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

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

Proc Folder: 437126

Doc Description: EOI: Building Four Renovations

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2018-04-02	2018-05-02 13:30:00	CEOI 0211 GSD1800000004	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., Architects and Engineers
222 Lee Street, West
Charleston, WV 25302

05/02/18 11:36:29
WV Purchasing Division

FOR INFORMATION CONTACT THE BUYER
Michelle L Childers
(304) 558-2063
michelle.l.childers@wv.gov

Signature X [signature] FEIN # 55-0676608 DATE 5-1-2018

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

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

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

Proc Folder: 437126

Doc Description: Addendum 1 - EOI: Building Four Renovations

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2018-04-24	2018-05-02 13:30:00	CEOI 0211 GSD1800000004	2

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., Architects and Engineers
222 Lee Street, West
Charleston, WV 25302

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Signature X ALRK FEIN # 55-0676608 DATE 5-1-2018

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

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 exceed 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., Architects and Engineers

Authorized Signature: _____ Date: 5-1-2018

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 1st day of May, 2018.

My Commission expires 10-6, 2018.

AFFIX SEAL HERE

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Lisa E. Bowles
ZMM, Inc.
222 Lee St., W.
Charleston, WV 25302
My Commission Expires October 6, 2018

NOTARY PUBLIC Lisa E. Bowles

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

(Required by *W. Va. Code* § 6D-1-2)

Contracting Business Entity: ZMM, Inc. **Address:** 222 Lee Street, West Charleston, WV 25302

Authorized Agent: Adam R. Krason **Address:** Same as Above

Contract Number: GSD1800000004 **Contract Description:** Building Four Renovations

Governmental agency awarding contract: General Services Division

☐ **Check here if this is a Supplemental Disclosure**

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below *(attach additional pages if necessary)*:

1. **Subcontractors or other entities performing work or service under the Contract**
   ☒ Check here if none, otherwise list entity/individual names below.

2. **Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)**
   ☐ Check here if none, otherwise list entity/individual names below.
   ZMM, Inc. - Robert Doeffinger
   ZMM, Inc. - David E. Ferguson
   ZMM, Inc. - Adam R. Krason

3. **Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)**
   ☒ Check here if none, otherwise list entity/individual names below.

Signature: _____ Date Signed: May 1, 2018

Notary Verification

State of West Virginia, County of Kanawha:

I, Adam R. Krason, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 1st day of May, 2018.

_____
Notary Public's Signature

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
[illegible] Bowles
[illegible] Inc.
[illegible] St., W.
[illegible] WV 25302
My Comm[illegible]es October 6, 2018

To be completed by State Agency:
Date Received by State Agency: _____
Date submitted to Ethics Commission: _____
Governmental agency submitting Disclosure: _____

Revised October 7, 2017

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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

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

Addendum Numbers Received:
(Check the box next to each addendum received)

- [x] Addendum No. 1
- [ ] Addendum No. 2
- [ ] Addendum No. 3
- [ ] Addendum No. 4
- [ ] Addendum No. 5
- [ ] Addendum No. 6
- [ ] Addendum No. 7
- [ ] Addendum No. 8
- [ ] Addendum No. 9
- [ ] Addendum No. 10

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

ZMM, Inc., Architects and Engineers
Company

Authorized Signature

May 1, 2018
Date

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

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

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

ARK, PRINCIPAL
(Printed Name and Title)

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

304-342-0159 304-344-8144
(Phone Number) / (Fax Number)

ark@zmm.com
(email address)

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

ZMM, Inc., Architects and Engineers
(Company)

ARK, PRINCIPAL
(Authorized Signature) (Representative Name, Title)

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

May 1, 2018
(Date)

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

ZMM
ARCHITECTS
ENGINEERS

May 1, 2018

Michelle Childers, Senior Buyer
State of West Virginia – Purchasing Division
2019 Washington Street East
Charleston, WV 25305

Subject: Expression of Interest for Building 4 Renovations
CEOI – GSD1800000004

Dear Ms. Childers:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional architecture and engineering services for the Building 4 Renovation Project for the State of West Virginia General Services Division (GSD). Building 4 is a stately 1952 limestone faced office building located at 112 California Avenue (intersection of California Avenue and Washington Street East), which is across the street from the East Wing of the Main Capitol Building. Building 4 contains seven stories with a full basement, which is accessed by interior stairs and a ramped loading dock on the south side of the building. Based upon the information provided in the EOI, it is our understanding that the GSD is interested in conducting an assessment of Building 4, which will precede a phased renovation of the occupied building.

Established in 1959, ZMM is a Charleston based, full service A/E firm, and is noted for design excellence and client focus. Our integrated design approach makes ZMM unique among design firms of our size, and our ability to provide comprehensive design services has made us a trusted resource for complex renovation projects throughout West Virginia. In many cases, and as is anticipated for the Building 4 Renovation, the first step in a successful renovation project involves conducting a detailed facilities assessment to assist building owners with the scope and budget development process. The purpose of the assessment is to determine the condition of the major building systems, and to identify both immediate and long term enhancements that will be required to fully improve the building. ZMM's approach would be to build off of existing assessments and recommendations to ensure the optimal design and construction process for the State of West Virginia General Services Division. We are confident that ZMM Architects and Engineers is the most qualified firm to provide professional design services for the GSD on this project for the following reasons:

- **Experience.** ZMM has renovated buildings throughout the region, and has a history of providing services on improvement projects to our state's landmark buildings, including the West Virginia State Capitol, the Culture Center, the Charleston Civic Center, State Office Buildings 5, 6, &7, the Greenbrier, and the Clay Center. Many of these projects, including our work on State Office Buildings 5, 6, & 7 and the Charleston Civic Center, included phased improvements to occupied buildings.

  In addition to our renovation experience, ZMM has provided services on multiple commercial office space projects that had a similar intent of providing flexible, modern office space. Recent projects include renovations to various floors in State Office Buildings 5, 6, & 7, the West Virginia Housing Development Fund office in Kanawha City, and Floors 7, 8, and 9 at the WV Lottery Building.

- **Quality.** ZMM has a history of providing high quality design services on renovation projects. Recent experience includes the Charleston EDGE Project, the Explorer Academy and Southside Elementary Schools (Cabell County Schools), Renovation of the Education Wing at Christ Church United Methodist, the Girl Scouts of Black Diamond Council Headquarters, Renovation of the 10th Floor of State Office Building #5, and the CFMO Expansion for the West Virginia Army National Guard. All seven projects were honored with statewide design awards. *In fact, ZMM's commitment to design*

quality has been recognized by the American Institute of Architects West Virginia Chapter with sixteen design awards in the last decade – an achievement unrivaled in West Virginia.

- **Sustainability.** The Expression of Interest states that "The project should meet LEED guidelines with a goal of LEED Silver." ZMM is one of West Virginia's leaders in providing sustainable design services. We are committed to designing and engineering the most energy and resource-efficient buildings possible. Our designs consistently incorporate appropriate energy-efficient mechanical and electrical systems, local- and recycled-content materials, water conservation, quality indoor air, and innovative design solutions. ZMM has been a member of the U.S. Green Building Council since 2002 and has had experience with the LEED (Leadership in Energy & Environmental Design) Green Building Rating System. Several ZMM projects, including the Joint Interagency Training and Education Center (JITEC) and the Wood County Justice Center, have achieved LEED certification.

Thank you for taking the time to review the attached expression of interest, which has been formatted as requested. Additionally, please visit our website at www.zmm.com to see the full range of projects that we have designed, and to learn about working with ZMM from a client's perspective. ZMM Architects and Engineers is grateful for the previous opportunities that we have been afforded to assist the State of West Virginia General Services Division. We are hopeful that you have observed our commitment to design quality, budget and schedule control, and client service demonstrated on these projects. Thank you for your consideration for this important assignment.

Respectfully submitted,

ZMM, Inc.

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

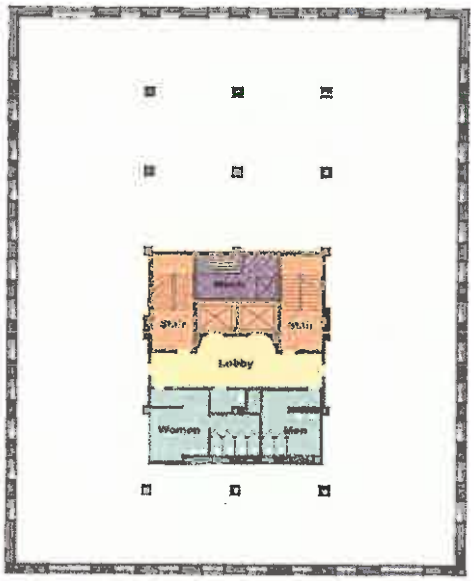
222 Lee Street, West ▪ Charleston, West Virginia 25302
304.342.0159 office ▪ 304.345.8144 fax
zmm.com

Table of Contents

ZMM
ARCHITECTS
ENGINEERS

Building 4 – Description and Design Approach

Building 4 is a stately 1952 limestone faced office building located at 112 California Avenue (intersection of California Avenue and Washington Street East), which is across the street from the East Wing of the Main Capitol Building. The entry to the building is a black marble entrance portal with no canopy. The entry leads to a vestibule that discharges into a marble lined lobby with a dark marble base and a lighter (tan) marble with horizontal veining above. The main entry is approximately 3' (6 risers) lower than the first floor. Both of the exit stairs as well as both elevators currently discharge through the main lobby, which creates a life safety hazard. Most of State Office Building 4 is currently vacant, although the General Services Division does occupy some space on upper levels.



Building 4 Structure/Core

Main Entry to Building 4

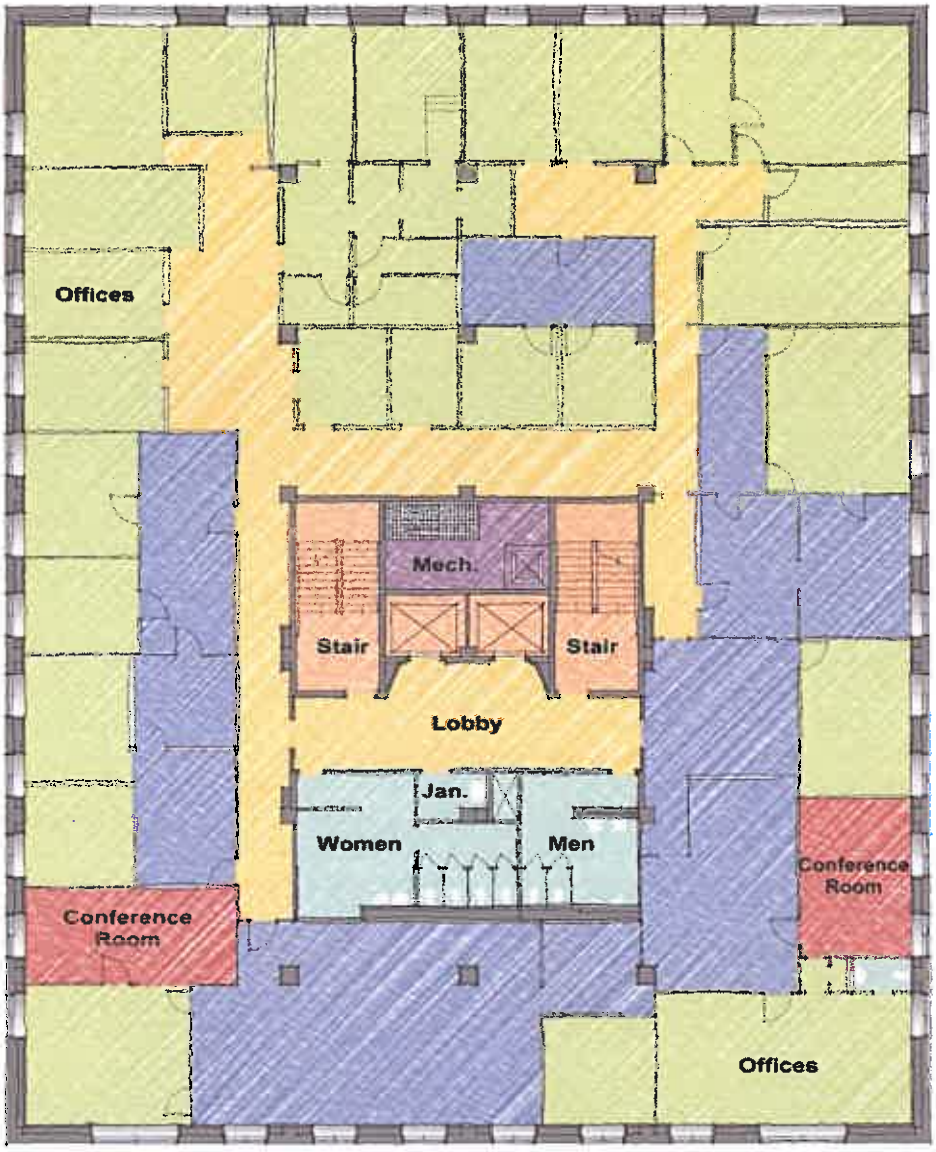
The main entrance doors have been modified to provide secure public entry separate from the employee entrance. The first floor office area is separated from the lobby by a six step level change on both sides. Although a chairlift has been added, accessibility requires improvement. Although the building has two elevators they do not provide access to the first level of office space. Additionally, the typical toilets have marble walls and partitions with multiple accessibility issues including limited access and toilet stall sizes.

Building 4 Lobby

Typical Toilet Room

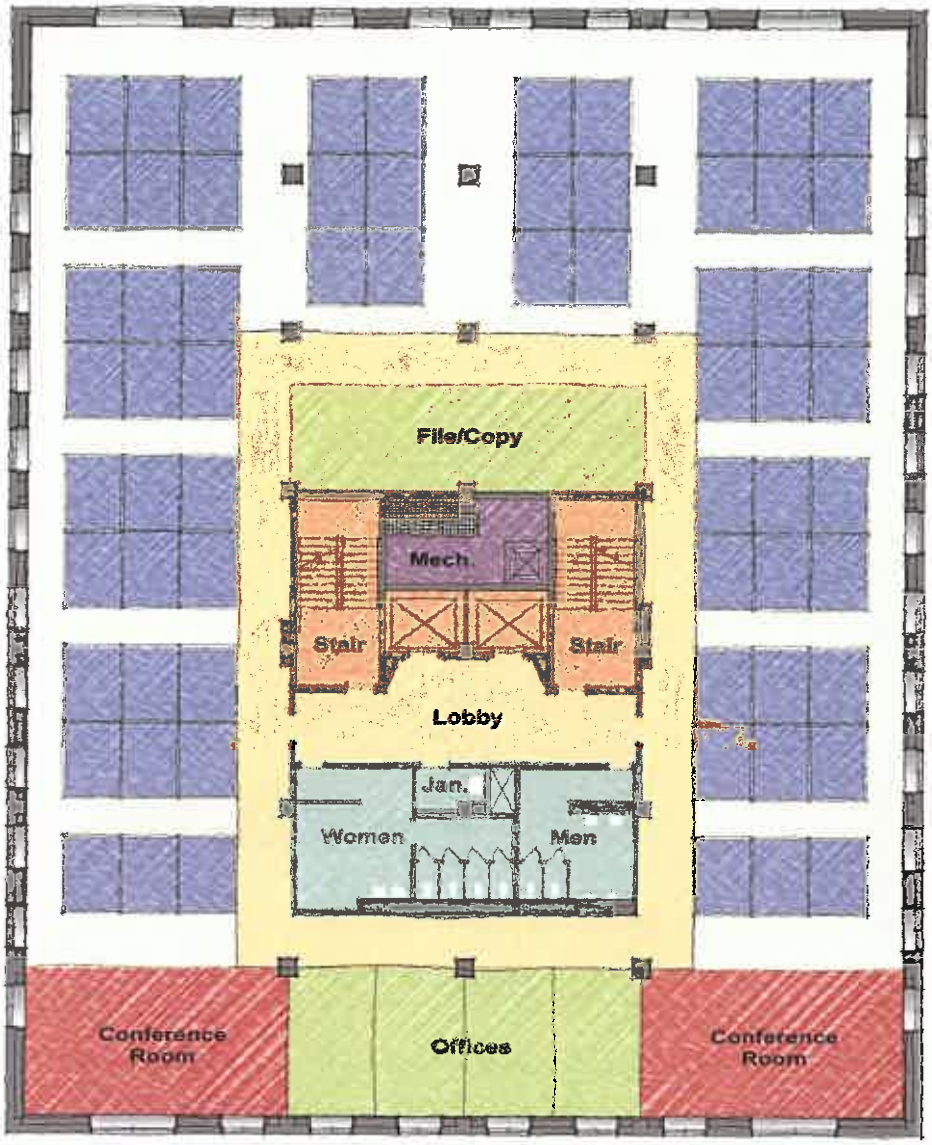
ZMM ARCHITECTS ENGINEERS

Building 4 contains seven stories with a full basement, accessed by a ramped loading dock on the south side. The interior lobby and corridors have a coved based terrazzo floor and several marble wall accents at the elevator lobbies on each level. When the building was previously occupied there were a variety of layout and furnishing types located in the office spaces which are accessed from the interior corridor. ZMM Architects and Engineers recommends standardizing building interior finishes and the overall layout to create a more unified building while still meeting the needs of various tenants. A previous floor layout and a proposed layout are provided below:



Typical Floor Layout (Previous)

ZMM ARCHITECTS ENGINEERS

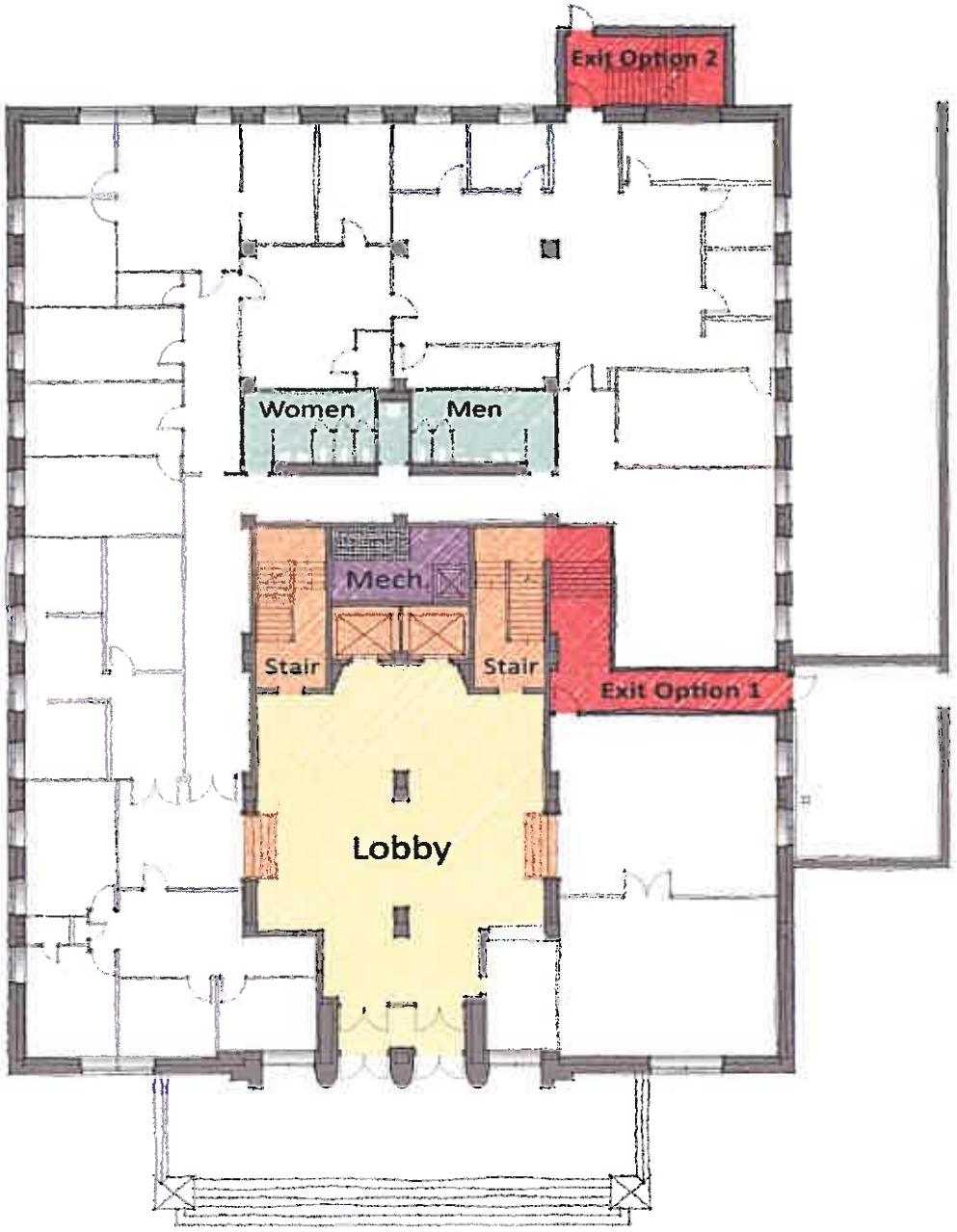


Proposed Building 4 Layout

The exiting from the upper levels of Building 4 is a major concern that will need to be addressed as the building is renovated. Although the two interior stair towers appear to be in adequate condition the entry to the stairs are located in close proximity to each other, and they are both accessed from the elevator lobby. Both of the stairs from the towers also exit through the main lobby, which does not meet the current life safety code. There are several potential ways to resolve these egress issues, however, the first life safety improvement that needs to be made is that the existing partial automatic fire suppression system needs to be expanded to cover the entire building.

One strategy to resolve the exiting issue would be to add a new exterior stairway on the rear of the building, in the abandoned alley. This would be a simple/straightforward approach, but would be expensive, and would eliminate usable space on each level to provide access to the new egress stairs. Another approach, which could be considered in consultation with the State Fire Marshal, would be to change the entry condition to Stairwell 2 on the upper levels. The stair entry would need to be removed from the elevator lobby, and moved an adequate distance from the entry to Stairwell 1. The exit from Stairwell 2 also needs to be improved so that it exits directly out of the building, and not through the main lobby – which could be

accomplished at the main level or at the loading dock level. Although this stairwell exiting change is complicated by the varying floor levels and the location of the loading dock, it is possible, and should be further explored. Some potential exiting options are noted in the diagram, below:



Building 4 Exiting Options

Stairwell 2

Loading Dock

All exterior windows were recently replaced with fixed windows and are in good condition. Other systems throughout the building also require improvements due to their age, as well as to meet current building codes. Electrical panels have been observed in the main corridors on each floor. Electrical systems will need to be evaluated to ensure that they meet current power distribution needs. Although the lighting has been updated in various areas with different types of fixtures, it should to be unified to meet various codes, to improve the ease of maintenance, and to reduce energy use. ZMM would recommend the installation of LED lighting throughout the building. There is also evidence that various types of data cable are utilized. This cabling should be replaced with the intent of meeting current and future demands. Finally, the building HVAC system will need to be evaluated to verify code compliance, adequacy, ease of maintenance, and energy consumption. Improving the energy efficiency of the building through the renovation process will be key to meeting the goal of the sustainability goal for the project (LEED Silver).

Renovation Project Approach

In addition to considering the various options for exiting and the other building systems noted above, ZMM Architects and Engineers would suggest that all other previous recommendations are reviewed by ZMM and the GSD prior to commencing any design effort. ***Our approach would be to build off of existing assessments and recommendations to ensure the optimal design approach for the State of West Virginia General Services Division.***

Due to the integrated design approach provided by ZMM Architects and Engineers, our firm has become a trusted resource for renovation and adaptive reuse projects throughout West Virginia. In many cases, and as is anticipated for the Building 4 Renovation, the first step in a successful renovation project involves ZMM conducting a detailed facilities assessment to assist building owners with the scope and budget development process. The purpose of the assessment is to determine the condition of the major building systems, and to identify both immediate and long term enhancements that will be required to fully improve

the building.
Prior to commencing the investigation, ZMM will review any documentation including funding applications, plans, specifications, photographs, and any reports that exist. Additionally, ZMM will prepare as-built plans of the facilities prior to the on-site investigation by the full A/E team. The investigation is conducted by a team of building design professionals including Architects, Interior Designers, Civil, Structural, Electrical, and Mechanical Engineers. The team will focus the investigation on the following systems:

- Site Conditions, Landscaping
- Building Structure
- Historic/Cultural Resources
- Hazardous Materials
- Life Safety and Egress (Fire Suppression / Fire Alarm / Smoke Control)
- Accessibility
- Building Envelope
- Interior Conditions and Finishes
- Plumbing Systems
- Electrical Service and Distribution, Emergency Power
- Lighting
- Mechanical Systems
- Data/IT Infrastructure
- Security Systems
- Construction Phasing

Once the investigative effort is complete, the design team (with the assistance of an independent estimator) prepares an estimate of the probable construction cost. The estimate will then be used to confirm the scope, and to help prioritize both current and future improvements. The result of the investigation will be a report that will serve as the basis for future project and design decisions. This comprehensive approach ensures that all improvements are made in a manner that supports the overall vision of the facility – and is the first step to delivering a project on budget – by clearly defining the scope and project expectations.

Sustainability
ZMM is West Virginia's leader in providing sustainable design services. We are committed to designing and engineering the most energy- and resource-efficient buildings possible. Our designs consistently incorporate appropriate energy-efficient mechanical and electrical systems, local- and recycled-content materials, water conservation, quality indoor air, and innovative design solutions. ZMM has been a member of the U.S. Green Building Council since 2002 and has had experience with the LEED (Leadership in Energy & Environmental Design) Green Building Rating System. Several ZMM projects, including the Joint Interagency Training and Education Center (JITEC) and the Wood County Justice Center have achieved LEED certification.

Similar Experience (Commercial Office, Renovation, Phasing)
ZMM has renovated buildings throughout the region, and has a history of providing services on improvement projects to many landmark buildings, including the West Virginia State Capitol, the Culture Center, the Charleston Civic Center, State Office Buildings 5, 6, &7, the Greenbrier, and the Clay Center. In addition to our renovation experience, ZMM has provided services on multiple commercial office space projects that had a similar intent of providing flexible, modern office space. Recent projects include renovations to various floors in State Office Buildings 5, 6, & 7, the West Virginia Housing Development Fund office in Kanawha City, and Floors 7, 8, and 9 at the Lottery Building.





The most relevant project to the current proposed project is State Office Buildings 5, 6, & 7. The improvements commenced with an overall building assessment that examined the condition of the buildings, as well as cost and phasing options for implementing various upgrades. Once the assessment was completed, a variety of phased improvements were implemented while the building remained occupied. These improvements commenced with the renovation of the 10th Floor of Building 5 – which required the construction of the infrastructure that is being used to install a sprinkler system on each additional renovation. The next phase of the renovation involved floors 7, 8, and 9 of Building 5 and floors 7 and 8 of Building 6. All of these floors have been fully renovated, including abatement, demolition, new construction, and updated life safety systems. ZMM has also provided design services for the renovation of the 2nd, 3rd, and 4th Floors of Building 6 for the Department of Education and Division of Personnel. Additional improvements have included:

- Roof Replacement
- Electrical Courtyard Improvements
- Door and Window Replacement
- Exterior Cleaning and Caulk Replacement
- Valve Replacement

Another project that remained occupied during a significant renovation was the Expansion of the Charleston Civic Center. The $100M expansion project, which included the replacement of the central plant, and upgrades to all mechanical, electrical, and plumbing systems, has been implemented utilizing a phased approach. One of the project constraints was that this critical public facility remains operational throughout the construction process. The project is currently scheduled for completion in October of 2018, and the Charleston Civic Center has been able to maintain operations throughout the process.

Why is ZMM Architects and Engineers the right team to assist the State of West Virginia General Services Division on the Building 4 Renovation Project?

We are confident that ZMM Architects and Engineers has the right combination of renovation, commercial office, and sustainable design experience to successfully deliver this project. Additionally, we are confident that the project approach outlined above will include the most thorough building investigation possible, which could save the State of West Virginia money by eliminating the need for a new exit stairwell. Perhaps most importantly, the ZMM team has worked collaboratively with the General Services Division to deliver a very similar project at State Office Buildings 5, 6,& 7, as well as on improvements to the Main Capitol Building Roof, and Surplus Property We are hopeful that you have observed our commitment to design quality, budget and schedule control, and client service demonstrated on these projects.

ZMM
ARCHITECTS
ENGINEERS

Firm Profile

ZMM
ARCHITECTS
ENGINEERS

LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
Fax 304.345.8144
www.zmm.com

ZMM was founded in 1959 in Charleston, West Virginia by Ray Zando, Ken Martin, and Monty Milstead. Since the inception of the firm, ZMM has been dedicated to providing an integrated approach to building design for our clients. ZMM delivers this integrated approach by providing all building related design services, including architecture, engineering (civil, structural, mechanical, and electrical), interior design, and construction administration from our office in Charleston. Our integrated design approach makes ZMM unique among architectural firms in West Virginia, and helps to ensure the quality of our design solutions by providing more thoroughly coordinated construction documents.

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

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

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

Advantages of an integrated Design Approach:

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

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

Services

Pre-Design

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

Design

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

Post Design

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

Award Winning Design

ZMM ARCHITECTS ENGINEERS

2018

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

2017

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

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

2016

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

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

2015

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

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

Award Winning Design

ZMM ARCHITECTS ENGINEERS

2014

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

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

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

2012

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

2011

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

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

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

Charleston Civic Center Expansion and Renovation

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
283,000 SF

COMPLETION:
Est. 2018

COST:
$75M

CONTACT:
Mr. David Molgaard
City Manager
City of Charleston
501 Virginia Street, E.
Room 101
Charleston, WV 25301
304.348.8014

The Charleston Civic Center Expansion and Renovation is a transformational project for both the city of Charleston and West Virginia. Our team is building on 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 Civic 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 Civic Center Expansion and Renovation

The renovated Civic Center is a building that emerges from this iconic landscape, with the architecture and topography working together. The Civic Center will also have 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 is to create separate entries and identities for the arena and convention center. This will allow 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 will be 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 will transform the southeast to the middle of the northern zone of the site, the existing building mass will still dominate 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 will be 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 will then transform the look and feel of the center into a fun and festive landmark.

State Office Buildings 5,6, & 7

ZMM
ARCHITECTS
ENGINEERS

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, antenas, 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 2nd, 3rd & 4th Floors of Building 6 for the Department of Education and Division of Personnel. Work on the 8th 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 7th 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 #5, 10th Floor

Office of Technology

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
22,000SF

COST:
$3.7M

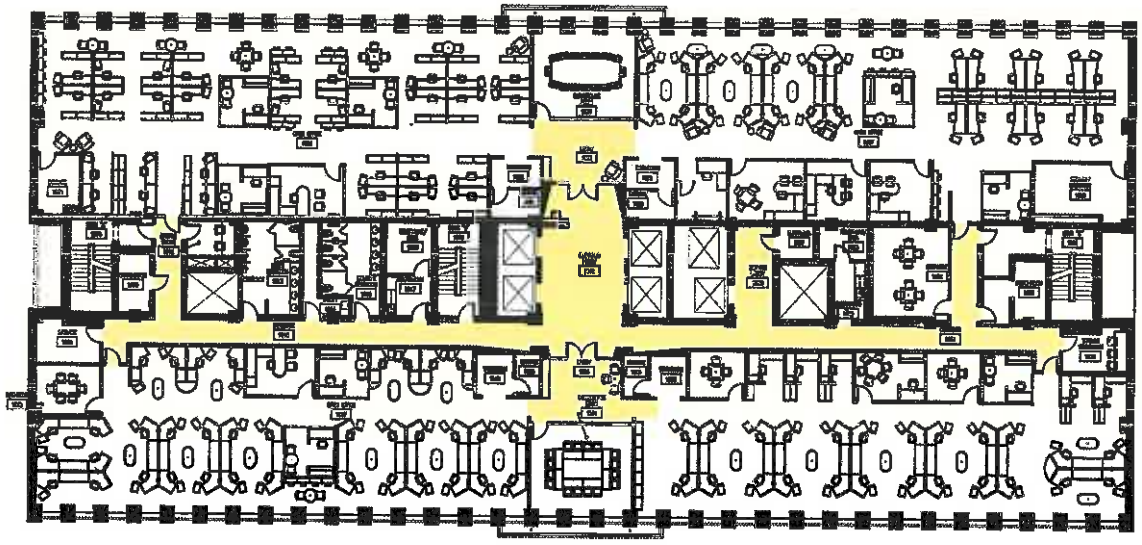
COMPLETION:
2010

CONTACT:
Ross Taylor
Cabinet Secretary
Department of Admin.
Building 1, Room E119
Charleston, WV 25305
304.558.4331

AWARD:
2011 AIA Merit Award
West Virginia Chapter
Achievement in Architecture Interiors

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. To commence the project, ZMM conducted a detailed investigation of State Office Buildings 5, 6, & 7, which included recommendations for improvement of the facilities. The renovation of the 10th floor of Building #5 was the first major interior renovation project that responded to the recommendations. The renovation was technically intensive, and included demolition of the existing construction back to the building structure, as well as significant hazardous material abatement.

ZMM, working with the State of West Virginia General Services Division, the Real Estate Division, and the Office of Technology developed a strategy to renovate 22,000 SF of space to accommodate 137 employees. The design includes a mix of private and open office space, and responds to current workplace trends. The renovations include a low profile cable management system which maximizes the flexibility of the space. ZMM also developed the interior, furniture, fixture, and equipment design with significant coordination with the Office of Technology.



State Office Building #5, 10th Floor

To improve the opportunity for daylighting, office spaces have been "pulled-in" to the core of the building. 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 perimeter structural bays of the open office areas have a "coffered" ceiling. Ductwork for mechanical distribution is terminated at a bulkhead at the interior edge of the perimeter structural bay, allowing for more open volume and a more contemporary aesthetic.

The design of the 10th floor renovation also provided the opportunity to introduce a standard "transverse" core will be developed throughout State Office Buildings 5 & 6. The transverse core includes all of the major entry, meeting, and workroom functions. In addition to the office areas, the elevator lobby has been updated to create a consistent look and level of finish at the entry point to the Office of Technology.

WV State Capitol Roof Replacement

ZMM ARCHITECTS ENGINEERS

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.

Girl Scouts of Black Diamond Council

Volunteer Resource Center and Girl Zone/Urban Camp

ZMM ARCHITECTS ENGINEERS

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

ZMM ARCHITECTS ENGINEERS

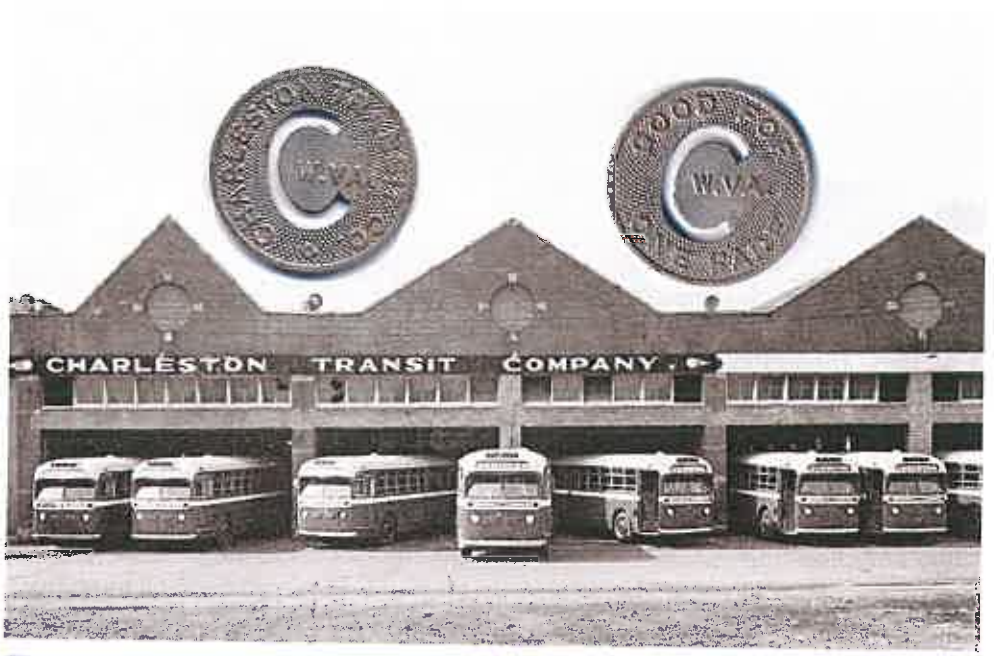
LOCATION:
Charleston, WV

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 appiy 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.

West Virginia Lottery Headquarters

Office Building and Parking Garage

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

CONTACT:
John Myers
Cabinet Secretary for Administration
900 Pennsylvania Ave
Charleston, WV 25302
304.558.0500

The project is an extensive renovation of an existing 13-story office building and 7-story parking garage in downtown Charleston, WV. The building is currently owned and operated by the WV Lottery but also houses many other state government agencies.

Major renovations within the office building consist of the demolition and renovation of three existing tenant floors, the relocation of the existing fitness center and replacement of the existing roof. The West Virginia Division of Insurance is being relocated from their existing, outdated office space to floors 7, 8 & 9. Off the newly renovated elevator lobbies on each floor is a reception area which leads to an interior space primarily constructed of enclosed offices to better suit current department requirements. To provide contiguous floor space for the Division of Insurance an existing tenant space on the 6th floor is being demolished and renovated into the new fitness center located across from the existing Café. Construction on the roof includes the removal and replacement of the existing roof insulation and membrane and the installation of new roof davits and stainless steel guardrail meeting current OSHA requirements.

The existing precast concrete parking deck will be undergoing a widespread renovation including structural repairs and restoration, major electrical upgrades and an addition to the existing storage warehouse. After vast investigative work it was determined that bearing pads need to be replaced under the existing concrete double-tee framing members, concrete structure and topping slabs needed repair and concrete spandrel panels required epoxy injection to repair extensive cracking. Horizontal driving surfaces are receiving new waterproofing, sealant joint replacement and restriping. The circulation connector between the office building and the parking deck is in structural repair also, requiring partial demolition and reconstruction of the existing steel deck and concrete floor slabs. Electrical improvements will consist of new LED lighting throughout and additional pole fixtures on the top level along with power and life-safety upgrades. The one-story storage warehouse located underneath the existing parking deck is being increased by approximately 1,800 sf. The addition will consist of masonry exterior walls clad in EIFS with a sloped steel-framed roof and single-ply membrane system.

Charleston EDGE Complex

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
41,250 SF

COMPLETION:
TBD

COST:
$10M

CONTACT:
Mr. David Molgaard
City Manager
City of Charleston
501 Virginia Street, E.
Room 101
Charleston, WV 25301
304.348.8014

AWARD:
2018 AIA Citation Award
West Virginia Chapter
Unbuilt Project

How does West Virginia attract and retain young talent? How do we keep our children and grandchildren in the State when the opportunities for them seem to be so much brighter in other areas? How do we stop the brain drain as our best and our brightest young professionals relocate to DC, Charlotte, and other urban areas? These questions have plagued West Virginians for years, and the proposed Charleston EDGE Complex will be one piece of the solution.

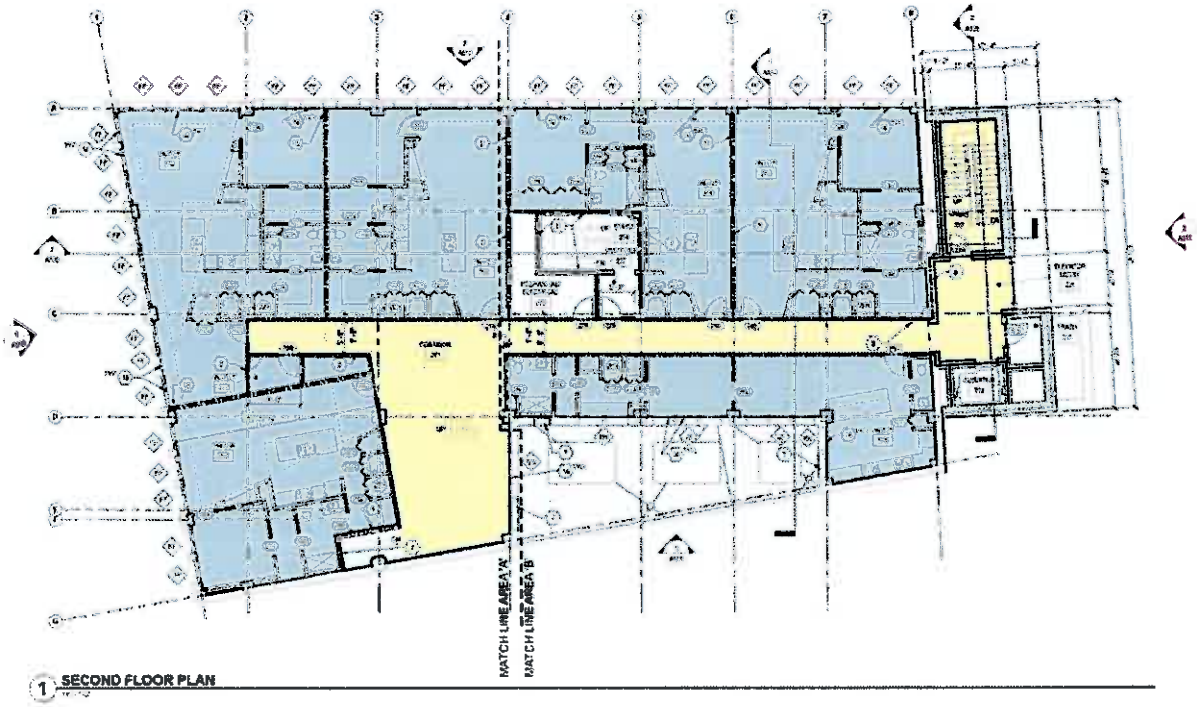
The proposed Charleston EDGE mixed use facility is unlike a traditional mixed-use development. While the facility may contain 30-40 residential units, with program space, and retail on the first level, the real purpose of EDGE is to provide a facility that will serve to provide housing and activity space for an innovative program that aims to attract and retain young talent to the Charleston community. EDGE will help to cultivate the young talent that participates in the program, and will serve as a sustainable economic development tool in our urban village district.

ZMM Architects and Engineers in association with Cooper Carry is currently assisting in the design and development of the Charleston EDGE Complex. The ZMM-Cooper Carry team conducted a visioning and design session where the design team obtained input from various community leaders and young professionals to investigate scenarios to optimize the potential development.

Charleston EDGE Complex

Following these meetings, ZMM has been developing several of the strategies to facilitate decision making by the project stakeholders. The current design solutions include a retail, lobby, and surface parking pedestal, with a variety of unit types occupying the upper levels.

The pedestal creates the opportunity for a raised amenity deck, with an adjacent club room and activity spaces. The advancements that Charleston has made to develop a vibrant downtown, create an active arts community, and engage young talent through organizations like Leadership Kanawha Valley and Generation Charleston have paid dividends for the business community – and Charleston EDGE is the next step in facilitating a bright future for the Charleston area.



1 SECOND FLOOR PLAN

West Virginia Housing Development Fund

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
36,000 SF

COST:
$8.5M

COMPLETION:
2011

CONTACT:
Nancy Parsons,
Senior Director
5710 MacCorkle Ave, SE
Charleston, WV 25304
304.345.6475

AWARD:
2012 AIA Honor Award
West Virginia Chapter
Excellence in Architecture

New offices for the West Virginia Housing Development Fund (WVHDF) were developed in the Kanawha City neighborhood of Charleston on a former Brownfield site. The new building sits on two acres and houses private offices and open offices for over 100 employees, an educational training room for staff and clients, staff exercise room, executive library, and boardroom.

The result is a unique contemporary design that differentiates itself from other office buildings in the neighborhood. Glass and insulated metal panels surround three sides of the building in a subtle checkerboard pattern. Red brick grounds the educational side in tradition, yet the alternating pattern adds another subtle, modern touch.

The signature entry is defined by the two-story white brick wall projecting from the primary building envelope. The lobby on the first floor and the executive director's office on the second floor are the focal points of a common corridor housing an elevator, restrooms and mechanical/electrical spaces. The interior color scheme is based on a light gray and white background. Punches of color enhance the employees break room and accent the entrance to the executive office area.

A primary goal of the new building was to create light, bright and easily accessible spaces. Private offices are located in the center spine along the length of the building. Glass office fronts and glass doors offer in daylight from exterior glazing. The combination of glass panels and sliding doors marries employee's needs for daylight and visual privacy. A high ceiling in the open office area maximizes daylight, while sunshades on the exterior control it. The interior lighting has solar sensors and automatically dims according to the natural light levels.

The result of the attention to detail is a mitigated Brownfield site that allows for plenty employee parking spaces, plus easy access for clients; an energy efficient and day light-flooded building that has increased staff well being; a clean, sophisticated design both outside and inside; and a modern addition to the city streetscape.

Construction & Facilities Management Office

WVARNG

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
19,935 SF

COST:
$3.5M

COMPLETION:
2008

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

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

The Construction and Facilities Management Office (CFMO) Expansion project will bring all of the operations of the CFMO together under one roof. The branches that will occupy this facility include: Director of Engineering, Environmental, Planning and Programming, Facility Operations & Maintenance, Business Management, Resource Management, and Design and Construction. This new facility is located slightly to the front, and adjacent to the existing facility, lending prominence to the new construction, and providing a new aesthetic to the entire complex.

This transitional space was designed to connect the two structures, while maintaining a connection to the outside through use of natural light, direct visual connections to the exterior, large volumes, irregular geometries, and the use of natural materials.

The entry design was coordinated with the Recruiting and Retention building to create an outdoor courtyard, along with new sidewalks, stairs and signage. The entry roof is sloped to provide a greater massing, while a lower canopy provides scale and protection from the elements. Large gathering and work spaces were located on the north elevation to take advantage of large expanses of glazing located to capture indirect light and views of Coonskin Park.

Christ Church United Methodist

Educational Wing / Choir Rehearsal Renovation

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

COST:
$4M

COMPLETION:
April 2013

CONTACT:
Rev. David Donathan,
Minister of Music & Arts
And Organist
1221 Quarrier Street
Charleston, WV 25301
304.342.0192 Ext. 210

AWARDS:
2016 AIA Merit Award
West Virginia Chapter
Achievement in
Architecture in Interior
Design

The education wing at historic Christ Church United Methodist was in need of modernization, both in infrastructure and aesthetics. ZMM's interdisciplinary team succeeded in meeting the challenges of creating the owner-requested "wow factor" in an existing building, and in coordinating construction that was phased while the building was continuously open to the public. ZMM coordinated asbestos abatement, multiple prime contracts and the owner's direct-pay items. Infrastructure design work included window replacement, new elevator, new variable refrigerant system and rooftop mechanical unit to serve the gymnasium, electrical panel and receptacle upgrades, emergency lighting and fire alarm systems.

The interior design reflects the church's various functions within the education wing, which include a daycare, classrooms, music and choir facilities, special teens area, and high quality decorative lighting in the Narthex. "The Growing Place" daycare features an expanded corridor with a winding path leading to each classroom. The classrooms are cheerful yet modern and functional, and there is a new kitchen and gathering space for parents and Sunday morning visitors. The expanded music and choir rooms were inspired by salvaged stained glass windows and provide higher levels of acoustics and storage. The lower level teen area, also known as the Wolfe-Omega Room, features hip, bright colors, kitchen, and special worship area.

Southside Elementary & Huntington Middle School

Cabell County Schools

ZMM ARCHITECTS ENGINEERS

LOCATION:
Huntington, WV

SIZE:
158,194 SF

COMPLETION:
2010

COST:
$27M

CONTACT:
Ryan Saxe
Superintendent
2850 5th Avenue
Huntington, WV 25702
304.824.3033

AWARDS:
2011 AIA Honor Award
West Virginia Chapter
Excellence in Architecture Preservation

The two schools that previously occupied the site of the New Southside Elementary School and Huntington Middle School were known as Cammack Elementary School and Cammack Middle School. The new facility houses a combined 1,014 Elementary and Middle School students. When the Cabell County Board of Education proposed a $61M bond issue in 2006, the Huntington community expressed the importance of saving this neighborhood landmark.

The new facilities were designed to blend with the architectural character of the existing facility. More than 70% of the existing building was demolished and the portion remaining was completely renovated. Two new stair towers provide a vertical architectural element that separates the existing structure from the new construction. The result is a cohesive design that blends the unique elements of the former Cammack School into a modern educational complex that exceeds the requirements of 21st century learning.

Southside Elementary & Huntington Middle School

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

With the community's support of the bond, ZMM has designed a facility that maintains the historic character of the façade and auditorium, while replacing the remainder of the facility. The community has maintained a landmark, while developing new state of the art elementary and middle schools.

Explorer Academy

Cabell County Schools

ZMM ARCHITECTS ENGINEERS

LOCATION:
Huntington, WV

SIZE:
60,000 SF

COMPLETION:
2015

COST:
$15M

CONTACT:
Ryan Saxe
Superintendent
2850 5th Avenue
Huntington, WV 25702
304.824.3033

AWARD:
2017 AIA Merit Award
West Virginia Chapter
Achievement in Architecture

A New Learning Model – Cabell County's New Expeditionary School

Students set foot this past fall into a new Expeditionary Learning Incubator School, which is the first of its kind in West Virginia.

Cabell County School officials are excited about a new school they hope will set an example for schools around the state. Cabell County School Board officials hope it is the next step in education. It is a consolidation of Peyton Elementary and Geneva Kent Elementary in the east end of Huntington. The schools were combined to form the incubator school, which is housed in the former Beverly Hills Middle School facility that will be remodeled to fit the mold of the Expeditionary Learning model.

Cabell County School officials describe the school as an incubator school because of the experimental learning environment. They hope what they learn from their experiment leads to other school districts around the state doing their own experiments and developing expeditionary learning environments of their own. Known as EL for short, students will learn about completing projects that will stretch across different subject areas and can sometimes take the entire school year.

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

Explorer Academy

Cabell County Schools

The school system has partnered with Marshall University to offer teachers in Cabell County and throughout the state training on the new curriculum.

In addition to creating separate bus and parent loading and unloading areas with additional parking, renovations include an enlarged Dining and Kitchen space to accommodate the student population. The facility will have a new HVAC system and new lighting to replace the original outdated systems and bring the building up to current codes and standards. The Media Center has been renovated to accommodate current technology needs and it overlooks a outdoor rooftop classroom space for all students. Studio spaces are scattered throughout the building for teachers to take students for collaboration on special projects. Student display areas are distributed throughout the building on every space available. This is evident from the front door as you begin your walk through the building. Student art walls are also located throughout the building as well as outside the building so students can create their own atmosphere from day to day. Totally renovated Art and Science Classrooms anchor the second floor space. Old locker rooms were removed and building circulation was improved for students to move freely throughout the building. A new music room was created close to the refinished Gymnasium and performance platform.

Site amenities include a nature trail, new steps to lower portions of the site not accessible before, a walking deck that overlooks the vegetation and puts students into the canopies of certain trees to view and study plant life at a higher level. An amphitheatre, green house, gazebo, pizza oven, artificial turf and the required play areas complete the learning centers outside of the building.

Adam R. Krason, AIA, LEED AP, ALEP

ZMM ARCHITECTS ENGINEERS

Role
Principal

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

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

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

Project Experience

Charleston Civic Center, Charleston, WV
Mr. Krason is serving 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

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

collaboration with tvsdesign and BBL Carlton. Mr. Krason is 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 is scheduled for completion in 2018.

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

Joint Interagency Training & Education Center (WVARNG), Kingwood, WV Mr. Krason was responsible for the preliminary programming, and participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Krason was also responsible for managing the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. This project received LEED Gold Certification.

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

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

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

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

Participated on the team that won the following awards and acknowledgements:
2017 WV AIA Merit Award Logan-Mingo Readiness Center, Holden, WV
2016 WV AIA Merit Award Christ Church United Methodist, Charleston, WV
2015 WV AIA Merit Award Edgewood Elementary School, Charleston, WV
2014 WV AIA Merit Award Girl Scouts of Black Diamond Council, Charleston, WV
2011 WV AIA Honor Award Joint Interagency Training and Education Center (JITEC), Kingwood, WV
2011 AIA Honor Award State Office Building #5, 10th Floor Renovation, Charleston, WV
2009 AIA Merit Award WVARNG Construction and Facilities Management Office, Charleston, 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 Civic Center, Charleston, WV
Mr. Doeffinger is the mechanical project engineer on the expansion and renovation to the Charleston Civic Center project. The $75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is scheduled for completion in 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 – 2nd Ward Councilman for 20 years

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

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

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

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

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

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

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

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

The Plaza at King of Prussia, Pittsburgh, PA One of the largest retail centers in the east. Mr. Doeffinger has performed engineering services for the past 20 years. The project consists of a 5,000 -ton chilled water plant and 1,500,000 cfm variable volume system for tenants and constant volume air system for common areas and an engineered smoke control system. The most recent project is a 2011, 100,000 square foot expansion of tenant spaces, a renovation of the food court, and a 1,250-ton chiller addition to the central chilled water plant.

Samuel Butzer, PE, LEED AP BD+C

ZMM ARCHITECTS ENGINEERS

Role
Mechanical Project Engineer

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

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

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

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

Project Experience

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

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

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

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

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

dehumidification control as set forth by the School Building Authority (SBA).

Charleston Civic Center, Charleston, WV
Mr. Butzer is the Mechanical Project Engineer on the expansion and renovation to the Charleston Civic Center project. The $75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is scheduled for completion in 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.

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

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

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

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

Rodney Pauley, AIA

ZMM ARCHITECTS & ENGINEERS

Role
Project Manager

Professional Registrations
Registered Architect (WV)

Mr. Pauley is responsible for overseeing the daily design and production of the building, working in conjunction with in-house architectural, interiors and engineering staff to ensure the building not only meets the program requirements and budget, but meet the long-term needs of the owner. He also works directly with project principals to manage contracts, staffing and project deliverables. Mr. Pauley has a broad knowledge of building materials and services, building codes, and construction techniques, along with extensive experience in architectural detailing.

Mr. Pauley began his career in 1992 with an architectural firm in Atlanta, Georgia, and for the next 12 years rose to the Associate level by designing and managing a wide variety of project types including educational, retail, historic renovation, medical, and entertainment, specializing in office and speculative office design.

From 2005 through 2010, he worked at a number of Atlanta firms designing and managing office, high-rise condominium, and hotel projects. In 2010, Mr. Pauley moved back to Charleston, WV, to take a project management position with ZMM where he supervises the design and production of military, correctional and higher education projects.

Project Experience

WV Division of Juvenile Service – Davis Hall (unbuilt)
Mr. Pauley was the project manager on the design team that prepared construction documents for the renovation to an existing juvenile corrections campus for women. The project scope included the demolition of two buildings, the interior renovation of the 6,800 SF education building, and a major reconstruction to the 10,000 SF gymnasium which includes two major additions for dining and living facilities. An entrance and parking area will be reconfigured to provide additional spaces, a sally port and perimeter security fencing.

Morgantown Readiness Center, Morgantown, WV
Mr. Pauley was the project manager for the 58,000 square foot multi-use facility which includes assembly rooms, kitchen and dining facilities, military supply storage as well as locker rooms. The building is also designed to house the 249th Army Band

Education
Bachelor of Architecture, University of Tennessee, 1992

Associate of Science, West Virginia Institute of Technology, 1986

Employment History
2010 - Present, Project Manager, ZMM
2008 - 2010, Project Manager, GA Firm
2006 - 2008, Project Manager, GA Firm
2005 - 2006, Sr. Project Architect, GA Firm
Jan. 2005 - Aug. 2005, Project Architect, VA Firm

Civic Affiliations
- American Institute of Architects, Member

and their associated practice and support spaces. This area is highlighted by a 150-seat auditorium and state-of-the-art main rehearsal stage. This project is aiming for LEED Silver Certification.

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

Charleston Civic Center, Charleston, WV
Mr. Pauley is serving as project manager on the expansion and renovation to the Charleston Civic Center. The $75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is scheduled for completion in 2018.

Bridgemont Community and Technical College - Master Plan, Montgomery, WV
As part of an effort to provide overall Master Plan services to Bridgemont CTC, ZMM worked with various stakeholders to develop a Master Plan for Bridgemont's current and future facilities at the Tech Park. The Master Plan incorporated the need to develop a consistency between Bridgemont's Montgomery and South Charleston campuses, while also integrating the Bridgemont brand into the Park. The final design included planning for a new classroom and laboratory building adjacent to Building 704, across from the Advanced Technology Center. Signage, site circulation, parking, and campus amenities were also included in this planning process.

WVU Institute of Technology, Montgomery, WV
Mr. Pauley was the project manager responsible for owner coordination and construction document production for renovations to the Engineering Classroom Building at the WVU Institute of Technology campus in Montgomery, WV. The main project scope included various minor interior renovations to the existing 44,000 SF building in support of the Owner's replacement of the building's two elevators. Coordination was critical between ZMM, WVU, the owner's elevator supplier & installer and the WV Division of Labor.

WV Lottery Headquarters, Charleston, WV
Mr. Pauley is the project manager for a design team that is currently preparing construction documents for renovations to the existing WW Lottery Headquarters complex in Charleston, WV. Renovations to the existing 12-story office building include the demolition and reconstruction of three floors of tenant space and demolition and replacement of the existing roof along with various minor renovations throughout the office tower. The existing 5-story parking deck will undergo an extensive structural renovation, includes: replacing bearing pads, patch & repair of concrete members and the addition of waterproofing protection. The existing warehouse under the parking deck is being enlarged to provide additional storage space.

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

Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV Mr. Pauley is the project manager for a design team that is currently preparing construction documents for the renovation to an existing 7-story, 77,000 SF educational building. The project scope includes remedying several engineering and life safety deficiencies, as well as architectural improvements to the building envelope.

Carly Chapman

Role
Interior Designer

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

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

Fayette County Schools, PK-2 & New Collins Middle, Oak Hill, WV
These schools were designed as separate schools sharing the same site and are connected by a mechanical wing. This building called for a challenging design concept. The schools each had their own unique design theme, but were delicately connected in small aspects of color or architectural techniques, allowing the interiors to flow seamlessly.

Charleston Civic Center, Charleston, WV
Mrs. Chapman is currently assisting in the construction administration and interiors of the expansion and renovation to the Charleston Civic Center. The $75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. Construction is scheduled for completion in 2018.

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

Valley Park Community Center, Hurricane, WV
The new community center will be replacing an existing structure that was recently demolished earlier this year. The

Education
Bachelor of Interior Design, University of Charleston, 2012

Employment History
2016 - Present, Interior Designer, ZMM
2012 - 2016, Project Manager/Interior Designer, Contemporary Galleries, Inc.
2003 - Present, Architect, Project Manager, ZMM
2010 - 2012, Interior Design Intern, ZMM

new building will house a commercial kitchen, administration wing, ballroom, and a locker room complex with administration quarters for the attached Wave Pool.

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

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

Clarksburg, Richmond, Huntington, Salem VA Hospitals
During previous employment, Mrs. Chapman was heavily involved with renovations to various VA hospitals. Renovations included redesign implementing DIRTT wall systems, renovations to nurse, admirative and patient areas, as well as common's areas.

Scot Casdorph, PE

Role
Electrical Engineer

Professional Registrations
Professional Engineer (WV)

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

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

Project Experience

Charleston Civic Center, Charleston, WV
Mr. Casdorph is the electrical engineer on the expansion and renovation to the Charleston Civic Center project. The $75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is scheduled for completion in 2018.

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

Gauley River Elementary School, Craigsville, WV
Mr. Casdorph was responsible for the electrical design of the new elementary school. The project is consolidating Beaver

Education
Bachelor of Science, West Virginia Institute of Technology, 1995

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

Elementary School and Craigsville Elementary School into a new 375-student school. The school houses 3 Pre-Kindergartens, 3 Kindergartens, 2 first grade, 12 1st-5th grade classrooms, activity room, cafeteria, kitchen, media center, and administration spaces.

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

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

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

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

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

West Virginia Research, Education, and Technology – Building 704, South Charleston, WV
Mr. Casdorph is the electrical engineer for building 704 and responsible for electrical power and lighting distribution. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

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

Jackson County Armed Forces Reserve Center, (WVARNG), Millwood, WV Mr. Casdorph was responsible for the electrical design of the 76,000 SF single story military reserve center which serves both the West Virginia Army National Guard and the United States Army Reserves (USAR) units. The multi-use facility provides educational spaces for classrooms, distance learning, physical training and a weapons simulation center. The project is targeted for LEED Silver Certification.

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

FaLena Perry

Role
Construction Administrator

Professional Registrations
EIT

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

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

Project Experience

Valley Park Community Center, Hurricane, WV
Mrs. Perry is serving as Construction Administrator of the new Community Center building and renovation at Valley Park. The $15M construction project includes a new community building, ball fields and a playground. Mrs. Perry is responsible for the administrative duties, performing on-site observations and tracking construction progress. Mrs. Perry collaborates with the client, design team and contractors to confirm that project guidelines are satisfactorily met. Substantial completion for the project is set for May of 2018.

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

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

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

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

Employment History
2017 - Present, Construction Administrator, ZMM
2009 - 2010, Design Engineer, Moment Engineers, Charleston, WV
2004 - 2008, Engineer, Project Manager, BFMJ Inc., Lexington, KY
2003 – 2004, Graduate Assistant, University of Kentucky College of Engineering

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

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

Project Experience Other Firms

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

Kentucky Transportation Cabinet, DOH, District Five Office Building, Louisville, KY
Mrs. Perry acted as the Project Manager for this new office space for the Department of Highways. This project consisted of concrete and steel structural members. Mrs. Perry coordinated design efforts with a team of engineers, architects and the owner.

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

Sustainable Design

ZMM has been a member of the U.S. Green Building Council since 2002 and has had experience with the LEED Green Building Rating System. Several ZMM projects, including the Joint Interagency Training and Education Center (JITEC), the Wood County Justice Center, and Huntington East Middle School have achieved LEED Certification.

LEED Facts

for LEED BD+C: New Construction (v2009)

Certification awarded Apr 2013

Certified	44
Sustainable sites	16/26
Water efficiency	4/10
Energy & atmosphere	6/35
Material & resources	8/14
Indoor environmental quality	8/15
Innovation	1/6
Regional priority credits	1/4

Many of our clients have chosen to pursue LEED certification for their project. Schools, the military, and government agencies all receive public money and recognize the importance of third-party certification in justifying building expenditures and documented energy savings. We encourage and provide leadership to all clients who are considering LEED certification, and have developed a custom spreadsheet that allows the design team and our clients an easy method to track progress, responsibilities, and requirements for each credit in the system. From the initial LEED charrette and brainstorming session, through final documentation, ZMM is involved every step of the way. Our staff of LEED Accredited Professionals includes many of the firm's principals, architects, and engineers – a fully integrated team. In addition to LEED certification, ZMM professionals have experience with a variety of sustainability and energy-efficiency standards, including: the WELL Building Standard, AIA 2030, and ASHRAE's High Performance and Advanced Energy Design Guides.

ZMM
ARCHITECTS
ENGINEERS

Sustainable Design

Over the last several years, there has been a growing recognition of the need to design more efficient buildings, as it has been demonstrated that buildings are the primary energy consumers in the country. This recognition has led to a focus on the design of net zero buildings. While there are a variety of definitions for a net zero building, the organization that establishes the energy standards that are referenced in our building codes, the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE), defines a net zero building as "a building which, on an annual basis, uses no more energy than is provided by the building's on-site renewable energy sources." Simply stated, it is a building that annually makes more energy than it uses. The Federal Government has taken a leadership role in advancing the net zero standard with a mandate that all new federal buildings that are entering the planning process in 2020 or thereafter be "designed to achieve zero-net-energy by 2030." Several organizations, including the American Institute of Architects (AIA), are supporting the 2030 Challenge which states that "all new buildings, developments, and major renovations shall be carbon-neutral by 2030."

ASHRAE™

Achieving this level of reduced energy consumption required to develop a net zero building can be accomplished with a variety of strategies, including:

- Maximizing the Building Orientation/Massing
- Harvesting Daylight
- Designing and Constructing an Efficient Building Envelope
- Designing Efficient Mechanical Systems
- Utilizing Efficient Lighting (LEDs)
- Commission the Building Systems
- Work with Building Occupants and Maintenance Staff to Minimize Energy Use

Once the building has been designed to reduce energy consumption, the second requirement to develop a net zero building is to install a renewable energy system on-site that generates as much energy as the building will utilize per year. Regardless of any stated sustainability or energy-efficiency goals, a good first step when planning a new facility is understanding current energy use, which allows ZMM to assist by establishing specific design targets to achieve maximum system efficiencies with current technology. Establishing these goals early in the design process allows our clients to benefit from advancements in renewable energy efficiency (and cost), with a goal of ultimately designing the most energy-efficient and net zero facilities without sacrificing indoor air quality or thermal comfort. Whether our client elects to develop a LEED certified building, a net zero facility, or decides to simply focus on reducing energy consumption, ZMM welcomes the opportunity to help improve the efficiency of the built environment in West Virginia.

References

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