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Header 1

List View

General Information [Contact](#) [Default Values](#) [Discount](#) [Document Information](#) [Clarification Request](#)

Procurement Folder: 2024719

Procurement Type: Central Purchase Order

Vendor ID:

Legal Name: MILLER ENGINEERING INC

Alias/DBA:

Total Bid: \$0.00

Response Date:

Response Time:

Responded By User ID:

First Name:

Last Name:

Email:

Phone:

SO Doc Code: CEOI

SO Dept: 0603

SO Doc ID: ADJ2700000001

Published Date: 7/23/26

Close Date: 8/6/26

Close Time: 13:30

Status: Closed

Solicitation Description:

Total of Header Attachments: 1

Total of All Attachments: 1



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

State of West Virginia
Solicitation Response

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

Solicitation Closes	Solicitation Response	Version
2026-08-06 13:30	SR 0603 ESR08042600000000717	1

VENDOR
000000229419
MILLER ENGINEERING INC

Solicitation Number: CEOI 0603 ADJ2700000001
Total Bid: 0
Response Date: 2026-08-04
Response Time: 15:35:50
Comments:

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

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

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

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

Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments:

Extended Description:

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



EXPRESSION OF INTEREST

Wheeling AASF#2 HVAC Renovation Design

Wheeling, West Virginia

Solicitation No. CEOI ADJ2700000001

6 August 2026



SUBMITTED TO

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

SUBMITTED BY

Miller Engineering, Inc.
54 West Run Road
Morgantown, WV 26508
304-291-2234

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Jenkins Subaru

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A LETTER FROM OUR OWNER

The Miller Engineering Difference



We are very pleased to submit our response for the Army Aviation Support Facility #2 HVAC Replacement project. We have elected to submit as prime due to MEI's past history working with the WVANG as a prime consultant. MEI has operated in this role many times before for WVANG, including Mountaineer Challenge Academy Maclin Hall and Kitchen HVAC projects. Camp Dawson Building 301, RTI Chiller Replacement, RTI/Billeting Hot Water, and FMS4 are current WVANG projects which MEI is the prime consultant. We have also served as the prime consultant on many other projects for various clients and state agencies.

We're not your typical MEP firm; we ensure our designs meet very specific, time-tested criteria, including but not limited to being constructible, operable, and maintainable. We want to set up our clients to be self-sufficient, but we work to be available every step of the way.

Every project we do has a particular set of standards which we must apply, and this is no exception. We see our diversity of previous work as an advantage as we do not use "cookie cutter" design or presume we have all the answers when we start.

Our hands-on staff takes great pride in their construction and operations backgrounds, which help us visualize the project as it would be built instead of just lines on paper. We don't sit clients down and lecture to them about what they're going to get; we listen to them so we can strive to deliver exactly what they want and need. It costs too much time and money (for both our clients and us) to not deliver exceptional service every single time, and we work tirelessly to keep projects on time and on budget. We're proud to say that our change order percentage over the last 18 years is less than 0.1%, and that's not just a statistic; it's a proclamation of our commitment and determination to make sure things are done right the first time, every time.

While MEI's portfolio covers all types of construction, the majority of our projects are focused on renovations. We have delivered several renovation projects for WVANG as prime including the recent Camp Dawson RTI chiller replacement, the restroom and locker room renovations to Bridgeport FWAATS and Buckhannon USPFO. We have finished design of the Camp Dawson FMS4 renovations include the replacement of the current vehicle and equipment exhaust system in the repair bays. MEI has also performed HVAC and exhaust projects for Freedom Dealerships and Jenkins Hyundai & Subaru, several fire departments, along with other high capacity exhaust systems in the past. If any structural support is required, Arrow Engineering will provide structural design services. Montum Architecture is part of the team if any architectural services are deemed necessary. MEI has delivered



many successful projects as part of a team with Montum and Arrow including several WVANG projects.

We encourage you to contact any of our references to gauge our level of commitment, not only through design but continuing through construction administration, and beyond the warranty period.

I would like to personally thank you for affording Miller Engineering the opportunity to propose on the Army Aviation Support Facility #2 HVAC Replacement project, and we look forward to the chance to discuss the project in an interview.

Best Regards and Good Luck on the Project,

Craig Miller, PE
President / Owner
Miller Engineering, Inc.



EXPRESSION OF INTEREST

TAB 1

Firm Qualifications



WHO WE ARE

Firm Profile

Miller Engineering is a solely held (S) corporation owned by Craig Miller, PE, President. The corporation maintains a Certificate of Authority with the WV State PE Board and has carried professional liability insurance since its inception. Neither the firm nor its professional engineers have ever faced disciplinary action in any form from the states in which they are registered.

Our engineered solutions involve a detailed assessment process: investigation, observation, communication with stakeholders, system analysis, building modeling, and engagement from our entire team. We approach every project with this process and the guiding principle that buildings should be livable, maintainable, and function well for their intended purpose.

Over the past 23 years, Miller Engineering, Inc. (MEI) has engineered solutions for more than \$100M in MEP system upgrades, repairs, and renovations across projects of all scopes and sizes — with clients ranging from private owners to local and state governments. With strict attention to detail and a commitment to doing the job right the first time, **MEI has maintained a change-order percentage of less than 0.1% over the past 18 years.**

Our team has unique skill-sets in engineered renovation solutions. Each member has hands-on mechanical system experience spanning installation, construction, design, and maintenance.

*Miller Engineering takes pride in being **different by design** — a difference that shows through every phase of our work and in the lasting relationships we keep with our clients.*

Why Miller

- Experienced and licensed professional engineers
- Quality, value-engineered project delivery
- Qualified construction representative on staff
- LEED-AP certified
- Below-industry change-order status
- Building Information Modeling (BIM)
- Emergency facility response — 24/7/365

Engineering Design & Consultation

- › Mechanical
- › Electrical
- › Plumbing
- › HVAC Design
- › Renovation
- › New Construction
- › Building Information Modeling

HVAC Design

Systems Evaluation and Replacement
Modification and Upgrades
Operations/ Maintenance Emphasis

Facility Utilization

Systems Assessment & Solutions
Adaptive Re-use
Planning / Life-Cycle Control
Engineered Replacement

Construction Administration

Contract Administration
Code Observation
Maintenance / Facility Improvement Plans

Communication Systems

Intercom & Public Address
Voice / Data / CATV
Urgent Response

Energy

Power Supply (main & backup)
Green & Renewable Consulting
Systems Utilization & Upgrades
Sustainable Solutions
Alternate Generation

Life Safety Inspection / Design

Fire Protection & Alarm Systems
Access Control
Electrical Investigation

Industry Experience

Education
Local & State Government
Commercial Development
Healthcare
Public Pools (indoor & outdoor)
Parks & Recreation

Aquatic Facility Design

Public Pools & Areas
ADA Compliance
Indoor & Outdoor (air flow)
Chlorination / Filtration



RELATIONSHIP MANAGER

B. Craig Miller, PE

President & Principal Engineer

Craig founded Miller Engineering in 2003 and serves as President and Principal Engineer. He has more than 40 years' experience in design, specification, operations, and project management. During his employment with WVU, Craig was directly involved with approximately \$130 million in new capital construction and significant dollar maintenance and repair projects. His experience across HVAC, electrical, plumbing, infrastructure upgrades, building automation, energy efficiency, and maintenance/renovation allows him to serve in multiple capacities within a given project. Craig will serve as the Relationship Manager for Miller Engineering — the main communication interface between the Owner, the design team, contractors, and end users.

■ Project Role: Relationship Manager — Primary Point of Contact

- Engineer in Responsible Charge
- Design and project management of mechanical, electrical, and plumbing projects
- Concept and construction design
- Business operations and financial management oversight
- Quality assurance and control

■ Professional Project Highlights

- Morgantown High School Area 4 HVAC Renovations
- WVU Life Sciences Building & Student Recreation Center — Owner's Engineer
- WVANG Camp Dawson RTI Chiller Replacement
- WVANG Bridgeport FWAATS Restroom Renovations
- ChalleNGe Academy Maclin Hall Make-Up Air Unit Replacement
- Advanced Surgical Hospital
- Camp Dawson FMS4 Fire Protection
- Chief Logan Lodge HVAC Renovations
- WVANG Child Development Center HVAC Upgrades
- Cacapon Lodge Addition & Renovations

■ Professional History

2003–Present	Miller Engineering, Inc.	President, Relationship Manager
2002–2003	Casto Technical Services	Existing Building Services Staff Engineer
2001–2002	Uniontown Hospital	Supervisor of Engineering
1995–2001	West Virginia University	Staff Engineer
1990–1995	BOPARC	Caretaker — Krepps Park
1983–1988	University of Charleston	Electrician / HVAC Mechanic

■ Education

1995	West Virginia University	BS — Mechanical Engineering
1988	University of Charleston	BA — Mass Communications

▪ **Licenses & Certifications**

- Professional Engineer (West Virginia, Pennsylvania)
- Licensed Master Plumber
- LEED-AP Certified



MILLER ENGINEERING, INC.

Travis Taylor, PE

Lead MEP Engineer

Experience in project management drives Travis's ability to create and design constructible projects. Prior to joining the Miller Engineering team, he was directly responsible for managing \$10 million in electrical construction projects. His experience encompasses both new construction and renovation. Travis maintains professional competencies by attending seminars and continuing education classes, including local ASHRAE classes, electrical systems courses, and steam systems training through Shippensburg Pump Company. As lead engineer, he provides HVAC, mechanical, plumbing, and electrical design solutions for our clients, and is part of our team's complete assessment process from planning and MEP design through construction administration. Travis also mentors new engineers in our office to help them professionally develop.

▪ Project Role: Lead MEP Engineer

- Design of mechanical, electrical, and plumbing systems
- Building Information Modeling — Revit
- Constructible materials evaluation
- Site evaluation and mechanical system review
- Submittal and RFP review
- RFI coordination, review, and response
- Construction observation

▪ Professional Project Highlights

- WVANG Bridgeport FWAATS Restroom Renovations
- WVANG USPFO Buckhannon Restroom Renovations
- Camp Dawson FMS4 Fire Protection
- WVANG Jackson County AFRC Canopy
- WV State Building 25 (Piping, HVAC, Lighting)
- Mineral County Commission Facility Additions & Renovations
- Blackwater Falls Lodge Renovations
- WVANG Child Development Center HVAC Upgrades
- Huntington Floodwall Automation

▪ Professional History

2011–Present	Miller Engineering, Inc.	Staff Engineer
2006–2011	Tri-County Electric, Co.	Project Manager
2006	Schlumberger	Field Engineer Trainee — MWD

▪ Education

2006	West Virginia University	BS — Mechanical Engineering
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▪ Licenses & Certifications

- Professional Engineer — West Virginia, Maryland
- OSHA 10-Hour Course: Construction Safety & Health



MILLER ENGINEERING, INC.

Tyler Trump

MEP Designer

Tyler joined Miller Engineering in August 2022. A recent graduate of West Virginia University, he has been eager to learn the means and methods of MEP consulting. Tyler assists the MEP design team with design calculations and is rapidly learning design software such as Autodesk Revit and the Hourly Analysis Program (HAP) by Carrier. He is also learning construction administration along with building, electrical, and plumbing codes and standards. Tyler is currently preparing to take the Fundamentals of Engineering (FE) Exam.

▪ Project Role: Junior Engineer

- Design calculations and system layout on electrical and mechanical systems
- Drafting of MEP systems
- Assist with construction administration

▪ Professional Project Highlights

- Cass Scenic Railroad State Park Campground
- Lost River Campground
- WVARNG Camp Dawson RTI Chiller Replacement
- WVANG Child Development Center HVAC Upgrades
- USPFO Buckhannon Restroom Renovations
- WV Building 25 Lighting Upgrades
- Ronald McDonald House Morgantown Addition & Renovations
- McKeever Lodge Boiler Replacement
- Chief Logan Lodge HVAC Renovations
- Challenge Academy Maclin Hall Make-Up Air Unit Replacement
- Patriot Gardens Electrical Design

▪ Professional History

2022–Present	Miller Engineering, Inc.	MEP Designer
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▪ Education

2022	West Virginia University	BS — Electrical Engineering
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▪ Licenses & Certifications

- Preparing for the Fundamentals of Engineering (FE) Exam



MILLER ENGINEERING, INC.

Luke Summerfeldt

MEP Designer

Luke became a member of the Miller Engineering team in July 2026 after earning his degree from West Virginia University. As a recent graduate, he has embraced every opportunity to build his knowledge of MEP consulting and the engineering design process. He supports the MEP design team by performing design calculations and is quickly developing proficiency in industry software, including Autodesk Revit and Carrier's Hourly Analysis Program (HAP). In addition, Luke is gaining valuable experience with construction administration and expanding his understanding of building, electrical, and plumbing codes and standards. He is also preparing to take the Fundamentals of Engineering Exam as he works toward professional licensure.

▪ Project Role: Junior Engineer

- Design calculations and system layout on electrical, mechanical and plumbing systems
- Drafting of MEP systems

▪ Professional Project Highlights

- PVH ED OBS Addition and Renovation
- WVDNR Reed Fish Hatchery Generator
- WVDNR Elkins Garage HVAC
- WVANG Camp Dawson Billeting HW

▪ Professional History

2026–Present	Miller Engineering, Inc.	MEP Designer
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▪ Education

2026	West Virginia University	BS — Mechanical Engineering
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▪ Licenses & Certifications

- Preparing for the Fundamentals of Engineering (FE) Exam

Montum Architecture, LLC Firm Profile

Who We Are.

Montum Architecture, LLC was founded in 2017 to provide architectural design and consulting services. Montum Architecture is a Limited Liability Corporation filed in the state of West Virginia. The company is also registered in the State of Maryland as a foreign LLC. Montum is staffed by a licensed principal architect and a design professional. They work manage projects together, from conceptual to construction administration, allowing the utmost coordination of building plans and specifications with minimal potential for miscommunication.

Our Services

Government	Planning
Institutional	Building Assessment
K-12 schools	Architectural Detailing
Higher Education	Specification Writing
Multi-Dwelling	Contract Administration
Medical	Design/Bid/Build
Retail	Renovation
Emergency Services	Renderings
Automotive	Life Safety Evaluations
Financial	Design/Build
Warehouse	Project Management

Why Choose Us.

Communication

Tom Pritts will be the primary point of contact for Montum's architectural services. Montum will manage communication with the Owner, Contractor, and sub-consulted team of members on this project.

Project Budget

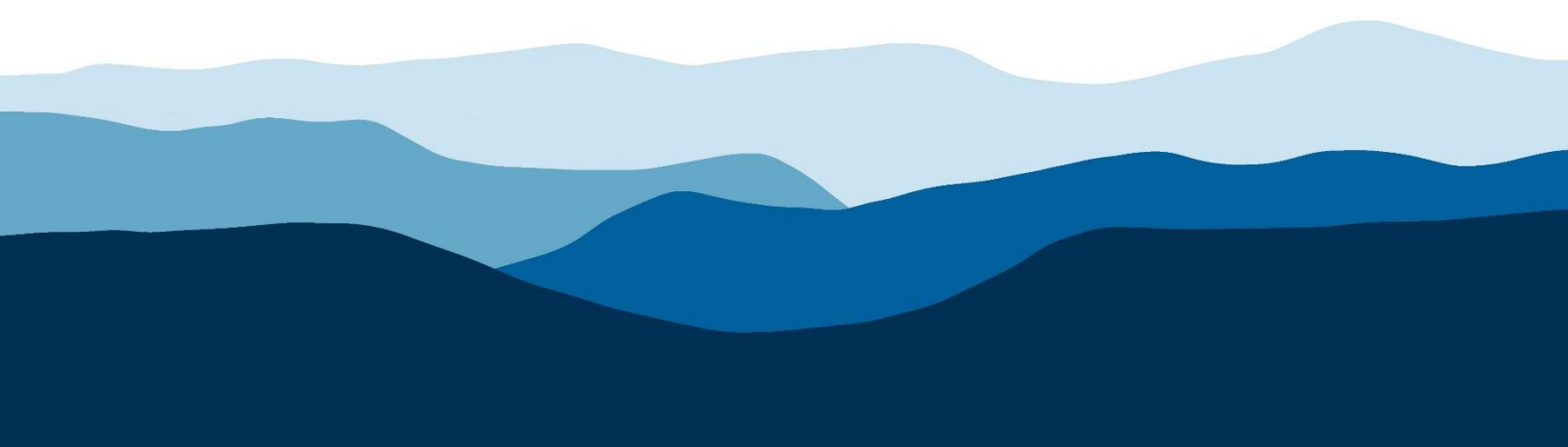
Previous work experience has shown a consistent +/-2%bid-to-budget ratio.

Project Schedule

Montum will monitor and adjust the design tasks in order to complete the design work in the established timetables. They will also work diligently during project construction to maintain the contractual constraints placed as part of the contractor's bid.

Design Software

Montum utilizes Autodesk Revit for all design projects incorporating three-dimensional modeling and parametric reporting. Existing condition documentation includes drone imaging, 360 camera shots, and handheld LiDAR telemetry.





Thomas Pritts, AIA, LEED-AP, CSI-CCS

Tom founded MontumArchitecture in 2017. He has more than 15 years experience in design, specification, and project management. During his former employment, Tomhas designed and managed dozens of built projects.His experience encompasses a wide range of projects including K-12 and higher education facilities, financial Institutions, emergency services buildings, and automotive dealerships. A native of Mineral County, Tom is member of the West Virginia Chapter of American Institute of Architects and was involved in the establishment of the US Green Building Council's West Virginia chapter. He is highly skilled in the design of complex building systems, technical construction detailing and specifying, and construction contract administration. These skills were critical in the development and maintaining of many multi-year, multi-project relationships with Clients in his previous employment.

Project Role: Relationship Manager – Primary Point of Contact

- Principal in Charge
- Design and Project Management
- Concept and Construction Design
- Quality Assurance and Control

Professional History

2017- Present	Montum Architecture	Architect
2004-2017	Alpha Associates	Associate and Architect
2003	Marshall Craft Associates	Architectural Intern

Education

2004	Virginia Tech	Bachelors of Architecture
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Licenses and Certifications

- Licensed Architect (West Virginia, Maryland)
- NCARB Certificate
- Construction Specifier Institute – Certified Construction Specifier
- LEED-AP Certified
- Part 107 Remote Pilot
- 30-hour OSHA Card

Associations and Memberships

- American Institute of Architects
- Mineral County Chamber of Commerce – 1st Vice President

Professional Project Highlights

- Potomac State College – Bachelor of Nursing Renovation
- Wyoming East High School HVAC Renovation – Wyoming County Schools, WV
- Mountainview and MTEC HVAC Renovation – Monongalia County Schools, WV
- Berkeley Springs State Park – Pool Bathhouse Roof Replacement
- Berkeley Springs State Park – Old Roman Bath Renovation
- Blackwater Falls State Park – Boiler Room Renovation
- Our Lady of the Mountains Parish – Bathroom Renovation
- Mountain View Assembly of God – Rec Hall Ceiling Design



Professional Project Highlights (former employment built projects)

- Potomac State College – ADA Connector Building, Church-McKee Plaza, Shipper Library Façade
- WVU Engineering Sciences Building – East Wing Addition, 10th Floor Fit-Out, Basement Renovation
- WVU Engineering Research Building – G07 & G08 Renovation
- WVU Equine Education Center
- WVU College of Physical Activities and Sports Sciences/ Student Health Center
- WVU Center for Alternative Fuel Engines and Emissions
- WVU Colson Hall Water Infiltration Repairs
- WVU Mountainlair Water Infiltration Repairs
- WVU Chemistry Research Laboratories Fit-Out
- WVU Creative Arts Center Wheelchair Lift
- Alderson Broaddus University –Pyles Arena Deck Replacement
- Glenville State College –Morris Stadium Skybox
- Washington High School, Jefferson County Schools, WV
- Pineville Elementary School, Wyoming County Schools, WV
- Huff Consolidated School, Wyoming County Schools, WV
- Aurora School Addition, Preston County Schools, WV
- Riverview High Field House Design-Build, McDowell County Schools, WV
- Safe School Entries, Monongalia County Schools, WV
- Morgantown High Elevator, Monongalia County Schools, WV
- 2010 Comprehensive Education Facilities Plan- Monongalia County Schools, Wyoming County Schools
- Clear Mountain Bank Branches, Oakland, MD - Reedsville, WV - Kroger-Sabraton, WV
- Grant County Bank, Petersburg, WV
- Fairmont Federal Credit Union, Bridgeport, WV
- Freedom Ford, Kia, and VolkswagenAutomotive Dealerships, Morgantown and Clarksburg, WV
- Jenkins Subaru Addition, Bridgeport, WV
- Elkins Fordland Renovation - Elkins Chrysler Dealership, Elkins, WV
- Harry Green Nissan Design-Build, Clarksburg, WV
- Cool Green Automotive Addition and Renovation, Shepherdstown, WV
- Veteran’s Affairs – OI&T Office Fit-Out, Shepherdstown, WV
- OPM, Eastern Management Development Center Addition, Shepherdstown, WV
- National Energy Technology Laboratory – Building B-8 Roof Replacement, Morgantown, WV
- US Coast Guard – Conference Room Renovation, Martinsburg, WV
- Eastern Panhandle Transit Authority Addition, Martinsburg, WV
- Cacapon State Park – Old Inn HVAC and Interior Renovation
- WV National Guard - Armory Office Fit-out, Parkersburg, WV
- South Berkeley Fire Station, Inwood, WV
- Jefferson County Emergency Services Agency – New Headquarters
- Berkeley County Ambulance Authority – South Station Renovation and Addition
- Poolhouse Renovation, McMechen, WV
- Community Center, Ridgeley, WV
- Wastewater Treatment Plant Renovations, Martinsburg, WV
- Public Works Building, Fairmont, WV
- Oatesdale Park Little League Fields, Martinsburg, WV
- St. Luke Canopy Replacement, Morgantown, WV
- Freshwater Institute – Aquaculture Building, Shepherdstown, WV
- Clarion Hotel Renovation, Shepherdstown, WV
- Shenandoah Village Apartments – Façade and Deck Replacement, Martinsburg, WV
- Regional Eye Associates/ Surgical Eye Center, Morgantown, WV
- Bavarian Inn – Infinity Pool/ Pool Bar, Shepherdstown, WV

Montum Architecture, LLC • 55 ER Path, Keyser, WV 26726 • 304-276-7151 • montumarch.com

General Services Division: Building 10, Holly Grove Manson



Jordyn Henigin, M.Arch

Since joining Montum Architecture in May 2020 she has been eager to enhance her skills in the business field and develop a stronger knowledge of architectural design principals and methods. Jordyn is currently a candidate for architectural licensure.

Project Role: Design Professional

- Concept and Construction Design
- Building Information Modeling – Revit
- Architectural Rendering - Lumion

Professional History

2020- Present	Montum Architecture	Design Professional
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Education

2020	Fairmont State University	Bachelors of Architecture
2022	Fairmont State University	Masters of Architecture

Licenses and Certifications

- LEED-Green Associate
- 30-hour OSHA Card

Professional Project Highlight

- WVU Medicine Potomac Valley Hospital OR Renovation, Keyser WV
- WVANG Camp Dawson FMS 4, Kingwood WV
- WVU Medicine Potomac Plaza Phase 4, Keyser WV
- WVANG Tri-State Readiness Addition, Kenova WV
- WVU Medicine Garrett Regional Medical Center Radiology Renovation, Oakland MD
- Watters Smith State Park, Lost Creek WV
- Mon Co Schools Transportation Addition, Morgantown WV
- Jackson Co ARFC Wash Bay, Millwood WV
- BUMFS Staggers Recovery, Burlington WV
- BUMFS Knobley Rehab, Burlington WV
- Aging & Family Services of Mineral County - Keyser Senior Center, Keyser WV
- Mineral County Detention Center, Courthouse, and Annex addition and renovations, Keyser WV
- Larenim Park Amphitheater, Burlington WV
- Building 25 HVAC, Parkersburg WV
- WVGSD Elevator Modernizations
- Westside HVAC and Roof, Clear fork WV
- Ed Kelley Memorial, Keyser WV
- Cass Campground, Cass WV
- Waxler Warehouse, Keyser WV
- Greenbrier SF Headquarters, White Sulphur Springs WV
- FWAATS, Bridgeport WV
- WV Challenge Academy Maclin Hall

ARROW

STRUCTURAL ENGINEERING

ARROW'S MISSION

Since 2016, Arrow Engineering has been dedicated to delivering top-tier structural engineering solutions that exceed expectations. Drawing from his extensive background as a contractor, civil engineer, and structural engineer, Michael Howell founded Arrow Structural Engineering to bring a unique blend of practical experience and innovation to every project.

At Arrow Engineering, we understand the paramount importance of a sturdy foundation and impressive design. Whether it is a commercial, industrial, governmental, historic preservation or residential venture, our team is committed to crafting solutions that exceed industry standards. With a focus on safety and durability, trust us to bring your structural visions to life with precision and expertise.



ARROW'S LEADERSHIP



MICHAEL HOWELL, P.E. S.E.
President

Mike's passion for construction began in his youth in New Brighton, Pennsylvania, where early hands-on experiences and volunteer work fueled his interest in structures. He earned a B.S. in Civil and Environmental Engineering from the University of Pittsburgh and an MBA from West Virginia University. His professional journey includes roles at firms such as American Bridge Company, McKinney and Company, Brockenbrough and Associates, and Allegheny Design Services. An active member and leader in groups like the American Society of Civil Engineers and the Richmond Joint Engineers Council, Mike also gives back to his community through board service with organizations like Pace Enterprises and the Spark Imagination and Science Center. Based in Morgantown, West Virginia, he enjoys coaching youth sports and spending time with his two children. As a speaker, he presents on topics such as engineering failures, leadership, and historical insights into modern construction.



CAROL STEVENS, P.E. F.ASCE
Chief Engineer

Carol Stevens is a leading structural engineer with decades of experience designing and rehabilitating critical infrastructure throughout West Virginia and beyond. A graduate of West Virginia University and The Pennsylvania State University, she has led CAS Structural Engineering as president since 2001, contributing to landmark projects at Twin Falls, Hawks Nest, and Pipestem State Parks, as well as historic restorations like the First Presbyterian Church and the West Virginia State Capitol Complex. Her award-winning work on the Upshur County Courthouse, Robinson Grand Performing Arts Center, and the Main Capitol Building Dome has earned recognition for design excellence. Actively involved in the American Society of Civil Engineers and the National Society of Professional Engineers, Carol also serves on the West Virginia Board of Registration for Professional Engineers and advises academic institutions, reflecting her dedication to mentoring future engineers and advancing the profession.

ARROW'S TEAM



ASHBEE SYKES, P.E. S.E.
Senior Engineer

Originally from Kitty Hawk, North Carolina, Ashbee brings a deep understanding of construction and structures to his work as a structural engineer. His background working with a family construction business provided hands-on experience ranging from framing houses to engineering multimillion-dollar projects, informing his approach to the intricacies and impact of design decisions. Inspired by his early days as a carpenter, Ashbee's journey led him to West Virginia. A graduate of West Virginia University with degrees in Mechanical and Aerospace Engineering, Ashbee is currently advancing his expertise in Structural Engineering at The Citadel. As a licensed Professional Engineer since 2019, he's committed to delivering excellence in every project.



ALEX YODER
Junior Engineer

From working in his father's wood shop to building storage sheds and remodeling houses, a passion for design and construction eventually led Alex to pursue a B.S. in civil engineering with a focus on structures from Bucknell University in Lewisburg, PA.



PHILLIP BAILEY, P.E.
Project Engineer

With a background in civil engineering and construction management, Phillip brings practical experience and academic knowledge to our projects. Phillip holds B.S. in Civil Engineering from West Virginia University, and has a background in construction management working for Yates Construction on the WVU Medicine Children's Hospital. Having worked on significant projects like WVU Medicine Children's Hospital, Phillip is well-prepared to lead complex building and design endeavors. As a licensed Engineering Intern in West Virginia, he's committed to delivering top-notch results. Phillip is a member of West Virginia University's Chi Epsilon Honorary Academic Fraternity.



ZACHARY HOWELL
CAD TECHNICIAN

As Arrow's sole CAD Technician, Zachary plays a vital role in the team. His expertise in engineering technology and design enables him to create both 2D and 3D designs, ensuring Arrow produces top-quality plans for superior structures. Beyond design, Zachary also assists with field work, measuring structures and conducting assessments. His attention to detail makes him an essential part of the team. Zachary received AutoDesk Certification from the Virtual Design Construction Institute, further validating his skills in CAD.

Michael Howell, PE SE

President



EDUCATION

University of Pittsburgh
BSCE, 2005
West Virginia University, Executive Program
MBA 2014
The Pennsylvania State University
PhD of Engineering *Expected 2027*

PROFESSIONAL REGISTRATION

P.E. Alabama
P.E. Arkansas
P.E./S.E. California
P.E. Kentucky
P.E. Maryland
P.E. Missouri
P.E. North Carolina
P.E. Ohio
P.E. Pennsylvania
P.E. Tennessee
P.E. Virginia
P.E. West Virginia

BACKGROUND SUMMARY

2019 – Present	Arrow Structural Engineering <i>President</i>
2012 – 2019	Allegheny Design Services <i>Director of Sports & Recreation</i> <i>Senior Structural Engineer</i>
2008 – 2012	Brockenbrough and Associates <i>Structural Engineer</i>
2007 – 2008	McKinney and Company <i>Civil Engineer</i>
2005 – 2007	American Bridge Company <i>Field Engineer</i>

PROFESSIONAL SUMMARY

A 2005 graduate of the University of Pittsburgh with a Bachelor of Science in Civil Engineering and a 2014 graduate of West Virginia University with a master's degree in business administration. Licensed in numerous states as both a Professional Engineer and Structural Engineer. Experience in residential, commercial, heavy-highway, and industrial projects. Structural Engineering experience includes the design, specification, and evaluation of all typical construction materials including timber framing, structural steel, cold-formed steel, cast-in-place concrete, precast concrete, masonry, and aluminum. Performed forensic investigations, structural assessments, and has been a consultant for attorneys, real estate agents, insurance companies, and property owners in several legal cases. Expertise in historical and existing building assessments and renovations, risk assessment, structural failure and analysis, foundation design, subsidence evaluation, seismic and wind force detailing, and constructability assessments. Employment history includes tenures as a contractor, field engineer, civil engineer and structural engineer. Has presented numerous times on engineering management practices, design methods, and project case studies.

PROFESSIONAL ASSOCIATIONS

Pace Enterprises Board of Directors
Habitat for Humanity Construction
Barlett House Board of Directors
Spark Innovation and Science Center Board President
American Society of Civil Engineers Branch President
Richmond Joint Engineers Council Chair
Structural Engineers Institute Business Practice
ASCE 7 Timber Design Subcommittee

Carol A. Stevens, PE, F.ASCE

Chief Engineer

EDUCATION

West Virginia University, BSCE, 1984

Chi Epsilon National Civil Engineering Honorary
The Pennsylvania State University, ME Eng Sci, 1989

PROFESSIONAL REGISTRATION

P.E.	1990	Pennsylvania
P.E.	1991	West Virginia
P.E.	1994	Maryland
P.E.	2008	Ohio
P.E.	2010	Kentucky
P.E.	2013	Virginia

BACKGROUND SUMMARY

2025 – Present	Chief Engineer Arrow Structural Engineering
2001 – 2025	President, Structural Engineer CAS Structural Engineering, Inc.
1999 – 2001	Structural Engineer Clingenpeel/McBrayer & Assoc, Inc.
1996 – 1999	Transportation Department Manager Structural Engineer Chapman Technical Group, Inc.
1995 – 1996	Structural Engineer Alpha Associates, Inc.
1988 – 1995	Structural Department Manager Structural Engineer NuTec Design Associates, Inc.
1982 – 1988	Engineer AAI Corporation, Inc.

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers
National Society of Professional Engineers
American Concrete Institute
American Institute of Steel Construction
West Virginia University Department of Civil and
Environmental Engineering Advisory Committee
West Virginia University Institute of Technology
Department of Civil Engineering Advisory Committee
West Virginia Board of Registration for Professional
Engineers



EXPERIENCE

West Virginia, Public Service Commission: Completed investigation of exterior facade issues related to water infiltration, flashing degradation and potential design issues.

West Virginia, State Capitol Complex, Capitol Cafeteria: Investigated problems with support of structure above glass window walls and developed repair solution.

West Virginia, State Capitol Complex, Dome Structure: Exploratory investigation, preparation of construction documents for repairs to structural steel in Capitol Dome.

West Virginia, State Capitol Complex, Building 3: Structural design and construction administration of repairs and renovations to limestone canopy.

West Virginia, Eastern West Virginia Regional Airport: Designed foundations and structural steel framing for new 2-story terminal building.

West Virginia, Kanawha County Schools: Structural design of additions and renovations to George Washington, Sissonville, Herbert Hoover, South Charleston and Nitro High Schools.

West Virginia, Sharpe Hospital HVAC Renovations: Designed framing for piping enclosures, tank and generator foundations, cooling tower foundations, steel structure support and other miscellaneous support designs and analyses for complete redesign of HVAC systems in existing facility.

West Virginia, Covenant House: Structural design of new 3-story, 13,700 SF steel frame and light-gauge steel roof truss building.

West Virginia, Twin Falls Resort State Park Addition: Structural design for new 3-story, 36,600 SF expansion to existing lodge facility, including conference rooms and new indoor pool.

West Virginia, Logan Middle School: Structural analysis for HVAC upgrades.

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We offer a full suite of project visualization services to help you plan, build, and manage better:

PLAN | BETTER.

Prevent rework and delays with accurate as-built documentation, including utility maps, 2D CAD, and BIM models ■

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- EXISTING CONDITIONS DOCUMENTATION
- BIM MODELING
- 3D PHOTOGRAMMETRY & LASER SCANNING
- AS-BUILT CREATION
- CLASH DETECTION

BUILD | BETTER.

Dig, drill, and build with certainty using accurate subsurface and infrastructure data ■

CONSTRUCTION

- GROUND PENETRATING RADAR (GPR)
- CONCRETE SCANNING
- UTILITY LOCATING
- WATER LEAK DETECTION
- CCTV VIDEO PIPE INSPECTION
- 3D LASER SCANNING

MANAGE | BETTER.

Access up to date, layered facility records in SiteMap®, available 24/7 and securely shareable ■

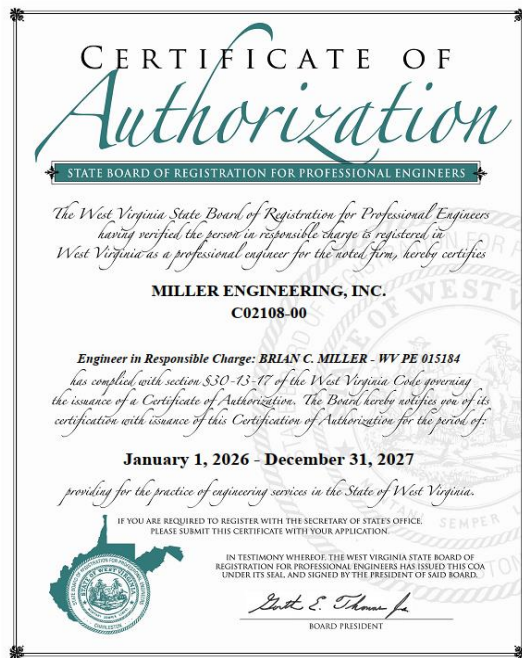
FACILITY & PROJECT MANAGEMENT

- SITEMAP GIS PLATFORM
- VIRTUAL TOURS
- UPDATED FLOORPLAN AND REFLECTED CEILING PLANS
- BOMA MEASUREMENTS
- DIGITAL PLAN ROOM
- AS-BUILT DRAWING UPDATES

Our Rapid Response Team of Project Managers serve every major U.S. market, and all are trained in Subsurface Investigation Methodology (SIM), the most rigorous and specialized non-destructive investigation training available. There's a reason we call our field team Project Managers. It is because they are highly trained to provide a consultative approach to your job – to go above and beyond to provide you with the accurate information you need. **In many cases, you can have a Project Manager on site within 48 hours, almost anywhere in the country.**

We provide complimentary SiteMap® Personal access and free PDF and .KMZ files of every outdoor utility locate, and can craft customized reports, maps, and models to meet your needs, from pre-planning and prefabrication through operation and maintenance.

The GPRS Difference: GPRS has a 99.8% accuracy rate in utility locating and concrete scanning because providing accurate data isn't just about using the best technology, it's about making sure the people using it are the best in the business.





EXPRESSION OF INTEREST

TAB 2

Project Organization



Proposed Staffing Plan

Miller Engineering proposes the following multidisciplinary team for the Combined Support Maintenance Shop Exhaust System Repairs. Each firm and individual is committed to the project for its full duration.

MILLER ENGINEERING, INC. — Prime Consultant

Craig Miller, PE	President, Principal-in-Charge
Travis Taylor, PE	Lead MEP Engineer
Tyler Trump	MEP Designer
Luke Summerfeldt	MEP Designer

MONTUM ARCHITECTURE — Architecture

Tom Pritts, AIA	Architect, Owner
Jordyn Henigin	Design Professional

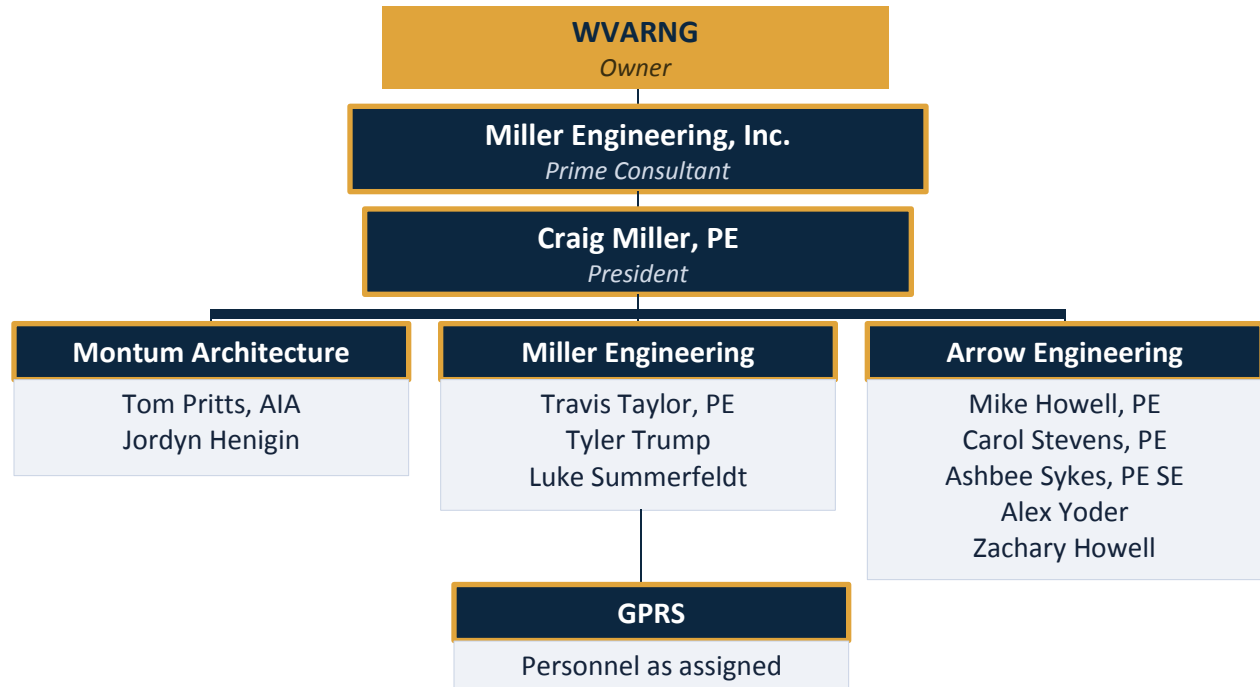
ARROW ENGINEERING — Structural / Civil

Mike Howell, PE	President
Carol Stevens, PE	Chief Engineer
Ashbee Sykes, PE SE	Senior Engineer
Phillip Bailey, PE	Project Engineer
Alex Yoder	Junior Engineer
Zachary Howell	CAD Technician

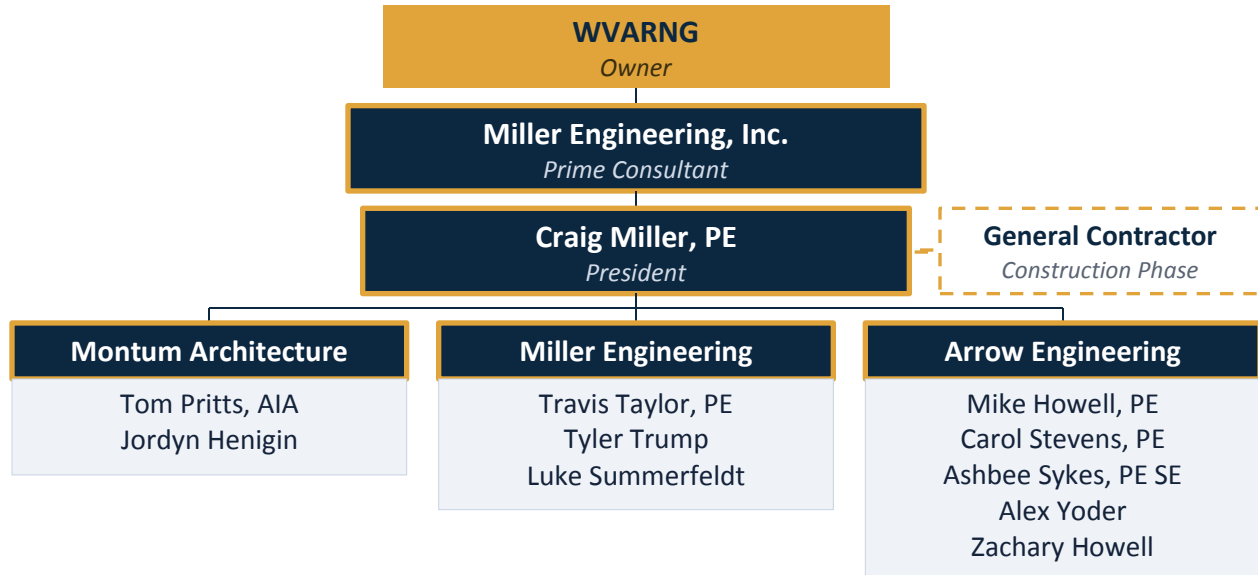
GPRS UTILITY LOCATING SERVICE

Personnel as assigned to meet Owner/ Project need	
---	--

Organization Chart — Design Phase



Organization Chart — Construction Phase



-- Coordination / construction-phase services



EXPRESSION OF INTEREST

TAB 3

Experience



EXPERIENCE · MECHANICAL & ELECTRICAL

WVARNG FMS4 Renovations

Kingwood, WV



PROJECT OVERVIEW

MEI was selected to design the renovations of the Field Maintenance Shop #4 (FMS4) located at Camp Dawson in Kingwood, WV. We, along with Montum Architecture and Arrow Engineering, designed the project to address several concerns including hose reel concerns, water infiltration of the roof and walls, re-purposing interior office space, security concerns, and the addition of a non-attached outdoor covered equipment wash pad. Through interaction with the Owner's stakeholders, we design a project which addresses their concerns and it is preparing to go to bid.

PROJECT FACTS

SERVICES PROVIDED

- › Mechanical
- › Electrical
- › General Trades

CONSTRUCTION COST

TBD

OWNER

WVANG

COMPLETED

Estimated October 2027

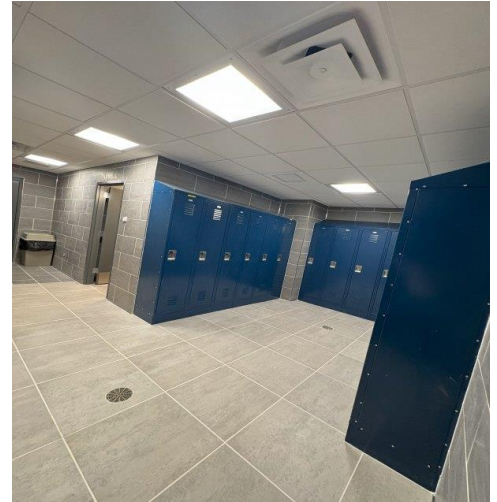
PROJECT CONTACT

CPT Charles Laughlin

WV ANG – Camp Dawson
(304) 374-1850

USPFO Buckhannon Restroom Renovations

Buckhannon, WV



PROJECT OVERVIEW

MEI was the Engineer of Record for the renovations to the restrooms and locker rooms at the United States Property & Fiscal Office (USPFO) in Buckhannon, WV. The front restrooms were reconfigured into three single-use restrooms and one lactation room. The locker rooms were configured as single-use restrooms with showers that share a common locker area. Montum Architecture provided architectural support and selection of finishes. The previously successful Bridgeport FWAATS restroom layout and finishes served as the basis for USPFO. Also included were renovations to the break room and select office spaces, with corridor carpeting replaced by luxury vinyl tile. The project was completed in July 2025.

PROJECT FACTS

SERVICES PROVIDED

- › Renovation
- › MEP Renovation
- › Construction Administration

CONSTRUCTION COST

\$1.2M

FACILITY AREA

4,000 SF

OWNER

WVANG

COMPLETED

July 2025

PROJECT CONTACT

Jim Skaggs

WV ANG

(304) 561-6550

WVARNG Camp RTI Dawson Chiller and Boiler Replacement, and Domestic Hot Water Renovations

Kingwood, WV



PROJECT OVERVIEW

MEI was tasked with quickly implementing a Phase 1 to replace two failing chillers and the HVAC pumps serving the Regional Training Institute (RTI) cooling needs. The replacement involved phasing the installation to prevent significant downtime to the facility. MEI devised a sequence involving “one big outage” which drained the cooling system and added isolation valves to permit all subsequent work to be performed with minimal impact. The new pump installation included reconfiguring the location of VFDs and an isolation transformer to bring them into NEC compliance for personnel safety. The Chiller Replacement project phase was completed in June 2026 with no disruption to operations. The screw chillers and pumps are performing well and there are no outstanding concerns for Phase 1. The follow-on project phases will replace the boilers and renovate the domestic hot water system to address recirculation concerns. The hot water renovations are out to bid, and the boiler replacement includes a building controls replacement which is under design at this time.

PROJECT FACTS

SERVICES PROVIDED

- › Mechanical
- › Electrical
- › General Trades

CONSTRUCTION COST

\$846K

OWNER

WVANG

COMPLETED

Jun 2026

PROJECT CONTACT

CPT Charles Laughlin

WV ANG – Camp Dawson
(304) 374-1850

WVANG Challenge Academy — Maclin Hall MAU Replacement

Montgomery, WV



PROJECT OVERVIEW

MEI was tasked with replacing two failing make-up air (MAU) units at Maclin Hall, which provide ventilation air for the facility. The replacement involved installing new rooftop mounting curbs and replacing rooftop-mounted ductwork. New exhaust fans were installed on the roof and tied into the existing exhaust / relief-air systems, and new electrical feeds were run to the new MAUs and fans. Montum Architecture assisted with the addition of rooftop railing to improve worker safety and the replacement of roof hatches and access ladders. The project was completed in January 2024 with no disruption to Challenge Academy operations.

PROJECT FACTS

SERVICES PROVIDED

- › Mechanical
- › Electrical
- › General Trades

CONSTRUCTION COST

\$496K

OWNER

WVANG

COMPLETED

January 2024

PROJECT CONTACT

Jim Skaggs

WV ANG

(304) 561-6550

Freedom Automotive Dealerships

Granville, WV & Bridgeport, WV



PROJECT OVERVIEW

Miller Engineering was the MEP consultant for three new dealerships from Freedom Automotive: Ford, Kia, and Volkswagen. Each facility required complete design of HVAC, plumbing, electrical, fire protection, fire alarm, and communications for the showrooms, offices, service departments, and support spaces. The dealerships form a “campus” in which the Ford dealership acts as the main building and sub-feeds Kia and Volkswagen, requiring MEI to design interconnecting utilities between buildings. The Ford dealership uses waste-oil boilers that burn used oil as a heating source, along with radiant in-floor heating. All three buildings had to satisfy the owner’s requirements in addition to the brand standards of Ford, Kia, and Volkswagen. MEI and Alpha also designed an additional Kia dealership for Freedom Automotive in Clarksburg, WV — similar to the Granville location, but a stand-alone facility.

PROJECT FACTS

SERVICES PROVIDED

- › HVAC
- › Electrical
- › Plumbing
- › Building Automation
- › Fire Protection
- › Fire Alarm

MEP BUDGET

\$3.6M

OWNER

Freedom Automotive

PROJECT CONTACT

Brian Gaudiano

Omega Construction

(724) 209-8200

Jenkins Subaru Dealership Addition

Bridgeport, WV



PROJECT OVERVIEW

Miller Engineering teamed with Alpha Associates to design an addition to the Jenkins Subaru & Hyundai dealership in Bridgeport, West Virginia. The addition comprised a service drop-off, a new-car dealership, a quick-lube service area, and a lounge and service-reception area for Subaru. Some existing financial and office spaces received minor renovations. The new areas were provided with new HVAC systems, electrical, fire alarm, plumbing, and LED lighting, and the addition required upgrades to the facility's electric and natural-gas services.

PROJECT FACTS

SERVICES PROVIDED

- › HVAC
- › Electrical
- › Plumbing
- › Fire Alarm

FACILITY AREA

23,700 SF

ADDITION AREA

8,400 SF

OWNER

Jenkins Subaru

EXPERIENCE • ELECTRICAL

MTEC Welding Shop

Monongalia County, WV



PROJECT OVERVIEW

The Monongalia County Technical Education Center (MTEC) saw increased interest in its welding program and converted the existing auto-body shop into a new, larger welding shop. The MCBOE purchased welding equipment, booths, and welding exhaust under a separate contract; Miller Engineering was contracted to design the new electrical distribution for the shop. New bus way was installed around the shop with receptacles for welders, plasma cutters, grinders, and similar tools, configured to let the shop reconfigure its layout around current equipment. Emergency pushbuttons were placed in several locations so instructors and students can safely disconnect power to the entire shop in an emergency. MEI also provided power for the exhaust booths and fans installed under the separate contract. This project was completed in March 2017.

PROJECT FACTS

SERVICES PROVIDED

› Electrical

ESTIMATED BUDGET

\$150K

CONTRACT AMOUNT

\$130K

OWNER

Monongalia County BOE

STATUS

Complete — 2017

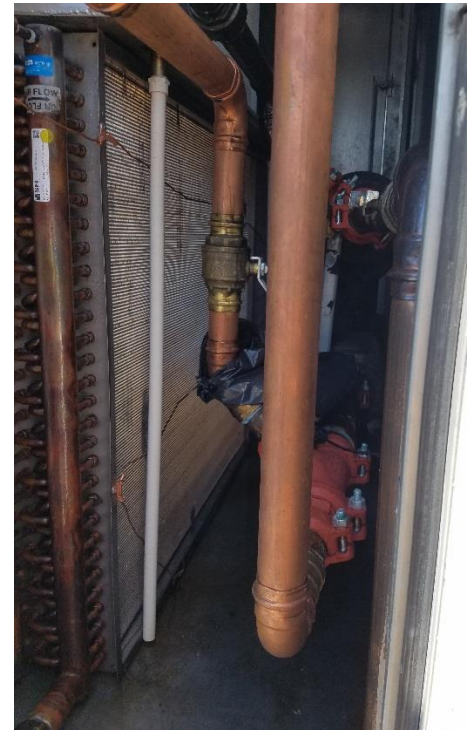
PROJECT CONTACT

Bob Ashcraft

Monongalia County Schools (Ret)
(304) 363-4079

WVGSD Building 54 HVAC Evaluation and Upgrade

Fairmont, WV



PROJECT OVERVIEW

The Owner requested MEI evaluate the HVAC systems related to Building 54 in Fairmont WV. The building had experienced operational concerns related to cooling since construction. We reviewed the design and performed a field evaluation, reviewing the circumstances of the concerns in detail with the Owner and maintenance staff. We determined that the systems were sized for cooling assumptions related to an ice storage system which did not work in practice. The sizing of equipment also gave significant credit for the ice storage which lead to equipment under sizing, confirmed by modeling the entire building for the HVAC load. MEI designed retrofits of cooling coils for the building air handling units, one with ¼ inch to spare, to increase the cooling capacity of the units to meet the required load, avoiding significant cost in air handling systems replacements. The ice storage system was removed and a new, larger capacity, high efficiency chiller was installed, along with piping changes, and a controls upgrade, to create a much more operational and robust system. The building now cools properly and has went from the bottom of the Owner's energy efficiency listing to near the top.

PROJECT FACTS

SERVICES PROVIDED

- › Mechanical
- › Electrical
- › General Trades

CONSTRUCTION COST

\$2.189M

OWNER

WVANG

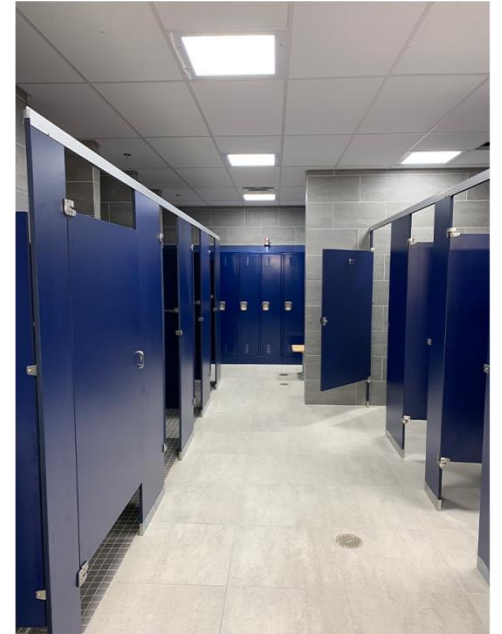
COMPLETED

Aug 2024

PROJECT CONTACT

David Parsons

WV General Services Division
(304) 550-9650



WVANG Bridgeport FWAATS Restroom Renovations

Description of Project:

In Partnership with Miller Engineering, Montum Architecture helped prepare renovated floor plans for two locker / shower rooms and two restrooms. The goal was to renovate the spaces to meet ADA guidelines and improve efficiency and utilization of the areas. As well as, choose appropriate finishes that bring these spaces into the modern era. The flooring on the first floor was also replaced under this project. MEI designed renovations to the plumbing, lighting, fire alarm, fire protection, electrical, and VAC systems to accommodate the changes to the floor plans. The existing boiler was replaced with two, high efficient, modulating boilers. The owner was pleased with the chosen finishes and plans to use these as a standard going forward.

Construction Cost
\$1M

Project Size
1,400SF Renovated

Project Location
Bridgeport, WV

Construction Completion
May 2023

Contact
Jim Skaggs
WV ANG
(304) 561-6550



Mineral County Commission

Facility Renovations and Additions

Description of Project:

The Mineral County Commission operates three primary buildings at the Courthouse Complex which are the Courthouse, the Judicial Annex, and Sheriff Building. Additional office space is provided via a second-story addition to the Sheriff Building with elevator access. The Courthouse gains a security checkpoint vestibule, egress stair, and elevator access to all three existing floors. The Judicial Annex improvements include the fit out of the existing second floor, an addition of a security checkpoint vestibule, egress stair, and elevator. The project includes fire alarm and sprinkler system installations for code compliance.

Construction Cost

\$8.5 Million

Project Size

40,000 SF Existing

10,500 SF New

Project Location

Keyser, WV

Construction Completion

Spring 2025

Contact

Luke McKinzie
County Coordinator
304-788-5921



Before



After

Short Gap Volunteer Fire Department Renovation & Addition

Description of Project:

Short Gap Volunteer Fire Department contracted Montum Architecture to design a single-story addition to the apparatus bay and a two-story addition to the social hall/ office/ crew quarter portion of the building. The addition includes a 20-foot expansion to the front of the building that houses: additional apparatus storage space, restrooms, stair reconfiguration, replacement gear storage space, laundry, and replacement of garage doors.

Construction Cost

\$ 782,800

Project Size

3,200 SF Addition

Project Location

Ridgeley, WV

Construction Completion

Spring 2020

Contact

Project Contact:

Luke Harrison

Short Gap VFD President

(304) 726-4388

BRIDGEPORT FIRE DEPARTMENT

BRIDGEPORT, WV

PROJECT TYPE:

Municipal / Residential

PROJECT SUMMARY

This project showcased Arrow's ability to blend functionality, resilience, and visual impact through the structural design of a new fire department facility in Bridgeport, West Virginia. Designed to meet the demanding operational needs of first responders, the facility was engineered using a robust combination of masonry bearing walls, cast-in-place concrete slabs, and a meticulously designed steel framing system. Together, these components provided a durable structural solution capable of withstanding both the test of time and the rigors of emergency services operations.

A standout feature of this project was the incorporation of exposed structural steel roof trusses. These trusses were not only engineered to deliver the necessary roof support and load transfer but were also designed with visual expression in mind. Finished in a striking firehouse red, they created a bold architectural statement that complements the utilitarian materials throughout the building. By leaving these trusses exposed, the design celebrates the strength and precision of the structure itself—bringing engineering into the spotlight as a visible and integral design element.

From concept through construction, our team collaborated closely with architects and contractors to ensure seamless integration of aesthetics and performance. The result is a civic facility that is as structurally sound as it is visually iconic—serving both the community's emergency response needs and the city's architectural landscape.



SPENCER MIDDLE SCHOOL

SPENCER, WV

PROJECT TYPE:
Primary Education

PROJECT SUMMARY

The expansion of Roane County High School in Spencer, West Virginia, presented a unique and complex set of structural challenges—driven largely by the site's uneven topography and existing fill conditions. Our firm was engaged to deliver a structural solution that not only integrated seamlessly with the existing campus but also ensured long-term stability, safety, and performance in a geotechnically sensitive environment.

The site's natural hillside contours, combined with years of accumulated fill material, required an innovative approach to the foundation system. After extensive geotechnical evaluation and subsurface testing, our team designed a deep foundation system anchored directly into bedrock. This solution provided the necessary support for the new addition, effectively mitigating the risk of settlement and ensuring consistent performance despite the variability in soil conditions.

The structural system of the building addition included durable masonry walls, chosen to match the architectural language of the existing school while also providing long-term resilience. Beyond their functional value, the masonry elements contributed to visual continuity across the campus, reinforcing the expansion's role as a natural extension of the original facility.

Collaboration with geotechnical engineers played a critical role throughout the project. Our teams worked in tandem to develop a cost-effective, structurally sound foundation strategy that addressed the site's sloped terrain and heterogeneous subsurface conditions. The result was a successful expansion that met the school district's growing needs while upholding the highest standards of structural integrity and design coordination.



ROBINSON GRAND THEATRE

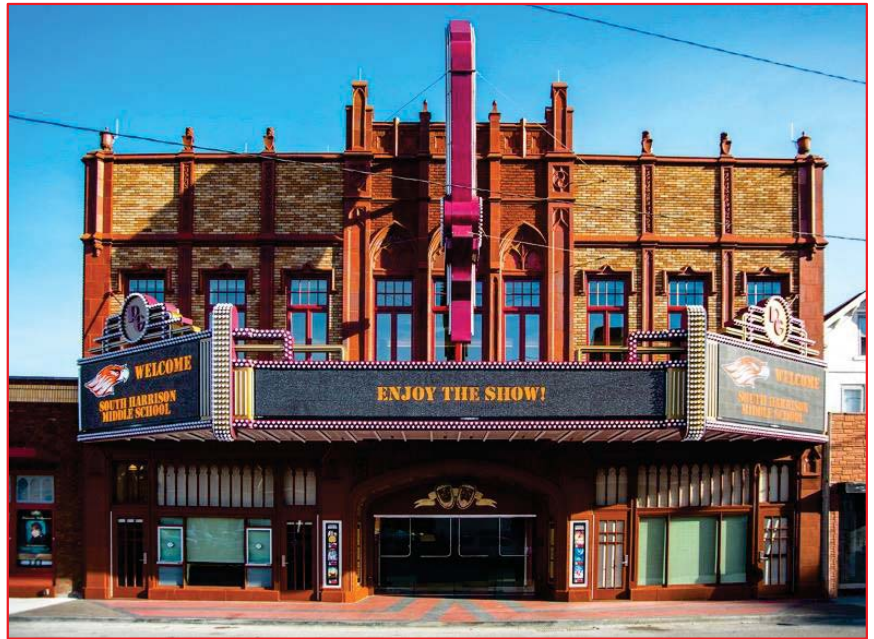
CLARKSBURG, WV

PROJECT TYPE: Historic Preservation

PROJECT SUMMARY

Originally constructed in the early 1900s and partially rebuilt in 1939 following a devastating fire, this historic performance venue underwent a significant restoration and expansion effort. The project preserved the surviving front portion of the building while the rear auditorium and stagehouse—lost in the fire—were reconstructed. Listed on the National Register of Historic Places, the structure required sensitive interventions to meet modern standards while retaining its historic character.

To bring the building up to code, new framing and structural reinforcement were installed beneath the second-floor ballroom. The design also introduced a two-story side addition, incorporating dressing rooms for performers on the first floor and flexible conference space on the second. Additional structural modifications were made to improve accessibility and provide compliant egress, ensuring the building remains a vibrant and functional cultural asset for future generations.





A GPRS Case Study

GPRS ENSURES SAFE EXCAVATION OF LEAKING UTILITY LINE



HIGHLIGHTS

THE BOTTOM LINE

GPRS provided accurate data on the utilities inside a buried pipe that had been used as a utility tunnel at a power substation to assist with the repair of an unknown leaking utility.

TASK

Locate all utilities in and around a buried concrete or asbestos pipe, and investigate a possible void near these lines, to assist with the safe repair of a leaking utility.

PROBLEM

- A petroleum and natural gas electrical power station had a suspected leaking utility line that they believed was also causing a void
- The leaking utility was encased in a concrete or asbestos pipe, which also contained several other utilities that had all been buried for over 40 years
- There was no way to access this utility pipe, which sits under a newer steel building on the property

SOLUTION

- GPRS deployed ground penetrating radar and electromagnetic locating to map the utilities in and around the buried pipe
- The Project Manager also identified the likely location of the leaking utility, which aligned with data the client acquired with a thermal imaging gun
- GPRS went beyond the original project scope and located expansion joints along the buried utility tunnel
- In addition to marking out located utilities with spray paint on the asphalt, the data was uploaded into SiteMap®

BENEFITS

- The client was able to avoid destructive and potentially dangerous exploratory potholing to find the leaking utility line
- The accurate, actionable data obtained by GPRS will expedite the repair process by ensuring they only need to dig once
- All stakeholders have 24/7, secure access to this field-verified data thanks to SiteMap®, which is available via computer, tablet, or smartphone

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TRACK RECORD

Similar Projects — Budget & Delivery History

MEI delivers on budget and on schedule. The records below summarize budget and delivery performance on recent, similar projects.

BUDGET HISTORY				
Project Name	Description	Budget	Cost	Notes
Bluestone State Park	Pool Replacement	\$1,000,000	\$935,600	6% Under Budget
WV State Building 25	HVAC Piping	\$650,000	\$533,400	18% Under Budget
Canaan Valley Resort	Electrical Emergency Repairs	\$225,000	\$129,829	42% Under Budget
Mapletown Elevator	Elevator Addition	\$650,000	\$440,000	32% Under Budget
Kanawha State Forest Campground	Electrical Upgrades	\$300,000	\$279,000	7% Under Budget
WV Wildlife Center	Electrical Upgrades	\$300,000	\$303,000	1% Over Budget
USPFO Buckhannon Restroom Renovations	Renovation	\$1,200,000	\$1,040,000	13% Under Budget

PROJECT DELIVERY HISTORY				
Project Name	Description	Contract	Delivery	Notes
Bluestone State Park	Pool Replacement	180 Days	180 Days	On Time
Bridgeport FWAATS Restroom Renovations	Locker / Restroom Renovations	240 Days	196 Days	Expedited Design
Camp Dawson FMS4 Fire Protection	Fire Protection	150 Days	115 Days	Delivered 1 Month Early
ChalleNGe Academy Maclin Hall MAU Replacement	HVAC Renovation	180 Days	171 Days	Delivered 9 Days Early
Mapletown Jr/Sr High School	HVAC Renovation	180 Days	180 Days	On Time
MTEC Welding Shop	Electrical Renovation	90 Days	90 Days	On Time
Pipestem McKeever Lodge	HVAC Piping	365 Days	365 Days	On Time w/ Extensive Coordination

WHAT PEOPLE SAY

References

WHAT OUR CLIENTS SAY

"Hard-working, do-whatever-it-takes, diligent team that provides excellent customer service is what you can expect from Miller Engineering."

— Chris Halterman, Dominion Post, Morgantown

"As a design/build team, working with Miller Engineering on a private surgical hospital was a success — completed ahead of schedule and on budget. Miller worked with us throughout the project to consult, engineer, and inspect the mechanical systems. Craig Miller, PE and his staff are working with us again and are very important members of our design/build team. I highly recommend their services."

— Richard J. Briggs

"Miller Engineering is not your average engineering company; they work with the owner AND the contractor to solve all issues that arise throughout the project to make the process as fluid as possible."

— Jonathan Miller, Mechanical Project Manager, Nitro Mechanical

PROJECT REFERENCES

Roger Wolfe

Project Engineer

WV Division of Natural Resources
1000 Conference Center Drive
Logan, WV 25601

(304) 885-6100

roger.c.wolfe@wv.gov

Jim Skaggs

Technical Analyst

WVARNG – Division of Engineering & Facilities
1707 Coonskin Dr.
Charleston, WV 25311

(304) 561-6550

robert.a.skaggsii.nfg@army.mil

Cindy Fisher

Procurement Administrator

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(304) 558-2221

cfisher@wvda.us

Bob Ashcraft

Safety and Ancillary Projects

Monongalia County Schools
533 East Brockway Street
Morgantown, WV 26501

(304) 657-4079

Dave Parsons

Energy Program Manager

WV General Services
112 California Avenue, Building 4, 5th Floor
Charleston, WV 25305

(304) 957-7122

David.K.Parsons@wv.gov

Richard J. Briggs

Vice President

Lutz Briggs Schultz & Assoc., Inc.
239 Country Club Drive
Ellwood City, PA 16117-5007

(724) 651-4406

lbsa@zoominternet.net



EXPRESSION OF INTEREST

TAB 4

Methodology and Approach



TAB 4 • OUR APPROACH

Project Methodology & Approach

Miller Engineering approaches the AASF#2 HVAC Renovations Project as a single, continuous effort — the same team from evaluation through warranty. Our process is organized into six phases, each building on the last.

1 Evaluation

MEI begins by evaluating reviewing all Owner available information on the facility and combines that with on-site field observations. MEI meets with the facility personnel to discuss and gain a full understanding of the facility concerns and day-to-day operational issues which impact their work. The existing HVAC systems are evaluated from both a performance and an operations standpoint, with particular emphasis one evaluating their condition from both and Engineer and Technician perspective. Montum Architecture provides LIDAR scanning services of the AAFS, which aids in creating a highly accurate model of the existing conditions. Arrow will evaluate any structural concerns at this time.

2 Schematic Design

Upon completion of the facility evaluation and building model, MEI begins the design process. Discussion with the Owner to understand the equipment types to be replaced in the AASF#2 directs our calculations-based review approach. MEI will computer model the facility to determine the heating, cooling, and ventilation loads, incorporating any facility specific hazard ventilation rates that apply. Based on the results of the calculations, MEI will review equipment replacement options to best serve the facility in terms of cost, efficiency, and maintainability. The model permits us to test different equipment types in our pursuit of the best facility fit. The sizing and location of the equipment determine whether structural modifications are required, which Arrow provides to MEI. Our staff's backgrounds in construction, maintenance, and operations give us a unique perspective — we do not just ask “Will it work?” but also “How will it be installed?” and “How well can it be maintained to work as intended?” The initial schematic design becomes the basis of the 35% documents, and MEI provides cost estimates using real material quotes and take-offs to convey projected costs to the Owner at each step in the process.

3 Design Development

MEI takes the Owner's input from review of the 35% design documents and proceeds. While the EOI gives specific milestones for progress sets (35%, 65%, 95% & 100%), MEI does not wait until the next progress set to speak with stakeholders if questions arise — the sooner issues are brought forward and addressed, the less they cost the project in time and money. The estimate is updated regularly and treated as a “living document”; any changes or Owner inputs, as well as changes made during design development, are reflected in it. MEI believes in giving the Owner the information necessary — including budgetary effects — to make informed decisions regarding the design. The 65% progress set and estimate reflect the outcomes of formal and informal review and discussion with the Owner.

4 Construction Documents

The construction documents are completed using both the results of the progress-set reviews and internal peer review. MEI understands that, while working on a project, engineers and designers can develop “tunnel vision” — seeing what they expect to see in the documents. To guard against this, all drawings and specifications issued by Miller Engineering go through a three-step internal peer review to ensure the intent of the document is clearly transmitted. The final 100% construction document set is issued to the Owner for bidding, along with our best estimate of probable cost.

5 Bidding

During bidding, Miller Engineering assists the Owner in successfully procuring bids for the upgrades. MEI is present during the pre-bid meeting to discuss the technical scope of work. Any technical questions from contractors or vendors during bidding are answered by MEI, and we provide addendum documents as needed. MEI also assists in reviewing bids and making recommendations to the Owner. We have completed many projects through WV State Purchasing and understand the requirements to successfully bid a project with the State of West Virginia.

6 Construction Administration

After bids are received and the contract awarded, MEI is not a firm that disappears until the final punch list. We provide thorough construction administration (CA) services as agreed upon with the Owner, beginning with a construction kick-off meeting to make sure the project starts on the right foot. MEI believes in being present at progress meetings and making informal site visits to keep the project on track; our background in construction and operations lets us understand field sequencing and better aid contractors when questions arise. One of our core standards is that requests for information (RFIs) are reviewed and answered within one business day whenever possible — if necessary, we provide an informal answer and follow up with the formal response to keep the project moving — because delays in RFI responses lead to additional cost and construction days. Any issues discovered during meetings and site visits are relayed to the Owner and contractor immediately. Our staff are also present for testing and balancing (TAB), equipment start-up, and Owner training; though these occur at the very end of the project, they are critical to ensuring the new systems operate as designed.

THE MEI COMMITMENT

The same team from start to finish • the estimate as a living document • a three-step internal peer review on every set • same- or next-business-day RFI turnaround • on hand through TAB, start-up, training, and warranty.



EXPRESSION OF INTEREST

TAB 5

EOI Forms





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

State of West Virginia
Centralized Expression of Interest
Architect/Engr

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

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code:

Vendor Name :

Address :

Street :

City :

State : **Country :** **Zip :**

Principal Contact :

Vendor Contact Phone: **Extension:**

FOR INFORMATION CONTACT THE BUYER

David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor
Signature X

FEIN#

-1386

DATE

6 Aug 26

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

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

(Printed Name and Title) Craig Miller, PE

(Address) 429 Laurel Run Rd, Carmichaels, PA 15320

(Phone Number) / (Fax Number) 304-291-2234 / NA

(email address) cmiller@millereng.net

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

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

Miller Engineering, Inc, 429 Laurel Run Rd, Carmichaels, PA 15320

(Company) 

(Signature of Authorized Representative)
Craig Mimmler, PE

(Printed Name and Title of Authorized Representative) (Date)
304-291-2234

(Phone Number) (Fax Number)

cmiller@millereng.net

(Email Address)



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

State of West Virginia
Centralized Expression of Interest
Architect/Engr

Proc Folder: 2024719

Doc Description: EOI - Wheeling AASF#2 HVAC Renovations Design

Reason for Modification:

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2026-07-23	2026-08-06 13:30	CEOI 0603 ADJ2700000001	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code:

Vendor Name :

Address :

Street :

City :

State :

Country :

Zip :

Principal Contact :

Vendor Contact Phone:

Extension:

FOR INFORMATION CONTACT THE BUYER

David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor
Signature X

FEIN#

-1386

DATE

6 Aug 26

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

ADDITIONAL INFORMATION

Expression of Interest
(Wheeling AASF#2 HVAC Renovations Design)

The West Virginia Purchasing Division, for the agency, the West Virginia Army National Guard, Construction and Facilities Management Office, is soliciting Expressions of Interest from qualified firms to provide professional design services to develop construction documents to provide for the renovation/replacement of the HVAC systems in the Army Aviation Support Facility #2 (AASF#2) , at Wheeling, WV, per the attached documentation.

INVOICE TO	SHIP TO
ADJUTANT GENERALS OFFICE 1707 COONSKIN DR CHARLESTON WV 25311 US	ARMY AVIATION SUPPORT FACILITY 2 538 GIRTYS POINT RD WHEELING WV 26003 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Wheeling AASF#2 HVAC Renovations Design		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description:

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

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
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	Document Phase	Document Description	Page
			3
ADJ2700000001	Final	EOI - Wheeling AASF#2 HVAC Renovations Design	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions