



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

State of West Virginia  
Centralized Expression of Interest  
02 -- Architect/Engr

Proc Folder: 558748

Doc Description: Poca Warehouse Renovations Design EOI

Proc Type: Central Purchase Order

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

Vendor Name, Address and Telephone Number:

ZMM, Inc. (dba ZMM Architects and Engineers)  
222 Lee Street, West  
Charleston, WV 25302  
304-342-0159

RECEIVED  
2019 APR -2 PM 12:16  
WV PURCHASING  
DIVISION

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale  
(304) 558-8801  
stephanie.l.gale@wv.gov

Signature X

FEIN # 55-0676608

DATE April 2, 2019

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

**ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.:**

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

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

**Addendum Numbers Received:**

*(Check the box next to each addendum received)*

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

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

ZMM, Inc. (dba ZMM Architects and Engineers)

Company



Authorized Signature

April 2, 2019

Date

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

**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.

Ad Rk Principal  
(Name, Title)  
Adam R. Krason, AIA, LEED AP, Principal  
(Printed Name and Title)  
222 Lee Street, West, Charleston, WV 25302  
(Address)  
304-342-0159 304-345-8144  
(Phone Number) / (Fax Number)  
ark@zmm.com  
(email address)

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

ZMM, Inc. (dba ZMM, Architects and Engineers)  
(Company)

Ad Rk Principal  
(Authorized Signature) (Representative Name, Title)

Adam R. Krason, AIA, LEED AP, Principal  
(Printed Name and Title of Authorized Representative)

April 2, 2019  
(Date)

304-342-0159 304-345-8144  
(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA  
Purchasing Division  
**PURCHASING AFFIDAVIT**

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

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

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

**DEFINITIONS:**

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

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

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

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

**WITNESS THE FOLLOWING SIGNATURE:**

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

Authorized Signature: *Adam R. K...* Date: April 2, 2019

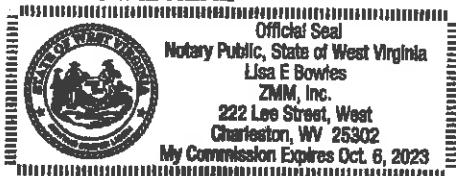
State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 2<sup>nd</sup> day of April, 2019.

My Commission expires 10-6, 2023.

**AFFIX SEAL HERE**



NOTARY PUBLIC

*Lisa E. Bowles*

*Purchasing Affidavit (Revised 01/19/2018)*

April 1, 2019

Ms. Stephanie Gale, Senior Buyer  
Department of Administration, Purchasing Division  
2019 Washington Street, East - PO Box 50130  
Charleston, West Virginia 25305-0130



**Subject: Poca Warehouse Renovations Design (CEOI ADJ1900000014)**

Dear Ms. Gale:

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 Poca Warehouse Renovation project. Established in 1959, ZMM is a West Virginia based, full service A/E firm, and is noted for design excellence and client focus. As a full service design firm with a longstanding relationship serving the West Virginia Army National Guard (WVARNG), ZMM has the right combination of technical expertise and relevant experience (renovation, WVARNG, warehouse) to help successfully deliver the Poca Warehouse Renovation project.

ZMM's ability to provide comprehensive building design services has led to our firm becoming a trusted resource for complex renovation projects for the WVARNG including the Construction and Facilities Management Office (CFMO) Expansion, the Marshall County Readiness Center and FMS, the Joint Interagency Training and Education Center (JITEC), which was an expansion to the RTI, as well as the Building 202 Renovation, the MCA-Jobs Challenge Facility, and other recent projects at Camp Dawson. In addition to our experience working with the WVARNG, ZMM also has recent warehouse design experience. Recent projects include work for a private light industrial company, as well as West Virginia Surplus Property.

Additional WVARNG experience includes the Jackson County AFRC, the Glen Jean AFRC, the Tackett Family Readiness Center, the Morgantown Readiness Center, and the Logan-Mingo Readiness Center. Several of these projects including the CFMO Expansion, the JITEC, and the Logan-Mingo Readiness Center were recognized with design awards. *In fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with sixteen design awards in the last decade – an achievement unrivaled in West Virginia.*

Thank you for taking the time to review the attached expression of interest that includes information about our proposed approach for the Poca Warehouse Renovation project, as well as ZMM's qualifications, and relevant project experience. Additionally, please visit our website at [www.zmm.com](http://www.zmm.com) to see the full range of renovation projects that we have designed. We appreciate your consideration for this important endeavor, and look forward to meeting with you to discuss the project in greater detail.

Respectfully submitted,  
**ZMM Architects and Engineers**

A handwritten signature in blue ink that reads 'A R K' with a horizontal line underneath.

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

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**LOCATION:**  
222 Lee Street, West  
Charleston, WV

**CONTACT:**  
Phone 304.342.0159  
Fax 304.345.8144  
[www.zmm.com](http://www.zmm.com)



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 from our office in Charleston. Our integrated design approach makes ZMM unique among architectural firms in West Virginia, and helps to ensure the quality of our design solutions by providing more thoroughly coordinated construction documents.

Over the last decade, ZMM has become a leader in sustainable or 'green' design in West Virginia. In addition to participating in sustainable design and construction seminars throughout the State (Beckley, Fayette County, Morgantown, Charleston, and Parkersburg), ZMM designed one of the first sustainable educational facilities in West Virginia (Lincoln County High School). ZMM's unique design approach has proven invaluable on projects that employ sustainable design principles, which often require a more integrated approach to building design.

As ZMM enters our second half-century providing professional design services in West Virginia, we remain committed to the ideal of providing high quality, client focused, design solutions that meet budget and schedule requirements. This commitment to quality has been recognized through both State and National design awards, as well as through the long-term client relationships that we have developed.



ZMM has been dedicated to the integrated approach to building design which is unique to architectural firms of our size. Our past successful experience demonstrates that providing multi-disciplined services within one organization results in a fully coordinated project. ZMM has the qualified professionals available to provide services throughout the duration of a project from the initial planning phases through post-occupancy evaluations and beyond.

**Advantages of an integrated Design Approach:**

- The Owner has a Single Point of Design Responsibility
- Improved Design Schedule
- Improved Coordination of Documents
- Improved Construction Phase Services
- Well Coordinated Documents Lead to Better Bids for the Owner

Additionally, ZMM is constantly working to improve the services we offer by addressing emerging and evolving trends that impact the design and construction market. ZMM has seven LEED accredited Professionals on staff to address the needs of our clients who are interested in designing buildings that meet the US Green Building Council's standards. This continues ZMM's active implementation of sustainable design principles on our projects.

**Services**

**Pre-Design**

- Educational Facility Planning
- Programming
- Space Planning
- Feasibility Studies
- Existing Building Evaluation
- Site Evaluation and Analysis
- Master Planning
- Construction Cost Estimating

**Design**

- Architectural Design
- Sustainable Design
- Interior Design
- Landscape Architecture
- Civil Engineering
- Structural Engineering
- Engineering (MEP)
- Energy Consumption Analysis
- Net Zero Design

**Post Design**

- Construction Administration
- Value Engineering
- Life Cycle Cost Analysis
- Post-Occupancy Evaluation





## Award Winning Design



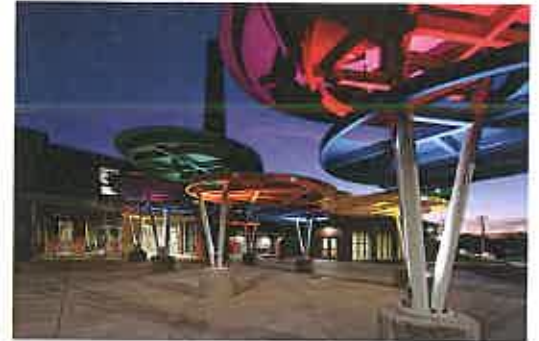
### **2018**

**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



**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

# Award Winning Design



## **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

**AIA West Virginia Chapter: Honor Award**  
***Excellence in Architecture***  
Joint Interagency Training & Education Center  
Kingwood, West Virginia

**AIA West Virginia Chapter: Merit Award**  
***Excellence in Architecture in Interiors***  
WV State Office Building #5, 10th Floor Renovation  
Charleston, West Virginia



# Project Management Plan, Quality Control Plan, Cost Control Plan

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## BACKGROUND

Based upon ZMM's understanding of the information contained in the request for expression of interest, the project involves the renovation of a warehouse in Poca for the West Virginia Army National Guard. While the full scope of the project is not described, ZMM Architects and Engineers possesses the right combination of renovation, West Virginia Army National Guard, and warehouse design experience to ensure the successful completion of the proposed renovation project.

## POCA WAREHOUSE RENOVATIONS: PROJECT MANAGEMENT PLAN

Renovation projects require a unique approach, and ZMM has provided design services on renovation projects throughout West Virginia. This experience includes the Construction and Facilities Management Office (CFMO), the Marshall County Readiness Center, as well as the Building 202 Renovation and MCA – Job Challenge Facility projects at Camp Dawson. Our experience also includes a variety of warehouse projects for clients such as NGK and the State of West Virginia Surplus Property.



ZMM Architects and Engineers proposes to provide services on the project with a team of design professionals that have worked together on a variety of WVARNG facilities throughout the state. The team will be led by Adam Krason, an architect and principal of the firm. Mr. Krason has led ZMM's effort on all of the recent work for the WVARNG, including the JITEC, the Marshall County Readiness Center, the Jackson County AFRC, the Morgantown Readiness Center, the CFMO Expansion, the Tackett Family Readiness Center, and other recent projects at Camp Dawson. Other key team members will include:

Nathan Spencer, AIA	Project Architect
Scot Casdorff, PE	Electrical Engineer
Mike White, PE	Structural Engineer
Bob Doeffinger PE	Engineering Principal/Mechanical Engineer
Mike Flowers	Plumbing Designer
Mark Epling, AIA	Specifications Writer

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.

The first phase in a successful renovation project involves conducting a thorough examination of the existing facilities to identify deficiencies and opportunities, while confirming the project scope and budget. The purpose of the investigation is to determine the condition of the major building systems, and to validate the proposed project scope and budget. ZMM will commence the investigation by developing as-built plans of the existing facility. These plans will be created by manually verifying the existing

construction and utilizing any existing plans that are available. All major mechanical and electrical equipment will be identified on the plans. Once these plans are complete, ZMM will conduct a facility evaluation with a team of architects and engineers, in conjunction with WVARNG personnel.



The examination process will begin with a review of all existing plans of the site and buildings, and, if required, the production of as-built plans for the warehouse facilities. Once the base plans are completed, existing conditions are documented with photographs that are keyed to the plans. Additionally, all major mechanical and electrical equipment is identified on the plans, and the condition is noted in the assessment. The investigation is conducted by a team of building design professionals including Architects, Civil, Structural, Electrical, and Mechanical Engineers. The team will focus the investigation on the following systems:

- Site Conditions
- Life Safety and Egress  
(Coordinated with the State Fire Marshal)
- Accessibility
- Building Envelope
- Interior Conditions and Finishes
- Plumbing Systems
- Electrical Service and Distribution, Emergency Power
- Lighting
- Mechanical Systems
- Data/IT Infrastructure
- Security Improvements
- Other Interior Improvements



At the completion of this first phase, all required improvements will be identified, and any scope/budget issues will be resolved. The proposed improvements will also be reviewed with the State Fire Marshal as upgrades to existing facilities often require simultaneous life safety improvements. The completion of this first phase will be used as a portion of the 35% submission.

Once the first phase is completed, ZMM will develop plans, specifications, and bidding documents for the proposed improvements. Drawings, specifications, and estimates will be submitted for review at 35% (as noted above), and again at 65%, 95%, and 100%. Our recent experience working with the WVARNG will ensure that all documents meet your requirements and standards – saving the WVARNG additional effort, and expediting the design phase of the project. Once the documents have been approved, ZMM will

assist with the bidding and construction phases of the project, including participation in a pre-bid meeting, developing any required addenda, responding to RFI's, reviewing submittals, and conducting and preparing minutes of construction progress meetings. Our efforts will continue through substantial and final completion inspections, and include an eleven month warranty walk through. *Our goal throughout this process will be to act as part of the WVARNG team, with the objective of ensuring the seamless delivery of your project.*

## **ZMM QUALITY CONTROL PLAN**

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

### **1. Selecting the Project Team**

ZMM's 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  
Design Development Phase  
Construction Documents Phase  
Construction Administration Phase

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



5. Post Project Review

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

6. Staff Training, Assessment and Enhancement

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

**ZMM COST CONTROL PLAN**

As part of our effort to ensure our ability to meet the WVARNG's budget, ZMM will rely on both historic bidding data as well as independent estimates to verify the project budget. For this project ZMM would utilize Win Strock to provide the independent estimate. ZMM and Mr. Strock have successfully collaborated on a number of projects, including:

- Building 202 Renovation
- MCA – Job Challenge Facility Renovation
- Marshall County Readiness Center
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- Beech Fork Lodge
- WV State Police Information Services Center
- Edgewood Elementary School
- WV State Lottery Headquarters Renovation
- WWRTP Building 740 Improvements
- Charleston EDGE (Mixed-Use Housing)
- New Kanawha County (Clendenin) Elementary School



ZMM has a history of working to successfully projects under challenging budget and schedule constraints for the WVARNG. We commit to working with you to meet the budget and schedule for the Poca Warehouse Renovation project.

# Joint Interagency Training & Education Center

WVARNG



LOCATION:  
Kingwood, WV

SIZE:  
285,000 SF

COMPLETION:  
2013

COST:  
\$78.4M

OWNER:  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446

AWARD:  
2011 AIA Honor Award  
West Virginia Chapter  
*Excellence in Architecture*



ZMM Architects and Engineers, in association with AECOM, is providing architectural and engineering design services for the Joint Interagency Training and Education Center (JITEC), an Army National Guard campus-style facility for training and operational mission support. Sited on 30 acres at the northern end of Camp Dawson between the Cheat River and the foot of Brier Mountain, this 283,000-SF project includes the design of a new operations building; expansion of the billeting facility; renovation of the training facility; creation of a new base entry checkpoint and visitor center; and design for walkway connectors between all the facilities.

The project began with a review of the existing base master plan, followed by a revision of the master plan concept. JITEC is a training and educational facility – the vision behind the site design and updated master plan is that of a college campus atmosphere. The clients goal was to create a campus environment that integrates existing buildings with new ones, which was accomplished by using compatible, yet distinct building materials.

The new facilities are designed to meet all anti-terrorism/force protection criteria and are slated for LEED-NC Gold Certification from the U.S. Green Building Council. The new 82,000-SF operations building is prominently sited as the main focal point upon entering Camp Dawson through the secure access control point and visitor's center, also designed by AECOM. The building's exterior complements its West Virginia setting. The entire building front, composed of glass and pre-cast concrete walls, is open and inviting with glazing that reflects the surrounding trees and hills.





# Joint Interagency Training & Education Center



Security requirements for the command center influenced the design of the attached, copper-clad "black box" that is an homage to the native rock stratification seen throughout the state.

The building consists of four distinct areas: the Joint Operations Center; a suite of secure training rooms; base headquarters and JITEC administrative offices; and a 6,000 SF server and telecommunications room.

Entry to the Joint Operations Center (JOC) is provided by a secure mantrap adjacent to a dedicated security office. 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. Within the JOC is a secure area consisting of workstations, offices, and two divisible conference rooms with secure video conferencing capabilities. The secure area construction dictates a windowless environment, requiring proper lighting and creative use of materials to create an agreeable work atmosphere.

The 180,000-SF billeting (hotel) expansion more than triples the facility size and increases the total capacity from 189 guest rooms to 600 guest rooms and suites. Designed to relate to the existing architecture with similar scale, materials, textures, and massing, the addition also brings in new elements, such as iconic glazed building corner elements, to integrate the design of the new operations building. A new dedicated lobby with terrazzo tile flooring leads to a monumental stair with terrazzo treads, open risers, and a glass/stainless steel railing for access to the open lounge areas on the second and third floors.

The lobby's design provides a hotel atmosphere, underscored by the new Liberty Lounge, an upscale bar and restaurant area, with wood finishes salvaged from the gymnasium floor in the existing headquarters building. The new six "executive suites", are designed to the full amenities of corporate hotels.

# Jackson County Armed Forces Reserve Center

WVARNG



**LOCATION:**  
Millwood, WV

**SIZE:**  
75,000 SF

**COST:**  
\$20M

**COMPLETION:**  
Fall 2011

**CONTACT:**  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446



The new facility houses both the West Virginia Army National Guard (WVARNG) and the United States Army Reserves (USAR). The primary user for the WVARNG will be DET 1 821st Engineering Company, who will be supported by a FSC of the 1092nd. USAR occupants will include PLT AMMO 261 OD and PLT 1 (Postal) and PLT 6 (Postal) of the 44th Personnel Company. The facility also includes an expanded Drill Hall that can serve as a convention and meeting space, which is being funded by the Jackson County Commission, additional federal appropriations, and the State of West Virginia National Guard.

The relationship between the structures became crucial to the site layout. The new facility is centered on the existing house, increasing the exposure of the facility from Route 2 - the major route of vehicular travel that parallels the Ohio River. Once the aesthetic of the building was established, the massing of the new facility was defined by breaking-down the facility into smaller mass elements that more closely reflected the Georgian Style, and that of many Army posts, such as Fort Meyer in Northern Virginia. 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 USAR and WVARNG Recruiting, Family Support, and Administrative areas located on separate sides (USAR to the left, WVARNG to the right). A transverse wing on the left houses all functions that have the potential for public use, such as the Drill Hall and the Educational component, while all primary military spaces developed along a similar perpendicular wing on the right. 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.



# Robert C. Byrd - Regional Training Institute

WVARNG



LOCATION:  
Kingwood, WV

SIZE:  
148,000 SF

COMPLETION:  
2002

COST:  
\$21M

CONTACT:  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446



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 includes 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 and for various uses. ZMM accomplished this objective by employing a large cylindrical mass that marks the main entry where guests can 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 is currently assisting the West Virginia Army National Guard with training and dormitory expansions.



# Logan-Mingo Readiness Center

WVARNG



**LOCATION:**  
Holden, WV

**SIZE:**  
54,000 SF

**COMPLETION:**  
2015

**COST:**  
\$12M

**CONTACT:**  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446

**AWARD:**  
2017 AIA Merit Award,  
West Virginia Chapter,  
*Achievement in Architecture*  
in Sustainable Design



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 150<sup>th</sup> Armored Reconnaissance Squadron and the 156<sup>th</sup> 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.

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 pre-cast walls are used to anchor the facility at the Distance Learning Center, while a cast-in-place retaining wall serves as a part of the Anti-Terrorism/Force Protection design.



# Jackson County Armed Forces Reserve Center

WVARNG



**LOCATION:**  
Millwood, WV

**SIZE:**  
75,000 SF

**COST:**  
\$20M

**COMPLETION:**  
Fall 2011

**CONTACT:**  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446



The new facility houses both the West Virginia Army National Guard (WVARNG) and the United States Army Reserves (USAR). The primary user for the WVARNG will be DET 1 821st Engineering Company, who will be supported by a FSC of the 1092nd. USAR occupants will include PLT AMMO 261 OD and PLT 1 (Postal) and PLT 6 (Postal) of the 44th Personnel Company. The facility also includes an expanded Drill Hall that can serve as a convention and meeting space, which is being funded by the Jackson County Commission, additional federal appropriations, and the State of West Virginia National Guard.

The relationship between the structures became crucial to the site layout. The new facility is centered on the existing house, increasing the exposure of the facility from Route 2 - the major route of vehicular travel that parallels the Ohio River. Once the aesthetic of the building was established, the massing of the new facility was defined by breaking-down the facility into smaller mass elements that more closely reflected the Georgian Style, and that of many Army posts, such as Fort Meyer in Northern Virginia. 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 USAR and WVARNG Recruiting, Family Support, and Administrative areas located on separate sides (USAR to the left, WVARNG to the right). A transverse wing on the left houses all functions that have the potential for public use, such as the Drill Hall and the Educational component, while all primary military spaces developed along a similar perpendicular wing on the right. 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.



# Morgantown Readiness Center

WVARNG



LOCATION:  
Morgantown, WV

SIZE:  
54,000 SF

COMPLETION:  
2013

COST:  
\$18.5M

CONTACT:  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446



The Morgantown Readiness Center is a unique military facility for several reasons. While the Readiness Center supports traditional military functions including the 1-201<sup>st</sup> Field Artillery, a significant portion of the Morgantown Readiness Center supports the 249<sup>th</sup> Army Band. To support the band, the Readiness Center contains a performance hall, pre-function spaces, as well as a variety of training and rehearsal areas.

To efficiently create the stage and performance area the design team utilized a variety of dual function spaces. The stage is actually a large rehearsal space with an adjacent elevated recording area. Two large operable partitions are used – one to separate the rehearsal area from the remainder of the stage and the auditorium – while the other separates the auditorium from the Drill Hall. This configuration allowed the design team to maximize the West Virginia Army National Guard's investment by utilizing federally authorized space to also function as a large performance area. Acoustically, this challenge was met by creating a Drill Hall with an irregular shape that was contained within a rectilinear sloped barrel arch form. The geometry was complimented by acoustically engineered interior surfaces and finishes to create a vibrant and rich auditorium.

The facility is also 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. Additionally, the Readiness Center is located approximately twenty (20) miles from Camp Dawson, a large State and Federal training campus. As troops will often be travelling to Camp Dawson through the Morgantown Readiness Center, the facility needed to function as a 'gateway.'

# Morgantown Readiness Center

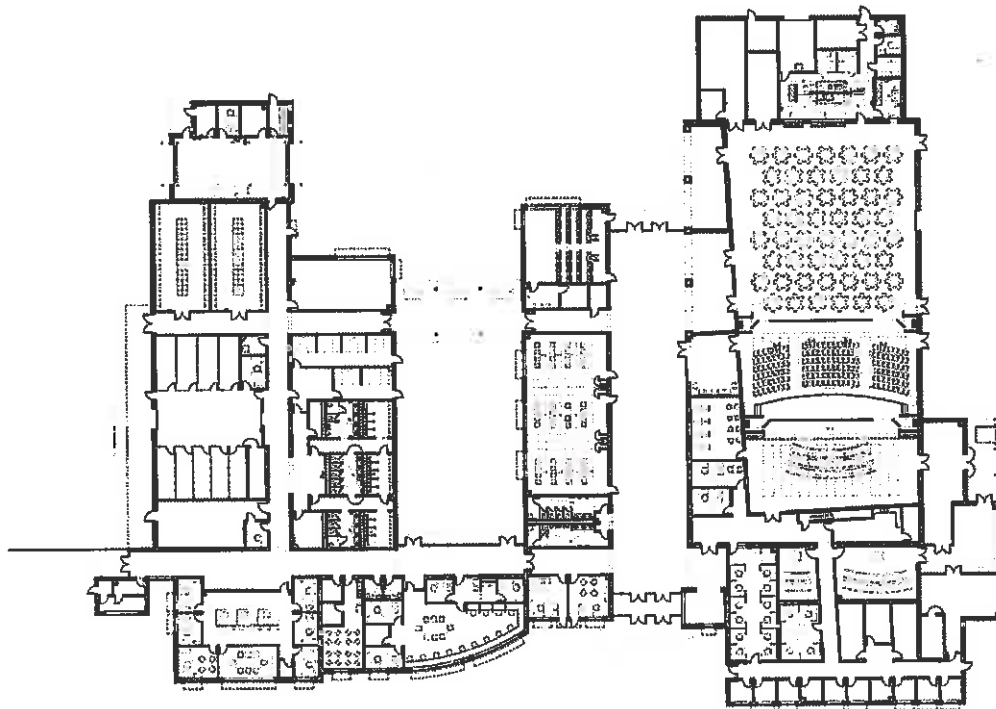
WVARNG



The creation of a 'gateway' facility was accomplished through exterior material choices (compatible with Camp Dawson), as well as the decision to utilize a tower-like feature to mark entry – a very prominent feature of the Regional Training Institute (RTI) at Camp Dawson. Where the RTI utilized a large cylindrical mass, the tower at the Morgantown Readiness Center respects the context of the former runway by reflecting the aesthetic of an airport control tower.

The Morgantown Readiness Center is also a sustainable building, and is in the process of pursuing LEED Certification from the USGBC. 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. Additional sustainable features include a reflective roof, the use of regional materials, and efficient lighting and HVAC systems.

While many features are addressed in the design of the Morgantown Readiness Center, the final result is a harmonious composition that reflects both its function and the environment, while deferring to its location on an abandoned runway.



# Kingwood Armed Forces Reserve Center

WVARNG



**LOCATION:**  
Kingwood, WV

**SIZE:**  
56,200 SF

**COMPLETION:**  
2000

**CONTACT:**  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446



The Armed Forces Reserve Center will house 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.





# Construction & Facilities Management Office

WVARNG



LOCATION:  
Charleston, WV

SIZE:  
19,935 SF

COST:  
\$3.5M

COMPLETION:  
2008

CONTACT:  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6539

AWARD:  
2009 AIA Merit Award,  
West Virginia Chapter,  
*Achievement in Architecture*



The Construction and Facilities Management Office (CFMO) Expansion project will bring all of the operations of the CFMO together under one roof. The branches that will occupy this facility include: Director of Engineering, Environmental, Planning and Programming, Facility Operations & Maintenance, Business Management, Resource Management, and Design and Construction. This new facility 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.



This transitional space was designed to connect the two structures, 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 large expanses of glazing located to capture indirect light and views of Coonskin Park.



# Tackett Family Readiness Center

WVARNG



LOCATION:  
Charleston, WV

SIZE:  
7,400 SF

COMPLETION:  
February 2011

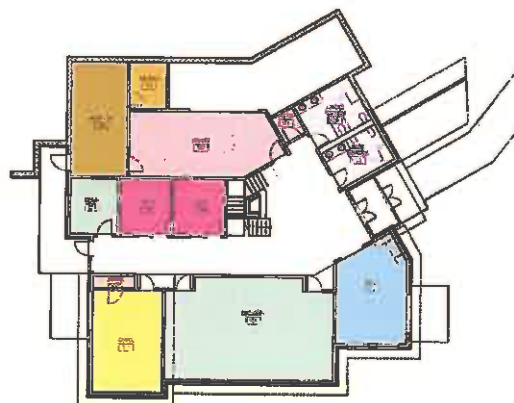
COST:  
\$1.57M

CONTACT:  
MAJ Dan Clevenger  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6446

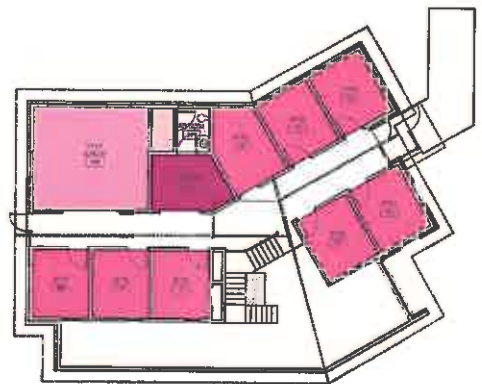


The Family Support Center is a two - story brick building with a sloped roof stepped into the wooded hillside adjacent to the Army National Guard facilities in Charleston. Due to the existing slopes, several analyses to determine the optimal finished floor elevations of the building. The building was set into the hillside to allow for on-grade access to both entrances. 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.



Lower Level



Upper Level

# NGK Spark Plugs (U.S.A) Production Facility



**LOCATION:**  
Sissonville, WV

**SIZE:**  
80,000 SF

**OWNER:**  
Mr. Dilip Shah  
One NGK Drive  
Sissonville, WV 25320  
304.988.0060



A manufacturing facility for automobile oxygen sensors, this plant contains 80,000 square feet of production/assembly area. The building includes management and administration offices, conference rooms, computer room, employee cafeteria, testing / quality control area, and a shipping / receiving area. The site provides parking for 250, extensive landscaping, and ample space for future expansion.



The building consists of a steel frame (for quick erection) and masonry exterior walls, concrete floor slabs, and acoustical ceilings in most areas. ZMM's services included the integration of process piping into the buildings' HVAC systems for energy recovery and conservation, and provisions for process / assembly line utility services (power, process water, and ventilation).

Due to the success of the first phase of the project, ZMM is currently assisting NGK with additional growth at their campus in Sissonville.



# General Service Division - Surplus Property



**LOCATION:**  
Dunbar, WV

**SIZE:**  
4,718 SF Admin Space  
14,532 SF Surplus  
Storage  
19,250 SF Total

**COMPLETION:**  
Summer 2016

**COST:**  
\$4M

**CONTACT:**  
Mr. Michael Evans  
State of West Virginia  
Architect  
1900 Kanawha Blvd. E.  
Building 1, Room MB-60  
Charleston, WV 25305



This property consists of a new 20,000 SF metal building storage facility inclusive of 5,000 SF of new administrative offices. The new building will replace the existing structures currently located in the floodplain, and will address several site issues including proper drainage, traffic flow, and correct floor elevations in regard to current floodplain requirements.

The demolition of the existing structures along with the new construction will be phased to maintain continuous operation of the facility.



# WV State Police and WV Parkway Authority Maintenance Building



**LOCATION:**  
Beckley, WV

**SIZE:**  
19,400 SF

**CONTACT:**  
Cheryl Porterfield  
Facilities Administrator  
West Virginia Parkways  
374 George Street  
Beckley, WV 25801  
304.256.6685



WV Parkway Authority needed to replace a variety of existing aging buildings with a new maintenance facility. The new 19,400 square foot building includes offices for maintenance staff, training staff, training center and a new WV State Police branch facility. The maintenance portion of the building includes four large bays equipped with overhead crane, truck lift and equipment to maintain the large fleet of trucks. Existing buildings will be removed to allow for the new building to be located on the existing site along with other support buildings.

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





# West Virginia State Police

Information Services Center

**LOCATION:**  
So. Charleston, WV

**SIZE:**  
14,000 SF Renovation  
4,000 SF New Construction

**CONTACT:**  
Captain M.G. Corsaro  
Director of Executive Services  
West Virginia State Police  
725 Jefferson Road  
So. Charleston, WV 25309  
304.746.2115



The West Virginia State Police is currently renovating a structure that previously served as the State Medical Examiner's Office, and prior to that, an elementary school. The building is located adjacent to the State Police's main campus in South Charleston, WV. The building is currently undergoing extensive renovation, with the intent of transforming it into an Information Services Center. The divisions are currently housed in the main state police headquarters building.



The scope of the work includes a complete renovation to the 14,000 SF, two-story main building with a new 4,000 SF, one-story addition on the back. The old exterior masonry façade will be enveloped with a thin-brick veneer facing Jefferson Road and an exterior insulation and finish system in rear of the facility. New aluminum windows, high-performance glazing and new single-ply roof membrane complete the exterior. The interior will be converted into professional office space on both floors housing their Communications Division, Criminal Records Division and Traffic Records Division. The space was maximized by utilizing the wide corridors as office space, and creating new, appropriately scale corridors in a loop pattern through the existing classrooms



# State Office Buildings 5,6, & 7



**LOCATION:**  
Charleston, WV

**COMPLETION:**  
On-Going

**CONTACT:**  
Greg Melton  
Director of General  
Services  
Capitol Complex Building  
Building 1, Room MB-60  
1900 Kanawha Blvd., E.  
Charleston, WV 25305  
304.558.2317



More than forty (40) years ago, ZMM (as Zando, Martin, and Milstead) designed the original State Office Buildings 5, 6, & 7. Over the last several years, ZMM has been assisting the State of West Virginia General Services with various improvements to the buildings. These improvements have ranged from substantial renovations to maintenance and repair type projects, and include:

#### **Roof Replacement**

ZMM assisted the General Services Division with a roof replacement for all three buildings. The roof replacement utilized a white EPDM roofing material, with consideration being given to sustainability. The existing ballast, roof membrane, and rigid insulation were also salvaged as part of the roof replacement project. Several unused mechanical penthouses, antennas, and other abandoned equipment was also removed.

#### **Electrical Courtyard Improvements**

ZMM assisted the General Services Division with a project to expand the electrical courtyard adjacent to Building 7, and simultaneously improve the electrical service entry to buildings 5, 6, & 7. This project required both historical (matching the existing granite panels), as well as very technical electrical engineering design considerations.

#### **Door and Window Replacement**

ZMM has assisted with two separate projects, one to replace the windows in Buildings 5 & 6, and the second the replace the doors at the entries to Buildings 5, 6, & 7. These projects included building envelope and security considerations. The projects were designed and staged to minimize disturbance to the buildings occupants.

## State Office Buildings 5,6, & 7

### Major Renovations

ZMM provided design services for the renovation of the 10th Floor of Building 5 for the Office of Technology - a project that was recognized with a design award from the West Virginia Chapter of the American Institute of Architects. The project focused on demonstrating the potential that exists in State Office Buildings 5 & 6 if the floors are renovated in a more contemporary manner that moves the open office spaces to the perimeter, and pulls the offices adjacent to the building core. The project also involved close coordination with the State Fire Marshal, the introduction of a new sprinkler service and fire pump into the building, demolition, construction management, and hazardous material abatement. The project was delivered considerably under the anticipated project budget. ZMM has also assisted on renovations to the 8th Floor of Building 6 for the Department of Education and the 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> Floors of Building 6 for the Department of Education and Division of Personnel. Work on the 8<sup>th</sup> Floor of Building 6 is the only additional renovation constructed to date. ZMM has recently been released to provide design services for Floor 7, 8 & 9 of Building 5 and the 7<sup>th</sup> Floor of Building 6.



### Caulk Replacement

ZMM provided design services to remove and replace all of the caulk located between the limestone and precast panels on the exterior of Buildings 5, 6, & 7. The project also included cleaning of the building's exterior along with some repair work. The project was coordinated with the Capitol Building Commission, although to date, the construction for this improvement has not commenced.

### Valve Replacement

ZMM assisted with a valve replacement project to isolate mechanical risers in Building 5 & 6. This technically intensive mechanical project will give the General Services Division greater control over the system, and will help isolate various risers in the event of significant system failures in the future.





## Cecil I. Walker Machinery Company Belle, WV

### Utility Building - 38,000 SF

A new facility for the repair and maintenance of earth moving and materials handling equipment, this building was designed with a steel structural frame, masonry walls, and a standing seam metal roof. Interior spaces include repair bays, welding areas, storage for parts and tools, and administrative offices. Heating and ventilating systems provide environmental control in the shop and office areas are air conditioned. 20-ton bridge cranes, also designed by ZMM, are used in the shop for equipment hoisting and material handling.



## Cecil I. Walker Machinery Company Belle, WV

### Diesel Engine Re-Build Shop - 14,000 SF

The existing repair shop was renovated to provide a staged/assembly line system to clean disassemble, inspect, repair, rebuild, and test diesel engines. New air conditioning, heating and ventilation systems were included and the roof structure was reinforced for the installation of new jib and overhead cranes, added to provide for efficient handling of materials and equipment.



## Cecil I. Walker Machinery Company Belle, WV

### Training Center - 8,000 SF

The existing warehouse building was renovated to include five classrooms and support space for employee training classes. The new Interior finishes, partitioning, mechanical, electrical, and technology support equipment were designed to provide a functional teaching environment.



# Hino Motors Manufacturing Facility

*Formerly Walker Machinery*



A new facility for the repair and maintenance of earth moving and materials handling equipment, this building was designed with a steel structural frame, masonry walls, and a standing seam metal roof. Interior spaces include repair bays, welding areas, storage for parts and tools, and administrative offices. Heating and ventilating systems provide environmental control in the shop and office areas are air conditioned. 20-ton bridge cranes, also designed by ZMM, are used in the shop for equipment hoisting and material handling. The building was converted several years ago into a production facility for Hino Motors.

Williamstown, WV  
180,000 SF



# The Cabell County Transportation Complex



**LOCATION:**  
Huntington, WV

**SIZE:**  
21,950 SF New

**COMPLETION:**  
2014

**COST:**  
\$7,482,285

**CONTACT:**  
Mr. Ryan Saxe  
Superintendent  
Cabell County Schools  
PO Box 446  
Huntington, WV 25709  
304.528.5030



The Cabell County Transportation Complex is located on the site of the old Cox Landing Junior High School. Challenges on the project involved retrofitting the old school and site to accommodate the new use. A small portion in the rear of the building was removed, storage rooms were added and a link to the new bus maintenance facility. The new high bay bus maintenance facility will accommodate fourteen buses.

This full service garage is outfitted with lifts and all services to make this a state of the art facility. Along with the new service building its home to an automatic bus wash bay and a separate hand washing facility. Site amenities include parking with charging locations for every bus along with parking for dormant buses on standby. There is also a fueling station for all bus traffic.

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





### **Pratt & Whitney Aircraft - Assembly and Test Cell Building 86,000 SF Bridgeport, WV**

An assembly and testing facility for the Pratt-Whitney JT-15-D jet engine, this addition to the existing facility is a one-story metal framed structure with metal wall and roof systems. The building also contains shop areas, a plating room, a reinforced concrete jet engine test cell, jet fuel dispensing facilities, administrative support areas, lunch room, and various testing laboratories. Jib cranes, monorail cranes, and bridge cranes assist assembly and provide for material movement.



### **Bird Equipment Company - Centrifuge Rebuild Shop Scott Depot, WV**

This new 9,000 SF facility is designed for the repair and maintenance of industrial centrifuge units used in coal preparation and sewage treatment plants. The one-story building is constructed with a steel frame, masonry and metal walls, and a membrane roof. Interior spaces include the main rebuild shop, administrative areas, and storage for parts and tools. The shop was designed to operate as an "assembly-line" for cleaning, inspection, disassembly, component inspection, rebuild, reassembly, and testing. Jib and bridge cranes provide for material movement between work stations. HVAC and electrical systems were provided to accommodate the service requirements of the work stations.

### **Sears Roebuck & Company - Retail Replenishment Center Jacksonville, FL**

A single story automated warehouse and East coast distribution point, this entire 800,000 SF facility is air conditioned and features computer controlled distribution of goods merchandise. The building is constructed with "tilt-up" slabs for exterior walls, structural steel frame, fiber reinforced concrete floor slab with strict levelness tolerances, and an "emergency response" type fire suppression system. The facility includes both rail and truck loading facilities.

# Adam R. Krason, AIA, LEED AP, ALEP



**Role**  
Principal

## Professional Registrations

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

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

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

## Project Experience

### Charleston Civic 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, 10<sup>th</sup> 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 10<sup>th</sup> 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 1-201<sup>st</sup> Field Artillery. A significant portion of the Morgantown Readiness Center supports the 249<sup>th</sup> 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.

**Edgewood Elementary School, Charleston, WV**

Mr. Krason was the project manager on the new Kanawha County Elementary School on Charleston's West Side. The school is being designed as a 21<sup>st</sup> Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students. Mr. Krason worked with students from Watts and Robbins Elementary Schools in Kanawha County, assisting them in an effort to actively participate in the design process

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

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  
2011 AIA Honor Award State Office Building #5, 10<sup>th</sup> Floor Renovation, Charleston, WV  
2009 AIA Merit Award WVARNG Construction and Facilities Management Office, Charleston, WV

# The West Virginia Board of Architects

certifies that

ADAM R. KRASON

is registered and authorized to practice  
Architecture in the State of West Virginia.

In testimony whereof this certificate has been issued  
by the authority of this board.

Certificate Number [REDACTED]

*The registration is in good standing until June 30, 2019.*



A rectangular box containing a handwritten signature in cursive script, which appears to read "Gracie Papadimitriou".

Board Administrator

# 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

### Charleston Civic 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.

### 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 150<sup>th</sup> Armored Reconnaissance Squadron and the 156<sup>th</sup> 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.

### 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

## 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



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.

**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 workbays, 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 will include: 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.

**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** Nate 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.

**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.

**Edgewood Elementary School, Charleston, WV** Mr. Spencer participated on the design team that developed the new Kanawha County Elementary School on Charleston's West Side. The school was designed as a 21<sup>st</sup> Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school integrates sustainable design principles to serve as a teaching tool for the students. A dental and health clinic is also on site for all enrolled students in the Kanawha County School District.

# The West Virginia Board of Architects

certifies that

**NATHANIEL HAROLD SPENCER**

is registered and authorized to practice  
Architecture in the State of West Virginia.

In testimony whereof this certificate has been issued  
by the authority of this board.

Certificate Number [REDACTED]

*The registration is in good standing until June 30, 2019.*



A handwritten signature in cursive script, reading "Emily Papadopoulos", written on a light-colored rectangular background.

Board Administrator



**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 35 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.

### **Project Experience**

#### **Charleston Civic Center, Charleston, WV**

Mr. Doeffinger was the mechanical project engineer on the expansion and renovation to the Charleston Civic Center project. The \$75M, 283,000 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, Pennsylvania State University, 1976

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

### **Employment History**

2005 - Present, President, ZMM  
1976 - 2005, Vice President and Engineering Principal, ZMM

### **Civic Affiliations**

- ASHRAE – Member of the Technical Committee Load Calculations Data and Procedures for 15 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 – 2<sup>nd</sup> Ward Councilman for 20 years

**State Office Buildings #5, 10<sup>th</sup> 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 10<sup>th</sup> 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, Pittsburgh, PA** One of the largest retail centers in the east. Mr. Doeffinger has performed engineering services for the past 20 years. The project consists of a 5,000 -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 2011, 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.

# Samuel Butzer, PE, LEED AP BD+C



## Role

Mechanical Project Engineer

## Professional Registrations

Professional Engineer (WV, WI, IL)  
LEED Accredited Professional

Mr. Butzer is a registered Professional Engineer with design experience in HVAC, Piping (Mechanical, Industrial, Laboratory, Medical Gas), Fire Protection and Plumbing systems. He has been responsible for an extensive range of projects that include Hospitals, Civic Complexes, Laboratories, Medical and Dental Office Buildings, Retail, Military Installations, Churches, Restaurants, K-12 Schools, Higher Education Facilities, Pharmaceutical Manufacturing, Natatoriums and Historical Renovations.

Mr. Butzer began his career in engineering with a mechanical contractor located in Wisconsin. His collective engineering experience includes projects that were design-build, design-assist and plan & spec. His background in engineering and 3D BIM design and coordination has provided him with extensive experience in the "real world" of HVAC and piping constructability. That experience has forged him into a leader at the integration of all construction disciplines into a multitude of building types and space constraints.

Mr. Butzer's dedication to the community and his civic affiliations demonstrates a strong connection to the engineering principles of energy efficiency, sustainability, occupant comfort and health.

## Project Experience

### Charleston Civic Center, Charleston, WV

Mr. Butzer was the Mechanical Project Engineer on the expansion and renovation to the Charleston Civic Center project. The \$75M, 283,000 SF design-build project was completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is complete 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 included a new chilled and hot water central plant with extensive replacement and upgrades to the facilities existing mechanical systems. Multiple phases of construction allowed the Civic Center to remain operational throughout the construction progress.

## Education

Bachelor of Science, Mechanical Engineering, University of Wisconsin at Madison, 2007

Associate of Science, Madison Area Technical College, Madison, WI, 2004

## Employment History

2018 - Present, Board of Directors, ZMM  
2013 - Present, Project Engineer, ZMM  
2007 - 2013, Mechanical Engineer, WI  
2005 - 2007, Mechanical Engineer Intern, UW-Madison FP&M

## Civic Affiliations

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), President of West Virginia State Chapter
- United States Green Building Council (USGBC), Board Member of West Virginia State Chapter
- Marshall University Engineering Advisory Board Member
- Kanawha City Community Association Board Member

**Harrisville Elementary School, Harrisville, WV**

Mr. Butzer was responsible for designing the HVAC systems for the renovation and additions to the elementary school. Initial design development consisted of variable refrigerant flow (VRF) systems coupled with dedicated outdoor air (DOAS) systems for the Classrooms and Administration areas. Roof mounted air conditioning and exhaust equipment were provided for the new Cafeteria, Kitchen and existing Gymnasium. Budget and space constraints forced the design to evolve into individual, self-contained, interior air handling units for each Classroom. The units were able to meet ASHRAE 62.1 requirements for ventilation, the Acoustical Society of America's (ASA) requirement for sound, and every other standard such as individual classroom temperature and dehumidification control as set forth by the School Building Authority (SBA).

**Appalachian Regional Hospital, Beckley, WV**

Mr. Butzer is the Mechanical Project Engineer currently working with the hospital on multiple renovations. The ICU and OR departments will undergo Mechanical and Architectural upgrades in a multiphase project while the hospital remains operational. The existing kitchen will receive a new make-up air unit, and fan coil units to improve pressure and air balance relationships within the hospital. A dedicated HVAC unit was provided for the endoscopy suite to improve thermal comfort and provide code-required ventilation, air-changes and humidity.

**Glenwood Elementary School, Princeton, WV**

Mr. Butzer was the Mechanical Project Engineer for this successful project that came in under budget, on-time and with zero change orders. The first phase was duct cleaning and sealing that improved indoor air quality and reduced system demand by 8 tons. The second phase was the HVAC improvements which replaced all existing constant volume, single compressor, multizone, air handling units (AHUs) with new variable speed, multi-compressor AHUs. VAV terminal units were installed to create separate zones for each classroom. A new building automation system was provided for system controls and to incorporate the facility into the existing county-wide controls network. All electric heating was abandoned to maximize use of the hot water heating system. Mechanical upgrades saved the school an estimated 18.5% in the electric usage and provided them with over \$13,000 in rebates from the electric utility.

**Nicholas County Courthouse, Summersville, WV**

The Nicholas County Courthouse is a Historic building constructed in 1898 with an addition executed by the Works Progress Administration in 1940. The courthouse was added to the U.S. National Register of Historic Places in 1991. Mr. Butzer led a project team responsible for upgrading an existing 2-pipe fan coil system into a 4-pipe system to provide simultaneous heating and cooling and meet the climate and comfort needs of specific occupants. A new 4-pipe system, variable speed pumps and 3-way valves were provided in the basement to achieve integration of the new system into the existing. Construction had to be phased to allow installation of the new heating loop while the existing system remained in cooling operation; the new cooling loop would be installed once the building switched over to the new heating loop. Welding and soldering were not allowed so materials such as PEX, pressure-seal copper and mechanical joint steel piping were specified. A new Building Automation System with most of the communication occurring wirelessly was chosen to minimize disturbances to the historical architecture of the building.

**Gestamp West Virginia, South Charleston, WV**

Mr. Butzer led a design team that was tasked to provide a mechanical system to separate out, or divert hydraulic fluid collected along with chilled water released from immense, automobile component stamping machines. The design included an aboveground oil-water separator, density meters, 3-way valves, storage tanks and a controls system to monitor fluid flow and guarantee separation or storage of non-compliant sanitary discharges.

## 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.

### **Project Experience**

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.

#### **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-2<sup>nd</sup> 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.

#### **Ravenswood Middle School, Ravenswood, WV**

Ravenswood Middle School is an addition to Ravenswood Highschool. The project allows for both schools to share one cafeteria and improve the exterior of the existing high school with the new entrance of the middle school. The interiors were clean and pattern filled using the school colors, insuring an easy transition from one school to the other.

#### **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

### **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.

2003 - Present, Architect, Project Manager, ZMM

2010 - 2012, Interior Design Intern, ZMM

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.

#### **Mountain Valley Elementary School, Green Valley, WV**

Mountain Valley is a new facility currently under construction and set to open 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.

#### **PK-2 & New Collins Middle, Oak Hill, WV**

These schools were designed as separate schools sharing the same site and are connected by a mechanical wing. This building called for a challenging design concept. The schools each had their own unique design theme, but were delicately connected in small aspects of color or architectural techniques, allowing the interiors to flow seamlessly. The PK-2 is community driven in the design. House facades and custom glass adorn the halls drawing the eye to the exposed structure above. The ceilings reflect the sky and are divided by clouds. Collins Middle also was design with the environment in mind. Using biophilic design, wood planked feature walls are found in the entrance corridor and expand to the open structure above.

#### **Charleston Civic Center, Charleston, WV**

Mrs. Chapman assisted in the construction administration and interiors of the expansion and renovation to the Charleston Civic Center. The \$75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. Construction was complete in October 2018.

#### **ARH Chemotherapy, Beckley, WV**

This project was a renovation of a hospital wing to be redesigned for optimal health and wellness for patients undergoing chemotherapy treatment. Both aesthetics and general sanitary design requirements were crucial to making this project successful.

#### **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.

#### **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.

#### **CAMC Post Op, Teays Valley, WV**

This project was a renovation of a hospital wing to be redesigned for recovery of Post Operation patients. This project included patient rooms, nurse’s stations, and designing the space for optimal health and wellbeing.

#### **Clarksburg, Richmond, Huntington, Salem VA Hospitals**

During previous employment, Mrs. Chapman was heavily involved with renovations to various VA hospitals. Renovations included redesign implementing DIRT wall systems, renovations to nurse, admirative and patient areas, as well as common’s areas.



# Scot Casdorff, PE



**Role**  
Electrical Engineer

**Professional Registrations**  
Professional Engineer (WV)

Mr. Casdorff serves as an Electrical Engineer with ZMM providing electrical design services for a vast number of projects consisting of commercial, educational, correctional, institutional, and military facilities.

Mr. Casdorff is responsible for many facets of the project pertaining to electrical design such as interior and exterior lighting, power distribution, data system design, security, fire alarm, low voltage control systems, equipment specifications and performs electrical assessments during construction prior to the project's substantial completion date. Mr. Casdorff has participated on several LEED registered projects using energy conserving methods and utilizing lighting control systems and other means to meet or exceed ASHRAE 90.1, LEED, and energy code requirements.

### Project Experience

#### **Charleston Civic Center, Charleston, WV**

Mr. Casdorff was the electrical engineer on the expansion and renovation to the Charleston Civic Center project. 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 complete in October 2018.

#### **Joint Interagency Education and Training Center**

**(WVARNG), Kingwood, WV** Mr. Casdorff was responsible for the electrical design of the 180,000 SF 3-story billeting/hotel expansion for the Army National Guard campus style facility for training and operational mission support. The expansion more than triples the facility size and increases the total capacity from 189 guest rooms to 600 guest rooms and suites. This project reached LEED Gold Certification.

#### **Jackson County Armed Forces Reserve Center,**

**(WVARNG), Millwood, WV** Mr. Casdorff was responsible for the electrical design of the 76,000 SF single story military reserve center which serves both the West Virginia Army National Guard and the United States Army Reserves (USAR) units. The multi-use facility provides educational spaces for classrooms, distance learning, physical training and a weapons

### **Education**

Bachelor of Science, West Virginia  
Institute of Technology, 1995

### **Employment History**

2000 - Present, Electrical Engineer, ZMM  
1995 - 2000 Electrical Controls Systems  
Manager, WV Engineering Firm

simulation center. The project is targeted for LEED Silver Certification.

**Glen Jean Armed Forces Reserve Center, (WVARNG), Glen Jean, WV** Mr. Casdorff was responsible for the electrical design of the 102,000 SF military training facility which houses the Armed Forces Reserve Center (AFRC), Military Entrance Processing Station (MEPS), and an Organizational Maintenance Shop (OMS). The AFRC contains the administrative and training space for the 77<sup>th</sup> Brigade Troop Command, the 1863<sup>rd</sup> Transportation Company, and the 150<sup>th</sup> Armored Regiment Company. The MEPS houses their administrative, medical, headquarters, testing and storage functions at the facility. A comprehensive 8,500 SF OMS vehicle maintenance shop provides space for six large service workbays for maintaining the military fleet.

**Southside Elementary and Huntington Middle School, Huntington, WV** Mr. Casdorff was the electrical engineer 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.

**Gauley River Elementary School, Craigsville, WV**

Mr. Casdorff was responsible for the electrical design of the new elementary school. The project is consolidating Beaver Elementary School and Craigsville Elementary School into a new 375-student school. The school houses 3 Pre-Kindergartens, 3 Kindergartens, 2 first grade, 12 1<sup>st</sup>-5<sup>th</sup> grade classrooms, activity room, cafeteria, kitchen, media center, and administration spaces.

**Lincoln County High School, Hamlin, WV** Mr. Casdorff was responsible for the electrical power distribution throughout the 216,000 SF facility containing high school classes, vocational education, technical community college classes and a community health clinic. The project was a 2007 AIA Honor Award Winner.

**Milton Middle School, Milton, WV** Mr. Casdorff was responsible for the electrical design of the new 96,000 SF facility housing 700 middle school students grades 6 through 8.

**Fort Gay PK-8 School, Fort Gay, WV**

Mr. Casdorff was the electrical engineer and was responsible for the electrical power distribution and design. The New Fort Gay PK-8 School replaces the existing facility that has been in disrepair and lacking the spaces and technology delivery system required for 21<sup>st</sup> century learning skills. The total enrollment for the school is 603 Students. The new grade configuration separates the Elementary students from the Middle School students, but still allows use of the common spaces within the building. They share the Dining Room, Gymnasium, Media Center and a Stage.

**Southern WV Community & Technical College, Williamson WV** Mr. Casdorff was responsible for the electrical power and lighting distribution design of this 22,000 SF higher education facility. This project is being designed to meet the USGBC LEED Silver.

**West Virginia Research, Education, and Technology – Building 704, South Charleston, WV**

Mr. Casdorff is the electrical engineer for building 704 and responsible for electrical power and lighting distribution. 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 Housing Development Fund Office, Charleston, WV** Mr. Casdorff was responsible for the electrical design of the 37,000 SF office building which provides natural daylighting into its interior spaces coupled with an automatic dimming system and motorized shade controls. This 2-story administrative facility houses approximately 95 to 100 employees with a flexible open office floor plan utilizing modular under-floor wiring to accommodate any future modifications of the workspace with minimal disruption to the employees. The project is targeted for LEED Silver Certification.

## Michael J. White, PE



**Role**  
Structural Engineer

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

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

**Project Experience**  
WVDNR Forks of Coal  
Milton PK School  
Midland Trail High School  
Valley Park Community Center  
Marshall County Readiness Center

**Other Jobs from Past Employers:**  
Monongalia County Justice Center - Morgantown, WV  
Lewis Co. Judicial Annex - Weston, WV  
Charleston Correctional Work Release Center - Charleston, WV  
Stevens Correctional Facility - Welch, WV  
Marsh Fork Elementary School - Naoma, WV  
WVANG Camp Dawson, Multi-Purpose Building - Kingwood, WV  
BridgeValley Advanced Technology Center - South Charleston, WV  
New River Community and Technical College Headquarters Building - Beaver, WV  
Lewisburg Elementary School - Lewisburg, WV  
Rainelle Elementary School - Rainelle, WV  
Boone County Honors Academy Addition - Madison, WV  
WVU Parkersburg Center for Early Learning - Parkersburg, WV  
WVU Parkersburg Applied Technologies Center - Parkersburg, WV

### Education

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

### Employment History

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

# 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:

Charleston Civic Center - Expansion and Renovation  
WV State Capitol Roof Replacement  
WV State Office Building #5, 6, & 7  
WV Housing Development Fund  
CFMO Expansion  
Houston Company Store  
Erma Byrd Center  
Joint Interagency Training & Educational Center (JITEC)  
Huntington East Middle School  
WV Army National Guard - Glen Jean AFRC

## 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

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  
Wood County Justice Center  
Tucker County Courthouse Annex  
Southern WV Community & Technical College  
Bridgemont Community & Technical College  
Milton Middle School  
Barboursville Middle 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  
Beech Fork State Park Lodge  
CAMC Teays Valley  
Highland Hospital

## FaLena Perry, CDT



### Role

Construction Administrator

### Professional Registrations

EIT

Mrs. Perry describes her role with ZMM as Construction Administrator as an exciting and invigorating opportunity with new experiences every day. From varying jobsite conditions to the differing professionals she encounters on a daily basis, Mrs. Perry approaches construction administration with a fresh set of eyes and desire to help provide the best outcomes possible for each project.

Mrs. Perry has nearly six years experience working as a Structural Engineer with two of those being a Project Manager. Structural engineering experience includes projects ranging from everything including \$135M university buildings down to residential homes and even historic restoration projects. Project variety includes Educational (K-12 and university), Commercial, Military, Office, Justice (Courthouses, Justice Centers, Police Department and Correctional), Multi-Use Residential, Civic (WWTP), Healthcare (Health Departments), Fitness (Gyms), Religious, Historic Restoration and an Arena. These projects are spread over Kentucky, West Virginia and Ohio.

### Project Experience

#### **Valley Park Community Center, Hurricane, WV**

Mrs. Perry served as Construction Administrator on the new Community Center building and renovation at Valley Park. The \$15M construction project included a new community building, ball fields and a playground. Mrs. Perry was responsible for the administrative duties, performing on-site observations and tracking construction progress. Mrs. Perry collaborated with the client, design team and contractors to confirm that project guidelines are satisfactorily met. The facility reached completion in May 2018.

#### **Ravenswood Middle School, Ravenswood, WV**

Mrs. Perry is serving as Construction Administrator of the high school addition that will house the two-story Ravenswood Middle School making this the 20<sup>th</sup> facility in WV that will combine both high school and middle school students. This project is limited with available space as it is to fit into the existing high school footprint.

**Midland Trail High School, Fayetteville, WV** Mrs. Perry is serving as Construction Administrator of the six room high school addition that will include a STEM lab as well as other

### Education

Bachelor of Science, Civil Engineering,  
University of Kentucky, 2003

Masters of Science, Civil Engineering,  
University of Kentucky, 2005

### Employment History

2017 - Present, Construction  
Administrator, ZMM

2009 - 2010, Design Engineer, Moment  
Engineers, Charleston, WV

2004 - 2008, Engineer, Project Manager,  
BFMJ Inc., Lexington, KY

2003 - 2004, Graduate Assistant,  
University of Kentucky College of  
Engineering

### Civic Affiliations

- Project Coordinator, Forrest Burdette UMC, Family Life Center
- Sunday School Teacher for Young Professionals
- Cub Scout Den Leader Pack 236

classrooms. The large space planned for the STEM lab will encourage hands-on exploration, learning, and technology integration. This addition will address the under utilization of Midland Trail as well as Anstead Middle.

**Project Experience Other Firms**

**University of Kentucky Biopharmacy Building, Lexington, KY**

Mrs. Perry worked as team member in the design the new \$134M College of Pharmacy Biopharmacy research building. The research facility builds on the state's initiative to address health challenges and disparities in KY. The building featured expansive auditorium style classrooms and a self-supporting stair, of which Mrs. Perry modeled and designed.

**Kentucky Transportation Cabinet, DOH, District Five Office Building, Louisville, KY**

Mrs. Perry acted as the Project Manager for this new office space for the Department of Highways. This project consisted of concrete and steel structural members. Mrs. Perry coordinated design efforts with a team of engineers, architects and the owner.

**Moses Residence, Huntington, WV**

Mrs. Perry was responsible for the structural design of the Moses Residence which includes ICF walls, timber, steel and concrete. This home is a zero net energy home and has platinum LEED certification.

## References

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