



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

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WV PURCHASING  
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Proc Folder: 748462

Doc Description: RT Roof & Exterior Door Design

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2020-07-07	2020-07-28 13:30:00	CEOI 0603 ADJ2100000001	1

**BID RECEIVING LOCATION**

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

**VENDOR**

**Vendor Name, Address and Telephone Number:**

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

**FOR INFORMATION CONTACT THE BUYER**

Tara Lyle  
 (304) 558-2544  
 tara.l.yyle@wv.gov

Signature X

FEIN # 55-0676608

DATE July 27, 2020

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

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

Robert Doeffinger President

(Name, Title)

Robert Doeffinger, President

(Printed Name and Title)

222 Lee Street, West, Charleston, WV 25302

(Address)

304-342-0159 304-345-8144

(Phone Number) / (Fax Number)

rcd@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contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated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)

Robert Doeffinger President

(Authorized Signature) (Representative Name, Title)

Robert Doeffinger, PE, President

(Printed Name and Title of Authorized Representative)

July 27, 2020

(Date)

304-342-0159 304-345-8144

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

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

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

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

**DEFINITIONS:**

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

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

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

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

**WITNESS THE FOLLOWING SIGNATURE:**

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

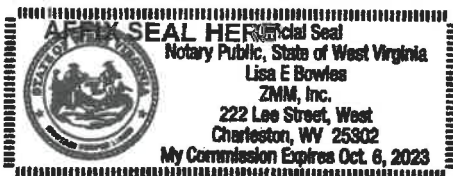
Authorized Signature: *[Signature]* Date: July 27, 2020

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 27<sup>th</sup> day of July, 2020.

My Commission expires 10-6, 2023.



NOTARY PUBLIC

*[Signature]*

Purchasing Affidavit (Revised 01/19/2018)

July 27, 2020

Ms. Tara Lyle, Buyer Supervisor  
Department of Administration, Purchasing Division  
2019 Washington Street, East - PO Box 50130  
Charleston, West Virginia 25305-0130



**Subject: RTI Roof & Exterior Door Replacement Design (CEOI ADJ2100000001)**

Dear Ms. Lyle:

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 Camp Dawson Regional Training Institute (RTI) Roof and Exterior Door Replacement Design project. Established in 1959, ZMM is a West Virginia based A/E firm, and is noted for design excellence and client focus. As the original designer of the RTI, ZMM is in a unique position to assist with the project. Our team has access to the original digital drawing files, as well as the specifications and submittals for the existing roofing and door materials. Our familiarity with the facility, our past experience assisting with a project to replace the doors and metal roofing near the commissary at the RTI, as well as the depth of our roof replacement experience will help lead to a successful project delivery for the West Virginia Army National Guard (WWARNG).

Our recent roof replacement projects include the Main West Virginia Capitol Building (excluding the dome), State Office Buildings 5, 6, & 7, roof replacements for several of the Regional Jail facilities, Davis Hall for Bridgemont Community and Technical College, and roof replacements on eleven buildings at Cedar Lakes Conference Center for the State of West Virginia Department of Education. *Additionally, ZMM's expertise in building renovation is highlighted by our history of providing services on improvement projects to our state's landmark buildings, including the State Capitol, the Culture Center, the Charleston Coliseum and Convention Center (Civic Center), and the Clay Center.*

In addition to the projects mentioned above, the members of our proposed team have also provided design and construction phase services on multiple WWARNG projects including the Joint Interagency Training and Education Center (JITEC) and ACP at Camp Dawson, MCA-South, Camp Dawson Buildings 202, 301, and 246, the Jackson County AFRC, the Glen Jean AFRC, the Tackett Family Readiness Center, the Morgantown Readiness Center, and the Logan-Mingo Readiness Center. Several of these projects including the CFMO Expansion, the JITEC, and the Logan-Mingo Readiness Center were recognized with design awards. *In fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with twenty-four design awards since 2005 – an achievement that is unrivaled in West Virginia.*

Thank you for taking the time to review the attached expression of interest that includes information about our proposed approach for the RTI Roof & Exterior Door Replacement Design 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 (nearly all of the renovation projects included roof and exterior door replacement). 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, appearing to read 'Ad Rk', is written over a horizontal line.

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

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# RTI Roof & Exterior Door Design

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

### BACKGROUND

Based upon ZMM's understanding of the information contained in the request for expression of interest, the project involves providing "architecture and engineering design services and to provide construction bid documents suitable for advertisement using state purchasing procedures." Specifically, the project will include:

- Two (2) Distinct Bid Packages – one for the roof and one for the exterior doors.
- The total roof area is approximately 110,000 SF and includes membrane and metal roofing. The metal roofing will be bid as an alternate in the roofing bid package.
- Replacement of the rubber membrane roof including "roof fixtures, drains, flashing, fasteners, etc. to replace the roof and assure it is water-tight," and installed in a manner to ensure the warranty is provided.
- New exterior doors will replace existing steel doors. The new doors will meet all applicable standards and codes, including the ADA, building codes, and current AT/FP standards.

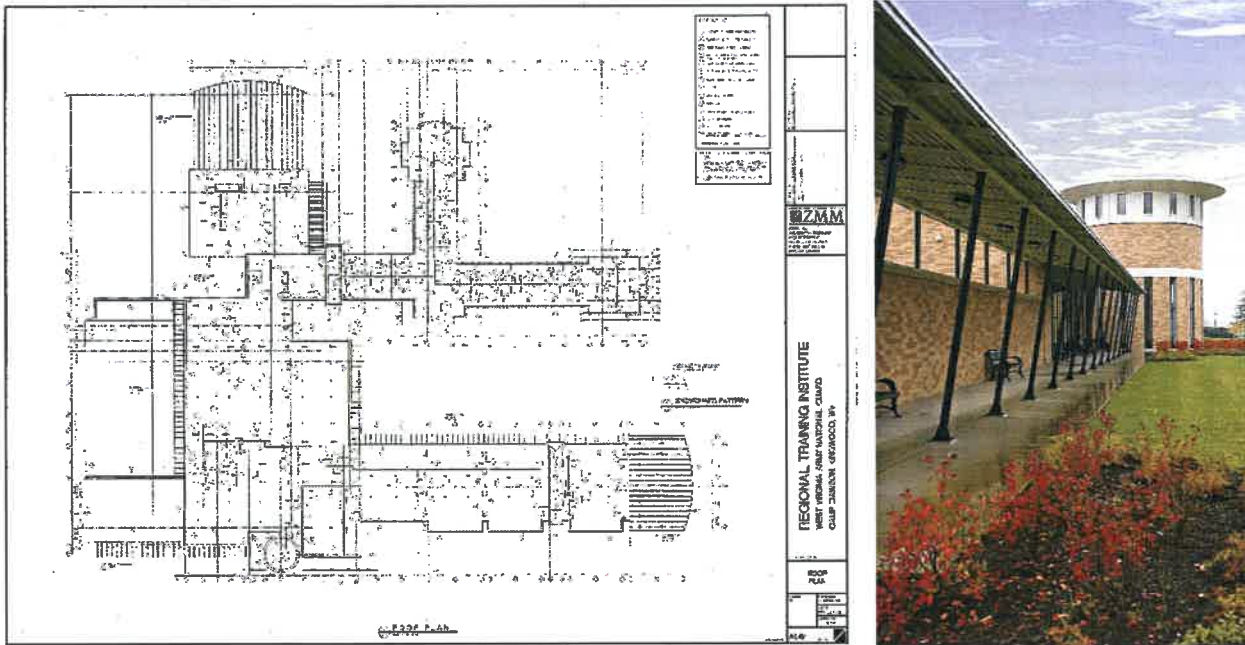


As the original designer of the Camp Dawson Regional Training Institute (RTI), ZMM is in a unique position to assist with the project. Our team has access to the original digital drawing files, as well as the specifications and submittals for the existing materials. Our familiarity with the facility, our past experience assisting with a project to replace the doors and metal roofing near the commissary, as well as the depth of our roof replacement experience will help lead to a successful project delivery for the West Virginia Army National Guard (WVANG). Additionally, the technical nature of these projects demonstrates the need for a full-service design team with experience providing design services for the WVANG. ZMM has all of the technical professionals - including architects and engineers (structural, mechanical, and electrical) – needed to address every aspect of this WVANG project. If selected for this engagement, ZMM will staff the project with the architects and engineers that have previously worked successfully on a variety of renovation projects for the WVANG, including the Camp Dawson Barracks Building 246 Renovation, the Camp Dawson Building 301 Renovation, the Camp Dawson Building 202 Improvements, the MCA-South, the MCA – Job Challenge Facility, the Kenova Secure Area, and the CFMO Expansion.

Our recent projects include a successful replacement of the roof systems on the Main Capitol Building, State Office Buildings 5, 6, & 7, roof replacements for several of the Regional Jail facilities, Davis Hall for Bridgemont Community and Technical College, and roof replacements on eleven buildings at Cedar Lakes Conference Center for the State of West Virginia Department of Education.

### RTI ROOF & EXTERIOR DOOR DESIGN: REPLACEMENT APPROACH

ZMM would recommend that the project commence with an investigation of the roof and doors by a team of architects and engineers. Our experience designing the original RTI will help to expedite this effort. The team will evaluate the adequacy of the existing roofing and roof insulation systems in extreme cold weather conditions to determine if there are any ways to improve the systems through the roof replacement project. ZMM would also examine the existing steel doors and storefront systems to determine the most appropriate door for the replacement project. Based upon the results of the investigation ZMM will recommend improvements required to achieve a high-performance building envelope, while also resolving the concerns related to building codes, the ADA, occupant safety and comfort, as well as relevant AT/FP standards.



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%. Each of these submissions will reflect the two (2) separate bid packages – roof and doors. 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.*

### RTI ROOF & EXTERIOR DOOR DESIGN: PROJECT MANAGEMENT PLAN

ZMM Architects and Engineers proposes to provide services on the project with a team of design professionals that have worked together on a variety of WVARNG facilities throughout the state, including several projects at Camp Dawson. The team will be led by Adam Krason (Principal) and Nathan Spencer (Project Manager and Architect). Mr. Krason and Mr. Spencer have led ZMM's effort on the recent work for the WVARNG. Other key team members will include:

- |                   |   |
|-------------------|---|
| Steve Cook, PE    | Electrical Engineer                       |
| Mike White, PE    | Structural Engineer                       |
| Bob Doeffinger PE | Engineering Principal/Mechanical Engineer |

John Pruett, PE  
Mike Flowers  
Mark Epling, AIA  
Keith Gonzales  
Amy Rhodes

Mechanical Engineer (As Needed - Rooftop Mechanical Equip.)  
Plumbing Designer (As Needed – Roof Drains)  
Specifications Writer  
Construction Administrator  
Construction Administrative Assistant

ZMM's team has successfully collaborated on multiple projects for the WVARNG, and each team member is familiar with the standards, requirements, and processes that are utilized by the Guard.



#### **RTI ROOF & EXTERIOR DOOR DESIGN: 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 (35%)

Design Development Phase (65%)

Construction Documents Phase (95%)

Construction Administration Phase

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

#### 5. Post Project Review

At the completion of every project, ZMM staff members participate in a learning session to gain insight useful for future projects. ZMM will also conduct an 11 month warranty inspection with the WVARNG to ensure that all systems are operating as designed, and to facilitate any final work with the contractor.

#### 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.

### **RTI ROOF & EXTERIOR DOOR DESIGN: 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 (for roof and door replacement projects) as well as independent estimates to verify the project budget. For this project ZMM would utilize Win Strock to provide the independent estimate. ZMM and Mr. Strock have successfully collaborated on multiple projects, including:

- Camp Dawson Building 246 Improvements
- Camp Dawson Building 301 Improvements
- Camp Dawson Building 202 Improvements
- Mountaineer Challenge Academy - South
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- Building 5, 6, & 7 Improvements
- WVDNR District 5 Office
- WVDNR Claudia Workman Fish and Wildlife Education Center
- Beech Fork Lodge
- West Virginia State Police Information Services Center
- West Virginia State Lottery Headquarters Renovation



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 Camp Dawson Airfield Support Facilities.

# ZMM History & Services



LOCATION:  
222 Lee Street, West  
Charleston, WV

CONTACT:  
Phone 304.342.0159  
Fax 304.345.8144  
www.zmm.com



## HISTORY

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**

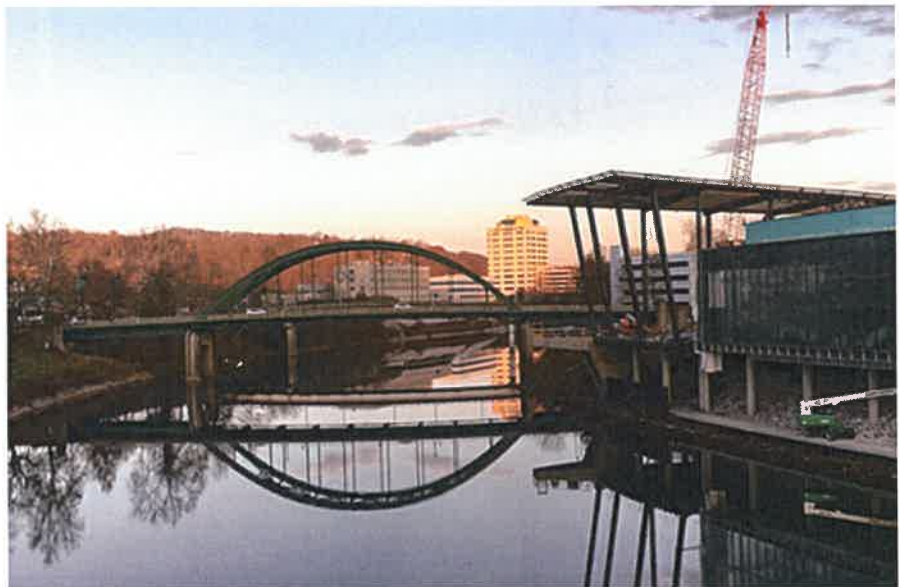
- Architectural Design
- Sustainable Design
- Interior Design
- Lighting Design
- Landscape Architecture

**Engineering**

- Civil
- Mechanical
- Electrical
- Structural
- Net Zero Buildings
- Energy Consumption Analysis

**Post Design**

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



# Award Winning Design



## **2020**

**AIA West Virginia Chapter: Merit Award**  
***Achievement in Architecture for New Construction***  
Mountain Valley Elementary School  
Bluefield, West Virginia



## **2019**

**AIA West Virginia Chapter: Honor Award**  
**AIA West Virginia Chapter: Citation Award**  
**AIA West Virginia Chapter: People's Choice Award**  
Charleston Coliseum & Convention Center  
Charleston, West Virginia



## **2018**

**AIA West Virginia Chapter: Citation Award**  
***Unbuilt Project***  
Charleston EDGE  
Charleston, West Virginia



## **2017**

**AIA West Virginia Chapter: Merit Award**  
***Achievement in Architecture***  
Explorer Academy  
Huntington, West Virginia



**AIA West Virginia Chapter: Merit Award**  
***Achievement in Sustainability***  
Logan - Mingo Readiness Center  
Holden, West Virginia

## **2016**

**AIA West Virginia Chapter: Merit Award**  
***Achievement in Architecture in Interior Design***  
Christ Church United Methodist  
Charleston, West Virginia



**AIA West Virginia Chapter: Merit Award**  
***Achievement in Architecture***  
Gauley River Elementary School  
Craigsville, West Virginia

# Award Winning Design



## **2015**

**AIA West Virginia Chapter: Honor Award**  
*Achievement in Architecture in Sustainable Design*  
Edgewood Elementary School  
Charleston, West Virginia

**AIA West Virginia Chapter: Merit Award**  
*Achievement in Architecture*  
Kenna Pk-5 School  
Kenna, West Virginia

## **2014**

**AIA West Virginia Chapter: Merit Award**  
*Achievement in Architecture in Sustainable Design*  
Huntington East Middle School  
Huntington, West Virginia

**AIA West Virginia Chapter: Merit Award**  
*Achievement in Architecture*  
Southern West Virginia Community & Technical College  
Williamson, West Virginia

**AIA West Virginia Chapter: Merit Award**  
*Achievement in Architecture in Interiors/Graphics*  
Girl Scouts of Black Diamond Council  
Charleston, West Virginia

## **2012**

**AIA West Virginia Chapter: Honor Award**  
*Excellence in Architecture*  
West Virginia Housing Development Fund Building  
Charleston, West Virginia

## **2011**

**AIA West Virginia Chapter: Honor Award**  
*Excellence in Architecture in Historical Preservation*  
Southside Elementary/Huntington Middle School  
Huntington, West Virginia

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



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



## Role

Principal

## Professional Registrations

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

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

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

## Project Experience

### Charleston Coliseum & Convention Center, Charleston, WV

Mr. Krason served as principal-in-charge of the expansion and renovation to the Charleston Civic Center. The \$75M, 283,000 SF design-build project is being completed as a collaboration

## Education

Bachelor of Architecture, The Catholic University of America, 1998

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

## Employment History

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

## Civic Affiliations

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

with tvsdesign and BBL Carlton. Mr. Krason was responsible for the overall management of the design team, coordination with the client, and also has input critical project management decisions. The design commenced in the spring of 2015, and construction was complete in 2018.

**State Office Building #5, 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.

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

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

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

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

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

2020 WV AIA Merit Award Mountain Valley Elementary School, Green Valley, WV  
2019 WV AIA Honor Award Charleston Coliseum & Convention Center, Charleston, WV  
2018 WV AIA Citation Award Charleston EDGE, Charleston, WV  
2017 WV AIA Merit Award Logan-Mingo Readiness Center, Holden, WV  
2016 WV AIA Merit Award Christ Church United Methodist, Charleston, WV  
2015 WV AIA Merit Award Edgewood Elementary School, Charleston, WV  
2014 WV AIA Merit Award Girl Scouts of Black Diamond Council, Charleston, WV  
2011 WV AIA Honor Award Joint Interagency Training and Education Center (JITEC), Kingwood, WV

# Robert Doeffinger, PE



## Role

Engineering Principal

## Professional Registrations

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

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

After graduate school in Architectural Engineering, Mr. Doeffinger joined ZMM. He has over 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 Coliseum & Convention 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.

**Role**

Electrical Engineer

**Professional Registrations**

Professional Engineer (WV)

Mr. Cook started his career in 1972 as a designer for an engineering firm in Charleston, West Virginia. He is a Professional Engineer registered in West Virginia and has designed and engineered multiple projects throughout the state.

Mr. Cook has had a full range of engineering design experience including: Plumbing, HVAC, Electrical, Fire Protection and Site Utilities. He has worked on Jails, K-12 Schools, Armories, Hospitals, Office Buildings, Churches, and a variety of other building types.

Other responsibilities include, Serving as a liaison between clients and utility companies, designs of sanitary and gas site utilities, review of plumbing, sprinkler systems, fire pumps and water pumps as well the equipment selection - air handling units, pumps, and boilers, site visits, observation reports and punch lists.

**Project Experience**

**West Virginia Regional Jails:** Mr. Cook was responsible for electrical design on 10 Regional Jails. The design included lighting, power distribution, emergency power systems, fire alarm and security. In 2009 he was project manager for HVAC renovation on four regional jails. This project included replacement of rooftop HVAC units and Building Automation Systems. Mr. Cook has also been responsible for site utility upgrades including sewer augers and on-site sewage treatment plants and lift stations.

**Jackson County Armed Forces Reserve Center, Millwood, WV** Because of the variety of space types and occupancy patterns, Mr. Cook designed multiple roof mounted air handling units, to take advantage of unoccupied scheduling to save energy. The main shower /toilet area is served by a 100% outside air unit with a plate type heat exchanger for energy conservation. The large Drill Hall, which also serves the community with space for up to 2000 people, is served by two rooftop units. One will run during Drill weekends, the second will run only during public events. There are two high efficiency scroll type chillers with primary/secondary pumps to meet part

**Education**

Master of Arts in English and Humanity  
Marshall University Graduate School,  
2004

Bachelor of Arts in English and  
Humanity, West Virginia University,  
1972

**Employment History**

1989 - Present, Senior Mechanical  
Engineer, ZMM  
Present, Board of Directors, ZMM  
1976 -1989, Project Manager, WV Firm  
1972 -1976, Designer, WV Firm

**Civic Associations**

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

load conditions. The boilers are 95% efficient stainless steel condensing type with variable speed pumps.

**Lincoln County High School, Hamlin, WV**

Mr. Cook was responsible for HVAC design on this project, which included a 500 ton chilled water system with primary and secondary pumping. The chillers had a heat recovery feature which was used for reheat on VAV air systems. The gas boilers were condensing type with 95% efficiency and variable speed pumps. The school also had vocational shops for which he designed welding fume exhaust and dust collection systems. In addition to this, Mr. Cook was responsible for site utilities including coordination of a water line river crossing and an aerial sewer suspended from the bridge serving the school, which eliminated the requirement for a lift station.

**Hacker Valley PK-8 School, Hacker Valley, WV**

This project, located in rural Webster County adjacent to a trout stream, was built on a small site where municipal water and sewer were not available. Mr. Cook was responsible for designing a new Water treatment System for the existing domestic well, and a variable speed booster pump to deliver water to the school building. An onsite sewage treatment plant with outflow was not acceptable because of the trout stream, so he designed a "Green" peat bed underground injection system for the school's sewage disposal. The school also required fire protection, and Mr. Cook designed a 64,000 gallon storage tank with a diesel fire pump for distribution. He was also responsible for HVAC design.

# John Pruett, PE, LEED AP



## Role

Mechanical Engineer

## Professional Registrations

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

Mr. Pruett is responsible for overseeing the design of the HVAC systems, ensuring that the HVAC systems not only meet the program requirements, but meet the long-term needs of the owner. He performs heating and cooling load calculations and recommends the type of systems to be incorporated into the building. He coordinates with the other disciplines in order to integrate the HVAC systems into the building. Mr. Pruett has participated on several LEED registered projects; one of his key contributions to these projects is conducting energy analyses and recommending energy use reduction alternatives.

Mr. Pruett began his career in engineering with a manufacturing company in 1994. In 1998, he made a career change and joined an engineering consulting firm as an HVAC design engineer. He has a broad range of experience in HVAC systems design, including K-12 schools, higher education facilities, office buildings, libraries, hotels, restaurants, a convention center and several natatoriums. Having served in the Marines for 14 years, Mr. Pruett also led a design team for a "virtual memorial" for the birthplace of the U.S. Marine Corps.

## Project Experience

### WARNG Projects

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

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

### Tucker County Courthouse Annex, Parsons, WV

Mr. Pruett was the Mechanical Engineer for the Courthouse

## Education

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

## Employment History

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

## Civic Affiliations

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

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

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

**Edgewood Elementary School, Charleston, WV** Mr. Pruett was the mechanical engineer on the new Kanawha County Elementary School on Charleston's West Side and responsible for the HVAC systems design. The school is being designed as a 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.

### **Additional Educational Experience**

#### **Cabell County Schools**

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

#### **Wayne County Schools**

Spring Valley High School – HVAC Renovations

#### **Fayette County Schools**

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

#### **Putnam County Schools**

Hurricane High School - Renovations

## Mike Flowers



### Role

Plumbing Designer/Mechanical Technician

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

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

### Project Experience

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

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

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

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

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

### Education

Associate in Mechanical Drafting and Design; 1990, Ben Franklin Career and Technical Center

Associate in Electronics Technology; 1987, Putnam Career and Technical Center

Associate of Science; 1988, West Virginia State University

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

### Employment History

2001 - Present, Mechanical and Electrical Technician, ZMM

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

1991 - 1998, Mechanical and Electrical Technician, ZMM

### Civic Affiliations

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



**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**

- Marshall County Readiness Center
- CAMC Teays Clinic, Teays Valley, WV
- Appalachian Regional Hospitals – DA Tank, Beckley, WV
- Appalachian Regional Hospitals Pharmacy, Beckley, WV
- Rainelle Medical Center, Rainelle, WV
- Valley Health, Milton, WV
- Valley Health, Huntington, WV
- Mountain State Oral, Charleston, WV
- Valley Park Community Center
- WVDNR Forks of Coal
- Milton PK School
- Midland Trail High School

**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
- WWARNG 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)

# Joint Interagency Training & Education Center

WVARNG



LOCATION:  
Kingwood, WV

SIZE:  
285,000 SF

COMPLETION:  
2013

COST:  
\$78.4M

OWNER:  
Todd Reynolds Deputy  
Branch Chief  
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.

# Robert C. Byrd - Regional Training Institute

WVARNG



LOCATION:  
Kingwood, WV

SIZE:  
148,000 SF

COMPLETION:  
2002

COST:  
\$21M

CONTACT:  
Todd Reynolds  
Deputy Branch Chief  
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.



# Jackson County Armed Forces Reserve Center

WVARNG



LOCATION:  
Millwood, WV

SIZE:  
75,000 SF

COST:  
\$20M

COMPLETION:  
Fall 2011

CONTACT:  
Todd Reynolds  
Deputy Branch Chief  
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.



# Glen Jean Armed Forces Reserve Center

WVARNG



LOCATION:  
Glen Jean, WV

SIZE:  
110,000 SF

COST:  
\$17M

COMPLETION:  
2004

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



The Glen Jean Armed Forces Center contains three distinct military functions: a facility for routine maintenance of over-the-road and tracked military vehicles, an armory housing four West Virginia National Guard units, and the Southern West Virginia Military Entrance Processing Station, where new recruits officially enter the military system.

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

# Construction & Facilities Management Office Expansion

WVARNG



LOCATION:  
Charleston, WV

SIZE:  
19,935 SF

COST:  
\$3.5M

COMPLETION:  
2008

CONTACT:  
Todd Reynolds  
Deputy Branch Chief  
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 brings all of the operations of the CFMO together under one roof. The branches that 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.



# Logan-Mingo Readiness Center

WVARNG



LOCATION:  
Holden, WV

SIZE:  
54,000 SF

COMPLETION:  
2015

COST:  
\$12M

CONTACT:  
Todd Reynolds  
Deputy Branch Chief  
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.



# Morgantown Readiness Center

WVARNG



LOCATION:  
Morgantown, WV

SIZE:  
54,000 SF

COMPLETION:  
2013

COST:  
\$18.5M

CONTACT:  
Todd Reynolds  
Deputy Branch Chief  
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

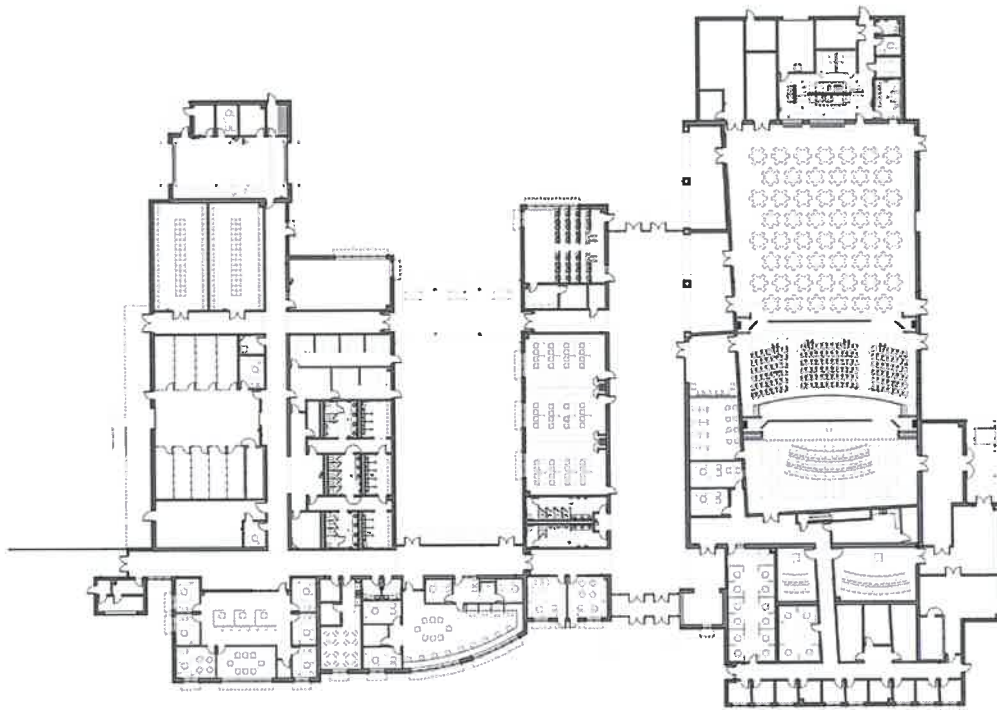
WVARNG



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.





# Tackett Family Readiness Center

WVARNG



**LOCATION:**  
Charleston, WV

**SIZE:**  
7,400 SF

**COMPLETION:**  
February 2011

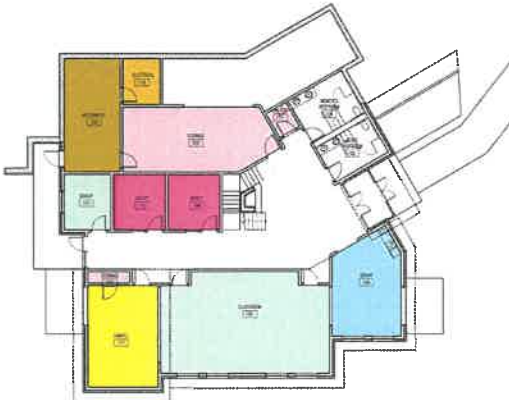
**COST:**  
\$1.57M

**CONTACT:**  
Todd Reynolds  
Deputy Branch Chief  
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

# Roof Replacement Experience



## State Office Buildings 5,6, & 7 - Roof Replacement

WV Capital Complex  
Charleston, WV

Replacement of existing roofing system with new fully adhered tapered insulation and new modified bitumen roofing system. The project involved major renovations to the cooling tower screens and installing a reflecting coating on the roofs surface. The project was a standard design, bid and build project of 57,560 square feet for \$1,560,000.00 and completed in 2011.



## Cedar Lakes Conference Center - Reroofing Project

Ripley, WV

Installing new standing seam metal roofs and making miscellaneous repairs to 11 buildings. Project was a standard design, bid and build project of a total of 53,810 square feet for \$550,000.00 completed in 2006.



## Renovations to Davis Hall, Bridgemont Community and Technical College

Montgomery, WV

This project was a multi-scoped renovation project, with a portion of the work involved replacing a 6000 square foot portion of the roof with new fully adhered EPDM roof membrane and making repairs to an additional 18,00 square feet of roof membrane. The total project cost was \$3,400,000.00 and completed in 2012.



## Central Regional Jail HVAC and Roof Replacement

Sutton, WV

Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment.

Project was a standard design, bid and build project of 100,000 square foot facility with a bid price of \$900,000.00 was completed in 2007.



## Southern Regional Jail HVAC and Roof Replacement

Beaver, WV

Replacement of ballasted EPDM roofing, walk pad system, flashing systems and HVAC equipment. Project was a standard design, bid and build project of 133,000 square foot facility and a bid price of \$1,300,000.00 was completed in 2008.

# Roof Replacement Experience

## **South Central Regional Jail HVAC and Roof Replacement**

Charleston, WV

Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment.

Project was a standard design, bid and build project of 140,000 square foot facility and a bid price of \$1,400,000.00 completed in 2009.



## **Northern Regional Jail HVAC and Roof Replacement**

Moundsville, WV Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment. Project was a standard design, bid and build project of 170,000 square foot facility and a bid price of \$1,800,000.00 and completed in 2010.



## **Southwestern Regional Jail HVAC and Roof Replacement**

Holden, WV

Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment.

Project was a standard design, bid and build project of 140,000 square foot facility and a bid price of \$1,498,000.00 to be completed in 2013.



## **Reroofing for Greenbrier County Board of Education**

Smoot Junior High School Gymnasium

Rupert Elementary School, High Roof

Greenbrier West High School – Building 'C'

Replacement of existing membrane roof with mechanically fastened EPDM roof membrane. This project also included repairs to various Fascia, soffit and canopy conditions. The project was a standard design, bid and build project of 40,000 square feet for \$450,000.00 and completed in 2006.

## **Reroofing for Greenbrier West High School**

Charmco, WV

Replacement of existing membrane roof with mechanically fastened EPDM roof membrane. This project also included repairs to various Fascia, soffit and canopy conditions. The project was a standard design, bid and build project of 35,000 square feet for \$400,000.00 and completed in 2006.



# WV State Capitol Roof Replacement



LOCATION:  
Charleston, WV

COMPLETION:  
TBA



The West Virginia State Capitol Building was constructed in 1924-1932 and is listed on the National Register. The scope of work includes replacement of the roof on connectors and roofs above as well as the base of the dome. This project started with an in-depth study of existing drawings and site conditions and a site visit to the Capitol to ascertain the actions necessary to provide the new roof system.

The investigation included:

- Review all Roofing Components for Integrity/Ability to Control Moisture Collection/Removal
- Conduct Destructive Testing (Multiple Roofing/Flashing Systems?)
- Hazardous Material Testing of Components (Paint, Mastic, Insulation, Caulking)
- Review all Points of Roof Access: Walkways, Walkway Pads, Stairs
- Work with GSD to Develop Recommendations for the Roofing System
- Consider Building Envelope Performance/Insulation Requirements

All the roof system components will need to be reviewed for their integrity and ability to control moisture collection and removal from the building's roof. The components that are to be reviewed will include parapet walls, railings, wall conditions, colonnades, roof penetrations, roof drains, roof equipment, and walking surfaces. Investigative holes will need to be cut into the existing membrane to identify conditions of insulation, roof deck and any remains of former roofing materials and flashing systems. Test of roofing materials will need to be made for any possible hazardous materials. Our ability to provide comprehensive design solutions will be advantageous as it relates to mechanical equipment curbs and structural supports.

A report will be prepared and presented showing findings and recommendations from the investigation of all the roof conditions. The report will include recommended option for the roof membrane material, discussion of repairs to roof components, as well as any required repairs to the roof deck. Also included in the report will be a preliminary cost estimate including cost differences for each proposed option. ZMM will provide construction observation services and will work with the owner's representative during the construction process. We will be responsible for reviewing all shop drawings and questions that occur during the project. ZMM will also participate in all progress meetings and make site visits on a regular basis. ZMM will remain available to assist the state throughout the warranty phase of the project.

# 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.

# State Office Building Renovation Experience



## State Office Building No. 6: 8<sup>th</sup> Floor (Department of Education) 11,800SF



The partial renovation of the 8<sup>th</sup> Floor in State Office Building No. 6 on the State of West Virginia Capitol Campus was recently completed for the Department of Education. The renovation included the east half of the floor, the building core, the demolition of the existing construction, as well as significant hazardous material abatement.

ZMM, working with the State of West Virginia General Services Division, developed a strategy to renovate approximately 11,800 Sf of space for 55 employees. The design included a mix of private and open office space which responded to current workplace trends. ZMM also developed the interior furniture and equipment design with significant coordination with the Department of Education.

To improve the opportunity for daylighting, the enclosed office spaces line the building core while the systems furniture workstations inhabit the large room adjacent to the perimeter windows. This decision will allow for daylight to be introduced deep into the interior work areas and will allow access to the daylight and views for all employees. The agency suite has a separate reception area off the elevator lobby with a large conference room which helps divide each open office area. In addition, renovations to the building core consisted of elevator lobby upgrades, a large breakroom, restroom ceilings & lighting and significant upgrades to the mechanical and electrical systems. Of those, the elevator lobby renovations would have been the most significant, creating a consistent look and level of finish at each entry point.

## State Office Building No. 6: 5<sup>th</sup> Floor (Department of Commerce) 4,000SF

The partial renovation of the 5<sup>th</sup> Floor in State Office Building No. 6 on the State of West Virginia Capitol Campus was recently completed for the Department of Commerce. The renovation included a partial renovation of west half of the floor and the demolition of the existing construction. ZMM, working with the State of West Virginia General Services Division, developed a strategy to renovate approximately 4,000 Sf of space for 12 employees which included a large office for the Cabinet Secretary. ZMM also developed the interior furniture and equipment design.

# State Office Building Renovation Experience



**State Office Building No. 6: Floors 2-3 (Department of Education)**  
**State Office Building No. 6: 4<sup>th</sup> Floor (Division of Personnel)**  
**66,000SF**

The renovation of the floors 2-4 in State Office Building No. 6 on the State of West Virginia Capitol Campus were originally designed for the Department of Education and the Division of Personnel. Education would occupy floors 2 & 3 while Personnel would reside on the 4<sup>th</sup> floor. The renovation was to include demolition of the existing construction, as well as significant hazardous material abatement.



ZMM, working with the State of West Virginia General Services Division, developed plans to renovate approximately 44,000 Sf of space for 187 employees for the Department of Education which included a large executive suite for the State Superintendent's staff on the 3<sup>rd</sup> floor. The renovation also included approximately 20,000 Sf of space for 78 employees for the Division of Personnel along with a 2,000 SF separate tenant space. Each plan included a mix of private and open office space which responded to current workplace trends. ZMM also developed the preliminary interior furniture and equipment design with significant coordination with both state agencies.

To improve the opportunity for daylighting, the enclosed office spaces line the building core while the systems furniture workstations inhabit the large room adjacent to the perimeter windows. This decision will allow for daylight to be introduced deep into the interior work areas and will allow access to the daylight and views for all employees. Each side of the building has a separate reception area off the elevator lobby with a large conference room which helps divide each open office area. In addition, renovations to the building core would have consisted of elevator lobby upgrades, a large breakroom, restroom ceilings & lighting and significant upgrades to the mechanical and electrical systems. Of those, the elevator lobby renovations would have been the most significant, creating a consistent look and level of finish at each entry point.



# State Office Building Renovation Experience



## **State Office Building No. 5: Floors 7-9 (Division of Highways) State Office Building No. 6: 7<sup>th</sup> Floor (Department of Education) 88,000SF**

The renovations in State Office Building No. 5 & No. 6 on the State of West Virginia Capitol Campus were recently completed for the Division of Highways and the Department of Education. Highways would occupy floors 7-9 in Building No. 5 while Education would reside on the 7<sup>th</sup> Floor of Building No. 6. The renovation was conducted in two phases and included the demolition of the existing construction, as well as significant hazardous material abatement.

ZMM, working with the State of West Virginia General Services Division, developed a strategy to renovate approximately 66,000 Sf of space for 271 employees for the Division of Highways which included two large training areas on separate floors and the relocation of their main data hub room. The renovation also included approximately 22,000 Sf of space for 87 employees for the Department of Education which included a large executive suite for the State Superintendent's staff. The design included a mix of private and open office space which responded to current workplace trends. ZMM also developed the interior furniture and equipment design with significant coordination with both state agencies.

To improve the opportunity for daylighting, the enclosed office spaces line the building core while the systems furniture workstations inhabit the large room adjacent to the perimeter windows. This decision will allow for daylight to be introduced deep into the interior work areas and will allow access to the daylight and views for all employees. Each side of the building has a separate reception area off the elevator lobby with a large conference room which helps divide each open office area. In addition, renovations to the building core would have consisted of elevator lobby upgrades, a large breakroom, restroom ceilings & lighting and significant upgrades to the mechanical and electrical systems. Of those, the elevator lobby renovations would have been the most significant, creating a consistent look and level of finish at each entry point.



# Charleston Coliseum & Convention Center



LOCATION:  
Charleston, WV

SIZE:  
283,000 SF

COMPLETION:  
2018

COST:  
\$75M

CONTACT:  
Jim Smith, Acting Director  
200 Civic Center Drive  
Charleston, WV 25301  
304.345.1500

AWARDS:  
2019 AIA Honor Award  
West Virginia Chapter

2019 AIA Citation Award  
West Virginia Chapter

2019 AIA People's Choice  
West Virginia Chapter



The Charleston Coliseum & Convention Center (formerly named Charleston Civic Center) Expansion and Renovation is a transformational project for both the city of Charleston and West Virginia. Our team was influenced by the strong authentic character of Charleston to remake the Charleston Civic Center into a more efficient, more sustainable, more dynamic and a more iconic best-in-class destination.

The design of the expansion and renovation of the Charleston Coliseum & Convention Center is inspired by the story of West Virginia. Defined by a rugged landscape, the early history of the state was dominated by extractive industries -- salt, coal, timber, trapping. This set the local character. With a foundation rich in resources, manufacturing added value to the raw materials with crafts like glass making and industries like chemicals and energy. This attracted a rich diversity of immigrants and a culture of craftsmanship that set the urban character. The economy is shifting from industry and service to information and technology. Again, the landscape and industry that shaped the region gives Charleston real advantages to exploit. The Creative Class, critical for the information and technology age, can live and work anywhere - what they want is access to the outdoors; real places with real character; and continuous education and entertainment.

Our design starts with an organizational concept inspired by this history. The Kanawha River is the social organizing link throughout the region, with settlement zones developing on whatever flatland the river provided --creating nodes of activities among the hills and valleys.



# Charleston Coliseum & Convention Center



The renovated facility is a building that emerges from this iconic landscape, with the architecture and topography working together. The Coliseum & Convention Center also has distinct active nodes to celebrate each activity; arena, convention, and banquet, and these nodes are connected like the hills and cut rock faces that are seen throughout the state as people work to connect to each other through the landscape.

The first critical design objective was to create separate entries and identities for the arena and convention center. This allows for simultaneous events and clarity of use. For the convention center to thrive, it needs a real ballroom assembly space. Located overlooking the Elk River, the new ballroom pre-function space is the most dramatic feature of the center. Together, the three glass enclosed nodes --arena lobby, convention lobby, ballroom --define a unique Charleston event campus. As described above, the spaces that connect these nodes are inspired by the hills and cut rock faces that connect the towns along the Kanawha River. With the building emerging from the landscape and expressed as cut rock walls, the connecting areas are designed to be expressive and economical backdrops to the glass boxed nodes.

While the expansion transforms the southeast to the middle of the northern zone of the site, the existing building mass still dominates a portion of the northern and eastern campus. The dominant expression along these existing facades is the landscaped berms. As we imagined the new building expression emerging from the landscape, a strategy developed to transform these berms to reflect, at the pedestrian level, the overall design theme. Above the level of the berms, the new concourse level windows will open up the facade and provide a much needed break in the massing. The upper part of the arena was painted in two tones to match the new building, playing off the different faces. The north, south, east and west faces painted a lighter shade; and the northeast, southeast, southwest and northwest faces a darker shade. Dramatic exterior color-changing lighting on the northeast, southeast, southwest and northwest faces transform the look and feel of the center into a fun and festive landmark.

# Wood County Justice Center Renovation



LOCATION:  
Parkersburg, WV

SIZE:  
32,000 SF

COST:  
\$5M

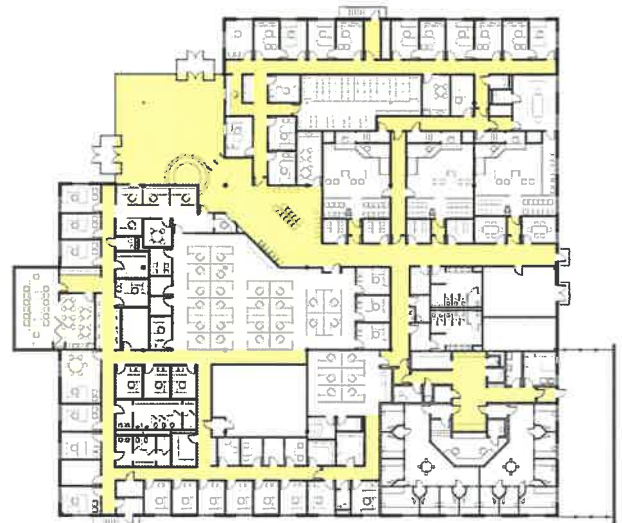
COMPLETION:  
2011

CONTACT:  
Mr. Blair Couch  
Commissioner  
No. 1 Court Square  
Suite 205  
Parkersburg WV 26101  
304.424.1984  
dbc@woodcountywv.com



This project was an extensive renovation of a 15 year old, 32,000 square foot, single story office building located in downtown Parkersburg, West Virginia. The building was purchased by the Wood County commission with the purpose of bringing together 3 government functions that had outgrown the 3 separate buildings that they occupied.

The renovated building consists of offices and 3 Courtrooms for the County's Magistrate Court system, public service windows for document pick-up and payment of fines, offices for the Sheriff's Department and Home Confinement and a 12-hour Inmate Holding Center.



Due to the building's new use, the interior was completely demolished leaving only the shell. The building's main entrance was relocated and redesigned to provide a new, more prominent identity to the building and to align with the new parking area created by the demolition of the adjacent existing magistrate court building. The old HVAC system was removed and replaced with a more energy efficient system and new, energy efficient lighting was installed. The project was designed around the U.S. Green Building Council's New Construction and Major Renovation Guidelines and is LEED Silver Certified.

# BridgeValley Community & Technical College

## Davis Hall Renovation



LOCATION:  
Montgomery, WV

SIZE:  
77,215 SF

COMPLETION:  
Summer 2012

COST:  
\$4M

CONTACT:  
Dr. Jo Harris, Former President  
619 2nd Avenue  
Montgomery, WV 25136  
304.741.4116 (cell)



ZMM was selected by Bridgemont Community and Technical College and the West Virginia Community and Technical College System to provide professional architectural and engineering design services for the Renovation of Davis Hall in Montgomery. Davis Hall is a 77,215 SF classroom and laboratory facility that was constructed in 1970 for WVU-Tech. The exterior of the facility consists of architectural pre-cast concrete panels and a curtain wall system. The interior includes an open two story atrium, a large auditorium, and five levels of office and classroom space that is constructed of demountable partitions.

Prior to commencing the design effort, ZMM completed a thorough assessment of the facility. The assessment revealed significant life safety concerns that had not been previously identified, including the use of non-plenum rated plastic insulated wiring throughout the return air plenums, mechanical units located above ceilings in exit stairs, and a lack of adequate fresh air for building occupants. As part of this initial assessment, ZMM assisted in developing a scope of work for the current project, as well as a long range plan for future improvements to Davis Hall.

The scope of the current project includes life safety upgrades (replace non-plenum rated wiring, new fire alarm system), improvements to the building envelope (curtain wall replacement and re-roofing), hazardous material abatement, mechanical improvements (boiler and chiller replacement, outdoor air ventilation system replacement), and interior improvements (replace ceilings and lighting, upgrade furnishings).

# Stone & Thomas Buildout for BridgeValley CTC



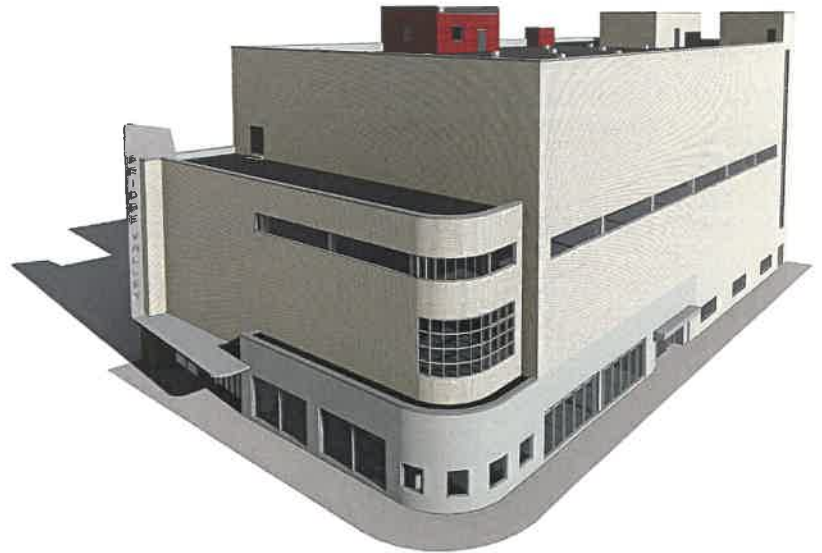
LOCATION:  
Charleston, WV

SIZE:  
128,000 SF

COMPLETION:  
TBD

COST:  
Est. \$26M

CONTACT:  
Dr. Eunice Bellinger  
President  
BridgeValley CTC  
2001 Union Carbide Drive  
South Charleston, WV  
304.205.6600



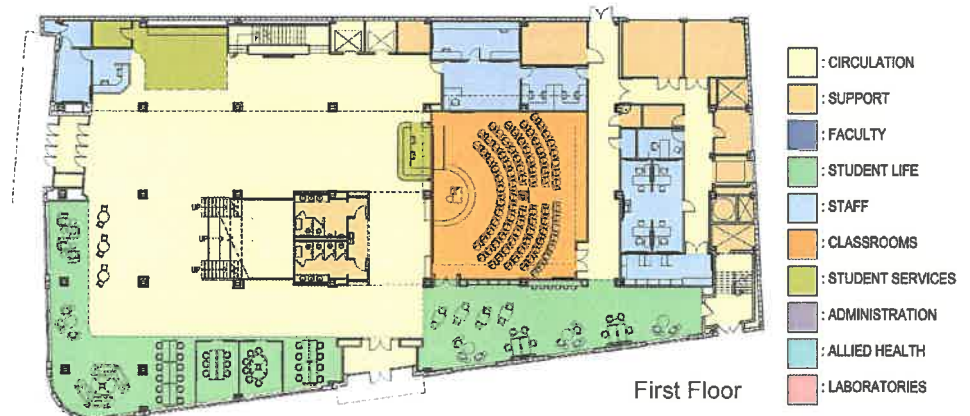
BridgeValley Community & Technical College plans to renovate the existing Stone & Thomas Building in downtown Charleston and relocate the headquarters to this location. The urban location will allow BridgeValley to become a vital community member in Charleston by increasing exposure for area business which can lead to fostering additional business partnerships. The move will further promote BridgeValley's goal to provide access to quality education and is in alignment with the College's core values to fulfill their mission.

The Stone & Thomas building is listed as a contributing building in the Downtown Charleston Historic District and consists of a 5-story building with a full basement and mezzanine level. The building originally designed as a department store, consists of an open-floor plan and large 2-story open main floor with a mezzanine overlooking the space.

## Existing Photos



ZMM in association with historic preservation consultant, Michael Gioulis, is currently assisting in the design and development of BridgeValley's new headquarters. BridgeValley's headquarters will consist of new classrooms, laboratories, allied health/nursing education spaces, faculty offices, administrative offices, and student life spaces. As part of the building renovation, the existing building has several contributing elements that will be restored in efforts to obtain the historic tax credits. The exterior of the building will be maintained in its current configuration except for adding windows and mechanical louvers on the alley elevations that are not visible to Lee and Dickinson Streets. The street elevations will be restored including the glass framed entrances, marble clad facades and the iconic building signage. New elements and improvements will complement and not mimic the historic features. These elements will be contemporary but compatible.



## Stone & Thomas Buildout for BridgeValley CTC



Aerial View

The proposed renovations include creating a large student union and student life spaces on the basement level. The street level (first floor) will contain student life spaces, digital learning commons, large classroom for 100 people, and a new lecture stair to access the mezzanine level. The mezzanine will contain student services spaces that include a 'One Stop' for registration, admissions, financial aid, tutoring and testing center. The second and third floors contain classrooms, administration office and faculty offices.

The fourth floor is comprised of Allied Health programs including Nursing, Digital Medical Sonography, Emergency Medical Technician, and Medical Laboratory Technician. The main focal point of this floor contains a simulated hospital floor for an enhanced education experience. The fifth floor contains multi-function laboratory spaces for Biology, Micro-Biology and Anatomy & Physiology.

# Girl Scouts of Black Diamond Council

## Volunteer Resource Center and Girl Zone/Urban Camp



LOCATION:  
Charleston, WV

SIZE:  
27,928 SF

COST:  
\$5M

COMPLETION:  
Fall 2013

CONTACT:  
Beth Casey, CEO  
GSBDC  
321 Virginia Street, W.  
Charleston, WV 25302  
304.345.7722

AWARDS:  
2014 AIA Merit Award  
West Virginia Chapter  
Achievement in  
Architecture  
in Interiors/Graphics

Interior Before Pictures



The New Girl Scouts of Black Diamond Council Volunteer Resource Center and Girl Zone/Urban Camp is located on the West Side of Charleston, WV. The 24,650 SF project completely renovates and upgrades the existing buildings at 321 Virginia Street. The buildings were built in the early and mid-1900's, and were used as a car dealership showroom and parts building until 2008. By the time the Girl Scouts took possession of the building, it had fallen into a state of disrepair. The facility required environmental remediation, and the entire roof structure was damaged and had to be removed.

The Girl Scouts of Black Diamond Council purchased the vacant buildings in 2011 with the intent of converting them into a girl-centered facility for members and a volunteer-enrichment center for program resources and training. The program for the facility includes administrative offices, community/meeting gathering spaces, as well as a small hotel (Urban Camp) for Girl Scouts visiting Charleston. The Girl Scouts undertook the effort to transform the facility, creating an architectural style that would appeal to girls and young women, while utilizing colors and materials that would not become dated.

The main building brings all of the operations of the Girl Scouts of Black Diamond Council together under one roof and on one level. This building includes a volunteer meeting room, employee office space, flexible conference spaces, and a retail shop. The Virginia Street façade of the existing facility was removed, and more contemporary elements are utilized to speak to each of the functions. The Girl Zone/Urban Camp reflects a more residential/outdoor tone with the use of a wood veneer, while the retail store has floor to ceiling storefront.





The storefront is etched with images of girl scouts and scouting slogans. The storefront is backlit in the evening, allowing the entire façade to reflect the function of the building. The entry is accentuated with a more vertical element and signage, giving hierarchy to the various elements, while the office areas are recessed from the corner with smaller openings, and a masonry veneer. Each zone has a unique identity.

The adjacent Girl Zone/Urban Camp conveys the feeling of a hotel or hostel and offers a place that Girl Scouts can stay during a visit to Charleston. While the main entry to the building faces Virginia Street, the entry for the Girl Scouts will be at the rear of the building. A small addition was developed to create a "check-in" area similar to a hotel. Adjacent to the "check-in" area is a great room where troops can gather to cook, congregate, and socialize. The "hotel rooms" utilize a dormitory arrangement, while the finishes and furnishings will be more like a youth hostel than a camp. The rear of the Girl's Zone/Urban Camp will reflect a more traditional camp environment, and includes an outdoor dining area and a fire pit.

With the mixed-use functions of retail, office, and residential, this unique project will be a vibrant addition to the emergent West Side community. The modern aesthetic of the facility will appeal to Girl Scouts and reflect the one of the Girl Scout's Journeys – "It's Your World – Change It!"

# Goodwill Prosperity Center

*Historic Renovation*



LOCATION:  
Charleston, WV

SIZE:  
10,200 SF

COMPLETION:  
2015

COST:  
\$960,000

CONTACT:  
Cheri Bever, President  
Goodwill Industries  
215 Virginia Street, W.  
Charleston, WV 25302  
304.346.0811



Goodwill's newly renovated Prosperity Center is located on Virginia Street (West) in Charleston. This facility will help prepare members of the community for the workforce, and will expand Goodwill's outreach opportunities. Inside the facility is several classrooms, a computer room, and a Career Center that is equipped with all the tools needed to prepare and apply for a job. A spacious and colorful lobby provides a relaxed atmosphere for visitors. Inside the center is a "Suited for Success" room where work-appropriate clothing will be available to those who need it.

The building, which was once the Charleston Transit Authority's bus garage, underwent a major exterior transformation. Layers of stucco were removed to open up the old garage bays, and glass was infilled into these openings to give the center a tremendous amount of natural light. The original brick was exposed, repointed, and painted. The improvements made to the exterior showcase the historic nature of the building while upholding the modern amenities needed for today.