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

State of West Virginia
Centralized Expression of Interest

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WV Purchasing Division

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 05/17/2022

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


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

(Name, Title) 
(Printed Name and Title) Adam R. Krason, AIA, 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 WV OASIS, 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contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise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 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, Inc. (dba ZMM Architects and Engineers)

(Company) 

(Authorized Signature) (Representative Name, Title)

Adam R. Krason, AIA, Principal 05/17/2022

(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:
Huntington Tri-State Armory - HVAC Renovation Design

CEOI ADJ220000000014
May 17, 2022





May 17, 2022

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

**Subject: Huntington Tri-State Armory HVAC Renovation Design – Kenova, WV
(CEOI ADJ2200000014)**

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 Huntington Tri-State Army HVAC Renovation Design project. Established in 1959, ZMM is a West Virginia based, full-service A/E firm, and is noted for design excellence and client focus. It is ZMM's understanding that the project involves improvements (replace and update) to the HVAC system at the Huntington Tri-State Armory. The project will employ energy efficient and maintenance friendly equipment.

With over sixty-five local employees ZMM provides an integrated design approach by delivering all building related design services including architecture, engineering (civil, structural, mechanical, and electrical), interior design, and construction administration in-house. ZMM's team includes twelve registered architects, fourteen professional engineers, interior and lighting designers, and construction administrators. Our architects and engineers are highly qualified and have worked together to deliver projects with similar scope and complexity. Our MEP engineers are industry leaders that are involved in helping to develop strategies and best practices for HVAC related design issues on both the local and national level.

As noted above, our ability to provide comprehensive design services will be beneficial to the West Virginia Army National Guard as you undertake the Huntington Tri-State Armory HVAC Renovation Design project. Our experience with HVAC improvement projects has provided us with the insight that multiple disciplines may need to be involved in the project, including mechanical and electrical engineers – as well as an architect to ensure that the 'above ceiling' conditions meet the requirements of the current life safety code. Utilizing a full team of design professionals will help ensure the quality of the project and will help eliminate risk for the West Virginia Army National Guard.

Perhaps most importantly, the ZMM team has worked collaboratively with the WVARNG on a variety of renovation projects that included HVAC replacements, including:

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

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

We are hopeful that you observed our commitment to design quality, budget and schedule control, and client service demonstrated on these projects.

ZMM Architects and Engineers has a significant portfolio of projects in the Tri-State area. This experience includes projects for Cabell and Wayne County Schools, the City of Huntington, and Marshall University. Recent projects include planned improvements to the Keith Albee Performing Arts Center and the adaptive reuse of the former Sears store in the Huntington Mall into the Cabell County Career and Technical Center. In addition to ZMM's portfolio of new construction and major renovation projects in the Tri-State area, ZMM's engineers have worked on a variety of HVAC specific projects in Huntington, including:

- Smith Music Hall HVAC Improvements
- Sorrell Maintenance Center HVAC Improvements
- Applied Engineering Complex Chiller Study
- Smith Hall and Morrow Library Underground Chilled Water Project
- Prichard Hall Replacement Chiller Replacement
- Huntington Welcome Center HVAC Replacement (WVDOH)

Thank you for taking the time to review the attached expression of interest that includes information about our proposed approach for the Tri-State Armory HVAC Renovation Project, as well as ZMM's qualifications, and relevant project experience. Additionally, please visit our website at 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 meeting with you to discuss the project in greater detail.

Respectfully submitted,
ZMM Architects and Engineers



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

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PROJECT APPROACH

Huntington Tri-State Armory HVAC Renovation Design

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

Background and Project Understanding

It is ZMM's understanding that the project involves improvements (replace and update) to the HVAC system at the Huntington Tri-State Armory. The project will employ energy efficient and maintenance friendly equipment and will be designed to meet applicable building codes.

ZMM's ability to provide comprehensive design services will be beneficial to the West Virginia Army National Guard as you undertake the Huntington Tri-State Armory HVAC Renovation Design project. Our experience with HVAC improvement projects has provided us with the insight that multiple disciplines may need to be involved in the project, including mechanical and electrical engineers – as well as an architect to ensure that the 'above ceiling' conditions meet the requirements of the current life safety code. Utilizing a full team of design professionals will help ensure the quality of the project and will help eliminate risk for the West Virginia Army National Guard.

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Camp Dawson Building 202 Renovation

MCA – Jobs Challenge Facility

Camp Dawson Building 245 Renovation

Camp Dawson Building 246 Renovation

Camp Dawson Building 301 Renovation

Camp Dawson Building 106 Renovation



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Center and the adaptive reuse of the former Sears store in the Huntington Mall into the Cabell County Career and Technical Center. In addition to ZMM's portfolio of new construction and major renovation projects in the Tri-State area, ZMM's engineers have worked on a variety of HVAC specific projects in Huntington, including:

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- Huntington Welcome Center HVAC Replacement (WVDOH)

Huntington Tri-State Armory HVAC Renovation Design: Approach

Renovation projects require a unique approach, and ZMM has provided design services on renovation projects throughout West Virginia. The first phase in a successful renovation project involves conducting a thorough examination of the existing facilities. **As noted in Project Goal 2.2, ZMM shall be responsible for researching and investigating the location of existing utilities as applicable, and to provide drawings and specifications of any and all utilities as needed and directed by the owner and/or state agency, utility company or other utility approval authority for Kenova, West Virginia.** ZMM will meet this requirement by investigating the existing site and facility with a team of architects and engineers. In this case our team would focus on improvements to the HVAC system and the impact the improvements will have on other building and life safety systems.



To address Project Goal 2.4, ZMM proposes to provide standard construction phase services for the HVAC Renovation Project. Typical construction phase services include:

1. Participation in Pre-Construction Meeting
2. Coordination Construction Phase Testing
3. Observation of Construction Progress
4. Working Collaboratively with the Owner and Construction Team
5. Serve as the Liaison Between the Owner and Contractor
6. Participate in Regular Site Visits/Construction Progress Meetings
7. Participate in Pre-Installation Meetings
8. Certify Applications for Payment by the Contractor

9. Process RFI's, Submittals and Change Orders
10. Conduct Above Ceiling HVAC Inspections
11. Conduct Punch-List and Final Inspections
12. Coordinate Testing & Balancing or Commissioning
13. Complete LEED Documentation (if Required)
14. Issue Certificate of Substantial Completion
15. Schedule/Coordinate 11 Month Warranty Inspection

Huntington Tri-State Armory HVAC Renovation 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, including several projects that included replacements and updates to HVAC systems. The team will be led by Adam Krason (Principal), Nathan Spencer (Project Manager and Architect), and John Pruett (Mechanical Engineer). Mr. Krason, Mr. Spencer, and Mr. Pruett have led ZMM's effort on the recent work for the WVARNG. Other key team members may include:

Bob Doeffinger PE	Engineering Principal/Mechanical Engineer
James Lowry, PE	Mechanical Engineer
David Gunnoe, PE	Electrical Engineer
Grant White, PE	Electrical Engineer
Ian Haddox	Electrical Designer
Ronnie Burdette, PE	Structural Engineer
Mike Flowers	Plumbing Designer
Mark Epling, AIA	Specifications Writer
Keith Gonzales	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 like the current effort. ZMM Architects and Engineers staff possesses the WVARNG HVAC 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 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 multiple projects, including:

- Camp Dawson Building 202, 245, 246, 301, and 106 Improvements
- Buckhannon Readiness Center Phase 2

- Marshall County Readiness Center
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- 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



ZMM has a history of working to successfully deliver projects with challenging budget and schedule constraints for the WVARNG. We commit to working with you to meet the budget and schedule for the Huntington Tri-State Armory HVAC Renovation Design project.

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

HVAC RENOVATION EXPERIENCE



Charleston Coliseum & Convention Center (2015) – Replace entire MEP infrastructure three 1,000 ton chillers and cooling towers, three 8,000 mbh gas condensing boilers, approximately ten VAV AHU's, approximately 10 large single zone VAV AHU's.

Charleston Kanawha Health Department (2015) – Replace entire mechanical system to include air cooled chiller, gas fired make-up unit and zone fan coils with electric reheat, approximately 45,000 SF new DDC controls.

United Bank Building – Cooling Tower Replacement (2010) – Two 400 ton centrifugal chillers, rebuild two large VAV AHU's, installed free cooling plate frame heat exchangers (2015).

Kanawha County Public Library (2015) – Replaced two gas-fired boilers with new gas condensing boilers .

Building 5 Capital Complex (2008) – Replaced 10th floor office space air condition, replaced perimeter induction units with new steam chilled water air handling units, distributed VAV terminal units with modification to architectural fit out approximately 22,000 Sf. Installed new sprinkler service entrance for Buildings 5, 6, and 7.

Capitol Complex Building 5, 7th, 8th, & 9th Floors – Rebuild perimeter induction system and interior multi-zone distribution in addition to total architectural fit up, approximately 70,000 SF.

Capitol Complex Building 6, 3rd, 4th, & 5th Floors - Rebuild perimeter induction system and interior multi-zone distribution in addition to total architectural fit up, approximately 70,000 SF.

WV Lottery Headquarters Building (2014 - 2015) – Installed 40,000 SF of new variable refrigerant system, new make-up air system, comprehensive architectural services.

WV State Capitol Cafeteria – Installation of large catering and service kitchen, included steam make-up air system, 3 Class 1 kitchen hoods, Class 2 kitchen hoods, all plumbing system, sprinkler system including sprinkler service entrance for entire Capitol Buildings, comprehensive architectural services.

Old Kanawha Valley Bank Building (2003) - New cooling chiller.
(2015) - New cooling tower.

City Center East (2008) Chiller Replacement.

Tenant Fit-Up Numerous Office Buildings Charleston – BB&T Building, City Center East, United National Bank Building, Hunting National Bank Building to include VAV distribution, electrical and architectural services.

HVAC RENOVATION EXPERIENCE (CONT.)



Additional K-12 HVAC Projects:

Pleasant Hill Elementary School - HVAC Replacement
Keyser Middle School - HVAC Replacement
Huntington Herald Dispatch - HVAC Study
Walker Machinery Main Office Renovation - HVAC
Walker Diamond Office - HVAC
Walker Machinery - HVAC Renovations
State of WV – Governor’s Mansion Corrective HVAC Study
Camp Dawson Regional Training Institute - HVAC
Central Regional Jail – HVAC and Roof Replacement
King of Prussia, PA – HVAC Design (Multiple Projects)
Kanawha Valley Senior Services - HVAC
Tolsia High School - HVAC Renovations
Cabell County Schools – (Multiple HVAC Projects)
Cabell County Career & Technical Center - HVAC
Cabell County Explorer Academy - HVAC
Harrisville Elementary School - HVAC
Ritchie County HS/MS - Cooling Tower Replacement
Spring Hill Elementary School - HVAC
Roane-Jackson Career & Technical Center
Salt Rock Elementary School - HVAC Renovation
Wayne County Schools – New HVAC System Projects
Greenbrier County Schools – New HVAC System Projects
Huntington High School
Cabell-Midland High School



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.





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.





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.





KINGWOOD ARMED FORCES RESERVE CENTER

LOCATION | SIZE | COMPLETION
KINGWOOD, WV | 56,200 SF | 2000

The Armed Forces Reserve Center houses five National Guard and Army Reserve Units and their support personnel. Its mission is twofold: first, to maintain readiness for its attached units and second, to serve as a resource to the surrounding community.

The primary readiness mission for the center's attached units is accomplished by providing designated spaces for each unit as well as general educational and gathering spaces that can be shared among the units. The building's community mission is to provide a gathering space for social functions, a shelter-in-place in times of natural disaster, and a community education resource with distance learning network capabilities. It also includes kitchen and dining facilities and physical fitness areas.





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.





ROBERT C. BYRD REGIONAL TRAINING INSTITUTE

LOCATION KINGWOOD, WV	SIZE 148,000 SF	COMPLETION 2002	COST \$21M
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The Robert C. Byrd Regional Training Institute at Camp Dawson is a 148,000 SF facility designed to provide training, dormitory, dining, and recreational facilities for the West Virginia Army National Guard.

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

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





MORGANTOWN READINESS CENTER

LOCATION MORGANTOWN, WV	SIZE 54,000 SF	COMPLETION 2013	COST \$22M
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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 CHARLESTON, WV	SIZE 19,935 SF	COMPLETION 2008	COST \$3.5M	AWARDS 2009 AIA WV MERIT AWARD
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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.

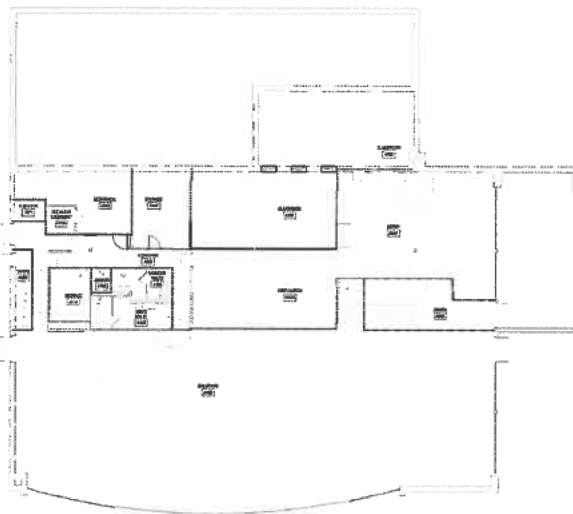
To reduce the project cost, ZMM eliminated the need for an elevator by siting the building in a manner that provided accessible entrances and parking at both levels. On the interior, these levels are connected by an open gathering space where stairs surround a central hearth.



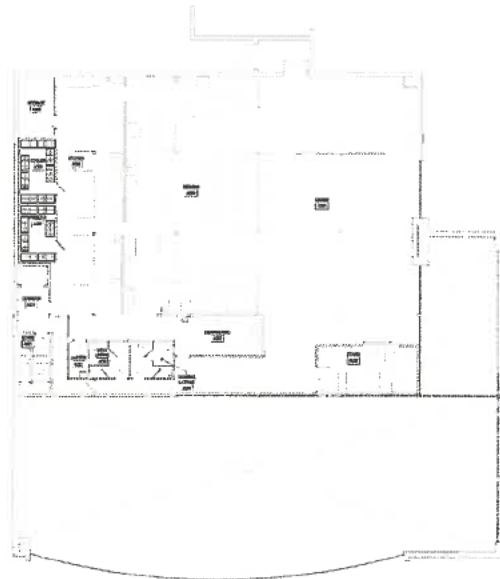
ADDITIONAL WVARNG PROJECTS

Mountaineer Challenge Academy - South Montgomery, WV

MCA - South involves the renovation of both Maclin Hall and the Tech Center at the old WVU Tech Campus in Montgomery to accommodate the expansion of the Mountaineer Challenge Academy. The Maclin Hall dormitory was renovated to include a new security system to reflect the new user's needs. The Tech Center received more extensive renovations including a new roof. The lower level of the Tech Center was renovated to have two new classroom spaces. The upper level was renovated into new classroom and office space. This floor will have three computer classrooms and one standard classroom. A new HVAC system, ceilings, finishes, and LED lighting are all a part of this renovation.



20007 MCA South - Tech Center - First Floor



20007 MCA South - Tech Center - Second Floor

Camp Dawson Mail Room Kingwood, WV

The Mail Room at Camp Dawson is a new 2,400 SF facility located at the entrance to Camp Dawson. The facility houses both the mail facility and the ID Center which serves all of the buildings on the campus. As part of this project, the exterior lighting along the perimeter fence will also be upgraded to meet current anti-terrorism/force protection guidelines. A new cable barrier and chain link fence will be installed around the facility to isolate it from the other buildings on campus.

Camp Dawson STF - Building 'B' Kingwood, WV

The STF Building 'B' at Camp Dawson is a new 7,250 SF facility designed in close collaboration with the Camp Dawson Special Forces unit to satisfy several of their current needs. The facility has a large storage room, a small training area, multiple interview rooms, and a multi-functional work room. The structure of the building will be a pre-engineered metal building.



CABELL COUNTY EXPLORER ACADEMY

LOCATION HUNTINGTON, WV	SIZE 60,000 SF	COMPLETION 2016	COST \$15M	AWARDS 2017 AIA WV MERIT AWARD
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The Explorer Academy is the first of its kind in West Virginia – a school that employs an Expeditionary Learning model.

Cabell County School officials are hoping the school will set an example for schools around the state and see the school as the next step in education. It is a consolidation of Peyton Elementary and Geneva Kent Elementary in the east end of Huntington. The schools were combined to form the incubator school, which is housed in the former Beverly Hills Middle School facility that was remodeled to fit the mold of the Expeditionary Learning model. Cabell County School officials describe the school as an explorer academy, because of the experimental learning environment. They hope what they learn from their experiment leads to other school districts around the state doing their own experiments and developing Expeditionary Learning environments of their own. Students learn about completing projects that will stretch across different subject areas and can sometimes take the entire school year.

The curriculum for the program is very hands-on and is a real-world way of learning. Students work a lot with community partners, people who are experts in their fields. The students are going out and doing fieldwork, which is much different than a field trip. In Expeditionary Learning, students learn by conducting learning expeditions rather than by sitting in a classroom being taught one subject at a time.





HUNTINGTON EAST MIDDLE SCHOOL

LEED
CERTIFIED

LOCATION HUNTINGTON, WV	SIZE 100,500 SF	COMPLETION 2013	COST \$23M	AWARDS 2014 AIA WV MERIT AWARD
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This state-of-the-art middle school uses competition to engage students into exploring the facility's sustainable features.

Located in the heart of both communities, the facility will house approximately 770 students. The brick façade is accented with metal panels and highlighted with large amounts of glass that provide natural light to the classrooms. A curved corridor divides the building while slowly widening and developing into the art room. The art room showcases a large window introducing natural light into the room and the corridor. The curved façade along the corridor is emphasized with copper-finished metal panels.

Cabell County Schools is the first LEED Certified middle school in Cabell County. The building and curriculum boasts of 6th, 7th, and 8th grade teams that will compete against each other in energy consumption and are able to track through technology energy usage throughout the year using online learning and technology systems throughout the facility. The building itself is a teaching tool. A pulper system is in place to not only consume kitchen waste, but also all paper waste throughout the school. The students are able to take this product and provide compost for the school's vegetable gardens, which will provide additional produce for the county's "farm-to-table" program at the school. The facility includes a gymnasium, cafeteria with a stage, art, music, band, orchestra, and science facilities that are second to none.





MARSHALL UNIVERSITY SMITH HALL RENOVATION

LOCATION HUNTINGTON, WV	SIZE 22,000 SF	COMPLETION 2017	COST \$920K
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Smith Hall is located on Third Avenue on Marshall University's main campus in downtown Huntington, WV.

The project was a renovation to upgrade the architectural interior finishes and acoustical quality of the music practice and performance areas. ZMM worked closely with professors to determine the correct acoustics to meet the accreditation needs for the college. Taking inspiration from The Thundering Herd, the building was transformed with a mature palette and pops of green. Interior improvements included replacement of ceilings in areas that were affected by the HVAC replacement. Existing ceilings in the practice rooms received a sound blanket barrier and acoustical coating to improve the performance of the space. Paint, carpet and acoustical wall treatments were also installed.

Mechanical system improvements were implemented to correct issues of the aging HVAC system, which was a high-energy user. ZMM converted the system to VAV by installing terminal units with SCR electric reheat. A smaller electric coil provided enough electrical capacity to power the terminal reheat. ZMM retained the fan wall and chilled water coil and installed DDC controls. Dehumidification was provided by a gas-fired humidifier to maintain stable humidity. Smith Music Hall's combination of HVAC, acoustical, and interior improvements highlights ZMM's ability to provide multi-discipline design services on complex renovation projects.





SOUTHSIDE ELEMENTARY / HUNTINGTON MIDDLE SCHOOL

LOCATION HUNTINGTON, WV	SIZE 158,194 SF	COMPLETION 2010	COST \$27M	AWARDS 2011 AIA WV HONOR AWARD
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ZMM designed the facility to maintain the historic character of the façade and auditorium, while replacing the remainder of the school. The community has maintained a landmark, while developing state-of-the-art schools.

The two schools that previously occupied the site of the Southside Elementary School and Huntington Middle School were Cammack Elementary School and Cammack Middle School. The facility houses a combined 1,014 elementary and middle school students. When the Cabell County Board of Education proposed a \$61 million bond issue in 2006, the Huntington community expressed the importance of saving this neighborhood landmark. The facilities were designed to blend with the architectural character of the existing facility. More than 70% of the existing building was demolished and the portion remaining was completely renovated. Two stair towers provide a vertical architectural element that separates the existing structure from the new construction. The result is a cohesive design that blends the unique elements of the former school into a modern educational complex.

Although the facility houses both an elementary and a middle school, each have their own distinct entrance and administrative complex and the students remain physically separated on opposite sides of the facility. The schools only share a kitchen, which has been located to serve separate dining facilities.





HUNTINGTON EAST MIDDLE SCHOOL

LEED
CERTIFIED

LOCATION HUNTINGTON, WV	SIZE 100,500 SF	COMPLETION 2013	COST \$23M	AWARDS 2014 AIA WV MERIT AWARD
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This state-of-the-art middle school uses competition to engage students into exploring the facility's sustainable features.

Located in the heart of both communities, the facility will house approximately 770 students. The brick façade is accented with metal panels and highlighted with large amounts of glass that provide natural light to the classrooms. A curved corridor divides the building while slowly widening and developing into the art room. The art room showcases a large window introducing natural light into the room and the corridor. The curved façade along the corridor is emphasized with copper-finished metal panels.

Cabell County Schools is the first LEED Certified middle school in Cabell County. The building and curriculum boasts of 6th, 7th, and 8th grade teams that will compete against each other in energy consumption and are able to track through technology energy usage throughout the year using online learning and technology systems throughout the facility. The building itself is a teaching tool. A pulper system is in place to not only consume kitchen waste, but also all paper waste throughout the school. The students are able to take this product and provide compost for the school's vegetable gardens, which will provide additional produce for the county's "farm-to-table" program at the school. The facility includes a gymnasium, cafeteria with a stage, art, music, band, orchestra, and science facilities that are second to none.





VALLEY HEALTH SYSTEMS

LOCATION WAYNE, WV	SIZE 15,580 SF	COMPLETION 2017	COST \$3.7M
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ZMM designed the one-story medical building in Wayne, WV operated by Valley Health Systems of Huntington, WV. The building is 15,580 SF on a two-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 building replaces an existing undersized facility.

Within the healthcare facility, medical experts will provide Optometry, Dentistry, Behavioral Health, and Internal Medicine services. A large pharmacy, fitness center, and community conference room will also be provided. The largest suite, Medical, is highlighted by 16 exam rooms, a large nurse's station, and many support rooms, including a laboratory. The Dental Suite has five exam rooms with supporting space, while Optometry and Behavioral Health will contain exam rooms, assessment areas, and professional offices. An adjacent space with a separate entrance will be provided for the WV Women, Infants, and Children (WIC) program. WIC is designed to provide quality nutrition, breastfeeding counseling, and education, as well as health monitoring and nutritious foods.





JEAN DEAN PUBLIC SAFETY BUILDING

LOCATION
HUNTINGTON, WV

COMPLETION
1999

This redevelopment project by the City of Huntington now houses the police department and municipal court.

The reclaiming and rehabilitating an abandoned dress factory rather than building new, the City of Huntington turned a dangerous eyesore in a troubled area into a formidable presence. The City's justice center occupies the 1st through 3rd floors and the basement. Two high speed elevators were retrofitted and renovated for this building. The recently leased the 4th and 5th floors to Amazon.com, who transformed the upper floors into an impressive space for their regional calling center.



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 (██████)
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

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

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

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.

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 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.

Bridgemont 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 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 remedying 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

2011 WV AIA Honor Award Joint Interagency Training and Education Center (JITEC), Kingwood, WV

David E. Ferguson, AIA, REFP



Role

Principal, QA/QC

Professional Registrations

Registered Architect (WV, OH)

Recognized Educational Facility Planner (REFP)

Mr. Ferguson has served in the capacity of Architect, Project Manager, and Principal in Charge for a variety of projects at ZMM. This experience includes Educational (PK-12, Vocational and Higher Education), Retail, Corporate Office, Industrial, Military, Medical Office Facilities, General Healthcare Hospital and Psychiatric Hospital Projects. Mr. Ferguson's responsibilities include programming, design, documentation, architectural/engineering coordination and construction administration.

Mr. Ferguson began his career at ZMM in 1984 working on a variety of retail, educational and military projects throughout West Virginia, Pennsylvania, Ohio, Virginia, Maryland, New York, North Carolina, South Carolina, Florida, and Washington DC. In 1996 Mr. Ferguson expanded his expertise into the Healthcare and Industrial and Corporate Office facilities and since then has led the effort at ZMM in Educational Design. Mr. Ferguson is a Recognized Educational Facility Professional (REFP) and has been involved in planning, designing and the construction of over 200 educational facilities in West Virginia. As the architect for the first "green" school building in West Virginia Mr. Ferguson has been an advocate for sustainable design and was involved starting the first US Green Building Chapter in West Virginia.

Mr. Ferguson has also participated in developing West Virginia Department of Education's Policy 6200 *Handbook on Planning School Facilities* and the West Virginia School Building Authority's *Handbook of Quality and Performance Standards*. In addition to Mr. Ferguson's project management responsibilities, as a principal of the firm he has corporate administrative duties and serves on the Board of Directors.

Project Experience Highlights

Marshall University - Smith Hall, Huntington, WV

ZMM worked closely with Marshall University professors to determine the correct acoustics to meet the accreditation needs for the college. Being an extension of the Fine Arts Department, the Owner also felt that it was necessary to address the overall aesthetics for a creative mind and

Education

Bachelor of Science; Industrial
Technology/Architectural Design;
West Virginia State University, 1979

Employment History

2007 - Present, Vice President,
Secretary/Treasurer, ZMM
2002 - 2007, Vice President, ZMM
2001 - Present, Board of Directors, ZMM
1996 - Present, Architect, Project
Manager, ZMM
1984 -1996, Designer, ZMM

Civic Affiliations

- A4LE Southeast Region Board of Directors – WV State Governor
- West Virginia Chapter, American Institute of Architects, Past President
- West Virginia Chapter, American Institute of Architects, Board Director
- American Institute of Architects, Member
- Member, Association for Learning Environments(A4LE)
- Recognized Educational Facility Planner (REFP) by the A4LE
- Professional Member, US Green Building Council
- High School Mentoring/Job Shadowing Program for 6 County School Systems
- WV AIA IDP Program Mentor/Advisor

inspire the students. Taking inspiration from the Thundering Herd, the building was transformed with a mature palette and pops of green selected by the renovation committee.

Huntington East Middle School, Huntington, WV Mr. Ferguson was responsible for the programming, design, and project management for the new 800 student, 94,000 SF facility. This is projected to be the first LEED Silver Middle School in West Virginia and encompasses the latest in technology and distance learning within the classroom. The building will be used as a teaching tool along with large interactive monitors throughout the building. Students will be able to learn how the building operates through hands on learning and monitoring the building systems.

Southside Elementary and Huntington Middle School, Huntington, WV Mr. Ferguson led the programming and design effort on this 156,000 SF facility. This project encompasses all phases of construction; demolition, major renovation and new construction. The original historic 26,000 SF three story school building was preserved and the remaining less than adequate facility was strategically removed to accommodate the new addition. The existing facility was completely renovated and brought up to new construction standards to blend with the new addition. The project consisted of two distinct school facilities existing on the same piece of property. The new construction blends seamlessly with the older historic structure.

Explorer Academy, Huntington, WV Mr. Ferguson was the project manager/architect on this new Expeditionary Learning Incubator School. The new Academy is the consolidation of Peyton Elementary and Geneva Kent Elementary in the east end of Huntington. The schools were combined and housed in the former Beverly Hills Middle School facility that will be remodeled to fit the mold of the Expeditionary Learning model. The curriculum for the program is very hands on, and is a real-world way of learning. Students will be working a lot with community partners, people who are experts in their fields. The students learn by conducting learning expeditions rather than sitting in a classroom with one subject being taught at a time.

Nicholas County Schools

Mr. Ferguson is currently leading the recovery effort for the \$160 million dollar school system. On June 23, 2016 a flood destroyed three schools. These facilities were left unsafe and uninhabitable. ZMM has worked with the County Board of education, FEMA, and the State of WV to design and program temporary schools and develop a long range plan to rebuild. ZMM is working on the programming and design for the two new facilities. A community school which will include spaces for the community to access, and a comprehensive High School/Middle School which will include a Career Technical Center. Mr. Ferguson has conducted community Meetings, established goals and priorities, created overall budgets and a project scope all stakeholders will support.

Lincoln County High School, Hamlin, WV Mr. Ferguson was responsible for the programming and design effort for this one-of-a-kind facility. This 800 student, 217,000 SF school was a ground breaking facility for the county, West Virginia School Building Authority and the WV Department of Education. This facility was the first school in West Virginia to incorporate "green" design principals. The school was the first school east of the Mississippi River to encompass a fully comprehensive High School, Vocational School, Health Clinic (open 12 months a year), and Community College within one building. This facility is also the proud recipient of the 2007 WV AIA Honor Award.

Cabell County Bond Program: Mr. Ferguson assisted Cabell County in developing budgets, project scopes and passing the largest bond program in West Virginia. This encompassed four projects and with additional funding from the West Virginia School Building Authority exceeded \$72 million dollars. As Principal, Mr. Ferguson led the programming and design effort on all four facilities.

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

2020 WV AIA Merit Award Mountain Valley Elementary School, Green Valley, WV

2017 WV AIA Merit Award Explorer Academy, Huntington, WV

2016 WV AIA Merit Award Gauley River Elementary School, Craigsville, WV

2015 WV AIA Merit Award Kenna Elementary School, Kenna, WV

2014 WV AIA Merit Award Southern WV Community & Technical College, Williamson, WV

Nathan Spencer, AIA



Role

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.

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.

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.

Carly Chapman



Role

Interior Designer

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.

Project Experience

Marshall University - Smith Hall, Huntington, WV

ZMM worked closely with Marshall University professors to determine the correct acoustics to meet the accreditation needs for the college. The Owner felt that it was necessary to address the overall aesthetics for a creative mind and inspire the students. Taking inspiration from the Thundering Herd, the interiors of the building were transformed with a mature palette and pops of green selected by the renovation committee.

WVSOM Tech Building Expansion (Testing Center), Lewisburg, WV

Mrs. Chapman is currently the Interior Designer on the design of the new testing center at WVSOM. The new testing center was designed to connect to the Tech Building to the CEC and will accommodate 220 students. The Testing Center does not have exterior windows, features from both buildings including masonry banding and natural stone elements were used to provide human scale, while natural lighting is introduced in the concourse and pre-function space.

Southern West Virginia Community & Technical College, Williamson, WV Mrs. Chapman was the Interior Designer for the new Applied Technology Center. The 22,000SF building featured large, flexible teaching areas that can adapt as the curriculum changes for each program. The facility is the first step in the progression of a planned campus expansion that will ultimately include the adjacent Readiness Center. ZMM is also

Education

Bachelor of Interior Design, University of Charleston, 2012

Employment History

2016 - Present, Interior Designer, ZMM
2012 - 2016, Project Manager/Interior Designer, Contemporary Galleries, Inc.
2010 - 2012, Interior Design Intern, ZMM

providing a new campus master plan, with a focus on creating green space and improving pedestrian and vehicular circulation. This project was designed to meet the USGBC LEED Silver standards.

Bluefield Primary School, Bluefield, WV

The new school is the result of a consolidation of two local schools in the Bluefield area. The county wanted to bring in architectural elements from both of the former schools. This was accomplished by oval vaulted ceilings and circular windows throughout the building. The school will house Pre-k-2nd grade students. Keeping the Bluefield Beavers in mind, the school colors are found throughout the design with the addition of complimentary colors to create a colorful learning environment for the students. No school can be designed without a little fun in mind... A large dry erase mural spans the length of the media center allowing students to express their imaginations.

Mountain Valley Elementary School, Green Valley, WV

Mountain Valley opened its doors in the fall of 2019. The concept for the school was simple – fundamentals. Primary colors and geometric shapes create a fun and easy way to keep the students engaged and ready to learn, while sticking to the basics. A large wall in the media center allows for quiet areas to study or play with built in casework depicting the word “READ” allowing for shelving and seating within the oversized letters. The scheme continues throughout the school seen in the polished concrete floor pattern and 3D shapes protruding above the main entrance for a guaranteed jaw dropping design.

Williamstown Elementary School, Williamstown, WV

When designing a new school built on tradition, the initial thought of school colors and clean lines comes to mind. This was not the case with the new Williamstown Elementary School. Using the school colors as our basis of design, the county was open to adding complimentary colors to entice the students for a bright and exciting learning environment. Colorful floor pattern adorns the corridors, using the tile for wayfinding and structure for students. In the media center you will find a custom designed tree, dripping in lights mimicking fireflies and a perfect campfire setting for storytelling. The tradition is kept alive with the pops of Maroon and Gold throughout the cafeteria and gym.

Valley Park Community Center, Hurricane, WV

The new community center replaced an existing structure that was recently demolished earlier this year. The new building houses a commercial kitchen, administration wing, ballroom, and a locker room complex with administration quarters for the attached Wave Pool.

Pipestem Resort State Park Lodge, Pipestem, WV

Mrs. Chapman is currently the interior designer on the renovations to 88 guestrooms on first floor, bathroom expansions on the 7th floor, renovations to the dining area with a bar addition, renovations to all conference rooms, finish selections and renovations in the lobby. ZMM will be replacing the ceilings and lightings in all public spaces and guestroom corridors in the main McKeever lodge building. Mountain creek lodge that sits below McKeever Lodge will receive a new roofing on the guestroom buildings and restroom will be renovated in the main tram building. The newly renovated lodge is set to open this summer 2021.

Charleston EDGE, Charleston, WV

The Charleston Edge renovation focused on bringing life to an old existing structure in the heart of downtown Charleston. The concept of the design was to create contemporary living quarters for the young urbanites of the city, while also providing a communitive atmosphere by including a rooftop gathering space for locals to enjoy.

Previous Employment Experience

Marshall University, Huntington, WV - Engineering Building

Marshall University, Huntington, WV - Athletic Center

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 remedying 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.

James W. Lowry, PE



Role

Mechanical Engineer

Professional Registrations

Professional Engineer (WV, PA, OH, MD)

Mr. Lowry is a registered Professional Engineer with design experience in:

• Industrial

Bayer Material Science, West Virginia Higher Education Policy Commission, Kuraray America, Armstrong Flooring, Covestro Laboratories.

• Educational

Renovations, evaluations and additions at Marshall University, West Virginia University Institute of Technology, Mercer County Schools and various other Schools and Universities statewide.

• Commercial

West Virginia Capitol Complex, West Virginia Parkways Authority

• Health Care

Renovations, evaluations and additions at Cabell Huntington Hospital, Charleston Area Medical Center, Charleston Surgical Center, West Virginia Department of Health & Human Resources, Huntington VA Hospital and other various healthcare facilities statewide.

Relevant Experience

State Office Building #6 – Construction Administration
Keyser Middle School - HVAC and Roof
Pleasant Hill Elementary School – HVAC and Roof
Marshall University - Replacement Multizone HVAC
Marshall University - Prichard Chiller Replace 190
WVWARRNG - MCA South Renovations
Nitro Construction - DOW Modular Lab BLD
WVWARRNG - Kenova SCIF
Clay Center -Founders Lounge Dehumidify
WVWARRNG - New River CTC Various Projects
WVWARRNG Building 202 Renovation
Goodwill Industries. - Expansion/Renovation (Teays Valley)
New River CTC - Welding Shop
Pipestem State Park Lodge - Renovations
Walker Machinery - Belle CRC Renovations

Education

BS, Mechanical Engineering, West Virginia University Institute of Technology, Montgomery, WV, 2004

Employment History

April 2018 - Present, Mechanical Engineer, ZMM

2015 - 2018, Mechanical Engineer, Pickering Associates

Civic Affiliations

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), President of West Virginia State Chapter

CAMC General Hospital - Replace Chillers
GSD - Capitol Guard House
WV Higher Education Policy Commission - Southern CTC Various Projects

Project Experience

Wood County Technical Center, Parkersburg, WV

Mr. Lowry was the Mechanical Project Engineer for this project. This project consists of renovations to 80% of the existing facility and an addition of 8 classrooms, one welding shop, multipurpose room and administration areas. The renovations included conversion of admin space to classroom space, conversion of classroom space to pro-start kitchen space, conversions of existing welding shop to new broadcasting shop. Renovations to collision repair, auto mechanics and construction shops to bring them up to current codes and standards. Design of new HVAC system for all renovated areas, including specialized exhaust for the welding, painting, construction, and pro-start kitchen areas. Design of new HVAC systems for the addition classrooms, multipurpose area and admin areas.

WV Army National Guard, Kenova Secured Area, Kingwood, WV

Mr. Lowry was the Mechanical Project Engineer on the renovations of existing facility for the inclusion of a new sand alone secured area with the existing facility. Project conformed to all additional federal/military requirements for secured areas.

WV Army National Guard, Camp Dawson Secured Area, Kingwood, WV

Mr. Lowry was the Mechanical Project Engineer on the renovations of existing facility for the inclusion of a new sand alone secured area with the existing facility. Project conformed to all secured area with the existing facility.

Mountain State Oral Surgeons, Charleston, WV

Mr. Lowry was the Mechanical Project Engineer currently working with the developing contractor BBL Carlton renovations to the existing facility. The existing Office space will be converted to new patent care areas. We evaluated the applicable mechanical and plumbing codes and developed the plumbing construction drawings in conjunction with the Owner and BBL.

Project Experience with other Firms

Cabell-Huntington Hospital, Huntington, WV

Mr. Lowry was responsible for the evaluation and design of the existing facility chilled water distributions systems, design of a new 4600-ton chilled water plant, Development of phased construction plan to construct the new plant and distributions piping for tie-into the existing systems to minimize down time on the existing chilled water systems.

Armstrong Flooring, Beverly, WV

Mr. Lowry was responsible for the evaluation and design of the existing and the connection to existing mechanical systems to serve a new addition to the manufacturing facility. The new addition will consist of storing flooring product, loading docks, and admin area. The new area was designed to be heated via the existing steam systems and provided with humidification to protect the product. The work was designed in a manner to allow for phase of the construction without interruption to the facilities operations.

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

Ronnie L. Burdette, PE



Role

Structural Engineer

Professional Registrations

Professional Engineer (WV)

Mr. Burdette serves as a Structural Engineer at ZMM. His experience he has gained while at ZMM includes Educational (Additions/Renovation to existing structures and Construction of new structures), Municipal (Community Centers), and Residential projects. Mr. Burdette's responsibilities include design and analysis of structural systems and documentation of design results.

Project Experience

Mr. Burdette has served as Structural Engineer on a variety of projects. His responsibilities included analysis and design of multiple building materials (Steel, Timber, & Concrete) and production of structural drawing sets.

Capitol Guard House, Charleston, WV
WVDOH Webster County HQ, Webster Springs, WV
Tomblin Wildlife Viewing Tower, HQ, and Visitor's Center, Logan, WV
Valley Health Clinic, Milton, WV

New River Primary / Oak Hill Middle School, Oak Hill, WV

This project included two separate projects located on the same site. Both buildings were designed to be ICF and steel construction.

Valley Park Community Center, Hurricane, WV

This new community center replaced an existing one at the Valley Park Wave Pool. It was designed to be constructed from masonry, steel, and timber. The exterior design concept plays off the existing Commons Building which incorporates stone accents, wood siding and multi-sloped roofing around a floor plan that emphasizes the internal components. The Community Center entrance is highlighted by a large, exposed wood truss bearing on tall, battered stone columns. These wood beams are featured at all entrances and carry into the meeting room prefunction to provide a fully-exposed, open wood structure.

Charleston EDGE, Charleston, WV

The Charleston Edge renovation project included many different structural materials. The existing building is brick and

Education

Bachelor of Science in Civil Engineering, West Virginia University, 2015

Master of Business Administration, University of Charleston (WV), 2016

Employment History

January 2017 – Present, Structural Engineer, ZMM

May 2016 – Dec 2016, Civil/Structural EIT, Jacobs Engineering

May 2015 – Dec 2015, Civil/Structural EIT, CDI Corporation

masonry construction. Construction plans included the design of a new roof-top addition that was supported by structural steel.

Multiple Residential Renovations and Additions

The majority of residential work in the area consists of timber and masonry construction. Mr. Burdette has been involved in residential projects that range from analysis of a 3-story wooden deck to the design of a new addition to an existing timber and masonry house.

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

Mark T. Epling, AIA, LEED AP, NCARB



Role

Specifications Writer

Professional Registrations

Registered Architect (WV, OH)

LEED Accredited Professional

NCARB Certification

Construction Documents Technologist (CDT)

Mr. Epling is responsible for the creation and coordination of Project Manuals including specifications for all ZMM projects. The coordination duties include the incorporation of specifications from several design disciplines including structural, plumbing, HVAC, and electrical specifications.

Mr. Epling's duties also include determining the type and number of bid packages and resulting construction contracts for a particular project, and following through with the incorporation of the appropriate contract forms and contract conditions into the Project Manuals.

Mr. Epling began his career as a licensed Architect in October 1982 and has acquired experience in all aspects of the architectural practice working on a variety of building types including single-family homes, medical clinics, industrial facilities, theatre restoration, commercial-retail buildings, and college dormitory and elementary school remodeling.

Mr. Epling began working at ZMM in February 1998 and has worked in preparation and coordination of working drawings, construction contract administration, and beginning in June of 2006, took on the role of specifications writer and has remained in that capacity.

Project Experience

Mr. Epling's recent project experience includes the preparation of Project Manuals for the following ZMM projects:

WV Army National Guard - Glen Jean AFRC
WV Army National Guard - Jackson County AFRC
WV Army National Guard - Morgantown Readiness Center
WV Army National Guard - Logan-Mingo Readiness Center
WV Army National Guard - Marshall Readiness Center
Joint Interagency Training & Educational Center (JITEC)
Wood County Justice Center
Tucker County Courthouse Annex
New River Primary/Oak Hill Middle School
Mountain Valley Elementary School

Education

Bachelor of Architecture;
Virginia Polytechnic Institute and State University; 1977

Employment History

1998 - Present, Project Architect & Specifications Writer, ZMM

1997 - 1998, Project Architect, OH Firm

1982 - 1997, Architect, Self Employed, Located in OH

1978 -1982, Intern Architect, OH Firm

Civic Affiliations

- American Institute of Architects, Member
- West Virginia Symphony Chorus, Member

Williamstown Elementary School
Kenna Elementary School
Craigsville Elementary School
Southside Elementary/Huntington Middle School
laeger - Big Creek High School
Lincoln County High School
St. Albans High School
Bradshaw Elementary School
Edgewood Elementary School
Hacker Valley Pre K-8 School
Southern WV Community & Technical College
Bridgemont Community & Technical College
Milton Middle School
Barboursville Middle School
Charleston Coliseum & Convention Center
WV State Capitol Roof Replacement
WV State Office Building #5, 6, & 7
WV Housing Development Fund
CFMO Expansion
Houston Company Store
Erma Byrd Center
Huntington East Middle School
Beech Fork State Park Lodge
CAMC Teays Valley
Highland Hospital

Keith L. Gonzales



Role

Construction Administrator

Mr. Gonzales describes his role with ZMM as Construction Administrator as an exciting and challenging opportunity with new experiences every day. From varying jobsite conditions to the differing professionals, he works with daily, Mr. Gonzales approaches construction administration with over 40 years' experience in the construction industry and the desire to help provide the best outcomes possible for each project.

Mr. Gonzales prior to coming on board with ZMM oversaw the CAD/BIM coordination and design of major projects in the Columbus area. Facebook Data Center, OSU Wexner Cancer Hospital, OSU NDRT Student Housing Project to just name a few. Mr. Gonzales oversaw the 3D BIM modeling and coordination of these projects. He was responsible for ensuring that all trades were coordinated in model space therefore allowing trades to go to fabrication/installation once model was "Clash Free".

Mr. Gonzales project variety includes Educational (K-12 and University), Commercial, Military, Office, Justice (Courthouses, Justice Centers), Healthcare (Health Departments), Roof replacement projects.

Project Experience

CAMC Chiller Replacement, Charleston, WV
Hurricane High School Addition, Hurricane, WV
Charleston Coliseum & Convention Center, Charleston, WV
Boone County Roof Replacement Project, Boone, WV
Nicholas County Roof Replacement Project, Summersville, WV
Summers County High School HVAC, Summersville, WV
Summers County Bus Garage Renovations, Summersville, WV
WVSOM Greenspace Renovation Project, Lewisburg, WV
Calhoun County Pleasant Hill Elementary HVAC Equipment Replacement Project
Wood County Bell Tower Roof Addition, Parkersburg, WV
Christ Church United Methodist, Charleston, WV
Girl Scouts of Black Diamond Council, Charleston, WV
WVDNR Claudia Workman Fish and Wildlife Education Center, Alum Creek, WV

Education

Associate Degree Mechanical Engineering, Pittsburgh Technical Institute 1978

Employment History

2018 - Present, Construction Administrator, ZMM

REFERENCES

Todd Reynolds, Deputy Branch Chief
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1707 Coonskin Drive
Charleston, WV 25311
304.561.6446

Greg Melton, Director of General Services
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Charleston, WV 25305
304.558.2317

Mr. David Molgaard, Former City Manager
Charleston Coliseum & Convention Center
200 Civic Center Drive
Charleston, WV 25301
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Randy Vaughn, Project Manager
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