



# EXPRESSION OF INTEREST

To Provide Professional  
Architecture/Engineering Services

**WVARNG Support  
Maintenance Shop  
Exhaust System Repairs**

ADJ2600000007

June 25, 2026

ZMM.COM



June 25, 2026

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



Subject: A/E Services for Combined Support Maintenance Shop Exhaust System Repairs - ADJ260000007

Mr. Pauline:

ZMM Architects and Engineers is pleased to submit the attached Expression of Interest to provide professional architectural and engineering services for the Combined Support Maintenance Shop (CSMS) Exhaust System Repairs at the Joint Forces Reserve Center in Eleanor, West Virginia. Our team understands the importance of maintaining safe, code-compliant vehicle exhaust ventilation systems that support the operational readiness of WVARNG maintenance facilities, and we are well prepared to evaluate the existing underground system and develop a coordinated, durable solution.

Established in 1959, ZMM is a West Virginia-based, full-service architectural and engineering firm with more than 70 employees dedicated to excellence in design and client service. ZMM provides all building-related design services in-house, including architecture, engineering (structural, mechanical, civil, and electrical), landscape architecture, interior design, and construction administration. Our integrated structure allows us to thoroughly investigate existing conditions, coordinate across disciplines, and deliver clear, constructible bid documents in accordance with West Virginia State Purchasing procedures.

For this project, ZMM has partnered with Omni Architects, a firm with extensive West Virginia Army National Guard experience and a unique familiarity with the Eleanor Joint Forces Reserve Center campus. Omni served as architect for both the 132,000 SF Eleanor Maintenance Facility, which houses the Combined Support Maintenance Shop (CSMS), Organizational Maintenance Shop (OMS), and USPFO warehouse, and the adjacent 83,900 SF Eleanor Readiness Center. As designer of these facilities, Omni brings firsthand knowledge of the campus layout, operational requirements, and mission-critical functions that support WVARNG personnel and equipment.

ZMM has a long-standing relationship with the West Virginia Army National Guard and a strong understanding of CFMO standards and processes. Our WVARNG experience includes the Robert C. Byrd Regional Training Institute, the Joint Interagency Training and Education Center, the Jackson County AFRC, Glen Jean AFRC, Buckhannon Readiness Center, Marshall County Readiness Center, Logan-Mingo Readiness Center, Morgantown Readiness Center, and numerous renovation and infrastructure improvement projects statewide.

The project will be led by the same ZMM professionals with whom WVARNG and CFMO have successfully worked in the past, with myself (Adam Krason) serving as Principal-in-Charge and Nathan Spencer, AIA, serving as Project Manager, ensuring continuity, responsiveness, and a thorough understanding of WVARNG standards, procedures, and expectations. That experience is further enhanced through our partnership with Omni Architects and the involvement of Omni Senior Principal Richard Forren, who served more than 30 years in the United States Army on active duty and in the reserves, retiring with the rank of Colonel. Our team also brings extensive experience in ventilation system evaluation, underground infrastructure coordination, and mechanical system replacement projects for WVARNG facilities. Together, this experience positions our team to efficiently navigate investigative services, phased submissions, and construction administration for the CSMS exhaust system project.

Thank you for your consideration of our qualifications. We appreciate the opportunity to continue our partnership with the West Virginia Army National Guard and look forward to assisting CFMO with this important project.

Respectfully submitted,  
ZMM Architects and Engineers

A handwritten signature in blue ink, appearing to read 'Ad. RK', with a horizontal line extending to the right.

Adam R. Krason, AIA, NCARB, LEED AP  
Principal

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**A**

**FIRM PROFILE**

# ABOUT ZMM ARCHITECTS AND ENGINEERS

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ZMM was founded in 1959 in Charleston, West Virginia by Ray Zando, Ken Martin, and Monty Milstead. Since the inception of the firm, ZMM has been dedicated to providing an integrated approach to building design for our clients.

ZMM delivers this integrated approach by providing all building-related design services, including architecture, engineering (civil, structural, mechanical, and electrical), landscape architecture, interior design, and construction administration with our in-house team. Our integrated design approach makes ZMM unique among architecture/engineering firms, and helps to ensure the quality of our design solutions by providing more thoroughly coordinated construction documents.



ZMM has maintained a diverse portfolio since the founding of the firm. Early commissions included higher education projects for West Virginia University and Concord College, WV State Capitol Complex Buildings 5, 6, & 7, and armories for the West Virginia Army National Guard.

Maintaining a diverse practice for more than 60 years has provided ZMM with extensive experience in a variety of building types, including educational facilities, governmental facilities (military, justice, correctional), healthcare facilities, recreation facilities, commercial office space, light industrial facilities, and multi-unit residential buildings.

The original partners transferred ownership of the firm to Robert Doeffinger, PE and Steve Branner in 1986. Mr. Doeffinger and Mr. Branner helped guide and expand the firm to 35 staff. David Ferguson, AIA, and Adam Krason, AIA, LEED-AP joined in ownership of the firm 20 years ago. Randy Jones joined the firm in a leadership role when ZMM acquired Blacksburg-based OWPR Architects & Engineers in 2020 to create a regional design firm that employs more than 70 highly-skilled professionals.

ZMM has become a leader in sustainable / energy-efficient design, and a trusted resource on complex renovation projects. ZMM's unique renovation project approach and ability to



## About ZMM Architects and Engineers (continued)

provide comprehensive design services has also led the firm to be selected to improve landmark buildings, including the Charleston Coliseum & Convention Center, the Clay Center for the Arts and Sciences, the West Virginia Culture Center, and the West Virginia State Capitol Building. Additional significant projects designed by the firm include the Explorer Academy (Cabell County Schools), the Logan-Mingo Readiness Center, the Manassas Park Community Center and Natatorium, the design of the Fourth High School (Frederick County Public Schools), the new Harrington Waddell Elementary School (Lexington City Schools), CAMC Teays Valley ICU, and Ridgeview Elementary School (Raleigh County Schools). ZMM has also provided design services on more than 300 school projects throughout the region.

ZMM's building-related design services include the following.

### Pre-Design

Educational Facility Planning  
Existing Building Evaluation  
Space Planning  
Master Planning

### Programming

Feasibility Studies  
Site Evaluation, Analysis, and Planning  
Construction Cost Estimating

### Design

Architectural Design  
Interior Design  
Lighting Design

### Sustainable Design

Landscape Architecture

### Engineering

Civil Engineering  
Mechanical Engineering  
Energy Consumption Analysis

### Structural Engineering Electrical Engineering

Net-Zero Buildings

### Post-Design

Construction Administration  
Life Cycle Cost Analysis

### Value Engineering

Post-Occupancy Evaluation

As ZMM looks to the future, we remain committed to providing high-quality client-focused design solutions that meet budget and schedule requirements. We listen, respond promptly with innovative and efficient solutions, and deliver quality projects and develop lasting relationships. At ZMM, it's about more than architecture. It's about building your legacy.



# AWARD WINNING DESIGN

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ZMM's commitment to quality has been recognized through both state and national design awards, as well as through long-term client relationships that we have developed. Our unique approach and integrated design services have led the firm to earn 27 design awards since 2005 – an unrivaled achievement.

## 2025

### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture for New Construction  
Clendenin Elementary School - Clendenin, WV

### **AIA Honor Award, West Virginia Chapter**

Achievement in Architecture in Residential Design  
Coopers Rock State Forest Stargazing Cabins - Bruceton Mills, WV

### **AIA Honor Award, West Virginia Chapter**

Craftsmanship  
Coopers Rock State Forest Stargazing Cabins - Bruceton Mills, WV



## 2020

### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture for New Construction  
Mountain Valley Elementary School - Bluefield, WV

### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture in Sustainable Design  
Ridgeview Elementary School - Sophia, WV



## 2019

### **AIA Honor Award, West Virginia Chapter**

Excellence in Architecture for New Construction and Renovation  
Charleston Coliseum & Convention Center - Charleston, WV

### **AIA Citation, West Virginia Chapter**

Citation for Achievement in Architecture in Interior Renovation  
Charleston Coliseum & Convention Center - Charleston, WV

### **AIA People's Choice Award, West Virginia Chapter**

Charleston Coliseum & Convention Center - Charleston, WV



## 2018

### **AIA Citation, West Virginia Chapter**

Citation for Unbuilt Project  
Charleston EDGE - Charleston, WV

## Award Winning Design (continued)

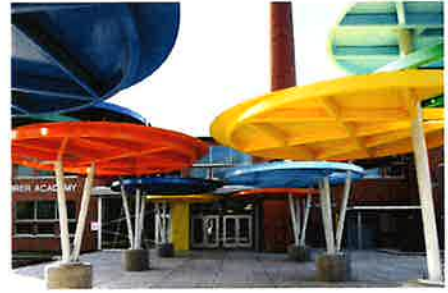
### 2017

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture  
Cabell County Explorer Academy - Huntington, WV

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Sustainability  
Logan-Mingo Readiness Center - Holden, WV



### 2016

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture in Interior Design  
Christ Church United Methodist Education Wing - Charleston, WV

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture in Interior Design  
Christ Church United Methodist Education Wing - Charleston, WV



### 2015

#### **AIA Honor Award, West Virginia Chapter**

Excellence in Architecture in Sustainable Design  
Edgewood Elementary School - Charleston, WV

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture  
Kenna Elementary School - Kenna, WV



### 2014

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture in Sustainable Design  
Huntington East Middle School - Huntington, WV

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture  
Southern WV Community & Technical College  
Applied Technology Center - Williamson, WV

#### **AIA Merit Award, West Virginia Chapter**

Achievement in Architecture in Interiors/Graphics  
Girl Scouts of Black Diamond Council - Charleston, WV



### 2012

#### **AIA Honor Award, West Virginia Chapter**

Excellence in Architecture  
West Virginia Housing Development Fund - Charleston, WV





**B**

RELEVANT EXPERIENCE



# CONSTRUCTION AND FACILITIES MANAGEMENT OFFICE

LOCATION	SIZE	COMPLETION	COST	AWARDS
CHARLESTON, WV	19,935 SF	2008	\$3.5M	2009 AIA WV MERIT AWARD

**The Construction and Facilities Management Office (CFMO) Expansion project brought all of the operations of the CFMO together under one roof.**

The branches that occupy this facility include the Director of Engineering, Environmental, Planning and Programming, Facility Operations & Maintenance, Business Management, Resource Management, and Design and Construction. This expansion is located slightly to the front, and adjacent to the existing facility, lending prominence to the new construction, and providing a new aesthetic to the entire complex.

A transitional space was designed to connect the new structure to the existing facility, while maintaining a connection to the outside through use of natural light, direct visual connections to the exterior, large volumes, irregular geometries, and the use of natural materials.

The entry design was coordinated with the Recruiting and Retention Building to create an outdoor courtyard, along with new sidewalks, stairs and signage. The entry roof is sloped to provide a greater massing, while a lower canopy provides scale and protection from the elements. Large gathering and work spaces were located on the north elevation to take advantage of expanses of glazing located to capture indirect light and views of Coonskin Park.





# JOINT INTERAGENCY TRAINING AND EDUCATION CENTER (JITEC)

LEED  
GOLD

LOCATION KINGWOOD, WV	SIZE 283,000 SF	COMPLETION 2013	COST \$100M	AWARDS 2011 AIA WV HONOR AWARD
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ZMM, in association with AECOM, provided architectural and engineering design services for JITEC, an Army National Guard campus-style facility for training and operational mission support.

Sited on 30 acres near Camp Dawson, this project included the design of a new operations building, expansion of the billeting facility, renovation of the training facility, and creation of a new base access control point (ACP) and visitor's center. The vision behind the site design and updated master plan is that of a college campus atmosphere. The facility is designed to meet all anti-terrorism/force protection criteria and has achieved LEED Gold Certification. The operations building is prominently sited as the main focal point upon entering Camp Dawson and consists of four distinct areas: the Joint Operations Center (JOC), a suite of secure training rooms, base headquarters and JITEC administrative offices, and a server and telecommunications room.

Built to SCIF standards, the JOC contains a state-of-the-art command center, housing 48 permanent work stations in a theater-style configuration, facing a large video wall, flanked by conference rooms and offices for both officers and support staff. The billeting (hotel) expansion's lobby design provides a hotel atmosphere, underscored by the Liberty Lounge, an upscale bar and restaurant area, with wood finishes salvaged from the gymnasium floor of the former Preston County Armory.





# ROBERT C. BYRD REGIONAL TRAINING INSTITUTE

LOCATION	SIZE	COMPLETION	COST
KINGWOOD, WV	148,000 SF	2002	\$21M

**The Robert C. Byrd Regional Training Institute at Camp Dawson is a 148,000 SF facility designed to provide training, dormitory, dining, and recreational facilities for the West Virginia Army National Guard.**

The facility, which initially included 183 private dormitory rooms in addition to a wide range of training spaces, is designed to accommodate a variety of both military and civilian training functions. The goal of the owner was to provide a campus within a building, with clear circulation for various uses. ZMM accomplished this objective by employing a large cylindrical mass that marks the main entry where guests could coordinate both their housing and educational needs.

Additionally, the housing wing is joined to the recreational and educational components with a large gathering/transitional space that often serves as an informal meeting area. Due to the success of the project, and growing use of the facilities, ZMM assisted the West Virginia Army National Guard with a training and dormitory expansion that transformed the facility into the Joint Interagency Training and Education Center (JITEC).





# LOGAN-MINGO READINESS CENTER

LOCATION HOLDEN, WV	SIZE 54,000 SF	COMPLETION 2015	COST \$12M	AWARDS 2017 AIA WV MERIT AWARD
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The design of the Logan-Mingo Readiness Center was developed by examining both the program and building site, and developing strategies to design a facility that is functional, responds to site, security, and aesthetic parameters, while requiring minimal maintenance.

The building layout was developed by working closely with the end users to determine the appropriate configuration of building spaces to maximize the efficiency of the operations, and to respond to the unique missions of the 150th Armored Reconnaissance Squadron and the 156th Military Police (LNO) Detachment. This was accomplished through clear separation of public and private areas within the facility, unique office configurations related to training requirements, and the addition of state-funded additional spaces.

The exterior (and in many cases, the interior) aesthetic of the facility was driven by the location of the Readiness Center within an industrial park on a reclaimed surface mined site. The decision led to the use of reinforced cast-in-place retaining walls that became both a functional and visual focus. Similar walls are used to anchor the facility at the Distance Learning Center, while a cast-in-place retaining wall and natural stone serves as a part of the Anti-Terrorism/Force Protection design.





# MORGANTOWN READINESS CENTER

LOCATION	SIZE	COMPLETION	COST
MORGANTOWN, WV	54,000 SF	2013	\$22M

The Morgantown Readiness Center is a unique military facility. While supporting traditional military functions including the 1-201st Field Artillery, a significant portion of the building was designed for the 249th Army Band.

The Readiness Center contains a performance hall, pre-function spaces, as well as a variety of training and rehearsal areas. The stage is a large rehearsal space with an adjacent elevated recording area. A large operable partition separates the auditorium from the drill hall. Acoustically, this challenge was met by creating a drill hall with an irregular shape contained within a rectilinear, sloped barrel arch form. The office space was developed for dual utilization as an emergency response center in the event of an emergency in the Morgantown area.

The facility is located on an abandoned airport runway approximately 20 miles from Camp Dawson. As troops will often travel through the Readiness Center, the facility needed to function as a "gateway." This was accomplished by utilizing similar materials and a tower-like feature to mark entry.

The Morgantown Readiness Center is also a sustainable building. The U-shaped layout of the facility improves access to daylighting and views, while also limiting public access to the Guard's administrative and storage areas. The final result is a harmonious composition that reflects both its function and the environment.





# JACKSON COUNTY ARMED FORCES RESERVE CENTER

LOCATION | SIZE | COMPLETION | COST  
MILLWOOD, WV | 75,000 SF | 2011 | \$20M

The building design was inspired by the adjacent Georgian-style Order of the Eastern Star facility.

The primary user for the WVARNG will be DET 1 821st Engineering Company, supported by a FSC of the 1092nd. USAR occupants include PLT AMMO 261 OD and PLT 1 (Postal) and PLT 6 (Postal) of the 44th Personnel Company. An expanded drill hall serves as a convention and meeting space. The relationship between the structures became crucial to the site layout. Once the aesthetic of the building was established, the massing of the facility was defined by breaking down the facility into smaller mass elements. The larger programmatic elements, such as the drill hall and the storage areas, employ an aesthetic that more closely implies their function.

The layout of the facility includes a main entry with the recruiting, family support, and administrative areas located on separate sides. A transverse wing houses all functions that have the potential for public use, while all primary military spaces developed along a similar perpendicular wing. This allows for separate entries to be developed for public functions, while the remainder of the facility can be secured. The layout also creates a large central courtyard, or parade field, that would be located at lower grade to define the edge facing the river. This edge is defined by a canopy that connects storage and locker areas to the expanded drill hall.





# MOUNTAINEER CHALLENGE ACADEMY - SOUTH

LOCATION | SIZE | COMPLETION  
MONTGOMERY, WV | VARIOUS | ON-GOING

**Mountaineer Challenge Academy - South (MCA) involved the renovation of both Maclin Hall and the Tech Center at the old WVU Tech Campus in Montgomery to accommodate the expansion of the Mountaineer Challenge Academy.**

The Maclin Hall dormitory was renovated to include a new security system to reflect the new user's needs. The Tech Center received more extensive renovations including a new roof. The lower level of the Tech Center was renovated to have two new classroom spaces.

The upper level was renovated into new classroom and office space. This floor will have three computer classrooms and one standard classroom. A new HVAC system, ceilings, finishes, and LED lighting are all a part of this renovation.

Additional renovations and upgrades are currently on-going and involve the replacement of boilers.





C

TEAM QUALIFICATIONS



# ADAM KRASON

AIA, LEED AP, ALEP

*Principal*

Mr. Krason has served in the capacity of Architect and Project Manager for a variety of projects at ZMM. This experience includes Military, Educational (K-12 and Higher Education), Office, Justice (Courthouses, Correctional, Justice Centers), and Multi-Unit Residential projects. Mr. Krason's responsibilities include programming, design, documentation, coordination of the architectural and engineering team, as well as construction administration. Mr. Krason began his career in 1998, working on a variety of educational, commercial office, and correctional projects throughout Ohio, West Virginia, and North Carolina.

Mr. Krason has been an advocate of sustainable design and energy efficiency and has participated and presented at sustainable design seminars throughout the region. Mr. Krason is responsible for firm management, business development, and corporate philanthropy at ZMM. In addition to his role at ZMM, Mr. Krason is actively engaged in the community, serving on a variety of statewide and local civic and non-profit boards.

## EDUCATION

Bachelor of Architecture  
The Catholic University of America, 1998

Bachelor of Civil Engineering  
The Catholic University of America, 1997

## LICENSURE

Virginia, West Virginia, Ohio, Kentucky,  
Maryland, New Jersey, North Carolina,  
Louisiana

## AFFILIATIONS

- Association for Learning Environments
- WV Board of Architects, President (2019 - Current)
- American Institute of Architects,  
Strategic Council (2033/23)
- Charleston Area Alliance, Board Chair
- Goodwill Industries of Kanawha Valley,  
Past Board Chair
- Clay Center, Board of Directors
- WV Symphony Orchestra, Board of Directors
- Charleston Urban Works, Board of Directors
- Charleston Municipal Planning Commission
- Charleston Historic Landmarks Commission
- Education Alliance, Board Chair (2022/23)

## PROJECT EXPERIENCE

**WV State Laboratory** - So. Charleston, WV

**WV Department of Agriculture Laboratory Evaluations** - Guthrie, WV

**Capital Sports Center** - Charleston, WV

**Shawnee Sports Complex** - Institute, WV

**The Clay Center for the Arts and Sciences (Multiple Projects)** -  
Charleston, WV

**State Office Building #5, 10th Floor Renovation** - Charleston, WV

**Charleston Coliseum and Convention Center** - Charleston, WV

**Claudia L. Workman Fish and Wildlife Education Center** - Alum Creek,  
WV

**Wood County Justice Center** - Parkersburg, WV

**Wood County Resiliency Center** - Parkersburg, WV

**Construction and Facilities Management Office (WVARNG)** -  
Charleston, WV

**Joint Interagency Training and Education Center (WVARNG)** -  
Kingwood, WV

**Girl Scouts of Black Diamond Council** - Charleston, WV

**Goodwill Prosperity Center** - Charleston, WV



# NATHAN SPENCER

AIA

*Senior Architect, Project Manager*

Mr. Spencer is responsible for coordinating the efforts of the design team in preparing thorough and clear design documents. He has experience in all phases of design working on a wide range of building types including military, educational, office, justice, and residential.

He has worked on several projects that are currently pursuing LEED certification. In addition to production, Mr. Spencer, is also experienced in 3d modeling. He has worked on several preliminary concept study models as well as high quality renderings and 3d models later in the design process. Mr. Spencer is also experienced in high quality physical models.

Mr. Spencer began his career in architecture with ZMM in 2003, working as a summer intern. After graduating in 2003, he began working at ZMM full time.

## EDUCATION

Bachelor of Architecture  
University of Tennessee, 2007

## LICENSURE

West Virginia

## AFFILIATIONS

WV Chapter, American Institute of Architects,  
Member

## PROJECT EXPERIENCE

**Kenova AFRC SCIF Building** - Kenova, WV

**Logan-Mingo Readiness Center** - Holden, WV

**Jackson County AFRC** - Millwood, WV

**Joint Interagency Training and Education Center (JITEC)** - Kingwood, WV

**Buckhannon Readiness Center** - Buckhannon, WV

**Parkersburg Readiness Center (not built)** - Parkersburg, WV

**Marshall Readiness Center** - Moundsville, WV

**AASF #1 and #2 Hangar Additions**

**Mountaineer Challenge Academy South** - Montgomery, WV

**Morgantown Readiness Center** - Morgantown, WV

**Highland Hospital** - Charleston, WV

**Charleston Coliseum & Convention Center** - Charleston, WV

**Shawnee Sports Center** - Institute, WV

**Tucker County Courthouse Annex** - Parsons, WV

**Judge Black Courthouse Annex** - Parkersburg, WV

**Intuit Prosperity Hub** - Bluefield, WV



# JOHN PRUETT

PE, LEED AP

*Senior Mechanical Engineer*

Mr. Pruett is responsible for overseeing the design of the HVAC systems, ensuring that the HVAC systems meet the program requirements, and long-term needs of the owner. He performs heating and cooling load calculations and recommends the type of systems to be incorporated into the building. Mr. Pruett coordinates with other disciplines to integrate the HVAC systems into the building. Mr. Pruett has participated on several LEED registered projects. One of his key contributions to these projects is conducting energy analyses and recommending energy use reduction alternatives. Mr. Pruett began his engineering career with a manufacturing company in 1994. In 1998, he made a career change and joined an engineering consulting firm. He has a broad range of experience in HVAC systems design, including government, education, office buildings, hotels, restaurants, a convention center and several natatoriums. Having served in the Marines for 14 years, Mr. Pruett also led a design team for a "virtual memorial" for the birthplace of the U.S. Marine Corps.

## EDUCATION

Bachelor of Science  
Purdue University, West Lafayette, IN, 1993

## LICENSURE

West Virginia, Virginia, Indiana, Maryland,  
Louisiana

LEED Accredited Professional

## AFFILIATIONS

American Society of Heating, Refrigerating  
and Air-Conditioning Engineers (ASHRAE),  
Member

United States Marine Corps - 14 Years

## PROJECT EXPERIENCE

**WVDNR District 5 Headquarters** - Alum Creek, WV

**WV State Police Headquarters** - South Charleston, WV

**Wood County Resiliency Center** - Parkersburg, WV

**WV State Capitol Renovations** - Charleston, WV

**General Services Division Surplus Property** - Dunbar, WV

**WV Housing Development Fund Office Building** - Charleston, WV

**Tucker County Courthouse Renovations** - Parsons, WV

**Gilmer County Courthouse Renovations** - Glenville, WV

**St. Margaret's Judicial Center 3rd Floor Renovations** - Martinsburg, WV

**Jackson County Maintenance and Transportation** - Ripley, WV

**Jackson County EMS Building** - Ripley, WV

**WV Army National Guard**

- Camp Dawson Building 245
- Camp Dawson Building 246
- Camp Dawson Building 301
- Camp Dawson Mail Facility
- Marshall County Readiness
- Camp Dawson Job Challenge Academy



# JAMES LOWRY

PE, BCxA

*Mechanical Engineer*

James has been a member of the ZMM team since 2018. He has extensive experience in all phases of design and project management in a wide range of building types including industrial, educational, commercial, and health care.

James received his Bachelor of Science in Mechanical Engineering from West Virginia University Institute of Technology. He is a professional engineer licensed in West Virginia, Pennsylvania, Ohio, and Maryland. He is American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Building Commissioning BCxP certified.

James has been volunteering with ASHRAE. At a local level, he has provided leadership as the president of the local chapter WV ASHRAE. On the national level, he advises on Technical Committees (TC) 9.7 Educational Facilities and 4.1 Load Calculations, and is the current programs chair for TC 4.1.

## EDUCATION

Bachelor of Science in Mechanical Engineering, West Virginia University Institute of Technology, 2004

## LICENSURE

West Virginia, Pennsylvania, Ohio, and Maryland

ASHRAE Building Commissioning BCxP Certified

## AFFILIATIONS

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

## PROJECT EXPERIENCE

**WVARNG - WV**

- **Mountaineer Challenge Academy South Renovations**

- **Kenova SCIF**

- **Camp Dawson Building 202**

- **STF Building B**

**WV State Capitol Building #6 - Charleston, WV**

**Capitol Guard House - Charleston, WV**

**Charleston Fire Department Fitness Center Assessment - Charleston, WV**

**GSD ASHRAE Building Assessment - Charleston, WV**

**GSD Consulting Survey-Elect Media - HVAC - Charleston, WV**

**The Greenbrier Chiller and HVAC Projects - White Sulphur Springs, WV**

**Marshall University - Huntington, WV**

- **Drinko Library Mechanical and Electrical Study**

- **Replacement Multizone HVAC**

- **Prichard Hall Chiller Replacement**

- **Drinko/Science Building**

- **Smith Hall Cooling Tower Replacement**

**Charleston Area Medical Center (Memorial) 6th Floor Fit-out, Boilers, Laboratory Renovations - Charleston, WV**

**Charleston Area Medical Center (General) Chiller Plant One-Line, and Chiller Replacement - Charleston, WV**



# FRANKIE KANTSIOS

PE

*Electrical Engineer*

As an electrical engineer, Mr. Kantsios is consistently motivated to adapt to the team's needs in assessing and finalizing the project on time. He is an experienced professional with a proven record of managing projects from concept to completion while supporting the unique needs for the specific project at hand. By carrying out engineering and design services for a diverse field of projects since 2013, Mr. Kantsios has expanded his knowledge and understanding of the industry. He has been actively involved in the design of a wide array of new structures and renovations to include K-12 educational buildings, higher education buildings, healthcare facilities, office buildings, banks, restaurants, hotels, automotive dealerships and service centers, apartment complexes and dorms, industrial facilities and warehouses, and athletic facilities. Mr. Kantsios excels at creating effective solutions and developing opportunities that further establish organizational goals.

## EDUCATION

Bachelor of Science  
Old Dominion University, 2019

Associate of Applied Science  
New River Community College, 2016

## LICENSURE

Virginia, West Virginia, Ohio

## PROJECT EXPERIENCE

**WV Regional Technology Park** - Charleston, WV  
- Street Lighting Replacement

**West Side/ Elk City Street Lighting Replacement** - Charleston, WV

**WV General Services** - Charleston, WV  
- Building 31 Parking Garage Lighting and Security Replacement  
- Building 35 Lightning Protection Replacement  
- Building 37 HVAC Replacement and Energy Improvements

**Remington (TC Energy) Office Building** - Charleston, WV

**Goodwill Industries of Kanawha Valley** - Charleston, WV

**HOPE Community Center** - Charleston, WV

**Trace Fork Soccer Complex Improvements** - Charleston, WV

**Nicholas County Schools - Nicholas County, WV**  
- Glade Creek Elementary School

**Raleigh County Schools - Raleigh County, WV**  
- Shady Spring Elementary School Access Road

**Mineral County Schools - Mineral County, WV**  
- New Frankfort PK-4 School Site Design

**Jefferson County Schools - Jefferson County, WV**  
- New Ranson Elementary School  
- New Shepherdstown Elementary School



# KARSEN SHANNON

*Electrical Designer (EIT)*

Mr. Shannon is a certified Engineer in Training (EIT) with 1.5 years of experience as a commercial electrical designer, delivering innovative, efficient, and cost-effective solutions for diverse projects. Specializing in schools and technical career centers, Mr. Shannon excels in collaborating with multidisciplinary teams, including HVAC, plumbing, architectural, civil, and interior designers, effectively communicating with designers inside and outside the firm. Known for optimism, punctuality, and adaptability, Mr. Shannon ensures seamless integration of electrical systems to meet project demands and enhance functionality, while training under an experienced, licensed electrical professional engineer (PE).

## EDUCATION

Bachelor of Science in Electrical Engineering  
West Virginia University Institute of  
Technology, 2023

## AFFILIATIONS

The Golden Bear Alumni Association

Tau Beta Pi - Engineering Honor Society

## PROJECT EXPERIENCE

**Capital Sports Center** - Charleston, WV

**Remington (TC Energy) Office Building** - Charleston, WV

**Edgewood Country Club** - Charleston, WV

**WV Consolidated Laboratory** - Charleston, WV

**Wood County 911 Center Fence Area** - Parkersburg, WV

**WVDNR Cooper's Rock Residence and Linens Building** - Bruceton Mills, WV

**Woody Williams Center for Advanced Learning and Careers** -  
Barboursville, WV

**Calhoun-Gilmer Career Center** - Grantsville, WV

**Marshall University Multiple Projects** - Huntington, WV

**West Virginia State University** - Institute, WV  
- Hamblin Hall Elevators  
- Sullivan Hall Elevators

**WV School of Osteopathic Medicine** - Lewisburg, WV

**Roane-Jackson Technical Center** - Leroy, WV  
- HVAC  
- Electrical Lab Building

**Hurricane High School HVAC** - Hurricane, WV

**Mountwest CTC Deferred Maintenance** - Huntington, WV



# MIKE FLOWERS

ASPE, CPD

## *Senior Plumbing Designer*

Mr. Flowers is responsible for the design of Plumbing systems, ensuring that the systems are designed to meet the needs of the owner and utilize the latest plumbing technologies to provide the most energy efficient design possible. Mr. Flowers has participated on several LEED registered projects; one of his key contributions to these projects is selecting plumbing fixtures and accessories in his design that require less utility consumption, so significant utility savings are passed on to the owner and the environment as well.

Mr. Flowers has had extensive experience in the field of construction where he frequently visits ZMM's current projects under construction and thoroughly checks the contractors work to ensure compliance with project specifications and construction documents.

### EDUCATION

Associate in Mechanical Drafting and Design;  
Ben Franklin Career and Technical Center

Associate in Electronics Technology, Putnam  
Career and Technical Center

Associate of Science; 1988, West Virginia  
State University

Completed Dale Carnegie course in Effective  
Communications and Human Relations and  
Skills for Success

### LICENSURE

Certified Plumbing Designer

### PROJECT EXPERIENCE

**WVARNG - WV**

- Morgantown Readiness Center
- Logan-Mingo Readiness Center
- Jackson County AFRC
- Mountaineer Challenge Academy
- Buckhannon Readiness Center
- Buildings 202, 246, and 301
- Camp Dawson Mail facility

**WV State Capitol Senate Bathroom Renovations - Charleston, WV**

**Tucker County Courthouse - Annex - Parsons, WV**

**Wood County Justice Center - Parkersburg, WV**

**WV State Police Headquarters Building Renovation - So. Charleston, WV**

**Goodwill Industries - Parkersburg, WV**



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PROJECT APPROACH

# PROJECT UNDERSTANDING AND PROJECT APPROACH

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## PROJECT UNDERSTANDING

It is our understanding that the West Virginia Army National Guard Construction and Facilities Management Office intends to engage a qualified architectural and engineering team to investigate and design repairs to the failing vehicle exhaust ventilation system at the Combined Support Maintenance Shop within the Joint Forces Reserve Center in Eleanor, West Virginia. The selected team will evaluate the existing underground exhaust system serving the maintenance bays, determine the extent and causes of failure, and develop a coordinated, code-compliant solution integrating mechanical and electrical systems with cost-effective, energy-conscious strategies. The project will be executed in two phases, beginning with investigative and design services and followed by construction administration services issued by change order upon award of the construction contract. Deliverables will include phased digital submissions, sealed construction documents in digital and hard copy formats, and bidding support in accordance with West Virginia State Purchasing procedures.



Our experience with vehicle exhaust ventilation and facility infrastructure upgrades has demonstrated that successful outcomes require coordination across multiple disciplines. This project will require the involvement of mechanical and electrical engineers, as well as architectural oversight to evaluate building impacts, life safety considerations, and code compliance. Given the underground nature of portions of the existing system, civil and structural input may also be necessary. Utilizing a fully integrated team of design professionals reduces risk, improves coordination, and ensures a comprehensive solution for the West Virginia Army National Guard.

Perhaps most importantly, the ZMM team has worked collaboratively with the WVARNG on a variety of HVAC projects including those listed below.

- MCA – South (3 Phases)
- Camp Dawson Building 202 Renovation
- MCA – Jobs Challenge Facility
- Camp Dawson Building 245 Renovation
- Camp Dawson Building 246 Renovation
- Camp Dawson Building 301 Renovation
- Camp Dawson Building 106 Renovation

## APPROACH

Prior to commencing the investigation, ZMM Architects and Engineers will review all available documentation including existing drawings, specifications, prior reports, maintenance records, and photographs related to the Combined Support Maintenance Shop exhaust system. The investigation will be conducted by a multidisciplinary team of Architects and Mechanical, Electrical, Civil, and Structural Engineers. The team will focus on the existing underground

## Project Approach and Understanding (continued)

vehicle exhaust system serving the maintenance bays, identifying the extent and causes of system failure, evaluating associated utilities, and determining any related building components that may require modification to meet current code and operational requirements.

Once the investigation effort is complete, the design team will prepare an opinion of probable construction cost to confirm scope and project feasibility. The findings will be compiled into a concise report that establishes the framework for design development and future decision-making. This structured process ensures that improvements are strategically aligned with facility operations and budget expectations, while clearly defining scope prior to advancing into construction document preparation.

### CONSTRUCTION PHASE SERVICES

Upon award of Phase 2 services, ZMM will provide construction administration in accordance with the requirements of the West Virginia Army National Guard and West Virginia State Purchasing procedures. Typical construction phase services will include the following.

- Working Collaboratively with the Owner and Construction Team
- Serve as the Liaison Between the Owner and Contractor
- Participate in Regular Site Visits/Construction Progress Meetings
- Participate in Pre-installation Meetings
- Certify Applications for Payment by the Contractor
- Process RFI's, Submittals, and Change Orders
- Conduct Above Ceiling Engineering Inspections
- Conduct Punch-List and Final Inspections
- Coordinate Testing and Balancing or Commissioning
- Complete LEED Documentation (if required)
- Issue Certificate of Substantial Completion
- Schedule/Coordinate 11-Month Warranty Inspection

### PROJECT MANAGEMENT PLAN

ZMM Architects and Engineers proposes providing services with a team of design professionals experienced in delivering renovation and infrastructure improvements for WVARNG facilities statewide. The project will be led by Adam Krason, Principal-in-Charge with Nathan Spencer serving as Project Manager and Architect. Both have successfully directed recent assignments for the WVARNG and understand CFMO procedures, documentation standards, and coordination expectations.



Our team is familiar with phased project delivery requirements, including 35%, 95%, and 100% submissions, as well as the transition from investigative and design services into construction administration services executed via change order. Clear communication, defined responsibilities, and consistent coordination with CFMO will guide the project from initial assessment through bidding and construction support.

### ZMM QUALITY CONTROL PLAN

Quality control during the design phase begins with selecting team members who possess experience with mechanical

## Project Approach and Understanding (continued)

ventilation systems, underground infrastructure evaluation, and public agency project delivery. ZMM Architects and Engineers staff bring relevant WVARNG renovation experience to support the success of this exhaust system repair project. Quality management will include regular, documented coordination meetings with the Guard throughout the investigative and design phases. In addition to routine coordination, formal internal QA/QC reviews will occur at the completion of each submission milestone. A more detailed description of the design phase quality control plan is noted below.

### Selecting the Project Team

ZMM's staff depth allows us to assemble a highly qualified team dedicated to the project's success. Team members are selected based on technical expertise, familiarity with WVARNG standards, and experience with similar system upgrades.

### Identifying Project Requirements

Project requirements will be clearly documented at the outset of the design process. Establishing system performance criteria, applicable codes, and owner expectations early ensures that engineering decisions remain aligned with project objectives throughout each phase.

### Identifying Client Expectations

Understanding CFMO's operational priorities and performance goals is essential. The project will begin with a focused coordination session to confirm objectives, review investigative findings, and establish clear expectations for design and documentation.

### Post Project Review

At project completion, ZMM will participate in a lessons-learned review to identify opportunities for continuous improvement. An 11-month warranty walkthrough with WVARNG will also be conducted to confirm system performance and address any outstanding items with the contractor.

### Staff Training, Assessment and Enhancement

Ongoing professional development is integral to ZMM's culture. Continued staff training in mechanical systems, code compliance, and energy-efficient design enhances our ability to deliver technically sound and durable solutions for WVARNG facilities.

## ZMM COST CONTROL PLAN

To ensure alignment with WVARNG's budget expectations, ZMM will rely on both historic bidding data as well as independent estimates to verify the project budget. For this project, ZMM would utilize Win Strock to provide the independent estimate. ZMM and Mr. Strock have successfully collaborated on multiple projects, including those listed below.

- Camp Dawson Building 246 Improvements
- Camp Dawson Building 301 Improvements
- Camp Dawson Building 202 Improvements
- Buckhannon Readiness Center Phase 2
- Marshall County Readiness Center
- Mountaineer Challenge Academy - South
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- Building 5, 6, & 7 Improvements
- WVDNR District 5 Office
- WVRTP Building 740 Improvements
- West Virginia State Lottery Headquarters Renovation
- West Virginia State Police Information Services Center



ZMM has successfully delivered numerous renovation and infrastructure improvement projects for the WVARNG under defined budget and schedule constraints. We are committed to collaborating with CFMO to develop a practical, code-compliant, and cost-effective solution for the CSMS exhaust system repair project that supports operational readiness and long-term facility performance.



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CLIENT REFERENCES

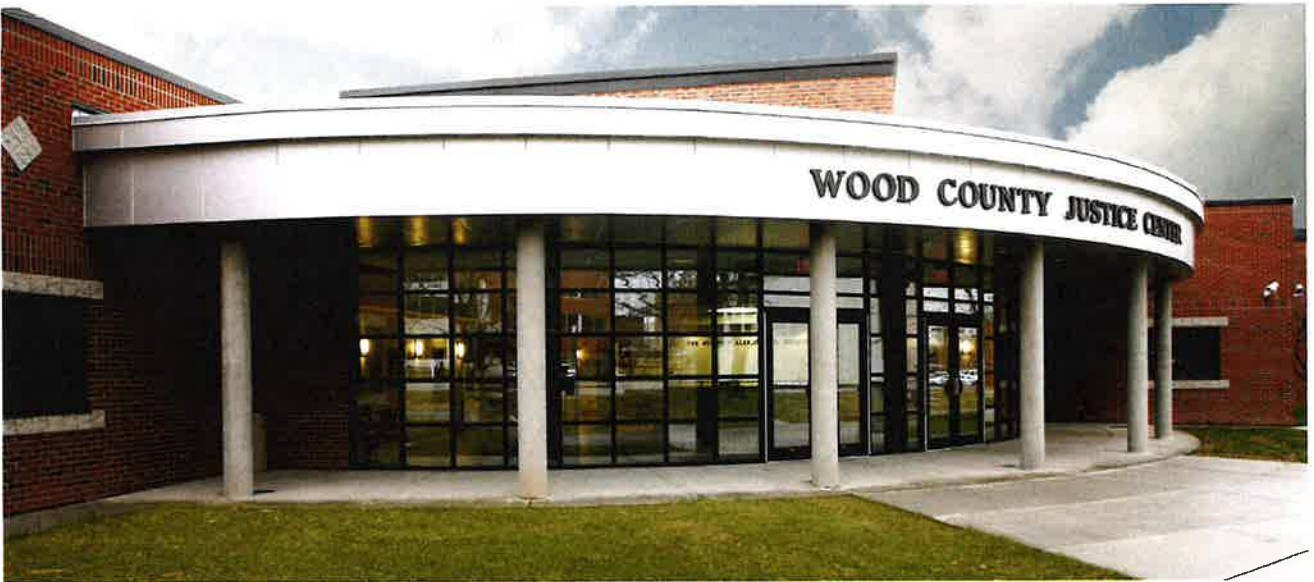
# CLIENT REFERENCES

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Blair Couch, Commission President  
Wood County Commission  
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304.834.0306 cell

Robert Kilpatrick, Director  
State of West Virginia, General Services Division  
Michigan Ave  
Charleston, WV 25311  
304.352.5491

Brett McMillion, Director  
West Virginia Division of Natural Resources  
324 4th Avenue  
So. Charleston, WV 25302  
304.558.6200





# Thank You

FOR REVIEWING THIS MATERIAL.

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