessibility renovations

**Veterans Affairs Medical Center**

- Cafeteria/dining hall renovations

**Federal Office Building and Courthouse**

- Modernization of elevators
- Toilet room upgrades
- Building-wide HVAC renovation design
- Second floor judge's chamber

**U.S. Coast Guard Operations Building**

- Industrial hygiene study and report
- HVAC study

**Martinsburg Computer Center**

- Handicapped accessibility renovations

**National Park Service Building**

- HVAC study

**Morgantown**

**Stagers Federal Office Building**

- Building Evaluation Report
- Prospectus Development Study
- Parking garage structural investigation
- Extension of fire alarm system and addition of fireman's capture and recall to passenger elevators

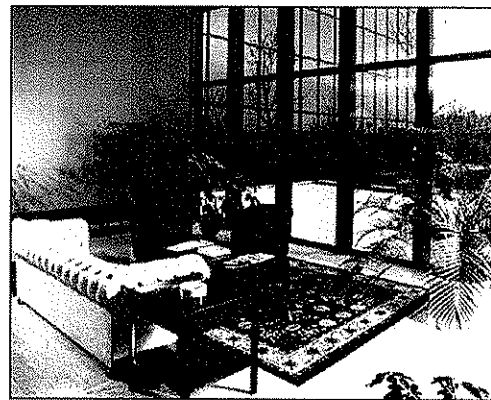
**West Virginia University**

- Brooks Hall Science Building - Mechanical/electrical retrofit for code compliance (65%)
- Stansbury Hall Athletic Building - HVAC retrofit (65%)
- Charles Wise Library expansion
- Beechurst boiler pump demolition
- Health Sciences Center boiler plant conversion study
- High-density book storage facility
- Potomac State College chiller/cooling tower replacement
- White Building East Bay Chiller Plant commissioning services
- Evansdale Campus Utility Survey

**Robert C. Byrd Health Sciences Center**

**West Virginia University**

- Building evaluation and master plan
- Miscellaneous electrical and fire protection infrastructure upgrades
- Renovation of Gross Anatomy, Oral Surgery, Dental Suite, and Morgue
- Renovation of electron microscope area
- Elevator replacement
- Pathology Amphitheater renovation
- Radio and television services master plan



*McJunkin Corporate Headquarters. Provided original design including mechanical, electrical, plumbing and fire protection/life safety.*



**U.S. Army COE, Baltimore  
Army Reserve Center**

- New 300-member reserve center with training building and maintenance shop

**Ruby Memorial Hospital  
West Virginia University Hospitals**

- Chilled water system study
- Chilled water pump replacement
- Data center emergency generator
- Obstetrics area renovation
- Patient holding area renovation
- Elevator penthouse ventilation

**Jakes Run Head Start**

- Heating, plumbing, and electric renovations

**Monongalia County Board of Education**

- Feasibility evaluations (26 buildings)

**Morgantown High School**

- Design of addition and renovations

**Central Office of the State College and  
University System**

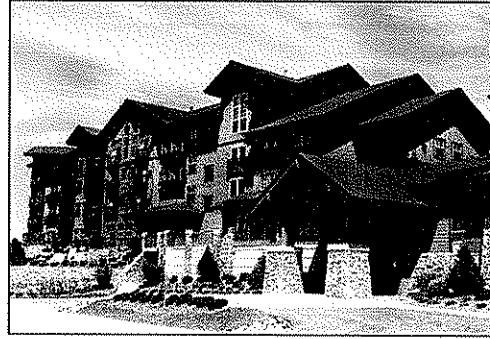
- WVNET major maintenance and facility improvements

**New Martinsville**

**PPG Industries, Inc.**

**Natrium Plant**

- Office HVAC systems



*Snowshoe Mountain Resort. Rimfire Lodge is the cornerstone of the new mountain top Village Center.*

**New River Gorge National River  
Summers County**

**National Park Park Service  
Sandstone Visitor / Orientation Center**

- New 12,500 sq.ft. visitor center - designed to achieve a LEED Platinum Rating

**Parkersburg**

**Federal Office Building**

- Building Evaluation Report

**Rainelle**

**U.S. Army COE, Baltimore**

**Army Reserve Center**

- New 200-member reserve center with training building and maintenance shop

**Snowshoe**

**Snowshoe Ski Resort**

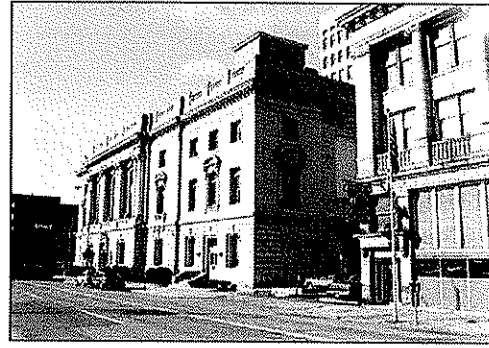
- Rimfire Lodge - New 150-unit hotel/condominium complex
- Camp #4 - Residential townhome-style condominiums
- Employee housing
- Highland House - New 70-unit hotel/condominium complex
- The Seneca Building - new Residence building - Design of a 67 unit condominium building with administrative space
- Expedition Station - new Residence building - Design of a 94 unit condominium building with ski rental and retail space
- Jr. Bringham Building - new check-in facility multi-purpose building housing restaurant and lounge, offices, and ski lift ticket counter
- Shavers Center Evaluation



*Sandstone Visitor/Orientation Center. The project site is located in a remote section of West Virginia, with few public utilities available as energy sources for the project*



**Oglebay Resort.** Oglebay is a unique 1650 acre resort in Wheeling, West Virginia, featuring cottages, fine dining, indoor pool, fitness room, massage therapy areas, two championship golf courses and the 30-acre Good Zoo.



**Wheeling Federal Building and Courthouse.** Renovations included an historic courtroom, main lobby, and corridors. The new addition provides for separate, secure circulation paths for prisoners, and judicial staff.

**Anna Jarvis Elementary School**

- Addition and renovations

**Wierton**

**U.S. Army COE, Baltimore**

**Army Reserve Center**

- New 200-member reserve center with training building and maintenance shop

**Wheeling**

**U.S. Federal Building and Courthouse**

- Boiler replacement study and design
- Study and rehabilitation of deteriorated parapet wall
- Fourth floor renovation
- \$7 million addition

**U.S. Army COE, Baltimore**

**Army Reserve Center**

- New 150-member reserve center with training building and maintenance shop

**Oglebay Resort**

- Building systems design

**Fireworks World**

- New Fireworks wholesale and distribution center



H.F. LENZ  
COMPANY

*Civil/Structural Projects in West Virginia*  
2004-2009

**Sheetz, Inc.**

**Keyser, West Virginia**

Civil Engineering for a new store

**Veterans Affairs Medical Center**

**Huntington, West Virginia**

Structural Engineering for a new 17,000 sq.ft. Rehab Facility as part of the renovation of the Psychological Residential Rehabilitation Treatment Program (PRRTP)

**National Institute for Occupational Safety and Health**

**Morgantown, West Virginia**

Civil and Structural Engineering for Security Upgrades

**West Virginia University**

**Morgantown, West Virginia**

Civil and Structural Engineering for a New 11,500 sq.ft. Book Storage Facility

**Volcano Island Water Park**

**Fairmont, West Virginia**

Structural Engineering for a 50,000 sq.ft. indoor water park

**Tri-State Professional Complex, KFC Enterprises**

**Martinsburg, West Virginia**

Civil/Site Engineering for a new 30,000 sq.ft. medical office building

**Redstone Development Company**

**Morgantown, West Virginia**

Civil Engineering for a site evaluation

**National Institute for Occupational Safety and Health**

**Morgantown, West Virginia**

Civil Engineering for master planning and site improvements

**Redstone Construction**

**Weirton, West Virginia**

Civil Engineering for site evaluation for a proposed new Home Depot store

**West Virginia University Hospitals,**

**Ruby Memorial Hospital**

**Morgantown, West Virginia**

Structural Engineering for a new 176,000 sq.ft. addition housing clinical space

**Fireworks World**

**Wheeling, West Virginia**

Civil and Structural Engineering for a new wholesale distribution facility

**Grave Creek Archaeological Storage Facility, West Virginia Division of Culture & History**

**Moundsville, West Virginia**

Civil and Structural Engineering for an addition to a museum

**Joe Holland Chevrolet**

**Charleston, West Virginia**

Structural Engineering for a new showroom



**H.F. LENZ  
COMPANY**

**Paul E. Petrilli, P.E.**

**Principal and LEED® Accredited Professional**

Mr. Petrilli serves as our Chief Mechanical Engineer and is instrumental in developing the company's high-performance design efforts. Having served as the Principal-in-Charge for the firm's National Park Service projects, he has been a practitioner of sustainable design principles since the early 1990s. Mr. Petrilli is also a member of the Green Building Alliances' Education Committee and has presented seminars on daylighting and energy modeling in the Pittsburgh area.

Mr. Petrilli is well-versed in both mechanical and electrical engineering. He is experienced in the design of boiler plants; chiller plants; hot water, chilled water, and steam distribution networks; air and water heating/cooling systems; geothermal heat pump systems; energy recovery systems; automatic temperature control systems; domestic water heating systems; commercial and industrial lighting systems including daylighting controls; and building noise control systems. He is experienced in the computer modeling of mechanical, electrical, and lighting systems, having a thorough knowledge of TRACE, ENERGY-10, and Lightscape. Mr. Petrilli has been involved in the design of the following projects:

ATA North Central Pennsylvania  
Johnsonburg, Pennsylvania  
*New 37,700 sq.ft. regional transit facility  
including administration and maintenance areas*

City of St. Marys  
St. Marys, Pennsylvania  
*New 22,000 sq.ft. facility to house the police  
and fire department*

Fort Necessity National Battlefield  
Farmington, Pennsylvania  
*Mechanical design for a new 4,000 sq.ft.  
headquarters building and a new 9,700 sq.ft.  
maintenance building for the National Park  
Service*

Sandstone Visitor/Orientation Center  
National Park Service  
Summers County, West Virginia  
*Civil/site design for a new 14,200 sq.ft. visitor  
center with auditorium and office space -  
designed to attain a LEED® Platinum Rating*

Municipal Vehicle Maintenance Garage  
Upper Yoder Township  
Johnstown, Pennsylvania  
*Gasoline storage tank and dispensing system for  
fleet fueling*

South Eastern Pennsylvania Transit Authority  
Police Station  
Philadelphia, Pennsylvania  
*New K-9 police unit located in the SEPTA subway  
concourse. The project involved the design of  
ventilation, temperature, and humidity controls*

North Middleton Township  
Carlisle, Pennsylvania  
*New 11,000 sq.ft. municipal building and  
24,000 sq.ft. public works building including  
offices, meeting hall, sheriff's  
holding/processing area, vehicle maintenance  
and storage areas*

Concurrent Technologies Corporation  
Powder Metal Testing Laboratory  
Johnstown, Pennsylvania  
*- Design of process gas piping system  
- Design of ventilation, utilities and connections  
to presses, vacuum furnaces, and dust  
collection*

#### **Education**

Bachelor of Architectural Engineering 1987 Pennsylvania State University  
Specialization: Mechanical/Electrical Systems in Buildings

#### **Experience**

H.F. Lenz Company 1987 - Present

#### **Professional Registration / Certification**

Licensed Professional Engineer in Pennsylvania, Maryland, New Jersey, West Virginia, Virginia, Washington, D.C., Illinois, Michigan, Ohio, Missouri, and LEED® Accredited Professional

#### **Professional Affiliations**

American Society of Heating, Refrigerating, and Air-Conditioning Engineers • American Society of Plumbing Engineers • U.S. Green Building Council • Geothermal Heat Pump Consortium • Illuminating Engineering Society of North America • Green Building Alliance



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

Pennsylvania National Guard Facility  
Johnstown, Pennsylvania  
*New 23,560 sq.ft. facility with 8,000 sq.ft. of office and maintenance shop area and the remainder for storage and eight vehicle maintenance bays*

Pennsylvania Turnpike Commission  
Central Administration Building  
Harrisburg, Pennsylvania  
*New three-story addition and renovation to the Central Administration Building; LEED® Certified Building*

New Armory, Pennsylvania Department of Military Affairs  
Ford City, Pennsylvania  
*New 24,400 sq.ft. training center with classrooms and kitchen/dining facilities and maintenance shop*

Social Security Administration Operations Building, Woodlawn, Maryland  
*Renovation of a 1.2 million sq.ft. federal office building*

Dyess Air Force Base\*  
Abilene, Texas  
– *Base Headquarters*  
– *Aircraft and maintenance hangar*  
– *Vehicle maintenance facility*

– *General aircraft maintenance hangar renovation*  
– *80,000 sq.ft. office building renovation*

911th Airlift Wing, U.S. Air Force Reserve  
Greater Pittsburgh International Airport  
Coraopolis, Pennsylvania  
– *Repairs and alterations to gas station and vehicle wash addition, Building 322*  
– *Replace computer hardware and software for base security and fire alarm system*  
– *Repairs and alterations to Base Exchange*

William J. Nealon Federal Building and U.S. Courthouse  
Scranton, Pennsylvania  
– *U.S. Marshal's Service space*  
– *New \$36 million courthouse annex and repair and alteration of existing federal building*

Federal Courthouse Complex  
Erie, Pennsylvania  
– *U.S. Marshal's Service Space*  
– *New \$24 million courthouse annex and renovation to three existing historic buildings*

U.S. Federal Building and Courthouse  
Wheeling, West Virginia  
– *Renovation and addition*  
– *Fourth floor district court expansion*

#### **Education**

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

#### **Experience**

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

#### **Professional Registration / Certification**

Licensed Professional Engineer in Pennsylvania • Certified LEED® Professional

#### **Professional Affiliations**

American Society of Heating, Refrigerating, and Air-Conditioning Engineers; APPA





Mr. Mulhollen is experienced in the design of power distribution systems, control systems, emergency power systems, lighting and emergency lighting systems, fire alarm systems, security, sound, and telecommunication systems for correctional, educational, institutional, industrial, health care, and commercial facilities. Mr. Mulhollen's project experience includes (\*indicates prior experience):

Philadelphia Police Department  
Philadelphia, Pennsylvania  
*Building assessment and recommendations for improvements, energy analysis and operation cost analysis for the 6th District Station*

Lincoln County  
Hamlin, West Virginia  
*Electrical design for new 911 center*

Allegheny County 911 Center\*  
Allegheny County, Pennsylvania  
*Project involved locating a 911 center in an existing building. The center consisted of 60,000 sq.ft. of administration space and 3,500 sq.ft. of data center space.*

Westmoreland County 911 Center\*  
Westmoreland County, Pennsylvania  
*New 25,000 sq.ft. center consisting of computer and administration space. Project included new power distribution, total emergency power backup, new lighting, grounding, fire alarm, security, and communications design*

Pennsylvania Turnpike Commission  
Central Administration Building  
Harrisburg, Pennsylvania  
*New three-story addition and renovation to the Central Administration Building which houses the Police Troop T Command Center including parking lot and exterior building lighting;  
LEED™ Certified Building*

Allegheny County\*  
Pittsburgh, Pennsylvania  
*Snyder County 911 Center*

Department of Treasury\*  
New Troop "C" Headquarters  
Trenton, New Jersey  
*New 85,000 sq.ft. police barracks with training areas, administration areas, car maintenance area, and dispatch area*

Anthony Juvenile Correctional Center\*  
Neola, West Virginia  
*Electrical design of correctional facility*

Erie County Jail\*  
Erie, Pennsylvania  
*Electrical design of correctional facility*

U.S. Drug Enforcement Agency  
Pittsburgh, Pennsylvania  
*New 50,000 sq.ft. office building with 25,200 sq.ft. parking garage -LEED™ Certified*

City of Altoona  
Altoona, Pennsylvania  
Renovations to City Hall  
*Renovation of a 30,000 sq.ft. historic building*

#### **Education**

Bachelor of Science, Electrical Engineering, 1988  
Pennsylvania State University, University Park, Pennsylvania

#### **Experience**

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

#### **Professional Registration / Certification**

Licensed Professional Engineer in Pennsylvania, Maryland, and New Jersey

#### **Professional Affiliations**

Institute of Electrical and Electronics Engineers, Inc.



H.F. LENZ  
COMPANY

**David B. Schmidt, Jr., P.E., RCDD**  
**Data/Communications Engineer**

Mr. Schmidt is an Electrical Engineer with a wide range of engineering experience in corporate and commercial projects. His experience includes project planning, project management, facility design, project scheduling, cost estimating, construction administration, and training of operations and maintenance personnel. He is also a Registered Communications Distribution Designer (RCDD) with an extensive background in communications systems design including both optical fiber and copper backbone cabling systems. His specific experience includes project management and engineering design for data centers, call centers, operations centers, corporate office buildings, governmental facilities, and college and university facilities. He is experienced in power distribution systems, lighting systems, energy management, direct digital controls, fire detection and alarm systems, on-site power generation, and all types of structured communications cabling systems for telephone, voice, and data.

**CMGi**

Brickstone Square  
Andover, Massachusetts  
*Design of a communication infrastructure for a 300,000 sq.ft. multi-story office building with multiple tenants*

Mellon Financial Corporation  
Client Service Center  
Pittsburgh, Pennsylvania  
*New 750,000 sq.ft., \$130 million building and data center; project included 1,200 miles of optical fiber and 26,000 copper information ports.*

NaviSite Headquarters & Data Center  
Andover, Massachusetts  
*New 150,000 sq.ft. data center capable of supporting over 3,000 servers.*

NaviSite Data Center  
San Jose, California  
*Highly reliable data center designed for 24x7 operation*

Social Security Administration  
Woodlawn, Maryland  
*Project Manager for the communications design in both the 1.2 million sq.ft. Operations Building and the 500,000 sq.ft. Annex Building. The cabling system includes fiber to the desk, UTP cabling for voice and data, and coaxial cable for video distribution.*

Kennametal, Inc. World Headquarters  
Latrobe, Pennsylvania  
*Design of new campus fiber optic and copper telephone systems backbones, and Category 5 horizontal communications wiring system for telephone, voice, and data in a new 135,000 sq.ft. corporate office facility.*

Progressive Insurance Company  
New Call Center  
Austin, Texas  
*Project Manager for a new 217,000 sq.ft. 1800-person call center; fast track project delivery*

**Education**

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

**Experience**

H.F. Lenz Company 1995 - Present  
Johnstown America Corporation 1994 - 1995  
LTV Steel 1991 - 1994

Metalworking Technology, Inc. 1989 - 1991  
Lincoln Contracting & Equip. Co. 1982 - 1984

**Professional Registration / Certification**

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

**Professional Affiliations**

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



Mr. Miller has designed complete plumbing and sprinkler systems for office buildings, hospitals, colleges, schools, laboratories, industrial facilities, and military installations. He is responsible for plumbing and sprinkler system design, layout, calculations; selection and sizing of equipment; cost estimates; and site surveys. He is knowledgeable of all applicable NFPA and plumbing codes, and is experienced in the design of wet, dry, pre-action, deluge and FM200 fire protection systems. He supervises drafting personnel; coordinates designs with utility companies, with other trades, and with the Project Engineer and Project Architect; and is responsible for assembling complete and accurate bid documents which meet H.F. Lenz Company standards.

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

ATA North Central Pennsylvania  
Johnsonburg, Pennsylvania  
*New 37,700 sq.ft. regional transit facility  
including administration and maintenance areas*

City of St. Marys  
St. Marys, Pennsylvania  
*New 22,000 sq.ft. facility to house the police  
and fire department*

Metro Health Center  
Erie, Pennsylvania  
*Complete fire protection system for existing  
five-story complex*

Extrude Hone Corporation  
Irwin, Pennsylvania  
*New 72,000 sq.ft. office building and  
manufacturing facility*

The Wanamaker Building  
Philadelphia, Pennsylvania  
*Base building systems for the conversion of  
seven floors of a 1,800,000 sq.ft. historic retail  
building to offices*

Heritage Discovery Center  
Allegheny Ridge State Heritage Park  
Johnstown, Pennsylvania  
*Plumbing and fire protection design for  
a 100-year-old, three-building complex*

FedEx Ground  
Pittsburgh, Pennsylvania  
*Complete plumbing and fire protection systems  
for a new five-story office building*

NaviSite, Inc.  
Andover, Massachusetts  
*Plumbing and fire protection design for a new  
150,000 sq.ft. data center and corporate  
headquarters*

Letterkenny Army Depot  
Chambersburg, Pennsylvania  
*Plumbing and fire protection design for a new  
mezzanine and test equipment enclosure*

PricewaterhouseCoopers  
Philadelphia, Pennsylvania  
*Fire protection design of a 70,000 sq.ft. Global  
Training Center and 20,000 sq.ft. Software  
Engineering Center*

**Education**

Associate, 1984, Mechanical Drafting & Design

**Experience**

H.F. Lenz Company 1991 - Present

Coordinated Design Fire Protection 1986 - 1991

L. Robert Kimball & Associates 1985 - 1986

**Professional Registration / Certification**

Certified in Plumbing Engineering (American Society of Plumbing Engineers), Certified Plumbing Designer (American Society of Plumbing Engineers), NICET Level III



Mr. George is responsible for the initial planning, final design, construction observation and final inspection of completed projects. He is experienced in design and forensic evaluation of educational, institutional, health care, commercial, industrial and power generation facilities. He is involved in the design of building structures including roofing systems, industrial and electric generating systems, medical, and laboratory facilities; historical renovations including masonry restoration work, sporting venues; as well as critical selective, controlled, and implosive demolition procedures. He has served as project engineer or design engineer for the following projects (\*indicates previous experience):

Letterykeny Army Depot  
Chambersburg, PA

- *Structural design of Security Headquarters Building addition*
- *Structural modifications for makeup air upgrade, Building 350*
- *Industrial waste treatment pump station rehabilitation*

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

- *Structural design of modifications to Pharmacy, Building 319*
- *Structural design of new vehicle wash addition, Building 322*
- *Structural design of modifications to Base Exchange, Building 300*

Pennsylvania State Capitol Complex  
Harrisburg, PA  
*Renovations to plazas of the Finance Building, South Office Buildings, and Soldier's Grove*

Federal Correctional Institution  
Loretto, PA  
*Structural design of building additions*

**Education**

Bachelor of Science, Civil Engineering 1971  
University of Pittsburgh, Pittsburgh, Pennsylvania

**Experience**

H.F. Lenz Company 1978 - Present  
Crown American Corporation 1972 - 1978  
Dravo Corporation 1971 - 1972

**Professional Registration / Certification**

Licensed Professional Engineer in Pennsylvania and West Virginia  
Registered Professional Land Surveyor in Pennsylvania

Cannondale Corporation  
Bedford, Pennsylvania

- *Structural design for new two-story warehouse*
- *Foundation design for new manufacturing facility*

Fort Necessity National Historical Park  
Farmington, PA  
*Structural design of a new headquarters building and a new maintenance building*

Dofasco, Inc.\*  
Hamilton, Ontario, Canada  
*Design of three story steel framed building for a large water treatment facility for Canada's most successful steel producer*

Capitol City Mall  
Camp Hill, Pennsylvania  
*Design of foundation and steel structure for 870,000 sq.ft. new shopping mall*

Staggers Federal Office Building  
Morgantown, West Virginia  
*Office building and parking garage survey and inspection report*



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. His project experience includes (\*indicates prior experience):

South Woods State Prison,  
Bridgeton, New Jersey\*

- *New 23-building prison complex*
- *Multistory housing and support buildings constructed of pre-cast plank, beams, columns and engineered masonry bearing walls*

Western Tidewater Regional Jail,  
Suffolk, Virginia  
*Single-story housing unit addition to existing facility with raised security/control center, masonry bearing, pre-cast mezzanines and steel joist roof*

Beaver County Correctional Facility,  
Beaver County, Pennsylvania\*  
*New correctional facility consisting of a single- and two-story steel frame support areas connected to seven inmate housing pods constructed of pre-cast plank floors and mezzanines on engineered masonry bearing walls*

West Point Military Academy,  
West Point, New York\*  
*- New pre-engineered building housing six tennis courts*  
*- Raised grandstands supported on pre-cast plank flooring, reinforced concrete and masonry bearing walls*

Three Mellon Bank Center,  
Pittsburgh, Pennsylvania

- *Underground directional bore to electronically link two buildings*
- *Design of new sump pits, floor openings and containment tanks in existing building*

LaRoche College  
Pittsburgh, Pennsylvania  
*Wood framed structural design for a two-building expansion to Bold Hall dormitories*

University of Charleston  
Brotherton Hall  
Charleston, West Virginia  
*Four story dormitory building constructed of pre-cast hollow core plank on masonry bearing walls and miscellaneous steel framing. Exterior wall construction is brick veneer with metal stud back-up. Spread footing foundations bear on "CLFM" fill material*

Cambria County Association for the Blind and Handicapped  
Johnstown, Pennsylvania  
*New, 17,000 sq.ft., single story steel frame building, this building is tied to the existing facility and required an intricate geometry to maximize land area*

#### **Education**

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

#### **Experience**

H.F. Lenz Company 1997 - Present  
Glassman and Associates 1989 - 1997  
Gauthier Alvarado and Associates 1986 - 1989

#### **Professional Registration / Certification:**

Licensed Professional Engineer in Pennsylvania • Maine • Maryland • Massachusetts • North Carolina • New York

#### **Professional Affiliations**

American Society of Heating, Refrigerating and Air-Conditioning Engineers • International Society of Pharmaceutical Engineers • President Elect, Johnstown Chapter - Pennsylvania Society of Professional Engineers • American Institute of Steel Construction



As a civil engineer and a Principal of the firm, Mr. Kohler has managed open-end prime contracts for the Pennsylvania Turnpike Commission, the Pennsylvania Department of Environmental Protection, the U.S. Postal Service, and the U.S. Army Corps of Engineers. He is experienced in the evaluation and design of highways, haul roads, bridges, tunnels, culverts, building structures, underground utilities, sewage and water conveyance and treatment systems, drainage systems, industrial waste systems, reinforced concrete, and structural steel. He is experienced in stormwater management, mapping, municipal engineering, and construction materials testing for quality assurance and quality control. His project experience includes:

Westmorland County Community College  
Westmoreland County, Pennsylvania  
*Site planning and development for a new  
Emergency Training Center on a 165 acre site,  
with 6-story tower and 4,500 sq.ft. classroom  
and administration building*

PA National Guard  
New Maintenance Shop  
Johnstown, Pennsylvania  
– 8-vehicle maintenance bays  
– Flammable storage  
– Fuel dispensing  
– Parking for 11 military & personal vehicles  
– 8,000 SF office/shop area

Federal Correctional Institution  
Loretto, Pennsylvania  
*New one-mile perimeter roadway, high-intensity  
roadway lighting, site utilities, and security  
upgrade including building additions*

Sandstone Visitor/Orientation Center  
National Park Service  
Summers County, West Virginia  
*Civil/site design for a new 14,200 sq.ft. visitor  
center with auditorium and office space -  
designed to attain a LEED® Platinum Rating*

East Mountain Business Park  
Wilkes-Barre, Pennsylvania  
*Site planning and development for a new  
federal office building on a 75-acre site for  
including site selection and analysis, and  
environmental studies*

**Education**

Bachelor of Science, Civil Engineering Technology, 1977, University of Pittsburgh at Johnstown

**Experience**

H.F. Lenz Company 1978 - Present

**Professional Registration / Certification**

Licensed Professional Engineer in Pennsylvania • West Virginia • Virginia

**Professional Affiliations**

American Society of Highway Engineers • American Institute of Steel Construction

Edinboro University of Pennsylvania  
Edinboro, Pennsylvania  
*Campus-wide infrastructure programming study  
including domestic water system, sanitary and  
storm sewers*

Fort Necessity National Battlefield  
Farmington, Pennsylvania  
*New administration and maintenance buildings  
and associated site development including on-  
lot sewage treatment, site utilities, roadways,  
drainage, intersections, sidewalks, and parking*

U.S. Army Reserve Aviation Facility  
Johnstown, Pennsylvania  
*Site planning and development including  
stormwater management, erosion and  
sedimentation control, roadway and parking  
design, and site utilities for a new multi-  
building, 120,000 sq.ft. reserve complex*

Wal-Mart Department Stores  
Grove City, DuBois, Clearfield, and  
Latrobe, Pennsylvania  
*Improvements to a total of 7,400 feet of off-site  
state highways including pavement widening,  
addition of turning lanes, signalization and  
signing, resurfacing, guide rails, shoulders,  
and drainage improvements*

Raytheon Company  
Phoenix Missile Final Assembly  
and Checkout Facility  
Chambersburg, Pennsylvania  
*Site development and structural design*



Elvin "Skip" Davidhizar is experienced in all types of heating, ventilating, air conditioning, plumbing, fire protection, electrical, building management, and site utility systems, as well as data processing and programmable controls. He is responsible for monitoring and observing construction workmanship, materials, and equipment being furnished to ensure conformity with the contract documents. His duties also include mechanical/electrical coordination between trades at the site and with the engineer's office, the architect's office, the owner, and all applicable agencies.

Mr. Davidhizar's responsibilities also include pre-design site surveys; on-site troubleshooting; enforcing applicable codes during construction; attending construction and coordination meetings; evaluating contractors' requests for payment; evaluating contractors' estimates for changes in the contract price; approving or disapproving vendor/contractor shop drawings; and maintaining accurate field records and reports on all activities as well as construction progress. Mr. Davidhizar has provided construction monitoring services for commercial, industrial, and institutional building projects. His projects include:

North Middleton Township  
Carlisle, Pennsylvania  
*New municipal (11,000 sq.ft.) and public works (24,000 sq.ft.) buildings including vehicle maintenance and storage areas*

U.S. Army Reserve Center  
Grantsville, West Virginia  
*New training building and vehicle maintenance shop*

Pennsylvania Turnpike Commission  
Harrisburg, Pennsylvania  
*New three-story addition and renovation to the Central Administration Building including parking lot and exterior building lighting; LEED™ Certified Building*

SEPTA Transit Museum  
Philadelphia, Pennsylvania  
*Museum, gift shop, and rehabilitation of trolley car within SEPTA's corporate*

Social Security Administration  
Johnstown, Pennsylvania  
*New 40,000 sq.ft., design/build three-story building with a ground-level parking area*

Market Street State Office Building  
Harrisburg, Pennsylvania  
*New 450,000 sq.ft. office building with a 45-car parking garage*

Raytheon Phoenix Missile Facility  
Letterkenny Army Depot  
Chambersburg, Pennsylvania  
*New missile assembly and testing facility*

Kennametal, Inc.  
Machining Systems Division  
Solon, Ohio  
*New 180,000 sq.ft. manufacturing and office complex*

Pennsylvania National Guard Facility  
Regional Maintenance Facility  
Johnstown, Pennsylvania  
*New maintenance shop consisting of 23,560 square feet with approximately 8,000 square feet of office and maintenance shop area and the remainder for storage and eight vehicle maintenance bays*

U.S. Army Reserve Center  
Wheeling, West Virginia  
*Design/build project including a 24,000 sq.ft. training building with classrooms, administrative areas, library, assembly hall, weaponer room and medical section, and 17,000 sq.ft organizational maintenance shop*

General Mail Facility  
Pittsburgh, Pennsylvania  
*New security system and access control for a single-level, 150-car parking garage*

**Experience**

H.F. Lenz Company 1983 - Present  
Abex Corporation 1980 - 1981  
Universal Minerals 1975 - 1980  
U.S. Navy 1965 - 1969  
James E. Lehman General Construction 1963 - 1964