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Charleston, WV 25305-0130

State of West Virginia
Centralized Expression of Interest

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BID RECEIVING LOCATION

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2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code:

Vendor Name : ZMM Architects & Engineers
Address : 222 Lee Street, W.
Street : Charleston
City : WV
State : **Country :** USA **Zip :** 25302
Principal Contact : Adam Krason
Vendor Contact Phone: 304.342.0159 **Extension:** 234

FOR INFORMATION CONTACT THE BUYER

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

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WV PURCHASING
DIVISION

**Vendor
Signature X**

FEIN#

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DATE

7/9/24

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

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

(Printed Name and Title) Adam Krason, Principal

(Address) 222 Lee Street, West, Charleston, WV 25302

(Phone Number) / (Fax Number) 304.342.0159 / 304.345.8144

(email address) ark@zmm.com

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contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise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

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

ZMM Architects and Eningers

(Compar AK RK

(Signature of Authorized Representative)

Adam Krason, Principal

7/9/24

(Printed Name and Title of Authorized Representative) (Date)

304.342.0159 / 304.345.8144

(Phone Number) (Fax Number)

ark@zmm.com

(Email Address)



EXPRESSION OF INTEREST

To Provide Professional
Architecture/Engineering Services:

**Wheeling AASF No. 2
Hangar Addition**

**July 9, 2024
ADJ2400000007**

ZMM.COM

July 9, 2024

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



Subject: Wheeling AASF No. 2 Aircraft Hangar Addition Design (CEOI 0603 ADJ2400000007)

Mr. Pauline:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and qualifications to provide professional architectural and engineering services for the Aircraft Hangar Addition Design at Wheeling AASF#2.

Established in 1959, ZMM is a West Virginia-based, full-service architectural and engineering firm, focused on excellence in design and client support. ZMM has a longstanding relationship serving the West Virginia Army National Guard (WVARNG) and the right combination of technical expertise and relevant experience to help successfully deliver the Wheeling AASF#2 Aircraft Hangar Addition Design project.

With more than 65 employees, ZMM provides an integrated approach by delivering all building-related design services in-house, including architecture, engineering, interior design, and construction administration. ZMM engineers are industry leaders involved in developing strategies and best practices for design issues on local and national levels. ZMM's WVARNG experience includes previous planning services at Wheeling AASF#2. In 2013, ZMM Architects and Engineers inspected the Wheeling Army Aviation Support Facility (AASF) in order to observe the condition of the existing structure, and determine space/program deficiencies. At that time, we observed that the Wheeling AASF hangar has a gross area of 14,462 SF compared to the NG Pam 415-12 authorization of 23,800 SF. It is clear that this project will address a significant programmatic need for the WVARNG. In 2022, we explored additional solutions for the WVARNG, specifically related to an improperly-sized, free-standing hangar that is adjacent to AASF#2. That hangar had a column in the middle of the opening which makes it difficult to use regularly. A new, four-bay addition was proposed at that time with multiple configurations and budget options. However, the project didn't continue at that time due to funding challenges.

ZMM's ability to provide comprehensive building design services has led to our firm becoming a trusted resource for complex addition/renovation projects for the WVARNG including the Construction and Facilities Management Office (CFMO) Expansion, the Marshall County Readiness Center and FMS, the Joint Interagency Training and Education Center (JITEC), which was an expansion to the RTI, and the Camp Dawson Building 202 Renovation. Additional WVARNG experience includes the Jackson County AFRC, Glen Jean AFRC, Tackett Family Readiness Center, Morgantown Readiness Center, Logan-Mingo Readiness Center and Buckhannon Readiness Center. Several of these projects including the CFMO Expansion, the JITEC, and the Logan-Mingo Readiness Center were recognized with design awards. In fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects (AIA) West Virginia Chapter with 24 design awards since 2004.

Thank you for taking the time to review the attached expression of interest that includes a project understanding and approaches to meet the Goals and Objectives outlined in the EOI, as well as ZMM's qualifications and relevant project experience. You can explore our full range of projects on our website at zmm.com. We appreciate your consideration for this important endeavor and look forward to the opportunity to assist on the Wheeling AASF No. 2 Aircraft Hangar Addition Design Project.

Respectfully submitted,
ZMM Architects and Engineers

A handwritten signature in blue ink, appearing to read 'A. Krason', followed by a horizontal line.

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

BLACKSBURG
VIRGINIA

CHARLESTON
WEST VIRGINIA

MARIETTA
OHIO

MARTINSBURG
WEST VIRGINIA

ZMM.COM

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A

FIRM PROFILES

ABOUT ZMM ARCHITECTS & ENGINEERS

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), 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. Over the past 20 years 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 65 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 & Engineers (cont.)

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:

Pre-Design

Educational Facility Planning
Existing Building Evaluation
Space Planning
Master Planning

Programming
Feasibility Studies
Site Evaluation and Analysis
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. Because at ZMM, it's about more than architecture, it's about building your legacy.



AWARD WINNING DESIGN

2020

AIA West Virginia Chapter: Merit Award

Achievement in Architecture for New Construction

Mountain Valley Elementary School

Bluefield, West Virginia

AIA West Virginia Chapter: Merit Award

Achievement in Architecture

Ridgeview Elementary School

Crab Orchard, West Virginia

2019

AIA West Virginia Chapter: Honor Award

AIA West Virginia Chapter: Citation Award

AIA West Virginia Chapter: People's Choice Award

Charleston Coliseum & Convention Center

Charleston, West Virginia

2018

AIA West Virginia Chapter: Citation Award

Unbuilt Project

Charleston EDGE

Charleston, West Virginia

2017

AIA West Virginia Chapter: Merit Award

Achievement in Architecture

Explorer Academy

Huntington, West Virginia

AIA West Virginia Chapter: Merit Award

Achievement in Sustainability

Logan - Mingo Readiness Center

Holden, West Virginia

2016

AIA West Virginia Chapter: Merit Award

Achievement in Architecture in Interior Design

Christ Church United Methodist

Charleston, West Virginia



AWARD WINNING DESIGN

AIA West Virginia Chapter: Merit Award

Achievement in Architecture

Gauley River Elementary School
Craigsville, West Virginia



2015

AIA West Virginia Chapter: Honor Award

Achievement in Architecture in Sustainable Design

Edgewood Elementary School
Charleston, West Virginia



AIA West Virginia Chapter: Merit Award

Achievement in Architecture

Kenna Pk-5 School
Kenna, West Virginia



2014

AIA West Virginia Chapter: Merit Award

Achievement in Architecture in Sustainable Design

Huntington East Middle School
Huntington, West Virginia



AIA West Virginia Chapter: Merit Award

Achievement in Architecture

Southern West Virginia Community & Technical College
Williamson, West Virginia



AIA West Virginia Chapter: Merit Award

Achievement in Architecture in Interiors/Graphics

Girl Scouts of Black Diamond Council
Charleston, West Virginia

2012

AIA West Virginia Chapter: Honor Award

Excellence in Architecture

West Virginia Housing Development Fund Building
Charleston, West Virginia

2011

AIA West Virginia Chapter: Honor Award

Excellence in Architecture in Historical Preservation

Southside Elementary/Huntington Middle School
Huntington, West Virginia

ABOUT MOONLIGHT ENGINEERING, PLLC

Moonlight Engineering, PLLC was founded in 2024 in Jane Lew, West Virginia by Trevor Lloyd, PE, and Griffin Sepp, PE.

Trevor Lloyd and Griffin Sepp, both licensed Professional Engineers with degrees in Civil Engineering from West Virginia University and established Moonlight Engineering in 2024. They worked side by side at both a consulting firm and directly for a major developer before forming their own company. Mr. Sepp's deep knowledge of design and Mr. Lloyd's management and problem-solving abilities complement each other perfectly. Their partnership was forged from a shared dedication to delivering efficient engineering solutions that align with clients' business objectives.



Experience and Expertise

Together, Lloyd and Sepp bring a wealth of experience to Moonlight Engineering. With a combined portfolio spanning over one hundred civil engineering projects, they have demonstrated proficiency across various project types and sizes. In the past nine years, they have focused on residential subdivisions and commercial properties, including the development of hundreds of acres for single-family homes, townhomes and small to large retail spaces such as stand-alone structures to entire shopping malls.

Comprehensive Services

Moonlight Engineering offers comprehensive civil design services encompassing a diverse range of project types. These include residential subdivisions, military facilities, commercial structures, public works, road improvements, and light industrial facilities. Products include full construction and permit documents for site plans, water distribution, sanitary sewer, erosion and sediment control, stormwater management, floodplain analysis, commercial landscaping, and signage plans.

Personalized Approach

At Moonlight Engineering, every project is meticulously handled by Mr. Lloyd and Mr. Sepp. From land evaluation and field survey to concept development, permit acquisition, full design, cost estimation, value engineering, and conflict resolution, they personally oversee every facet to ensure optimal outcomes.

With a commitment to excellence, Moonlight Engineering continues to set industry standards by delivering innovative and effective engineering solutions tailored to meet the unique needs of each client.

Moonlight Engineering, PLLC



B

RELEVANT EXPERIENCE



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.





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.





GLEN JEAN ARMED FORCES RESERVE CENTER

LOCATION GLEN JEAN, WV	SIZE 110,000 SF	COMPLETION 2004	COST \$17M
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The Glen Jean Armed Forces Reserve Center contains three distinct military functions: a facility for routine maintenance of over-the-road and tracked military vehicles, an armory housing four West Virginia National Guard units, and the Southern West Virginia Military Entrance Processing Station, where new recruits officially enter the military system.

The brick exterior walls are highlighted with limestone and metal trim accents. A large assembly hall, plus classroom and training space, enhance the ability of the armory building to provide training for military personnel, while also providing much-needed space for community functions.

The Glen Jean AFRC also employs a sloped natural-stone buffer to meet federal anti-terrorism and force protection guidelines. The project has also become an important community resource and served as a meeting location during the development of the nearby Summit Bechtel Family National Scout Reserve.





CONSTRUCTION & 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.





TACKETT FAMILY READINESS CENTER

LOCATION CHARLESTON, WV	SIZE 7,400 SF	COMPLETION 2011	COST \$1.57M
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The Family Support Center is a two-story brick building with a sloped roof stepped into the wooded hillside adjacent to the Army National Guard facilities in Charleston, West Virginia.

The building is designed to provide for a multitude of military family assistance, guidance, education, training, and mentoring programs. The support center contains 11 office spaces, a chapel, and a variety of classroom and meeting spaces for various programs. The building provides an abundance of natural light and a central fireplace to project a warm, comforting and supportive atmosphere.

To reduce the project cost, ZMM eliminated the need for an elevator by siting the building in a manner that provided accessible entrances and parking at both levels. On the interior, these levels are connected by an open gathering space where stairs surround a central hearth.





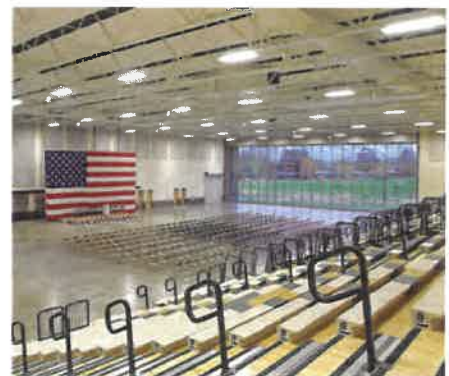
JACKSON COUNTY ARMED FORCES RESERVE CENTER

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





WV STATE OFFICE BUILDINGS 5, 6, & 7

LOCATION | AWARDS
CHARLESTON, WV | 2011 AIA WV MERIT AWARD

Nearly 50 years ago, ZMM (as Zando, Martin & Milstead) designed the original West Virginia State Office Buildings 5, 6, and 7.

Over the past decade, ZMM has assisted the State of West Virginia General Services Division with various improvements to the buildings, which commenced with an assessment that examined the condition of the buildings, as well as cost and phasing options for various upgrades. Improvements undertaken have ranged from substantial renovations to maintenance and repair projects. ZMM provided design services for the renovation of the 10th Floor of Building 5 for the Office of Technology, which focused on demonstrating the potential for renovating the floors in a more contemporary manner that moves the open office spaces to the perimeter, and pulls the offices adjacent to the building core. The project was delivered considerably under the anticipated budget.

The next phase of renovation involved abatement, demolition, new construction, and updated life safety systems. ZMM assisted with roof replacement for all three buildings, utilizing white EPDM roofing material, with consideration being given to sustainability. ZMM also assisted with expanding the electrical courtyard, improving the electrical service entry, replacing windows and entry doors, providing design services to replace the caulk between the exterior limestone and precast panels, and a valve replacement project to isolate mechanical risers.





WEST VIRGINIA STATE CAPITOL

LOCATION
CHARLESTON, WV

COMPLETION
2007-2021

ZMM Architects & Engineers has completed a variety of improvement project to the State of West Virginia Capitol Building.

The improvements included a renovation to the lower-level food court, a roofing replacement, toilet renovations, and various HVAC improvements – including a project to increase safety during the Covid-19 pandemic. The food court renovations included a full-service kitchen, self-serve area, and seating for 300 people. ZMM worked with a kitchen consultant and provided demolition drawings, base architectural, mechanical, and electrical drawings. The project also included the design of the first phase of a wet pipe sprinkler system. In addition, ZMM also provided the documents to replace the Capitol medium-voltage transformers. ZMM met a stringent timeline for a critical construction completion date.

ZMM replaced the roof of the Capitol Building, which included the main buildings, connectors, and base of the dome. All roof system components were reviewed for integrity and ability to control moisture collection and removal. The components included in the project were parapet walls, railings, wall conditions, colonnades, roof penetrations, roof drains, roof equipment, and walking surfaces. Additional projects included improvements to the Senate toilets, a report that mapped all of the mechanical equipment in Capitol Building, and various mechanical improvements to make portions of the Capitol more safe for occupants during the pandemic.





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 also serves on the Board of Directors and 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

AFFILIATIONS

Association for Learning Environments

WV Board of Architects, President

American Institute of Architects,
Strategic Council

Charleston Area Alliance, Board Chair

Goodwill Industries of Kanawha Valley,
Past Board Chair

Clay Center, Advisory Board

WV Symphony Orchestra, Board of Directors

Charleston Main Streets, Board of Directors

Charleston Municipal Planning Commission

Charleston Historic Landmarks Commission

Education Alliance, Board Chair

PROJECT EXPERIENCE

Capital Sports Center - Charleston, WV

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

State Office Building #5, 10th Floor Renovation (Office of Technology)
- Charleston, WV

Charleston Coliseum and Convention Center - Charleston, WV

Girl Scouts of Black Diamond Council - Charleston, WV

Goodwill Prosperity 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

Shawnee Sports Center - Institute, WV

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

Christ Church United Methodist - Charleston, WV



Nathan Spencer

AIA

Project Architect

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

EXPERIENCE OF MOONLIGHT ENGINEERING

Trevor Lloyd, P.E.

Mr. Lloyd, brings a wealth of diverse experience to Moonlight Engineering. His background includes regulatory engineering at the municipal level, architectural engineering for federal buildings, military engineering worldwide, and private sector design engineering in West Virginia. He currently serves as a Lieutenant Colonel in the West Virginia National Guard, assigned as the Battalion Commander of the Regional Training Institute in Camp Dawson, WV. During his tenure in the WV National Guard, he has led multiple engineering and survey missions in dozens of countries to meet mission requirements. Mr. Lloyd also holds the role of Engineer of Responsible Charge for ILA Properties, Inc. and Moonlight Engineering, PLLC.



Griffin Sepp, P.E.

Mr. Sepp possesses a deep knowledge of civil design. An expert at computer aided drafting and stormwater analysis software, he quickly rose through the ranks and obtained the title of Design Manager. He has led teams of engineers for large scale residential and commercial developments for both a private consulting firm and a major developer. His recent design portfolio includes the infrastructure and site design for the Middletown Commons redevelopment project in Fairmont, WV leading to the successful completion of a challenging project. He was also the lead designer for the Hunter Hills Subdivision in Jefferson County, the largest and most complex subdivision the County has approved in the past 20 years.



CARLY CHAPMAN

Director of Interior Design



Mrs. Chapman serves as the Interior Designer at ZMM. Mrs. Chapman takes pride in her work's originality and always strives to help the client's vision and intent come alive in the design process. Her experience at ZMM includes Education, Municipal, Residential, Healthcare, and Hospitality projects. In her past position she focused on both Corporate and Healthcare design. Mrs. Chapman's responsibilities include conducting design proposals and presentations, as well as producing design documents and specifications relating to all aspects of interior design.

Mrs. Chapman has served as the interior designer for a variety of projects. Projects range from renovations to new construction and is comprised of every industry. Her responsibilities include design concept, presentation, documentation, specification writing, and architectural drafting.

EDUCATION

Bachelor of Interior Design
University of Charleston - 2012

AFFILIATIONS

Association for Learning Environments

PROJECT EXPERIENCE

Wood County 911 Call Center - Parkersburg, WV

Intuit Prosperity Hub - Bluefield, WV

Goodwill Industries - Parkersburg, WV

WV State Capitol Senate Bathroom Renovations - Charleston, WV

State Office Building #6 Renovations - Charleston, WV

Charleston Coliseum and Convention Center - Charleston, WV

Capital Sports Center - Charleston, WV

Charleston EDGE - Charleston, WV

Valley Park Community Center - Hurricane, WV

Pipestem Resort State Park Lodge Interior Renovations - Pipestem, WV

Cabell County Career and Technical Center - Huntington, WV

WV School of Osteopathic Medicine Multiple Projects - Lewisburg, WV

Wood County Schools - Wood County, WV
- Williamson Elementary School
- Wood County Tech Center

Nicholas County Schools - Nicholas County, WV
- Nicholas County High School / Summersville Middle School / NCCTC
- Cherry River Elementary / Richwood Middle School



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

LEED Accredited Professional

AFFILIATIONS

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

United States Marine Corps - 14 Years

PROJECT EXPERIENCE

WV Army National Guard - WV

- **Camp Dawson Building 106**
- **Camp Dawson Building 245**
- **Camp Dawson Building 246**
- **Camp Dawson Building 301**
- **Camp Dawson Mail Facility**
- **Marshall County Readiness**
- **Camp Dawson Job Challenge Academy**

WVDNR District 5 Headquarters - Alum Creek, WV

WV State Police Headquarters - So. 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



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 staying versatile to 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; providing him with the means to meet the clients' needs for each individual program. 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. Whether working independently or in conjunction with other architects, engineers, and contractors, 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

West Virginia
Virginia

PROJECT EXPERIENCE

Carilion New River Valley Medical Center - VA

- Cardiology Expansion
- Infusion Clinic Alterations

HCA Healthcare - VA

- LewisGale Hospital Montgomery - 3rd Floor Graduate Medical Education Center

InnovAge PACE - VA

- New Richmond Facility
- New Roanoke Facility
- Roanoke Facility Study

Bath Community Hospital - VA

- New Pharmacy Building*

New Triumph Baptist Church - VA

Frederick County Sunny Side Voter Registrar's Office- VA

- A.S. Rhodes Elementary School Renovations

New River Community College - VA

- ADA Accessibility Improvements

City of Covington City Hall Renovations - VA*

Pulaski County Administration Building Renovation - VA*

**Previous Employer Experience*



WILLIAM SHELTON

PE

Civil Engineer

As a Civil Engineer, it is Mr. Shelton's responsibility to oversee the design of all aspects of a project site in order to provide our clients with a facility that is safe, functional, efficient, and maintainable. Mr. Shelton's design and oversight responsibilities include site master planning and layout, roadway design, grading and earthworks, water and sewer system design, storm drainage, and stormwater management design and calculations, as well as erosion control design and calculations. Mr. Shelton also assists clients in pre-design site evaluation and feasibility studies, leading our clients through the site selection process. Helping clients develop master plans of their facilities is another way that can help them more effectively utilize what they have now and assess their needs for the future.

Mr. Shelton's goal is to provide excellent client service, to exceed individual project needs, and to add value through creative engineering solutions.

EDUCATION

Bachelor of Science
Virginia Polytechnic Institute & State
University, 1992

LICENSURE

West Virginia, Virginia, North Carolina, and
Tennessee

PROJECT EXPERIENCE

New Ridgeview Elementary School - Dickenson County, VA

Frederick County Public Schools - Frederick County, VA

- **Transportation Facility**
- **Sherando High School Competition Softball Field and Facilities**
- **Sherando High School Tennis Courts**
- **James Wood High School Softball Field Improvements**
- **Various Site Studies**

Waynesboro High School Addition and Renovation - Waynesboro, VA

Raleigh County Schools - Raleigh County, WV

- **Woodrow Wilson High School Water Line Replacement**
- **Shady Spring Elementary School Access Road**
- **Transportation Facility Fuel Tanks**

Jefferson County Schools - Jefferson County, WV

- **South Jefferson Elementary School Septic System Evaluation**
- **Ranson Elementary School**
- **Shepherdstown Elementary School**

Wythe County Public Schools - Wythe County, VA

- **George Wythe High School Addition and Renovation**

Montgomery County Public Schools - Montgomery County, VA

- **Old Christiansburg Middle School Bus Garage Conversion**

Mineral County Schools - Mineral County, WV

- **New Frankfort PK-4 School Site Design**



TODD POFF, PE

Structural Engineer

Mr. Poff started as a Civil Engineer. After working in that department for several years, he began moving over to the Structural Engineering Department; where his true interest, and most of his training lies.

As a Structural Engineer, it is Mr. Poff's responsibility to insure the safety of the structure's design, as well as any occupants inside those structures. As a member of the design team, Mr. Poff understands that the structural system of a building needs to have the least amount of impact possible on the architectural design and on the way clients use the buildings. It is that kind of teamwork, with all major design disciplines in-house, that allows ZMM to say with confidence we provide our clients with a building design that will not only meet their needs but will be a place they can enjoy for many years to come.

EDUCATION

Bachelor of Science
Virginia Polytechnic Institute & State
University, 1987

LICENSURE

West Virginia, Virginia, Ohio, North Carolina

PROJECT EXPERIENCE

Dickenson County Public Schools - Dickenson County, VA

- **New Ridgeview Elementary School**

- **Classroom Addition at Ridgeview Elementary School**

Marshall County Schools - Marshall County, WV

- **Monarch Stadium, Concessions & Field House Renovations**

Wirt County Schools - Wirt County, WV

- **Wirt County Middle School Renovations**

Wythe County Public Schools - Wytheville, VA

- **George Wythe High School Addition and Renovation**

- **Scott Memorial Middle School Addition to GWHS**

Raleigh County Schools - Raleigh County, WV

- **Ridgeview Elementary School**

Jefferson County Schools - Jefferson County, WV

- **Ranson Elementary School**

- **Shepherdstown Elementary School**

Timber Ridge CTEC - Winchester, VA

Mineral County Schools - Mineral County, WV

- **New Frankfort PK-4 School**



MIKE FLOWERS

Plumbing Designer / Mechanical Technician

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; 1990, Ben Franklin Career and Technical Center

Associate in Electronics Technology; 1987, 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

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



EDUCATION

Bachelor Degree, Marshall University,
2016

JOE DOEFFINGER

Construction Administrator

Mr. Doeffinger has developed a solid reputation for the level of knowledge, professionalism, and documentation that is required during the construction phase as a construction administrator. Joe works diligently to be the eyes and ears onsite for the projects' team, as well as the client. He has worked on a variety of projects that have included nonprofit, federal, local government, healthcare, and education.

Mr Doeffinger's projects have included nonprofit, education, federal, local government, and healthcare.

PROJECT EXPERIENCE

Kanawha County Schools - Kanawha County, WV

- Clendenin Elementary School
- Cedar Grove Elementary School

Calhoun County Schools - Calhoun County, WV

- Pleasant Hill Elementary School Roof Replacement and HVAC Renovations

Mineral County Schools - Mineral County, WV

- Pleasant Hill Elementary School Roof Replacement and HVAC Renovations

Raleigh County Schools - Raleigh County, WV

- Stratton Elementary School
- Shady Spring Elementary School

Putnam County Schools - Putnam County, WV

- Digital Surveillance upgrades

Cabell County Schools - Cabell County, WV

- Barboursville Middle School Gymnasium Renovation
- Huntington High School Renovation
- Cabell Midland High School Renovation

Jackson County Schools - Jackson County, WV

- Cottageville Elementary School
- Ripley Middle School

Goodwill Industries - Parkersburg, WV

Tug Valley ARH Regional Medical Center HVAC Renovation -
Williamson, KY

New KRT Laidley Street Transportation Center and Ticket Office

- Kanawha County, WV



D

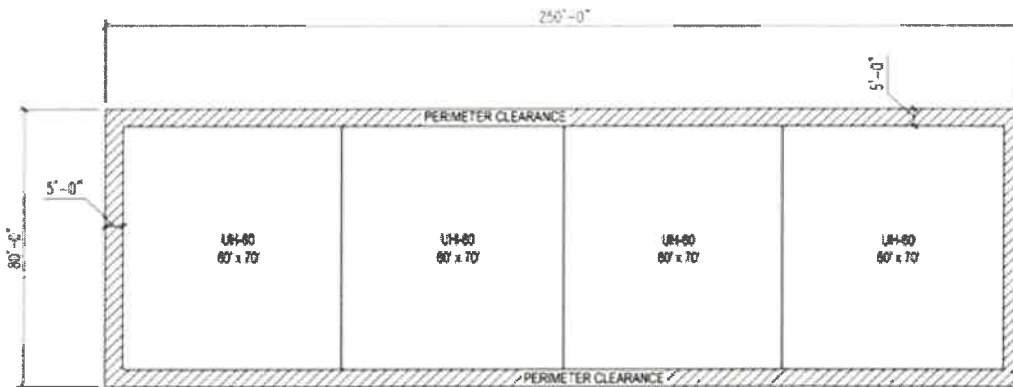
PROJECT APPROACH

PROJECT APPROACH

BACKGROUND

Based upon ZMM's understanding of the information contained in the request for expression of interest, the project involves the construction of an addition to the Wheeling AASF#2 facility. As stated in the EOI, the "existing structure needs an addition to fully support the current mission requirements." The hangar space will be heated and will be designed to conform with associated regulations and building codes, including the current NG Pam 415-12 planning document, and the State of West Virginia Building and Life Safety codes.

ZMM Architects and Engineers has previous experience with this project. In 2013, ZMM architects Adam Krason, AIA and Nathan Spencer, AIA visited the Wheeling Army Aviation Support Facility (AASF) to observe the condition of the existing structure. The purpose of this visit was to determine what repair items are necessary and how the building area compares to the current NG Pam 415-12 planning document. At that time, we observed that the Wheeling AASF#2 hangar has a gross area of 14,462 SF compared to the NG Pam 415-12 authorization of 23,800 SF. This equates to roughly 61% of the authorized area. At the time, this facility serves 9 total aircraft, all of which are UH-60's. Based on the formulas in the planning document the hangar should be capable of housing 4 UH-60's. The authorized area also includes a 5' perimeter clearance around the aircraft. Refer to the diagram below for the authorized hangar layout.



Wheeling AASF: Authorized Hangar Layout

Based upon our initial investigation, ZMM determined that the undersized hangar was being utilized as efficiently as possible. However, proper clearances could not be maintained around the aircraft. The maintenance crew must take special care when moving aircraft not to damage the propellers due to the insufficient space. Propellers are often loosened and rotated on the aircraft in order to move it in or out of the hangar. Refer to the photo below.



D. Project Approach and Understanding (cont.)

The specialized work areas at the Wheeling AASF have a net area of 4,478 SF compared to the NG Pam 415-12 authorization of 10,581 SF. This equates to roughly 42% of the authorized area. The Wheeling AASF facility has relocated tool storage and office space into the hangar space. Due to the lack of shop space, many of the existing spaces are required to serve multiple functions which limits the efficiency at which the space can be utilized.



Wheeling AASF: Tool Storage / Workspaces in Hangar

Additionally, the personnel support areas at the Wheeling AASF have a net area of 8,459 SF compared to the NG Pam 415-12 authorization of 14,996 SF. This equates to roughly 56% of the authorized area. The administrative and training areas have a net area of 2,787 SF compared to the 3,035 SF of authorized space. This portion of the program appears to be adequately sized. While the administrative and training areas are currently sized appropriately, many of the spaces have been relocated to the original operations area. This has reduced the current area of the operations area to 1,301 SF, or 36% of the authorized area. The ALSE shop and storage portion of the program has a net area of 509 SF which is only 26% of the authorized area. The Maintenance Administrative Area has a net area of 1,027 SF and is only 54% of the authorized area. Unfortunately, many of these office spaces are collocated with the specialized work area or the hangar space which limits the efficiency of both functions.

In addition to the space facilities, ZMM Architects and Engineers identified a variety of other building deficiencies. At the time of the initial visit, the exterior doors posed a serious security threat. Most of the doors were showing advanced stages of rust and many are beginning to rust off of the hinges. Also, many of the doors did not latch. Another major security concern was the large above ground propane storage tank that is within 45' of the building. This tank should be either replaced with an underground tank, or relocated farther from the building.

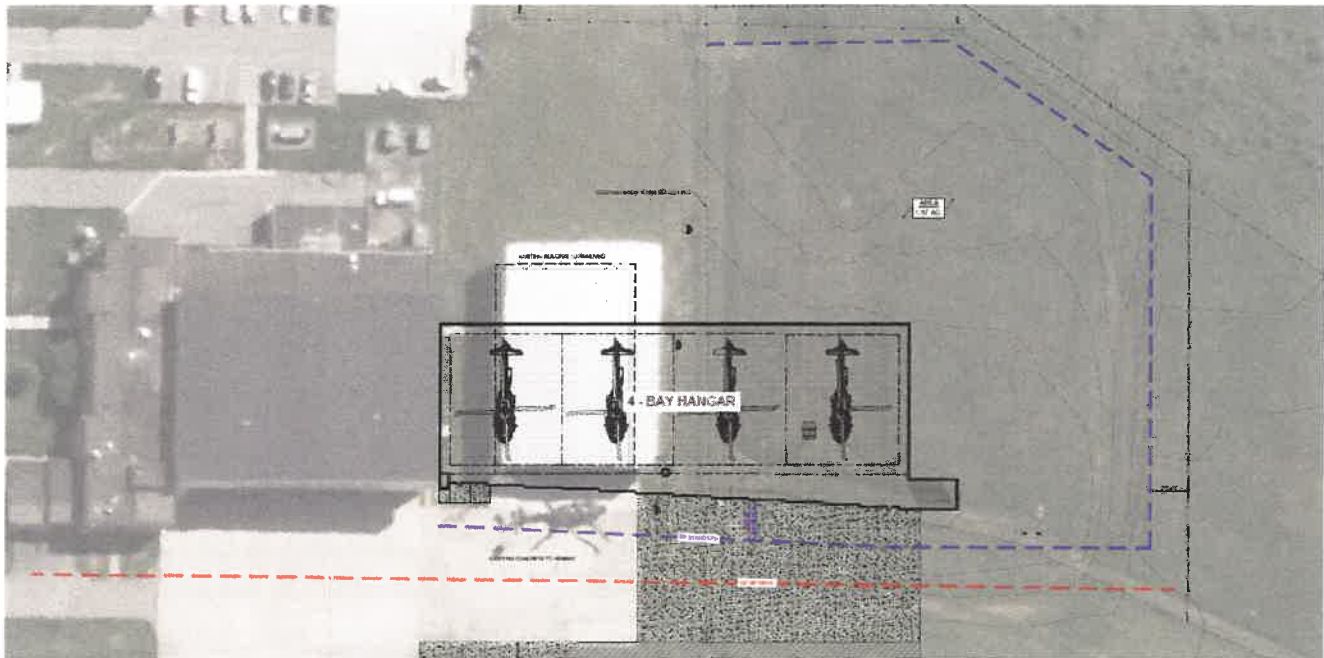
The HVAC system was generally in acceptable condition; however, the cooling tower required replacement. Two of the four infrared heaters serving the hangar were also broken and needed to be replaced, as well as the exhaust fan in the hangar. In addition to the recommended HVAC improvements, the intercom system also needed to be expanded to cover the entire building and upgraded to include a mass notification system. This facility should also be equipped with an emergency generator. The epoxy floor in the hangar was also very slippery when wet and should have a slip-resistant coating. Also, a small trench should be cut in the concrete slab to allow water to drain from the hangar door floor tracks.

The technical nature of this project demonstrates the need for a full-service design team with experience working on West Virginia Army National Guard facilities. ZMM has the technical professionals - including architects, engineers (civil, structural, mechanical, and electrical), and interior designers - needed to address every aspect of the hangar addition

D. Project Approach and Understanding (cont.)

If selected for this engagement, ZMM will staff the project with architects and engineers who have previously investigated the Wheeling AASF#2 hangar facility to expedite the design phase.

In addition to the initial visit in 2019, ZMM also visited the facility in 2022 to provide another updated layout and looked at multiple configuration options. At that time, a four-bay plan was recommended. (See photo below.) However, the project didn't continue due to funding challenges.



WHEELING AASF#2 AIRCRAFT HANGAR ADDITION: PROJECT APPROACH

ZMM Architects and Engineers understands that the project will be undertaken in two phases, with the possibility of a significant delay prior to moving beyond the 35% submission. We have previously worked with the WVARNG on a variety of projects that were delivered in this manner, including the Logan-Mingo Readiness Center, which took nearly a decade to move from 35% submission to completion, and involved a variety of changes to funding and schedule. As noted above, ZMM anticipates that our previous experience providing planning services at the Wheeling AASF#2 will help expedite the first phase of the project.

Once the first phase is completed, ZMM will develop plans, specifications, and bidding documents for the proposed improvements. Drawings, specifications, and estimates will be submitted for review at 35% (as noted above), and again at 50%, 90%, and 100%. Our recent experience working with the WVARNG will ensure that all documents meet your requirements and standards – saving the WVARNG additional effort and expediting the design phase of the project. Once the documents have been approved, ZMM will assist with the bidding and construction phases of the project, including participation in a pre-bid meeting, developing any required addenda, responding to RFI's, reviewing submittals, and conducting and preparing minutes of construction progress meetings. Our efforts will continue through substantial and final completion inspections and include an 11-month warranty walk through. Our goal throughout this process will be to act as part of the WVARNG team with the objective of ensuring the seamless delivery of your project.

WHEELING AASF#2 AIRCRAFT HANGAR ADDITION: PROJECT MANAGEMENT PLAN

ZMM Architects and Engineers proposes to provide services on the project with a team of design professionals who have worked together on a variety of WVARNG facilities throughout the state, including previous planning work at the Wheeling AASF#2.

D. Project Approach and Understanding (cont.)

The team will be led by Adam Krason (Principal) and Nathan Spencer (Project Manager and Architect). Mr. Krason and Mr. Spencer have led ZMM's effort on all of the recent work for the WVARNG, including the Kenova Secure Area Renovation, various renovation and improvement projects at Camp Dawson, the JITEC, the Camp Dawson ACP, the Marshall County Readiness Center, the Jackson County AFRC, the Morgantown Readiness Center, the CFMO Expansion, the Tackett Family Readiness Center, and the Parkersburg Readiness Center.

Other key team members will include:

Carly Chapman	Director of Interior Design
Frankie Kantsios, PE	Electrical Engineer
Todd D. Poff, PE	Structural Engineer
Bob Doeffinger PE	Engineering Principal/Mechanical Engineer
John Pruett, PE	Mechanical Engineer
Mike Flowers	Plumbing Designer
Mark Epling, AIA	Specifications Writer
Joe Doeffinger	Construction Administrator
Amy Rhodes	Construction Administrative Assistant
Win Strock	Estimating

As noted above, ZMM's in-house design team will be supplemented by the specialized expertise of Win Strock (estimating). ZMM regularly collaborates with Mr. Strock, and our team has successfully collaborated on multiple projects for the WVARNG, and each team member is familiar with the standards, requirements, and processes that are utilized by the Guard.

ZMM QUALITY CONTROL PLAN

Quality control during the design phase begins with the selection of team members with experience working on projects that are similar to the current effort. ZMM Architects and Engineers staff possesses the WVARNG renovation design experience to ensure the success of the project. Quality control during the design phase will occur through regular, documented, project meetings between the design team and the Guard. In addition to the regular design phase meetings more formal QA/QC will occur at the end of each design phase. A more detailed description of the design phase quality control plan is noted below:

1. Selecting the Project Team

ZMM's experienced staff ensures that each project team is made up of highly qualified members, each dedicated to the project's success. Project team members are selected based upon relevant experience and ability to help achieve the client's vision.

2. Identifying Project Requirements

Project team members are fully integrated in each phase of the design process, ensuring a quality project from the commencement. The project requirements are included in a 'Basis of Design' that each member of the project team can access. The 'Basis of Design' helps guide important project decisions.

3. Identifying Client Expectations

Understanding our clients' expectations is our goal. This knowledge gives ZMM a baseline for exceeding expectations. We will commence the design effort with a planning session to help identify your vision for the project.

4. Ongoing Project Reviews

As part of the ongoing project reviews, we conduct quality assurance evaluations during each stage of the project:

Schematic Design Phase (35%)
Design Development Phase (50%)
Construction Documents Phase (95%)
Construction Administration Phase

D. Project Approach and Understanding (cont.)

ZMM has developed a series of QA/QC review documents that are completed during each phase, and include a programmatic review, technical review, and review of the project schedule and budget.

5. Post Project Review

At the completion of every project, ZMM staff members participate in a learning session to gain insight useful for future projects.

6. Staff Training, Assessment and Enhancement

Ongoing staff development and training is very important to ZMM, and providing increased opportunities for learning and advancement leads to improved employee performance and more successful projects for our clients.

ZMM COST CONTROL PLAN

As part of our effort to ensure our ability to meet the WVARNG's budget, 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 a number of projects, including:

- Camp Dawson Building 202 Improvements
- Marshall County Readiness Center
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- New Kanawha County (Clendenin) Elementary School
- New Mercer County Elementary School
- Mountain Valley Elementary School
- Williamstown Elementary School
- Building 5, 6, & 7 Improvements
- Beech Fork Lodge
- West Virginia State Police Information Services Center
- Edgewood Elementary School
- West Virginia State Lottery Headquarters Renovation
- Brooks Manor Addition and Renovation
- WVRTP Building 740 Improvements
- Charleston EDGE (Mixed-Use Housing)



ZMM has a history of working to successfully projects under challenging budget and schedule constraints for the WVARNG. Cost estimates will be provided with the 35%, 50%, 90%, and 100% submission. We look forward to collaborating with you to meet the budget and schedule for the Wheeling AASF#2 Aircraft Hangar Addition.



E

CLIENT REFERENCES

CLIENT REFERENCES

Robert Kirkpatrick, Deputy Director

General Services Division of WV
103 Michigan Ave
Charleston, WV 25311
304.352.5491

Mayor Amy Goodwin

City of Charleston
501 Virginia Street, E.
Charleston, WV 25301
304.348.8000

Blair Couch, Commissioner

Wood County Commission
1 Court Square
Parkersburg, WV 26101
304.424.1976



Thank You

FOR REVIEWING THIS MATERIAL.

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