



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

State of West Virginia
 Centralized Expression of Interest

10/28/21 11:49:15
 WV Purchasing Division

Proc Folder: 949831			Reason for Modification: Addendum No. 1 Change bid opening date and time
Doc Description: AASF1 & AASF2 Unheated Aircraft Storage Design			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2021-10-14	2021-10-28 13:30	CEOI 0603 ADJ2200000007	2

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: 206059
Vendor Name: ZMM, Inc. (dba ZMM Architects and Engineers)
Address :
Street : 222 Lee Street, West
City : Charleston
State : WV **Country :** USA **Zip :** 25302
Principal Contact : Adam R. 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

Vendor Signature X  **FEIN#** 55-0676608 **DATE** 10-27-2021

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

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CEOI ADJ2200000007

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

ZMM, Inc. (dba ZMM Architects and Engineers)

Company



Authorized Signature

10-27-2021

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.



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 304-558-0067
 david.h.pauline@wv.gov

Vendor Signature X  **FEIN#** 55-0676608 **DATE** 10-27-2021

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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.

ARK → PRINCIPAL

(Name, Title)
Adam R. Krason, AIA, LEED AP, Principal

(Printed Name and Title)
222 Lee Street, West, Charleston, WV 25302

(Address)
304-342-0159 304-345-8144

(Phone Number) / (Fax Number)
ark@zmm.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

ZMM, Inc. (dba ZMM Architects and Engineers)

(Company)

ARK → ADAM R. KRASON, PRINCIPAL

(Authorized Signature) (Representative Name, Title)

Adam R. Krason, AIA, LEED AP, Principal

(Printed Name and Title of Authorized Representative)

10-27-2021

(Date)

304-342-0159 304-345-8144

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: ZMM, Inc. (dba ZMM Architects and Engineers)

Authorized Signature: [Signature] Date: 10-27-2021

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 27 day of October, 2021.

My Commission expires 10-6, 2023.

NOTARY PUBLIC [Signature]

Purchasing Affidavit (Revised 01/19/2018)





October 28, 2021

Mr. David Pauline, Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East - PO Box 50130
Charleston, West Virginia 25305-0130

**Subject: AASF1 & AASF2 Unheated Aircraft Storage Design
Williamstown, WV and Wheeling, WV
(CEOI ADJ2200000007)**

Mr. Pauline:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional architectural and engineering services for the AASF1 & AASF2 Unheated Aircraft Storage Design project. It is anticipated that the 15,000 SF unheated storage buildings will be metal structures with aviation doors provided to move aircraft into the facility. Each unheated storage facility will have the ability to house three (3) UH-60 rotary wing aircraft. The storage space 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.

Established in 1959, ZMM is a West Virginia based A/E firm, and is noted for design excellence and client focus. ZMM's ability to provide comprehensive building design services has led to our firm becoming a trusted resource for complex design projects throughout the West Virginia. ZMM has provided design and construction phase services on multiple WVARNG projects throughout the state including the Joint Interagency Training and Education Center (JITEC) and ACP at Camp Dawson, the Jackson County AFRC, the Glen Jean AFRC, the Tackett Family Readiness Center, the Morgantown Readiness Center, and the Logan-Mingo 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 West Virginia Chapter with twenty-four design awards since 2005 – an achievement that is unrivaled in West Virginia.*

In addition to our experience providing design services for the WVARNG, ZMM has provided design services on a variety of aviation related projects including a hangar (unbuilt) for a private airline at the Raleigh County Memorial Airport near Beckley. ZMM also possesses recent design experience near each of the project sites. AASF1 is in Wood County, where ZMM recently provided design services for the New Williamstown Elementary School, an Addition to Williamstown MS/HS, an addition to the Wood County Technical Center, and is currently working on the design of both a Resiliency Center and New 911 Center for the Wood County Commission. AASF2 is in Wheeling, which is near the Marshall County Readiness Center project (currently under construction for the WVARNG).

Thank you for taking the time to review the attached expression of interest that includes information about our proposed approach for the AASF1 & AASF2 Unheated Aircraft Storage Design project, as well as ZMM's qualifications, and relevant project experience.

Blacksburg
200 Country Club Drive SW
Plaza One, Building E
Blacksburg, Virginia 24060
540-552-2151

Charleston
222 Lee Street West
Charleston, West Virginia 25302
304-342-0159
www.zmm.com

Martinsburg
5550 Winchester Avenue
Berkeley Business Park, Suite 5
Martinsburg, West Virginia 25405
304-342-0159

Additionally, please visit our website at www.zmm.com to see the full range of renovation projects that we have designed. We appreciate your consideration for this important endeavor and look forward to continuing our work on the West Virginia Army National Guard.

Respectfully submitted,
ZMM Architects and Engineers



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

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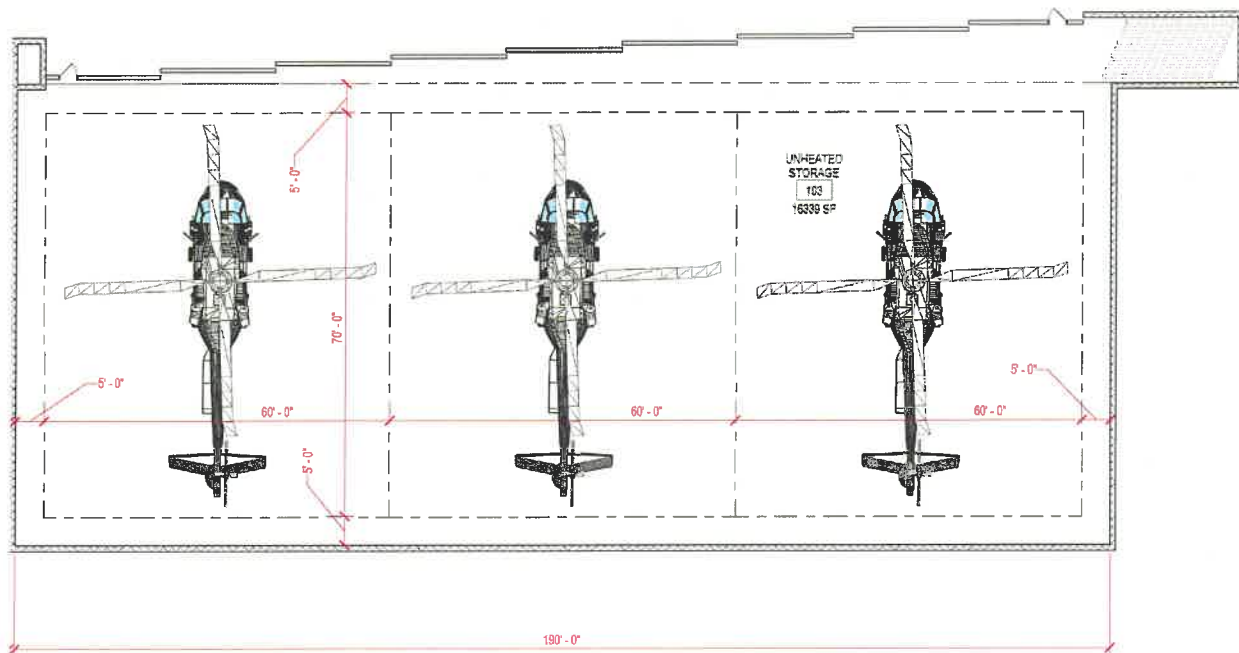
AASF1 & AASF2 UNHEATED AIRCRAFT STORAGE DESIGN:

Project Approach, Management Plan, Quality Control Plan, Cost Control Plan

Background

Based upon ZMM's understanding of the information contained in the request for expression of interest, the project involves the construction of additional unheated aircraft storage space at AASF#1 located in Williamstown and AASF#2 located in Wheeling. It is anticipated that the 15,000 SF unheated storage buildings will be pre-engineered metal structures with aviation doors provided to move aircraft into the facility. Each unheated storage facility will have the ability to house three (3) UH-60 rotary wing aircraft. The storage space 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.

The diagram developed below indicates the area authorized per NG Pam 415-12 for each rotary wing aircraft (60' x 70'). The authorized area also includes a 5' perimeter clearance around the aircraft. The minimum space required is 190' wide x 80' deep (15,200 SF). Additional space is required for the aviation doors shown; however, other solutions are available to help minimize the overall area.



ZMM Proposed Conceptual Layout

ZMM also understands and acknowledges the following goals and objectives:

1. Provide comprehensive architectural and engineering design services to prepare two (2) separate construction bid packages for 15,000 SF unheated storage facilities for aircraft at two (2) separate locations (AASF1 in Williamstown and AASF2 in Wheeling).
2. ZMM will be responsible for the entire design of the facilities including site layout, sub-surface investigation, utility location, drainage, and structural design.
3. Both buildings will be metal buildings with aviation doors designed to facilitate the movement of aircraft in and out of the facility.
4. Design shall include appropriate interior and exterior lighting for each facility.

5. Both facilities shall be designed to ensure that they are operational during adverse weather.
6. The design shall be in compliance with all federal, state, and local building codes, fire codes, and military construction regulations. ZMM will be responsible for having the construction documents reviewed and approved by the Authorities Having Jurisdiction (AHJ).
7. If required ZMM will provide all required geotechnical work to include any required soil borings. ZMM will be responsible for investigating the location of existing underground and above ground utilities and to provide drawings and specifications for any and all utilities as required and directed by the owner, other state agencies, utility companies, or other utility approval authority for Williamstown, WV and Wheeling, WV.

The technical nature of these projects 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) – needed to address every aspect of the Unheated Aircraft Storage Design projects. If selected for this engagement, ZMM will staff the project with the architects and engineers that have previously successfully delivered a variety of projects for the WVARNG. ZMM also possesses recent design experience near each of the project sites. AASF1 is in Wood County, where ZMM recently provided design services for the New Williamstown Elementary School and Addition to Williamstown MS/HS and is currently working on both a Resiliency Center and New 911 Center for the Wood County Commission. AASF2 is in Wheeling, which is in close proximity to the Marshall County Readiness Center project – currently under construction for the WVARNG.

AASF1 & AASF2 Unheated Aircraft Storage Design: Project Approach

The first phase of the project includes site investigation, conceptual design, and estimating. This phase of the project is critical to ensuring the success of the AASF1 and AASF2 Unheated Aircraft Storage Design. Our knowledge of the requirements for these types of facilities will help us to quickly develop a conceptual design and site layout (as highlighted above), while a thorough site investigation will help to identify any potential geotechnical or site development challenges. At the completion of this first phase, all required improvements will be identified, and any scope/budget issues will be resolved. The proposed design will also be reviewed with the State Fire Marshal to ensure that the Authority Having Jurisdiction (AHJ) has early input.

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 65%, 95%, 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 eleven-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.*



AASF1 & AASF2 Unheated Aircraft Storage Design: Project Management Plan

ZMM Architects and Engineers proposes to provide services on the project with a team of design professionals that have worked together on a variety of WVARNG facilities throughout the state. 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 our recent work for the WVARNG. Other key team members will include:

Ben McMillan	Civil Engineer
Bill Shelton	Civil Engineer
Mike White, PE	Structural Engineer
Bob Doeffinger PE	Engineering Principal/Mechanical Engineer
John Pruett, PE	Mechanical Engineer
David Gunnoe, PE	Electrical Engineer
Mike Flowers	Plumbing Designer
Mark Epling, AIA	Specifications Writer
Joe Doeffinger	Construction Administrator
Amy Rhodes	Construction Administrative Assistant

ZMM's 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 design experience to ensure the success of the Unheated Aircraft Storage Design projects. 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 diverse 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

Knowing and 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 (65%)

Construction Documents Phase (95%)

Construction Administration Phase

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 246 Improvements
- Camp Dawson Building 301 Improvements
- Camp Dawson Building 202 Improvements
- Marshall County Readiness Center
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- Building 5, 6, & 7 Improvements
- Beech Fork Lodge
- WV State Police Information Services Center
- WV State Lottery Headquarters Renovation



ZMM understands that the cost estimates will be divided into three categories (sustainment, restoration, and modernization) based on WVARNG criteria, and that energy saving items will also be segregated. ZMM has a history of working to successfully deliver projects under challenging budget and schedule constraints for the WVARNG. We commit to working with you to meet the budget and schedule for the AASF1 & AASF2 Unheated Aircraft Storage Design projects.

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, State Office Buildings 5, 6, & 7 on the State of West Virginia Capitol Campus, and armories for the West Virginia Army National Guard.

Maintaining a diverse practice for over 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 its present size of 35 people. Over the past 20 years David Ferguson, AIA, and Adam Krason, AIA, LEED-AP joined in ownership of the firm. In 2020, Randy Jones also joined in ownership of the firm when ZMM acquired Blacksburg-based OWPR Architects & Engineers to create a regional design firm that employs more than 50 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 State of 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 the ideal of providing high-quality, client-focused design solutions that meet budget and schedule requirements. We listen, we respond promptly with innovative and efficient solutions, and we deliver quality projects and develop lasting relationships. You see us in YOUR community every day.



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

Adam R. Krason, AIA, LEED AP, ALEP



Role

Principal

Professional Registrations

Registered Architect (WV, OH, KY, VA, MD, NJ)
LEED Accredited Professional
Accredited Learning Environment Professional
NCARB (55,984)
Construction Specifications Institute (CSI)
Construction Documents Technician (CDT)

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 in West Virginia, participating in a variety of sustainable design seminars throughout the State, and serving on the West Virginia School Building Authority Green Schools Sub-Committee. Recently, Mr. Krason helped coordinate the "Making the Business Case for Sustainability" conference at the University of Charleston that included speakers from Armstrong Industries, American Electric Power, CB Richard Ellis, and Interface Raise. Mr. Krason also assisted Habitat for Humanity Kanawha and Putnam County develop a commercial recycling program to fill a void in the sustainable design infrastructure in West Virginia. Mr. Krason has noted that, "I became a LEED Accredited Professional because I believe that good design has value, and the ability to impact our daily lives. Sustainable design showcases the value of design through demonstrated improvements in the performance of the students and employees who occupy our buildings." In addition to his design and project management responsibilities, Mr. Krason serves on the Board of Directors and is responsible for business development at ZMM.

Project Experience

Joint Interagency Training & Education Center (WVARNG), Kingwood, WV Mr. Krason was responsible for the preliminary programming, and participated in the schematic design of the 180,000 SF addition to the Regional Training

Education

Bachelor of Architecture, The Catholic University of America, 1998

Bachelor of Civil Engineering, The Catholic University of America, 1997

Employment History

2007 - Present, Principal, ZMM
2007 - Present, Board of Directors, ZMM
2003 - Present, Architect, Project Manager, ZMM
1998 - 2003, Architect, Project Manager, Charleston Area Architectural Firm

Civic Affiliations

- WV American Institute of Architects, President
- Habitat for Humanity Kanawha & Putnam County, Board of Directors 2011 - 2014
- WV Qualification Based Selections Council, President, 2012/2013
- Leadership WV 2010 - 2012
- Charleston Rotary
- West Side Main Street, Board of Directors 2008 - 2014
- City of Charleston Land Trust 2008 - 2014

Institute at Camp Dawson. Mr. Krason was also responsible for managing the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. This project received LEED Gold Certification.

Morgantown Readiness Center (WVARNG), Morgantown, WV

Mr. Krason was the project architect on the new Morgantown Readiness Center. This facility is a unique due to its location on an abandoned airport runway at the Morgantown Municipal Airport. The 54,000 SF Readiness Center occupies a 35-acre tract at the airport. This center supports traditional military functions including the 1-201st Field Artillery. A significant portion of the Morgantown Readiness Center supports the 249th Army Band. The Readiness Center contains a performance hall, pre-function spaces, as well as a variety of training and rehearsal areas.

Construction and Facilities Management Office Expansion (WVARNG), Charleston, WV

Mr. Krason was responsible for the programming, architectural design, and project management of the office expansion. The project included the renovation and addition to an existing pre-engineered metal building. The design, which was honored with a 2009 AIA Merit Award, focused the client's resources on a new entry and corridor that separated the existing office space from the addition.

Charleston Coliseum & Convention Center, Charleston, WV

Mr. Krason served as principal-in-charge of the expansion and renovation to the Charleston Civic Center. The \$75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. Mr. Krason was responsible for the overall management of the design team, coordination with the client, and also has input critical project management decisions. The design commenced in the spring of 2015, and construction was complete in 2018.

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

Mr. Krason led an architectural and engineering team that completed a detailed assessment of State Office Buildings 5, 6, & 7. Once the assessment was complete, ZMM had the opportunity to implement the proposed improvements on the 10th Floor of State Office Building #5 for the Office of Technology. The renovations, aiming for LEED-CI Certification, re-oriented the layout by drawing all private offices into the building core, providing access to daylight and views for all employees. The design also utilized acoustical ceiling clouds and bulkheads to maximize the acoustical performance, while also increasing the volume of the space.

BridgeValley Community and Technical College - Davis Hall Renovation and Master Plan, Montgomery, WV

Mr. Krason led an architectural and engineering investigation into the condition of Davis Hall to help BridgeValley Community and Technical College to develop a scope for the current renovation project, as well as a plan to undertake deferred maintenance at the facility. The project scope included remediating several life safety deficiencies, as well as improvements to the building envelope.

Wood County Justice Center, Parkersburg, WV

Mr. Krason was the Project Manager for this adaptive reuse project. The existing 32,000 SF building creates a new Magistrate Court and Sheriff's Department. The justice center is LEED Silver Certified.

Tucker County Courthouse Annex, Parsons, WV

Mr. Krason was the Project Architect for the courthouse annex addition in Parsons, WV. The Annex is a 4-story, 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Participated on the team that won the following awards and acknowledgements:

2020 WV AIA Merit Award Mountain Valley Elementary School, Green Valley, WV
2019 WV AIA Honor Award Charleston Coliseum & Convention Center, Charleston, WV
2018 WV AIA Citation Award Charleston EDGE, Charleston, WV
2017 WV AIA Merit Award Logan-Mingo Readiness Center, Holden, WV
2016 WV AIA Merit Award Christ Church United Methodist, Charleston, WV
2015 WV AIA Merit Award Edgewood Elementary School, Charleston, WV
2014 WV AIA Merit Award Girl Scouts of Black Diamond Council, Charleston, WV

Nathan Spencer, AIA



Role

Project Manager, Project Architect

Professional Registrations

Registered Architect (WV)

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.

Project Experience

Logan-Mingo Readiness Center, Holden, WV

Mr. Spencer was the architect on the new Logan-Mingo Readiness Center. The exterior aesthetic of the facility was driven by the location within an industrial park on a reclaimed surface mined site. 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. 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.

Jackson County AFRC, Millwood, WV

Mr. Spencer participated in the schematic design of the 76,000 SF Reserve Center in Jackson County, West Virginia. Mr. Spencer was also responsible for coordinating the production effort for the project. Mr. Spencer also produced several 3D models throughout the design process. The project is aiming for LEED Silver Certification.

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

Education

Bachelor of Architecture, University of Tennessee, 2007

Employment History

2009 - Present, Architect, ZMM
2007 - 2009, Intern Architect, ZMM
2003 - 2007, Summer Intern, ZMM

Civic Affiliations

- American Institute of Architects, Member

Mr. Spencer participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Spencer was also responsible for coordinating the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. This project received LEED Gold Certification.

Morgantown Readiness Center, Morgantown, WV

Mr. Spencer was a member of the production team for the 58,000 SF project, which housed the Army Band and associated performance spaces. Mr. Spencer also produced several 3d models throughout the design process. He also participated on all production work through all phases. The project is aiming for LEED Silver Certification.

Charleston Coliseum & Convention Center, Charleston, WV

Mr. Spencer served as project architect on the expansion and renovation to the Charleston Civic Center. The \$75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction was completed in 2018.

Tucker County Courthouse Annex, Parsons, WV

Mr. Spencer was the project architect for the Courthouse Annex renovation project. The Annex is a 4-story 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Judge Black Courthouse Annex, Parkersburg, WV

Mr. Spencer assisted with the design and programming of the adaptive reuse of a former commercial space and movie theaters into a modern courthouse annex. The Judge Black Annex included two independent circulation paths – a secure entry and lobby for access to the Family Court and Prosecuting Attorney, and public access to the Assessor and Sheriff's Tax Department. The facility also houses several large public meeting rooms.

Cabell County Bus Transportation Complex, Huntington, WV Mr. Spencer was the project Architect on the Cabell County Transportation Complex is located on the site of the old Cox Landing Junior High School. Challenges on the project involved retrofitting the old school and site to accommodate the new use. The rear portion of the school was demolished to make room for the new maintenance portion of the building. The remaining front section of the school was renovated to include office space, storage areas, and a new staff development room. The new maintenance area includes a high-bay metal building with 14 back to back work-bays, three of which have hydraulic bus lifts. A hand wash bay and a state of the art automatic wash bay were also included in the project. Extensive sitework was also involved in the retrofit project including a fueling station, bus parking, a sediment pond, and an extensive rework of the existing site utilities.

Highland Hospital, Charleston, WV

Mr. Spencer was the project architect on Highland Psychiatric Hospital. Mr. Spencer was responsible for coordinating the production effort for the 60,000+ SF mental health facility. Mr. Spencer also produced several 3-D models throughout the design process. This project consisted of 87,300 SF, \$26M addition to Highland Hospital in Charleston. The addition included: administrative offices, training spaces, 165 patient beds, nurses stations, an out-patient treatment department, pharmacy, laundry, and building service spaces. A pedestrian bridge will connect the new facility to the existing hospital.

Beech Fork State Park, Lavalette, WV (unbuilt)

Mr. Spencer was the project architect for the new lodge and conference center at Beech Fork State Park. The facility will include guestrooms and other guest-only facilities in one area and public functions such as the restaurant, lounge, gift shop, and conference rooms in another area. All guestrooms offer a lake view, a 2-story atrium opens up at each end of the lobby with curtainwall glazing, and an indoor pool provides a transparent connection to the outdoors. A high-performance envelope was designed to eliminate thermal bridging and the potential for condensation.

Robert Doeffinger, PE



Role

Engineering Principal

Professional Registrations

Professional Engineer (WV, VA, PA, OH, TN, KY, NY, NH, ME, NC, SC, FL, NJ, GA)

As ZMM's Principal Engineer, Mr. Doeffinger is in charge of the engineering disciplines, it is his responsibility to ensure that the mechanical and electrical engineering components of ZMM's design are coordinated and integrated into the final product.

After graduate school in Architectural Engineering, Mr. Doeffinger joined ZMM. He has over 45 years design experience in mechanical and electrical systems for buildings. He has a broad range of engineering experience in education, industrial and manufacturing facilities, large retail, correctional and jails, office buildings, and military facilities.

Mr. Doeffinger is responsible for new design and retrofit of chilled water systems for all building types including large regional shopping malls. He is involved daily with the firm's selection of appropriate systems for all building types and performs life-cycle cost analysis and energy studies.

Mr. Doeffinger is a member of the American Society of Heating, Ventilation and Air-Conditioning Engineers. He is the current national Chairman of the Technical Committee on Heating and Air-Conditioning Load Calculation. He is involved in writing the National Standard on the Method of Calculation, which will shape the nature of the future building energy use for the nation.

Selective Project Experience

Charleston Coliseum & Convention Center, Charleston, WV

Mr. Doeffinger was the mechanical project engineer on the expansion and renovation to the Charleston Civic Center project. The \$100M, 300,000 SF design-build project was a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction was completed in October 2018. The mechanical design is expected to reduce the energy requirements defined by ASHRAE 90.1-2013 by an estimated 25% and extensive water savings will be shown. The project includes a new chilled and hot water central plant with extensive replacement and upgrades to the facilities existing mechanical systems. Multiple phases of construction will allow the Civic Center to remain operational throughout the construction progress.

Education

Master of Science Architectural Engineering, The Pennsylvania State University, 1976

Thesis: Air Change Measurements using a Tracer Gas Technique

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

Employment History

2005 - Present, President, ZMM

1983 - 2005, Vice President and Engineering Principal, ZMM

1976 - 1983, Mechanical Engineer

Civic Affiliations

- 2019 Marshall University Honorary Alumni Award of Distinction College of Engineering
- 2021 Industrial and Professional Advisory Council – College of Engineering at The Pennsylvania State University
- ASHRAE – Member of the Technical Committee Load Calculations Data and Procedures for 25 years, serving as chairman. Presently Chairman of the Research Subcommittee
- Advisory Board for the Department of Electrical Engineering Technology, Bridgemont Community and Technical College
- City of Pt. Pleasant, WV – 2nd Ward Councilman for 20 years

State Office Buildings #5, 10th Floor Charleston, WV Mr. Doeffinger was the Project Engineer for this renovation project. The renovation of the tenth floor of State Office Building #5 on the State of West Virginia Capitol Campus was recently completed for the Office of Technology. The renovation was designed to meet the United States Green Building Council's LEED for Commercial Interiors standard. The renovations also include a low profile cable management system which maximizes the flexibility of the space. To commence the project, ZMM conducted a detailed investigation of State Office Buildings 5, 6, & 7, which included recommendations for improvement of the facilities. The renovation of the 10th floor of Building #5 was the first major interior renovation project that responded to the recommendations.

West Virginia Capitol Complex - Buildings #5, 6, & 7, Charleston, WV Mr. Doeffinger was the Project Engineer for the in-depth analysis of Buildings #5, 6, & 7 at the State Capitol Campus. The study included the preparation of as-built plans, as well as an analysis of all building systems, including: Life Safety; Vertical Transportation; Mechanical; Electrical; Data; Façade; Structure; and Roofing. The analysis also included a study related to potential hazardous materials in the facility.

West Virginia Regional Jails, Mr. Doeffinger was the Project Engineer on ten West Virginia Regional Jails. In 2009 he was responsible for the HVAC renovation on four regional jails, including the replacement of rooftop HVAC units and Building Automation Systems.

West Virginia Army National Guard, Joint Interagency Training & Education Center, Camp Dawson, WV Mr. Doeffinger was responsible for the mechanical engineering design of the 600 room billeting expansion to the Regional Training Institute at Camp Dawson. The project is served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system. This project received LEED Gold Certification.

West Virginia Research, Education, and Technology – Building 704, South Charleston WV Mr. Doeffinger is the engineering principal-in-charge of preparing a life safety analysis of the building as well as design services to improve the exterior façade of Building 704 at the WV Research, Education, and Technology Park. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

West Virginia Regional Technology Park (WVRTP) - Building 740, South Charleston WV Mr. Doeffinger is the engineering principal-in-charge of the new Steam Plant for Building 740. This project involves designing and constructing the Interim Steam Heating System throughout Building 740.

Bridgemont (BridgeValley) Community and Technical College Davis Hall Renovation, Montgomery, WV Mr. Doeffinger led an architectural and engineering investigation into the condition of Davis Hall to help Bridgemont Community and Technical College to develop a scope for the current renovation project, as well as a plan to undertake deferred maintenance at the facility. The project scope included remediating several life safety deficiencies, as well as improvements to the building envelope.

NGK Oxygen Sensor and Spark Plug Plant, Sissonville, WV Mr. Doeffinger was in charge of engineering design of the 250,000 SF NGK facility. The most recent 130,000 SF expansion moved NGK's spark plug production for the west coast to West Virginia. For both the oxygen sensor plant and spark plug plant Mr. Doeffinger designed a cycle water system for the manufacturing equipment.

The Plaza at King of Prussia, Philadelphia, PA One of the largest retail centers in the USA. Mr. Doeffinger has performed engineering services for the past 20 years. The project consists of an 8,000 - ton chilled water plant and 1,500,000 cfm variable volume system for tenants and constant volume air system for common areas and an engineered smoke control system. The most recent project is a 100,000 square foot expansion of tenant spaces, a renovation of the food court, and a 1,250-ton chiller addition to the central chilled water plant.

John Pruett, PE, LEED AP



Role

Senior Mechanical Engineer

Professional Registrations

Professional Engineer (WV, VA, IN)
LEED Accredited Professional

Mr. Pruett is responsible for overseeing the design of the HVAC systems, ensuring that the HVAC systems not only meet the program requirements, but meet the 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. He coordinates with the other disciplines in order 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 career in engineering with a manufacturing company in 1994. In 1998, he made a career change and joined an engineering consulting firm as an HVAC design engineer. He has a broad range of experience in HVAC systems design, including K-12 schools, higher education facilities, office buildings, libraries, 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.

Project Experience

WARNG Camp Dawson Building
WARNG Camp Dawson Building 246
WARNG Camp Dawson Building 301
WARNG Camp Dawson Mail Facility
WARNG Marshall County Readiness (Design)
WARNG Camp Dawson Job Challenge Academy

Wood County Justice Center, Parkersburg, WV Mr. Pruett was responsible for the HVAC systems design for the LEED Silver project comprised of the judicial courts, Sheriff's department and holding cell area. The project utilizes high-efficiency custom air handling units, including an energy recovery unit for the holding cell area, which has helped reduce energy consumption on the project by 18% compared to a baseline analysis.

Tucker County Courthouse Annex, Parsons, WV

Mr. Pruett was the Mechanical Engineer for the Courthouse Annex renovation project and responsible for the HVAC

Education

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

Employment History

2021- Present, Board of Directors, ZMM
2010 - Present, Project Engineer, ZMM
2007 - 2009, Sr. Mechanical Engineer, IN
2003 - 2007, Mechanical Engineer, IN
1999-2003, Project Engineer, Fort Lauderdale, FL

Civic Affiliations

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), Member
- United States Marine Corps – 14 Years

systems. The Annex is a 4-story, 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Huntington East Middle School, Huntington, WV Mr. Pruett was responsible for the HVAC systems design. This school features numerous sustainable features, including an air monitoring system for verifiable indoor air quality, variable refrigerant flow (VRF) systems for portions of the school that will operate year-round, preheating of the domestic hot water with the heating hot water return. Mr. Pruett also conducted an extensive energy analysis of the building and all of its systems to maximize the effect of each component, resulting in a projected reduction in energy consumption of 32% compared to a baseline analysis.

Edgewood Elementary School, Charleston, WV Mr. Pruett was the mechanical engineer on the new Kanawha County Elementary School on Charleston's West Side and responsible for the HVAC systems design. The school is being designed as a 21st Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students.

Cabell County Schools

Barboursville Middle School - Additions and Renovations
Huntington East Middle School
Huntington High School - Controls system replacement for Explorer Academy
Cabell County Bus Garage
Southside Elementary/Huntington Middle School
Huntington High School – Cooling tower replacement
Cabell Midland High School - Cooling tower replacement
Martha Elementary School- Addition
Salt Rock Elementary Renovations
Cabell County Career & Technical Center – HVAC Replacement
Huntington High School Wrestling Room Addition
Milton PK - Additions and Renovations

Fayette County Schools

New River Primary / Oak Hill Middle School
Valley High School - Gym addition
Oak Hill High School – Renovations
Fayetteville PK-8 - Renovations
Midland Trail High School - Renovations
Valley PK-8 - Renovations
Meadow Bridge Elementary - Renovations
Divide Elementary - Additions and Renovations

Putnam County Schools

Hurricane High School - Renovations
Putnam Career & Technical Center – Welding Shop

Valley Health Systems, Wayne, WV

Mr. Pruett was the mechanical engineer on the new health clinic in Wayne, WV. ZMM prepared construction documents for a new, one-story medical building operated by Valley Health Systems of Huntington, WV. The building is 15,580SF on a 2-acre site including approximately 100 parking spaces. Valley Health Systems provides primary and preventative care to the medically underserved population of southern West Virginia. The new building will replace an existing undersized facility.

Michael J. White, PE



Role

Structural Engineer

Professional Registrations

Professional Engineer (WV, KY, IN, TN, OH, SC)

Mr. White has more than 10 years of Civil/Structural design and engineering experience. Project experience includes new construction and renovation work involving the design and analysis of reinforced concrete, wood, structural steel, masonry and cold formed steel.

Project Experience

New River Primary, Oak Hill, WV
Oak Hill Middle School, Oak Hill, WV
Bluefield Primary School, Bluefield, WV
Williamstown Elementary School, Williamstown, WV
Wood County Technical Center, Parkerburg, WV
Milton PK School, Milton, WV
Midland Trail High School, Hico, WV
CAMC Teays Clinic, Teays Valley, WV
Appalachian Regional Hospitals – DA Tank, Beckley, WV
Appalachian Regional Hospitals Pharmacy, Beckley, WV
Rainelle Medical Center, Rainelle, WV
Valley Health, Milton, WV
Valley Health, Huntington, WV
Mountain State Oral and Facial Surgery, Charleston, WV
Valley Park Community Center, Hurricane, WV
WVDNR Forks of Coal, Alum, WV
Marshall County Readiness Center, Moundsville, WV

Other Jobs from Past Employers:

WVU Parkersburg Center for Early Learning - Parkersburg, WV
WVU Parkersburg Applied Technology Center - Parkersburg, WV
Marsh Fork Elementary School - Naoma, WV
BridgeValley Advanced Technology Center – So. Charleston, WV
New River Community and Technical College Headquarters Building - Beaver, WV
Lewisburg Elementary School - Lewisburg, WV
Rainelle Elementary School - Rainelle, WV
Boone County Honors Academy Addition - Madison, WV
Monongalia County Justice Center - Morgantown, WV
Lewis Co. Judicial Annex - Weston, WV
Charleston Correctional Work Release Center - Charleston, WV
Stevens Correctional Facility - Welch, WV

Education

B.S., Civil Engineering, West Virginia University Institute of Technology, Montgomery, WV, 2006

Employment History

2016 - Present, Structural Engineer, ZMM
2016, Civil/Structural Lead, Jacobs Engineering Group
2013 - 2016, Structural Engineer, Chapman Technical Group
2010 - 2013, Structural Engineer/Project Manager, Moment Engineers
2007 - 2010, Structural Engineer/Project Manager, Advantage Group Engineers, Inc. (Cincinnati, OH)

Bill A. Shelton, PE



Role

Civil Engineer

Professional Registrations

Professional Engineer (WV, NC, VA)

As a Civil Engineer and department head, it is my 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. My 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.

I also assist clients in pre-design site evaluation and feasibility studies, leading our clients through the site selection process. This also can include existing facility inventories and evaluations where I can help our clients maximize the usefulness of their existing properties. Helping our clients develop master plans of their facilities is another way that I can help them more effectively utilize what they have now and assess their needs for the future.

My goal is to provide excellent client service, to exceed your project's needs, and to add value through creative engineering solutions. OWPR's "hands-on" project management approach allows me to quickly identify and resolve a project's site specific issues with an emphasis on service and follow-through to project completion.

Project Experience

New River Valley Carillon Medical Center, VA
InnovAGE Healthcare, Richmond, VA
InnovAGE Healthcare, Salem/Roanoke, VA

Bland County Public Schools, VA
Site Study

Caroline County Public Schools, VA
System Wide School Study

Covington City Public Schools, VA
Covington High School Expansion Study
Edgemont Primary & Jeter-Watson Intermediate School
New Elementary School Site Study
System Wide School Study

Frederick County Public Schools, VA
Administration Building Annex

Education

Bachelor of Science, Virginia Tech,
1992

Administration Building Site Study
Evedale Elementary School
Gainesboro Elementary School
James Wood High School Track Resurfacing
Millbrook High School
Millbrook High & Redbud Run Elementary Schools - MS4 Permit
Sherando High School Track Renovation
Transportation/Maintenance Study
Various Site Studies

Galax City Public Schools, VA

Galax High School Addition & Renovation

Giles County Public Schools, VA

Eastern Elementary & Middle School Addition & Renovation
Giles High School Football Stadium Renovations
Giles County Technology Center Addition and Renovation
Narrows High School Football Stadium Renovation
Narrows High School Athletic Facilities Study

David Gunnoe, PE, CAP



Role

Electrical Engineer

Professional Registrations

Professional Engineer (WV, MI, VA, TX, MN)
ISA Certified Automation Profession (CPA)

Mr. Gunnoe has over 12 years of experience in power generation, material handling, and petrochemical process control. His technical expertise is in industrial electrical design with particular focus on industrial controls, automation, and instrumentation. He has been involved in every aspect of project completion from pre-planning, frontend design, detailed design, bidding, construction, and inspection all the way to final programming, system tuning, troubleshooting, commissioning, and long-term support.

Mr. Gunnoe now serves as an Electrical Engineer with ZMM and is responsible for all aspects of the electrical design process including interior and exterior lighting, power distribution, lightning protection, network system design, security systems, safety systems and fire alarms, low voltage control and automation systems, and equipment specifications. He also performs electrical inspections and assessments during construction and can consult and participate in troubleshooting efforts to remedy existing electrical issues.

Project Experience

- WV School of Osteopathic Medicine – New Testing Center Expansion, Lewisburg, WV
- WV School of Osteopathic Medicine – Community Health Center, Lewisburg, WV
- Williamson Health and Wellness Clinic, Williamson, WV
- Kanawha County Schools – The New Clendenin Elementary School, Clendenin, WV
- The Keith-Albee Theater Electrical and Life-Safety Upgrades
- Roane-Jackson Technical Center Plumbing and Electrical Renovations

Education

Bachelor of Science in Electrical Engineering, West Virginia University Institute of Technology, 2009

Employment History

2021 - Present, Electrical Engineer, ZMM
2014 – 2021, Control Systems Engineer, CDI Corporation, Charleston, WV
2012 – 2014, Control Automation Engineer, Nitro, WV
2010 – 2012, Department of Defense, Dalgren, VA
2008 – 2010, American Electric Power, Brilliant, OH

Benjamin S. McMillan, PE, LEED AP



Role
Civil Engineer

Professional Registrations
Professional Engineer (WV, VA, KY)
LEED Accredited Professional

Mr. McMillan has 13 years experience and knowledge in land development throughout Virginia. Mr. McMillan has experience in creating site plans and producing reports and specifications for institutional, commercial, residential, utility-scale solar, and one utility-scale wind project. Site plan preparations included layout, utility plans, grading, drainage, stormwater management, and erosion and sediment control.

Mr. McMillan also attends meetings, interacts with clients and contractors, performs various construction administration duties, and visits projects throughout the design and construction phases. Additional experience includes:

- Experienced in land development for institutional, multi-family residential, commercial, industrial, and utility-scale solar projects.
- Knowledgeable of all phases of land development from schematic design through project close-out.
- Complied with and obtained approval from many different municipal and state agencies in multiple states.
- Proficient in AutoCAD Civil 3D and familiar with other engineering design programs such as Autodesk Storm & Sanitary Analysis, HydraFLOW, HydroCAD, Flowmaster, and PondPack.
- Coordinated site designs with other design disciplines including Architects, Landscape Architects, Mechanical Engineers, Electrical Engineers, Structural Engineers, and Geotechnical Engineers.

Project Experience

Jackson General Hospital Expansion, Ripley, WV
New River Medical Mall, Fayetteville, WV
Health Right Medical Clinic, Charleston, WV
WV Department of Agriculture Lab Building, Charleston, WV
Salvation Army, Beckley, WV

Education

Bachelor of Science in Civil Engineering, Minor in Public and Urban Affairs, Virginia Polytechnic Institute and State University, Blacksburg, VA, 2007

Employment History

2020 - Present, Civil Engineer, ZMM
2013 - 2020, Senior Project Engineer, Timmons Group, Richmond, VA
2008 - 2013, Civil Engineer, OWPR, Blacksburg, VA
2007 - 2008, Project Engineer, Anderson & Associates, Blacksburg, VA

Mike Flowers



Role

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.

Project Experience

Mr. Flowers has a broad range of experience and knowledge in Plumbing and HVAC systems design. His experience includes K-12 Schools, Higher Education Facilities, Military Facilities, Office Buildings, and Juvenile and Adult Correctional Facilities.

- Morgantown Readiness Center
- Logan-Mingo Readiness Center
- Huntington East Middle School
- Southern WV Community & Technical College
- Lincoln County High School
- Camp Dawson:
Mountaineer Challenge Academy
Buildings 202, 246, 301, and the Mail Facility

Jackson County Armed Forces Reserve Center

(WVARNG): Mr. Flowers was responsible for the plumbing design on this project that utilized plumbing fixtures that reduced the total annual water usage by 30% as compared to using standard plumbing fixtures.

His design also incorporated 98% efficient water heating technology that dramatically reduced the total utility consumption for water heating.

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

Employment History

2001 - Present, Mechanical and Electrical Technician, ZMM

1998 - 2001, Mechanical and Electrical Designer/Manager of CAD Services, ZDS, Inc.

1991 - 1998, Mechanical and Electrical Technician, ZMM

Civic Affiliations

- American Society of Plumbing Engineers (ASPE), Member Since 2009



JOINT INTERAGENCY TRAINING AND EDUCATION CENTER (JITEC)



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.





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.





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 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.





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.





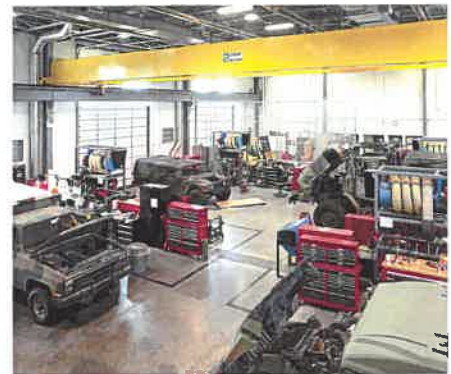
GLEN JEAN ARMED FORCES RESERVE CENTER

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.



RALEIGH COUNTY AIRPORT HANGAR BUILDING

(Unbuilt)

Beckley, WV





CABELL COUNTY TRANSPORTATION COMPLEX

LOCATION HUNTINGTON, WV	SIZE 21,950 SF	COMPLETION 2014	COST \$7.5M
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The Cabell County Transportation Complex is located on the site of the old Cox Landing Junior High School. Challenges on the project involved retrofitting the old school and site to accommodate the new use.

A small portion in the rear of the building was removed, and storage rooms and a link to the new bus maintenance facility were added. The high-bay bus maintenance facility accommodates fourteen buses. This full-service metal garage is outfitted with lifts and all services to make this a state-of-the-art facility. Along with the new service bays the building includes both automatic and manual bus-washing facilities. Site amenities include parking with charging locations for every bus, along with parking for dormant buses on standby. There is also a fueling station for all bus traffic.

The existing school facility was renovated into the transportation administration area, along with conference rooms, driver break rooms, and rest rooms for staff and drivers. The building also plays host to a Staff Development room that is designed with technology and distance learning capability. This will accommodate all bus drivers at one time for training and safety seminars. Principals and teachers throughout the county can also use this for a staff training facility.





GENERAL SERVICE DIVISION SURPLUS PROPERTY

LOCATION DUNBAR, WV	SIZE 19,250 SF	COMPLETION 2016	COST \$4M
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This project consists of a 19,250 SF pre-engineered metal building storage facility that includes 5,000 SF of administrative space.

The property originally had multiple structures that were scattered throughout the site. The layout of the buildings created a variety of issues for Surplus Property, and made it difficult for them to operate efficiently. The new pre-engineered metal building replaced the existing structures, which were located in the floodplain, and addressed several site issues, including proper drainage, traffic flow, and correct floor elevations in regard to current floodplain requirements. Since the existing site contained a large amount of fly ash, ZMM employed a unique approach to constructing the foundation system. Instead of completing a full excavation of the site, ZMM recommended installing the foundations by selectively demolishing the existing pavement to allow for the installation. This improved constructability, and led to an enhanced construction process.

The exterior of the pre-engineered building was designed to reflect the branding of the state agency, and the demolition of the existing structures, along with the new construction, was phased to maintain continuous operation of the facility.





WV STATE POLICE & PARKWAYS AUTHORITY MAINTENANCE BUILDING

LOCATION	SIZE	COMPLETION	COST
BECKLEY, WV	19,400 SF	2016	\$4.5M

The West Virginia Parkways Authority needed to replace a variety of existing aging buildings with a new maintenance facility.

The 19,400 SF building includes offices for maintenance staff, training staff, a training center and a WV State Police branch facility. The maintenance portion of the building includes four large bays equipped with an overhead crane, truck lifts and equipment to maintain the large fleet of trucks. Existing buildings were removed to allow for the new building to be located on the existing site along with other support buildings.

ZMM, in consultation with HNTB engineers, was selected to design the new facility. The WV Parkways Authority had programmed the building requirements, which ZMM developed into a building program to fit the existing restricted site. The four 26-foot-high truck bays will be located next to a two-story supply and support facility. The second-story portion of the building will contain offices, training and meeting rooms along with lockers and exercise areas. The two-story state police facility is located next to the maintenance facilities and includes a common entrance, lobby, elevator, and stairs.



References

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