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Header 1

List View

General Information Contact Default Values Discount Document Information Clarification Request

Procurement Folder: 995514

Procurement Type: Central Purchase Order

Vendor ID: 000000229419

Legal Name: MILLER ENGINEERING INC

Alias/DBA:

Total Bid: \$0.00

Response Date: 02/08/2022

Response Time: 8:38

Responded By User ID: MillerEngineer1

First Name: Travis

Last Name: Taylor

Email: ttaylor@millereng.net

Phone: 304-291-2234

SO Doc Code: CEOI

SO Dept: 0603

SO Doc ID: ADJ2200000009

Published Date: 1/21/22

Close Date: 2/8/22

Close Time: 13:30

Status: Closed

Solicitation Description: Clarksburg Armory Windows & HVAC Renovations EOI

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: 995514
Solicitation Description: Clarksburg Armory Windows & HVAC Renovations EOI
Proc Type: Central Purchase Order

| Solicitation Closes | Solicitation Response | Version |
|---------------------|------------------------------|---------|
| 2022-02-08 13:30 | SR 0603 ESR02082200000004683 | 1 |

VENDOR
000000229419
MILLER ENGINEERING INC

Solicitation Number: CEOI 0603 ADJ2200000009

Total Bid: 0 **Response Date:** 2022-02-08 **Response Time:** 08:38:29

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 | Clarksburg Armory Windows & HVAC Renovations EOI | | | | 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
West Virginia – Army National Guard
Clarksburg Armory Windows & HVAC Renovations
Clarksburg, WV
CEOI ADJ2200000009
February 8, 2022



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

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The Miller Engineering Difference



We are very pleased to submit our response for the Clarksburg Armory Windows and HVAC Renovations Design project. Based on the scope of work review, we have decided to propose as a prime consultant. MEI has operated in this role many times before with the WVARNG. This includes the completed Camp Dawson FMS4 Fire Protection, the Jackson County AFRC Canopy currently under construction, and another HVAC renovation project currently in design at Camp Dawson. We have also served as the prime consultant on many other projects for various clients and state agencies. While MEI's project portfolio includes many building systems, HVAC and MEP renovations constitute the majority of our work.

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.

Most every renovation we do requires a phased approach to keep the facility in operations. We routinely deliver phased renovations for educational, institutional, commercial, and government facilities. 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 10 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.

As previously mentioned, most of MEI's project revolve around HVAC upgrades. We have delivered many successful HVAC upgrades and renovations projects for public entities including Monongalia County Schools for various K-12 schools, the WV DNR including full HVAC renovations for the recently completed Cacapon and Blackwater Falls Lodges, and WV General Services Division for HVAC renovations of various state building covering the entire state. MEI's knowledge and experience with HVAC systems include systems off all types from typical air handling units to water source heat pumps, hydronic systems, and VRF. To address the scope of work related to the window, door, and storefront replacements, MEI is pleased to have teamed with Montum Architecture. MEI and Montum have teamed up on many successful projects. Montum brings an extensive knowledge base and experience with similar projects requiring windows, door, and façade renovations.

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 Clarksburg Armory Window & HVAC Renovation Design project and we look forward to the chance to discuss the project in an interview.

Best Regards and Good Luck on the Project,

A handwritten signature in blue ink, appearing to read 'Craig Miller', with a stylized flourish at the end.

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



TAB 1 –FIRM QUALIFICATIONS





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 each and every project with this process and the guiding principle that buildings are designed to be livable and function in their intended purpose.

Over the past 14 years Miller Engineering, Inc. (MEI) has engineered solutions for over \$23.2M in MEP system upgrades, repairs and renovations for projects of all scopes and sizes, with clients ranging from private owners to local and state governments. With a strict attention to detail and commitment to delivering a job done well and done right the first time, every time, **MEI has accumulated a change order percentage of less than 0.1% over the past 8 years.**

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

Miller Engineering takes pride in being **different by design**, and that difference shines through in all phases of our work and continued relationships with our clients.

- 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
 - Emergency Facility Response

Engineering Design and Consultation

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

Aquatic Facility Design

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

Construction Administration

Maintenance/Facility Improvement Plans
Contract Administration
Code Observation

Communication System

Intercomm & Public
Address/Voice/Data/CATV
Urgent Response

Energy

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

Facility Utilization

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

Life Safety Inspection/Design

Fire Protection & Alarm Systems
Access Control
Fire & Electrical Investigation

Industry Experience

Education
Local & State Government
Commercial Development
Healthcare





B. Craig Miller, PE

Craig founded Miller Engineering in 2003, and serves as President and Principal Engineer. He has more than 20 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. His experience with a wide range of projects including HVAC, electrical, plumbing, infrastructure upgrades, building automation, energy efficiency and maintenance/renovation, among others, allows him to serve in multiple capacities within a given project. Craig will serve as the "Relationship

Manager" for Miller Engineering as 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, 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 and Student Recreation Center – Owner's Engineer
- Hawks Nest/Twin Falls HVAC
- Mapletown High School HVAC Replacement Phase I & II
- Advanced Surgical Hospital
- Pipestem McKeever Lodge HVAC Piping Replacement
- Beech Fork State Park – MEP New Construction Design
- Cheat Lake Elementary & Middle School 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 and Certifications

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



Travis Taylor, PE

Experience in project management facilitates 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 budgets. His experiences encompass both new construction and renovation. Travis maintains professional competencies by attending seminars and continuing education classes. These include local ASHRAE classes in addition to classes on electrical systems, and also steam systems through Shippenburg Pump Company. As lead engineer he provides HVAC, mechanical, plumbing, and electrical design solutions and services for our clients. In addition, he is part of our team's complete assessment process in both planning and MEP design through construction administration.

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

- Blackwater Falls Lodge Boiler Replacement
- MTEC Welding Shop
- Camp Dawson FMS4 Fire Protection
- WV State Building 22 2nd Floor Renovations
- WV State Building 25 HVAC Piping Replacement
- Morgantown High School Area 4 HVAC Renovation
- Bobtown Elementary School HVAC Upgrades
- Holly River State Park Primary Electric Service Replacements Phase I & II
- Pipestem Lodge McKeever Lodge HVAC Piping Replacement

Professional History

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

Education

2006 West Virginia University, BS – Mechanical Engineering

Licenses and Certifications

- Professional Engineer - State of West Virginia
- OSHA 10-hour Course: Construction Safety & Health



Joseph Machnik

Joe has experience with AutoCAD, MEP and Revit MEP. He provides design modeling, drafting and supervised design services and construction support for Miller Engineering.

Project Role: MEP Designer

- *Revit/CADD Coordination of New Construction and Renovation Designs*
- *Building Information Modeling Specialist*

Professional Project Highlights

- Bobtown Elementary HVAC
- WV State Building 25 HVAC Piping Replacement
- Blackwater Falls Boiler Replacement
- Suncrest Middle Gym HVAC
- North Elementary Gym HVAC
- Graftek Steam Systems Evaluations and Modifications
- WV State Building 25 HVAC Piping
- Pipestem Lodge HVAC Piping Replacement
- Westwood Middle Cooling Tower

Professional History

2010 – Present Miller Engineering, Inc. MEP Designer

Education

2008 Penn State – Fayette, AS - Building Engineering Systems Technology: *Building Environmental Systems Technology*

2007 Penn State – Fayette, AS - Building Engineering Systems Technology: *Architectural Engineering Technology*

Additional Training

2016 – Shippenburg Pump Company – Steam Systems Training

Staff – Qualifications and Experience



Jack Jamison

Jack brings 20 years as an electrical/building inspector and over 25 years of experience in the commercial electrical construction industry. His knowledge and experience are valuable resources to Miller's complete assessment process.

Project Role: Master Code Official

- *Facility Review, Code Research, Field Observations, Issue Resolutions, and Project Evaluation*

Professional History

| | | |
|---------------|---------------------------------|----------------------------------|
| 2010- Present | Miller Engineering, Inc. | Code and Construction Specialist |
| 1999-2010 | Megco Inspections | Chief Inspector |
| 1972-1998 | Jamison Electrical Construction | Master Electrician |

Education

1971 Fairmont State College, BS-Engineering Technology-Electronics

Licenses and Certifications

- Master Code Professional, IAEI Master Electrical Inspector, Class C Electrical Inspector – WV, PA, MD, & OH
- ICC Commercial Building, Building Plans, Commercial Plumbing, Residential Energy, and Accessibility Inspector/Examiner
- WV Master Electricians License
- NCPCCI-2B, 2C, 4B, 4C: Electrical & Mechanical General/Plan Review
- OSHA 30 Hour Course: General Industry
- NFPA Code Making Panel 14 – NEC 2014 Edition



Montum Architecture

Montum Architecture, LLC was founded in 2017 to provide architectural design services to clients in West Virginia and western Maryland. Staff includes one licensed architect performing all tasks and duties. This ensures the utmost coordination of building plans and specifications with minimal potential for miscommunication.

Legal Organization

Montum Architecture is a Limited Liability Corporation initially filed in the State of West Virginia. The company is also registered in the State of Maryland as a foreign LCC.

Communication

Tom Pritts will be the primary point of contact for Montum's architectural services. Montum will manage communications with sub-consultants 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 on 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.



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 |
|------|---------------|---------------------------|

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

Montum



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 Volkswagen Automotive 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



Jordyn Henigin, Architectural Intern

Jordyn joined Montum Architecture in May 2020. A recent graduate of Fairmont State University, 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 in the process of perusing her goal to become a licensed Architect.

Project Role: Architectural Intern

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

Professional History

| | | |
|---------------|---------------------|----------------------|
| 2020- Present | Montum Architecture | Architectural Intern |
|---------------|---------------------|----------------------|

Education

| | | |
|------------------|---------------------------|---------------------------|
| 2020 | Fairmont State University | Bachelors of Architecture |
| 2022-Anticipated | Fairmont State University | Masters of Architecture |

Licenses and Certifications

- LEED-Green Associate

Associations and Memberships

- American Institute of Architecture Students

Staff – Licenses & Certifications

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

Certificate No: [REDACTED]

STATE OF WEST VIRGINIA
BOARD OF ARCHITECTS

Charles W. Taylor
SECRETARY

This Certifies that:
THOMAS PRITTS

Is duly Registered and entitled to practice as a
REGISTERED ARCHITECT
until and including **06/30/2022**

[Signature]
Attest

[Signature]
President

CERTIFICATE OF Authorization
STATE BOARD OF ENGINEERING AND PROFESSIONAL SURVEYORS

The West Virginia State Board of Registration for Professional Engineers hereby certifies that the person in reasonable charge is registered in West Virginia as a professional engineer for the next full term, hereby certifies

MILLER ENGINEERING, INC.
[REDACTED]

Engineer in Reasonable Charge: **BRIAN C. MILLER, WV PE #11111111**

See my third notice under §11-11-11 of the West Virginia Code regarding the transfer of a Certificate of Authorization. The State hereby withdraws one of its certificates and issues a new Certificate of Authorization for the period of

January 1, 2022 - December 31, 2023

providing for the practice of engineering services in the State of West Virginia.

IF YOU ARE A LICENSEE WHO HAS BEEN SUSPENDED OR REVOKED, YOU MUST FIRST OBTAIN A WRIT OF HABEAS CORPUS FROM THE COURT OF APPEALS TO REINSTATE YOUR LICENSE BEFORE YOU CAN PRACTICE IN THE STATE OF WEST VIRGINIA.

[Signature]
[REDACTED]

West Virginia State Board of Registration
for Professional Engineers

BRIAN C. MILLER
WV PE [REDACTED]

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

EXPIRES December 31, 2022

West Virginia State Board of Registration
for Professional Engineers

TRAVIS W. TAYLOR
WV PE [REDACTED]

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

EXPIRES December 31, 2022

Hereby Certifies that

Jack E. Jamison, Jr.

has demonstrated professional qualifications through a written examination based on the National Electrical Code® along with successful completion of field practice and documented expertise in required categories and has hereby achieved certification as

Master Electrical Inspector

Effective through
September 30, 2013

Continuation Number: [REDACTED]

[Signature]
Secretary to the International Brotherhood of Electrical Workers



TAB 2 – PROJECT ORGANIZATON



Staff – Proposed Staffing Plan

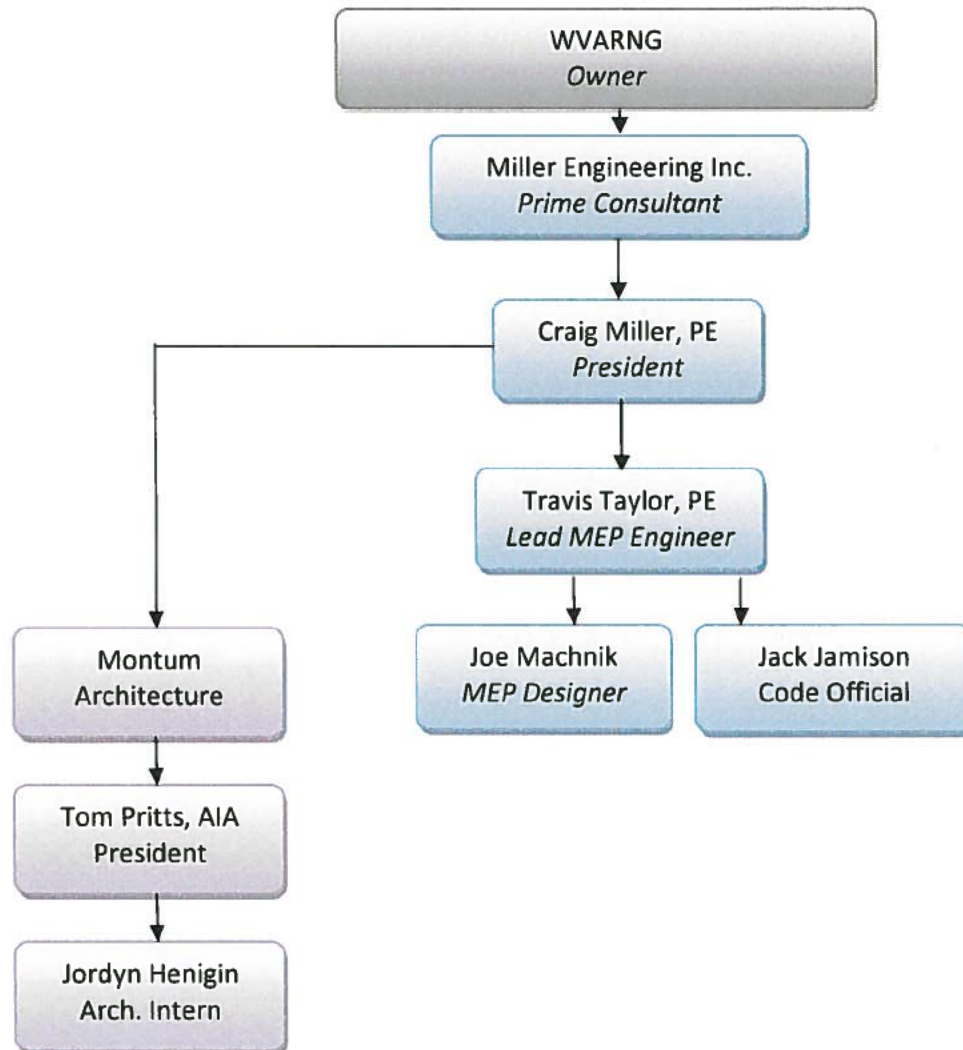
MILLER ENGINEERING

| | |
|--------------------------|--|
| <u>Craig Miller, PE</u> | President, Principal in Charge Project Point of Contact cmiller@millereng.net (304) 291-2234 |
| <u>Travis Taylor, PE</u> | Lead MEP Engineer |
| <u>Joseph Machnik</u> | Designer / BIM Coordinator |
| <u>Jack Jamison</u> | Master Code Official |

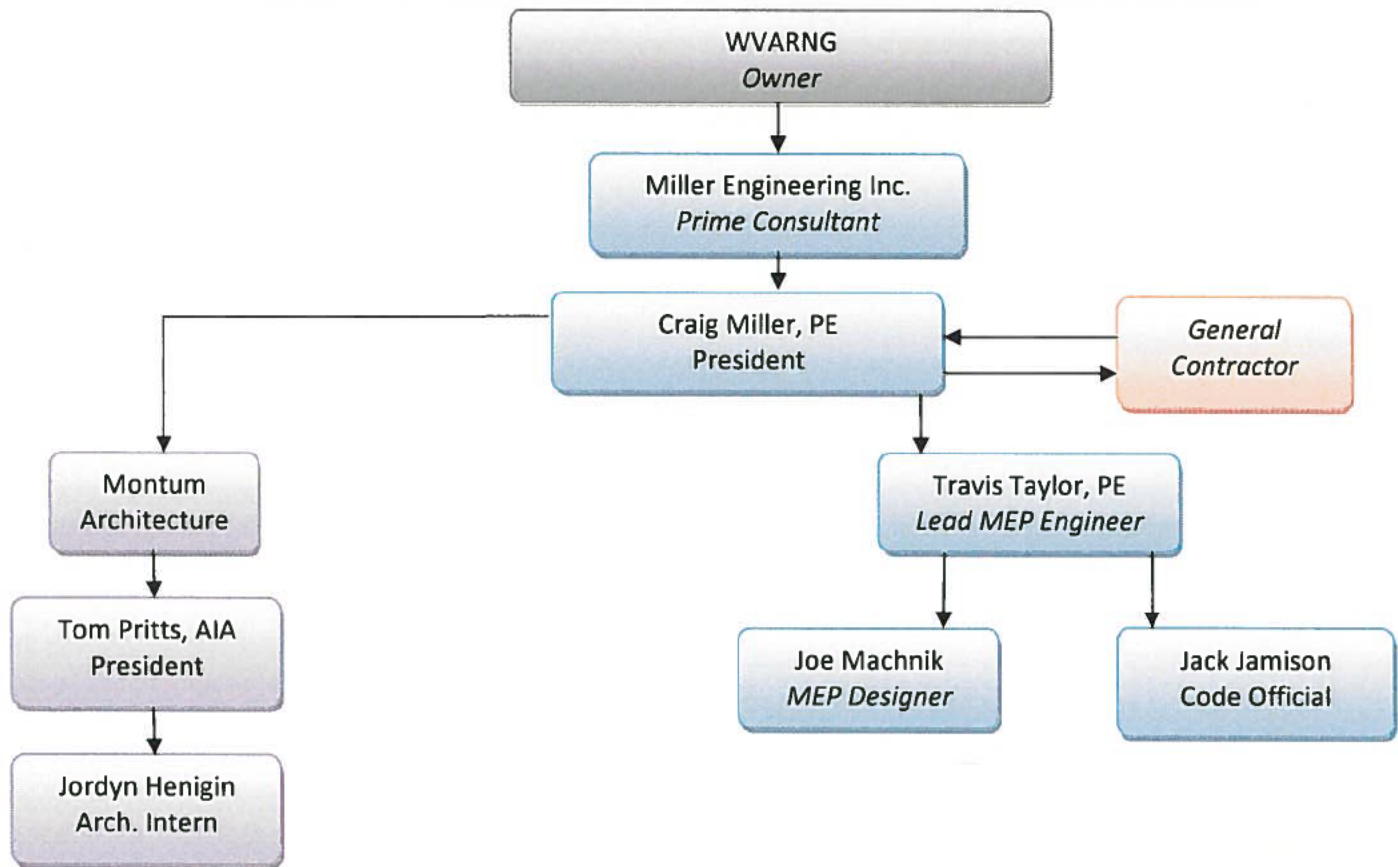
MONTUM ARCHITECTURE

| | |
|------------------------|---------------------------|
| <u>Tom Pritts, AIA</u> | Lead Architect, President |
| <u>Jordyn Henigin</u> | Architectural Intern |

Organization Chart -Design



Organization Chart – Construction





Descriptions of Past Projects Completed – HVAC, Electric

Withers Brandon Hall

Phillippi, WV

Services Provided:

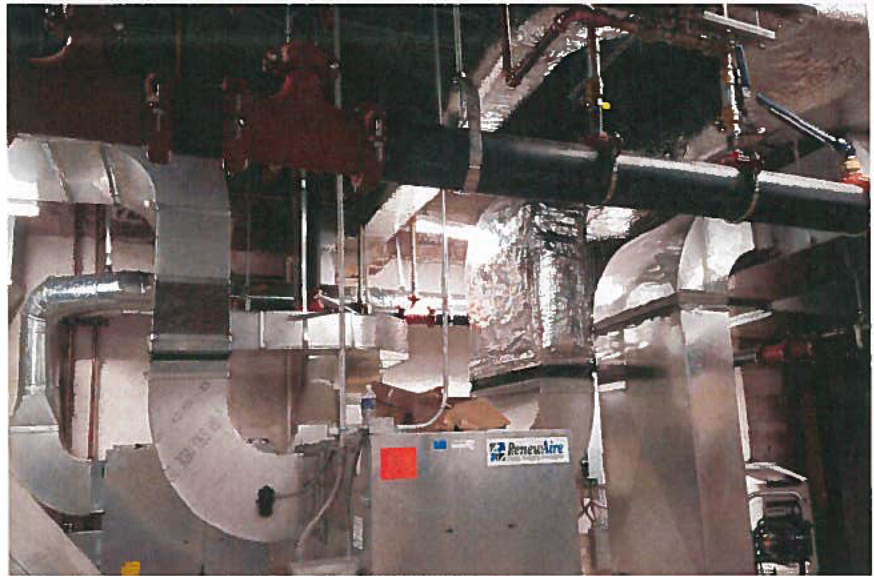
- Electrical
- HVAC

MEP Budget: \$700k

Facility Area: 31,800 ft²

Owner: Alderson Broaddus University

Status: Completed



As part of renovations to Withers Brandon Hall at Alderson Broaddus University, MEI was brought in to evaluate and design upgrades to the HVAC system. The existing chiller and piping insulation had failed. The existing system was a two-pipe system with chiller and boilers serving fan coil units. MEI proposed to re-use the piping and replace the fan coil units with water source heat pumps (WSHP). This allows the existing piping to be re-used and piping insulation would not have to be replaced. The chiller will be replaced with a fluid cooler located outside the building. The three non-condensing boilers will be replaced with a much more efficient modulating condensing "double stack" boiler. The ventilation units are located in the unconditioned attic space and are difficult to perform maintenance on. New ducted heat pumps tied to energy recovery ventilators will tie into the existing fresh air duct to provide ventilation and relief air. The design limits the amount of modifications outside of the mechanical rooms which will aid with the compressed construction schedule. The project was completed in October 2019.

Project Contact:
David Snider, AIA
Omni Associates, Inc
(304) 367-1417

Experience –Electrical & Mechanical

Capital Complex Chiller Plant Evaluation and Modifications

Services Provided:

- Evaluation – Study
- Electrical
- Mechanical
- Plumbing

Project Cost: \$7.26 mil

Facility Area: Approx. 7,500 ft²

Owner: WV GSD



The existing chiller plant serving the WV State Capital Complex is 20 years old. The

Owner wishes to reduce energy costs associated with the peak electrical demand metering applied to the plant's electrical service. MEI was retained to evaluate multiple options to reduce electrical demand, and thereby the operating costs.

The determined optimal solution is to use large, medium voltage, natural gas generators which could operate select chillers during peak demand to reduce electrical peak demand. A 5kV switchgear will allow the select chillers and their respective pumps to operate under generator load when they are required to come online. A new 2,300 ft² building will be constructed to house the new

switchgear, pumps, and heat exchangers to allow the chillers to still operate as a plant. The project is currently in construction and anticipated to be completed in spring 2022.

Project Contact:

Dave Parsons

Energy Manager

WV GSD

112 California Ave.

Charleston, WV

304-957-7122

Project Experience: MEP

Cacapon Lodge Addition & Renovation

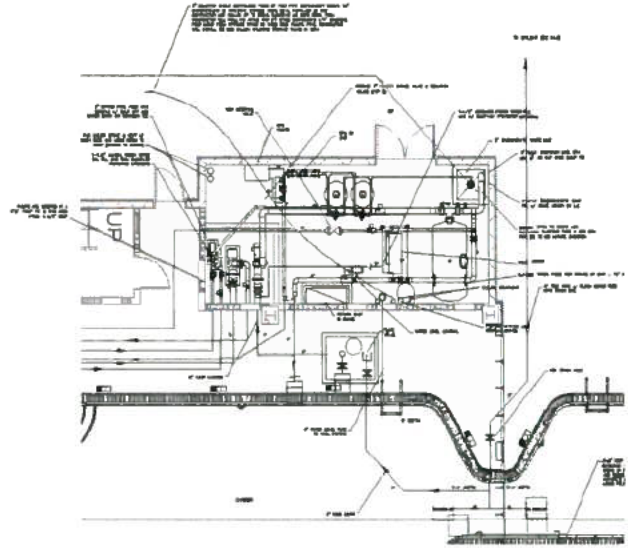
Services Provided:

- Electrical
- Plumbing
- HVAC
- Fire Alarm
- Fire Protection
- Pool

Estimated Budget: \$26M

Facility Area: 113,000 sq ft

Owner: WV Department of Natural Resources



Miller Engineering teamed with Paradigm Architecture to design the addition to the lodge at Cacapon State Park. The addition includes approximately 80 guest rooms, new kitchen and dining areas, a spa, indoor/outdoor pool, and support spaces. All of the utilities were upgraded. A new boiler / chiller plant will be installed with distribution to local air handling units. The electrical service includes an upgrade to 480V while using the existing distribution panels where possible as local branch panels. The project is currently under construction.

Project Contact:

Bradley S. Leslie, PE, Assistant Chief
 WVDNR State Parks Section
 (304) 558-2764 ext. 51826

Descriptions of Past Projects Completed – MEP

South Middle School HVAC Renovations

Services Provided:

- Mechanical
- Electrical
- Plumbing
- Fire Alarm

Contract Amount: \$1.45M

Facility Area: 111,800 ft²

Owner: Monongalia County Board of Education



PROJECT GOALS: Improve air quality and temperature controls. Limit school disruptions.

MEI designed retrofits to existing HVAC equipment which will allow the system to perform correctly. The project was detailed in phasing to permit some work to be performed during the school year during breaks and holidays to keep the school in operation.

South Middle School was served by a single DX AHU with various terminal devices such as VAV and self-piloted boxes. The school had been suffering from poor air quality and temperature control issues. Additionally, the condensing unit had failed. Initiated in November, MEI designed a rebuild of the AHU; replacing the DX coils with HW and CW coils and adding new chillers in time to meet the Spring cooling need. The two large supply fans were replaced using a fan wall system which allowed the fans to operate at max output and minimize noise and vibration issues which plagued the old sled mounted fans. A new boiler serves the hot water coil and two chillers were installed with piping on the roof to serve the AHU cooling coil.

The air terminal devices will be rebuilt and retrofitted to provide better control. The project was completed in December 2019.

Project Contact:
 Robert Ashcraft
 Monongalia County Facilities
 Phone: (304) 291-9210

Project Experience: Addition, Renovation

Short Gap Volunteer Fire Department

Short Gap, WV

Services Provided:

- HVAC
- Electrical
- Plumbing
- Fire Protection/Alarm

Estimated Budget: \$643K

Facility Area: 16,000 ft²

**Owner: Short Gap Volunteer
Fire Department**

Duration: 180 days



MEI & Montum Architecture designed an approximately 3,200 ft² addition to the volunteer fire station in Short Gap, WV. The 1 story addition consisted of bunk rooms with ADA compliant restrooms, a meeting/break room, gear room, and extension to the apparatus bay. The existing laundry space was renovated along with a replacement of the entire fire alarm system. New LED lighting was installed throughout the addition. A zoned HVAC system provided individual temperature control to each bunk room, meeting room, and break room. The old tank electric water heater serving the facility was replaced with propane tankless heaters. The project was completed during the summer of 2021.

Project Contact:

Luke Harrison

Short Gap VFD President

(304) 726-4388

WYOMING COUNTY SCHOOLS

WYOMING EAST HIGH SCHOOL

HVAC AND ROOF REPLACEMENT



The West Virginia School Building Authority funded replacement of the HVAC systems and roofing at the existing Wyoming East High School in 2017. Montum Architecture was the architect-of-record for the HVAC project and integrated the roofing design consultant's information into bid package scenarios. Work was being performed within an occupied building with close coordination of school daily schedules and calendar of events. Many of the units were being replaced one-for-one with some zones being split into multiple units to allow flexibility of new curriculum within the spaces or needs for additional comfort control. Ceilings were being replaced to meet updated guidelines for educational facility acoustics.

COMPLETION: SUMMER 2019

BUDGET: \$3.2M

SIZE: 130,000 SF EXISTING

LOCATION: NEW RICHMOND, WV

CONTACT:
Donald Clay
Director of Facilities
304-732-6262

*Montum*Architecture, LLC

37 ER Path, Keyser, WV 26726 • 304-276-7151 • tom@montumarch.com • montumarch.com

Budget and Timeline History

| Project Name | Project Type | Budget | Cost | Notes |
|-------------------------------|------------------------------|-------------|-------------|--------------------|
| Bluestone State Park | Pool Replacement | \$1,000,000 | \$935,600 | On budget |
| WestVirginia State Building25 | HVAC Piping Renovation | \$650,000 | \$533,400 | On budget |
| Canaan Valley Resort | Emergency Electrical Repairs | \$225,000 | \$129,829 | On budget |
| Holly Grove Manor | Renovation | \$885,000 | N/A | On hold |
| Mapletown Jr/Sr High School | HVAC Renovation | \$1,050,000 | \$1,105,900 | 5.19% over budget |
| Pipestem – McKeever Lodge | HVAC Piping Replacement | \$1,600,000 | \$1,776,000 | 10.43% over budget |
| Tygart Lake State Park | Beach and Bathhouse | \$750,000 | \$695,000 | On budget |

 = Delivered on budget/on time

Budget and Timeline History

| Project Name | Project Type | Contract Length | Contract Delivery | Notes |
|-----------------------------|-----------------------------|-----------------|-------------------|--|
| Blackwater Falls State Park | Boiler Replacement | 120 days | 180 days* | *Extended 60 days due to equipment delivery issues |
| Bluestone State Park | Pool Replacement | 180 days | 180 days | Delivered on time |
| Canaan Valley Resort | Construction Administration | 3.5 years | 3.5 years | Long-term project with varying facets – no direct schedule |
| Twin Falls/Hawks Nest Lodge | HVAC Renovation | 90 days | 90 days* | *Expedited delivery |
| Mapletown Jr/Sr High School | Boiler/ HVAC Renovation | 180 days | 180 days | Delivered on time |
| Pipestem – McKeever Lodge | HVAC Piping Replacement | 365 days | 365 days | Delivered on time |
| Tygart Lake State Park | Beach and Bathhouse | 270 days | 270 days | Delivered on time |

What our satisfied customers have to 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, our project involving a private surgical hospital together 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

Brad Leslie, PE

*Assistant Chief
WV Division of Natural
Resources
State Parks Section
324 4th Avenue
South Charleston, WV 25303
(304) 289-7663
Bradley.S.Leslie@wv.gov*

Paul Braham

*Associate Director of
Maintenance & Engineering
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781 Chestnut Ridge Road
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Paul.Braham@mylan.com*

Gregory L. Melton

*Director
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Charleston, WV 25305
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304-965-1219
Gregory.L.Melton@wv.gov*

Bob Ashcraft

*Safety and Ancillary Projects
Monongalia County Schools
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Morgantown, WV 26501
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Dave Parsons

*Energy Program Manager
WV General Services
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Charleston, WV 25305
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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*

From Jonathan Miller, Mechanical Project Manager, Nitro Mechanical:

"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"



TAB 4 – METHODOLOGY & APPROACH



Project Methodology & Approach

Evaluation

Miller Engineering will begin the design process by reviewing all existing documentation related to the Clarksburg Armory, including any documentation related to the design, testing, and maintenance of the HVAC systems. Reviewing documents will give MEI an initial understanding of the facilities which will be confirmed or adjusted through an extensive on site evaluation of the facilities. Evaluations of both existing documents and site visits will allow the design team to create initial building models. Montum will review existing documents related to the windows and door construction in addition to field visits to measure and verify the size and construction of the windows, doors, and storefront of the armory. MEI and Montum will utilize building information modeling (BIM) via Autodesk REVIT to create models and therefore drawings of the facilities' areas of impact.

Schematic

Once the BIM models are accomplished, and the team grasps the building systems intent and construction, MEI and Montum will meet with the owner. The meeting will involve all stakeholders to gain an understanding of the intended project outcomes. A review of all applicable codes and guidelines including ASHRAE, building codes, and military construction standards will aid in initial design and approach to a solution. MEI and Montum will work closely on the door and window replacement as the increased efficiency of the windows and doors may affect the HVAC systems. MEI will discuss items which will affect the renovation including changes in building usage, current deficiencies and issues, operating methods, operating costs, and construction timeline phasing. MEI will use this information to validate the sizing of the HVAC equipment against their initial sizing to determine the extent of the HVAC renovations required. Miller Engineering's staff has backgrounds in construction, maintenance, and operations which provide a unique perspective as we do not just think "Will it work?" but also consider "How will it be installed?" and "How well can it be maintained to work as intended?" MEI will closely coordinate with Montum as in addition to the window and door scope of work described in the EOI, the HVAC renovations may require architectural modifications. The initial schematic design will be the basis of the 35% documents. MEI will provide cost estimates using real material quotes and take-offs to convey projected costs to the owner.

Design Development

MEI will take input from the owners based upon review of the 35% design documents and proceed. While the requirements of the EOI give specific milestones for progress sets (35%, 65%, 95%, & 100%), MEI will not wait until the next progress set to speak with the stakeholders if questions arise. Our philosophy is that the sooner issues are brought forward and addressed, the less they cost the project in time and money. The estimate will also be updated regularly as MEI treats the estimate as a "living document." Any changes or inputs from the owner, as well as other changes made during proceeding with design development, will be reflected in the estimate. MEI believes in giving the owner the information necessary, including budgetary

effects, to make informed decisions regarding the design. The 65% and 95% progress sets will reflect the outcomes of the formal and informal discussions with the owners.

Construction Documents

The construction documents will be 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 get "tunnel vision", meaning they see what they want to see reflected in the documents. All drawings and specifications issued by Miller Engineering go through a three step peer review internally to ensure the intent of the document is clearly transmitted. The final 100% construction document set will be issued to the owner for bidding, along with our best estimate of probable cost.

Bidding

During bidding, Miller Engineering will assist the owner to successfully procure bids for the upgrades. MEI will be present during the pre-bid meeting to discuss the technical scope of work for the project. Any technical questions from contractors or vendors to the owner during bidding will be answered by MEI. MEI will provide addendum documents as needed. MEI will also assist 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.

Construction Administration

After bids are received and the contract awarded, MEI is not a firm that disappears until the final punch list. MEI will provide thorough construction administration (CA) services as agreed upon with the owner. We will be present for a construction kick-off meeting to make sure the project gets off on the right foot. MEI believes in being present at construction progress meetings and making informal site visits to keep the project on track. Our background in construction and operations allows us to understand the sequencing of construction in the field to better aid the contractors when questions arise. One of MEI's main beliefs is that any requests for information (RFIs) submitted by the contractor should be reviewed and answered within one business day if possible. This is because we understand that delays in RFI responses can lead to additional costs and construction days. If necessary, we will provide an informal answer and follow up with the formal response to keep the project rolling. During progress meetings and site visits, any issues discovered by MEI will be relayed to the owner and contractor immediately to prevent delays. Another company standard is for our staff to be present for testing and balancing (TAB), equipment start-up, and owner training. While these events occur at the very end of the project, they are critical to ensure the new systems operate as designed. MEI will be on hand for these activities to quickly answer any questions and confirm these items are performed properly in accordance with the construction documents.



TAB 5 – PROJECT 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

| | | | |
|--|----------------------------|-------------------------|---------------------------------|
| Proc Folder: 995514 | | | Reason for Modification: |
| Doc Description: Clarksburg Armory Windows & HVAC Renovations EOI | | | |
| Proc Type: Central Purchase Order | | | |
| Date Issued | Solicitation Closes | Solicitation No | Version |
| 2022-01-21 | 2022-02-08 13:30 | CEOI 0603 ADJ2200000009 | 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 

FEIN#

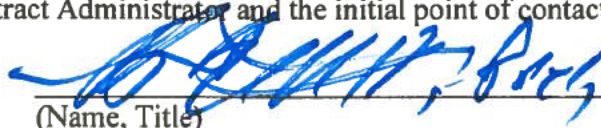
-1386

DATE

2/16/22

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.



(Name, Title)

Craig Miller, PE, Pres

(Printed Name and Title)

429 Laurel Run Rd, Carmichaels PA 15320

(Address)

304-291-2234, fax - NA

(Phone Number) / (Fax Number)

cmiller@millereng.net

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation 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 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 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.

Miller Engineering, Inc

(Company)



(Authorized Signature) (Representative Name, Title)

Craig Miller, PE, Pres.

(Printed Name and Title of Authorized Representative)

8Feb22

(Date)

304-291-2234 , fax - NA

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Miller Engineering, Inc

Authorized Signature: [Signature] Date: 8-6-22

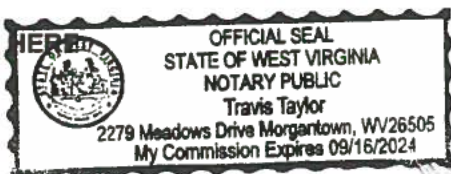
State of West Virginia

County of Monongalia, to-wit:

Taken, subscribed, and sworn to before me this 8th day of February, 2022.

My Commission expires September 16th, 2024.

AFFIX SEAL



NOTARY PUBLIC [Signature]