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

State of West Virginia
Centralized Expression of Interest
Architect/Engr

Proc Folder: 1050458	**Reason for Modification:**
Doc Description: EOI: Physical Education Building Renovations and Evaluations	
Proc Type: Central Contract - Fixed Amt	

Date Issued	Solicitation Closes	Solicitation No	Version
2022-06-24	2022-07-12 13:30	CEOI 0403 DBS2200000002	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code:

Vendor Name : ZMM Architects and Engineers

07/11/22 11:16:27
West Virginia Purchasing Division

Address :

Street : 222 Lee Street, W.

City : Charleston

State : WV **Country :** USA **Zip :** 25302

Principal Contact : David Ferguson

Vendor Contact Phone: 304.342.0159 **Extension:** 239

FOR INFORMATION CONTACT THE BUYER
Joseph E Hager III
(304) 558-2306
joseph.e.hageriii@wv.gov

Vendor Signature X **FEIN#** 550676608 **DATE** 7/8/22

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

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

(Name, Title) _____

(Printed Name and Title) David Ferguson, Principal

(Address) 222 Lee Street, West, Charleston, WV25302

(Phone Number) / (Fax Number) 304.342.0159 / 304.345.8144

(email address) ferguson@zmm.com

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contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise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

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

ZMM Architects and Engineers

(Company) _____

(Authorized Signature) (Representative Name, Title)

David Ferguson, Principal 7/8/22

(Printed Name and Title of Authorized Representative) (Date)

304.342.0159 / 304.345.8144

(Phone Number) (Fax Number)

ferguson@zmm.com

(Email Address)





WEST VIRGINIA SCHOOLS
for the DEAF and the BLIND

Expression of Interest for:

WV School for the Deaf and the Blind

301 E. Main Street, Romney, WV 26757

Physical Education Building Renovations and Evaluation

DBS2200000002

ZMM
ARCHITECTS
ENGINEERS

Dickinson + Partners
Uniting Education, Special Needs & Architecture
www.dickinsonpartners.com

July 8, 2022

July 8, 2022

Mr. Joseph Hager III, Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East
Charleston, WV 25305

ZMM
ARCHITECTS
ENGINEERS

Subject: Physical Education Building Renovations and Evaluation at the WVSDB (DBS2200000002)

Dear Mr. Hager:

ZMM is pleased to submit the attached qualifications that demonstrate our experience and capability to provide architectural and engineering services. ZMM has joined efforts with Dickinson & Partners, a leader in special needs design. This team combines a trusted local resource, ZMM, with the nation's leading designer for educating facilities for the deaf and the blind.

ZMM is one of few full-service A/E Firms in West Virginia and is noted for design excellence and client focus. ZMM and Dickinson & Partners have completed several projects together including the 2010-2020 Comprehensive Educational Facility Plan. Our team has conducted a multitude of meetings and extensive field investigations that reviewed all the buildings and building systems on campus. The investigations included field measurements of all buildings and developing floor plans in CAD a part of the CEFP process. Recent renovations include multiple upgrades and renovations to Keller Hall, improvements and renovations to Seaton Hall, and renovations to the Blue and Gold Building.

ZMM has completed over 200 educational facilities throughout the state. Our experience in West Virginia spans five decades and has been recognized with both statewide and national planning and design awards. Dickinson & Partners (D&P) offers extensive experience in Programming and design of educational and student housing facilities for the deaf and blind, with the goal of enhancing performance and meeting the needs of owners and users. D&P has been recognized as being among the top firms in the country in areas of special needs, designing various educational centers throughout the states of Virginia, Pennsylvania, New York, and most recently Qatar.

ZMM employs all of the disciplines in-house to undertake the project upgrades outlined in the expression of interest. If selected to provide design services, one of ZMM's office locations is in Martinsburg, WV and would be in close proximity to the project and staff would be readily available to assist WVSDB. David Ferguson, AIA – Project Principal and John Dickinson, AIA – Project Principal, two professionals with considerable experience and a history of working closely with the West Virginia Schools for the Deaf and the Blind will provide the WVSDB with a single, central point of contact for all of the design work, while simultaneously allowing all of the work to progress.

Thank you for taking the time to review the attached information that details our project team, firm profiles, experience, qualifications, personnel, and references. Additionally, please visit our website zmm.com to learn more about working with ZMM from a client's perspective. We look forward to presenting our ideas for this project and appreciate your consideration.

Respectfully submitted,

ZMM, Inc.

David E. Ferguson, AIA, REFP
Principal

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

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

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

TABLE OF CONTENTS

COVER LETTER

01 PROJECT APPROACH AND UNDERSTANDING

02 FIRM PROFILE
ZMM HISTORY AND SERVICES
JOHN DICKINSON + PARTNERS

03 RELEVANT DESIGN EXPERIENCE

04 ADDITIONAL RENOVATION EXPERIENCE

05 QUALIFICATIONS
Key Personnel

06 CLIENT REFERENCES

PROJECT APPROACH AND UNDERSTANDING

Based upon information provided in the Expression of Interest, ZMM understands that the West Virginia School for the Deaf and the Blind intends to renovate and evaluate the Physical Education Building.

On any renovation/addition project one of the main challenges is clearly identifying a project scope that can be delivered within the proposed budget. To help resolve this issue, ZMM recommends a 2 phase approach for renovation projects. The first step involves ZMM's architectural and engineering staff to ommence this process with a review of all available building drawings and will perform a full on-site investigation and evaluation of the existing building conditions.



WEST VIRGINIA SCHOOLS for the DEAF and the BLIND

ZMM will review any documentation including funding applications, plans, specifications, photographs, and any reports that exist. Additionally (if required), 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, Structural, Electrical, and Mechanical Engineers. The team will focus the investigation on the following systems:

- Life Safety and Egress (Coordinated with the State Fire Marshal)
- Plumbing Systems
- Electrical Service and Distribution, Emergency Power
- Lighting
- Mechanical Systems
- Data/IT Infrastructure
- Security Systems

Project Approach and Understanding (cont.)

Once the investigation effort is complete, the design team prepares an estimate of the probable construction cost. The estimate will then be used to confi rm the scope (with the funding application). 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.

Tracking and Managing Design: ZMM follows standard SBA guidelines for planning, design, and construction. The design phases consist of Planning, Schematic Design, Design Development and Construction Documents. During the various design phases, ZMM will work collaboratively with all team members

Teamwork is the key to a successful design and construction process, and we commit to working with West Virginia School for the Deaf and the Blind and the contractor to help ensure the success of the project. ZMM's Principal in Charge and Project Architect will be the primary contact on the project and lead the design effort and management throughout the design process.



Processing Submittals and Shop Drawings: The contractor will submit product submittals and shop drawings to ZMM. ZMM will require the following from the contractor:

1. A fully executed submittal cover sheet must be attached to each submittal.
2. Formal submission of coordination drawings approved by all subcontractors as required.
3. Contractor to submit a copy of the daily construction reports.
4. Electronic submissions of drawings and product data are acceptable. Actual product samples must be submitted to determine kind, color, pattern, and textures.

Construction Administrative Responsibilities: ZMM recently modifi ed the way we provide construction administrative services to improve the service we provide our clients. The ZMM project architect will now serve as the primary representative of ZMM and will attend all construction progress meetings. ZMM also employs an in-house construction administrator (who will assist the project architect) and an administrative assistant who tracks all information (incoming and outgoing) during the construction phase to ensure ZMM is being responsive to project needs.

Typical construction phase services include the following:

1. Attendance at Pre-Construction Meeting
2. Observation of Construction Progress
3. Working Collaboratively with the Team
4. Serve as the Liaison Between the Owner and Contractor
5. Attend Biweekly Site Visits/Construction Progress Meetings
6. Responsible for Attending Pre-Installation Meetings
7. Attends Progress Meetings
8. Certify Applications for Payment by the Contractor
9. Process RFI's, Submittals and Change Orders



Project Approach and Understanding (cont.)

ZMM has recently updated our front-end documents to ensure we receive all required information from the contractor. This was accomplished by tying the processing of pay applications to the submission of this required information.

At ZMM, we strive to be the best. Our Quality Assurance/Quality Control Program is one step in the process of exceeding our clients' expectations, and includes the following:





- **Selecting the Project Team:** ZMM's diverse staff ensures that each project team is made up of highly qualified members, each dedicated to the project's success. Project team members are selected based upon relevant experience, and ability to help achieve the client's vision. Our proposed team for the project is composed of professionals from ZMM with experience designing schools throughout West Virginia and Virginia.
- **Identifying Project Requirements:** Project team members are fully integrated in each phase of the design process, ensuring a quality project from the beginning, and to take advantage of early sustainable design decision-making. The project requirements are included in a 'Basis of Design' that each member of the project team can access. The 'Basis of Design' helps guide important project decisions.
- **Identifying Client Expectations:** Knowing and understanding our clients' expectations is our goal. This knowledge gives our team a baseline for exceeding expectations. We will commence the design effort with a planning session to help identify your vision for the project.
- **Ongoing Project Reviews:** As part of the ongoing project reviews, we conduct quality assurance evaluations during each stage of the project:
  - Schematic Design Phase
  - Design Development Phase
  - Construction Documents Phase
  - Construction Administration Phase

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

- **Post Project Review:** At the completion of every project our staff members participate in a learning session to gain insight useful for future projects. These reviews typically include participation from the owner and the contractor.

- **Staff Training, Assessment and Enhancement:** Ongoing staff development and training is very important to ZMM Architects and Engineers. Providing increased opportunities for learning and advancement leads to improved employee performance and more successful projects for our clients.

Project Approach and Understanding (cont.)

Project Goals

The WV Schools for the Deaf and the Blind and the WV Board of Education have established goals and objectives for the projects listed below. ZMM will follow the project approach as outlined above; review design solutions / discuss manufacturer / product preferences with WVDE project representatives, prepare bid documents, manage the bidding process, perform construction administration, and include the following steps for each project:

Goal / Objective #1: Design and Replacement of the Membrane Roofing System on the PE Building. To achieve this goal and objective, ZMM will document and review existing conditions, take core samples of the existing roofing assembly to determine insulation thickness, recommend testing for presence of hazardous materials, and examine the existing roof decking to confirm the suitability and determine if replacement in some areas would be required.

Goal / Objective #2: Design and Replacement of the Windows and Doors for the PE Building. To achieve this goal and objective, ZMM will document and review existing conditions, review existing door hardware requirements / preferences with the WVDE, and recommend testing of glazing compounds to determine if any hazardous material s present.

Goal / Objective #3: Evaluation of the Existing Pool in the PE Building. To achieve this goal and objective, ZMM will document and review existing conditions, review the existing structural systems and obtain a pool design consultant if deemed neccessary.

ABOUT
ZMM ARCHITECTS & ENGINEERS

ZMM was founded in 1959 in Charleston, West Virginia by Ray Zando, Ken Martin, and Monty Milstead. Since the inception of the firm, ZMM has been dedicated to providing an integrated approach to building design for our clients.

ZMM delivers this integrated approach by providing all building related design services, including architecture, engineering (civil, structural, mechanical, and electrical), interior design, and construction administration with our in-house team. Our integrated design approach makes ZMM unique among architecture/engineering firms, and helps to ensure the quality of our design solutions by providing more thoroughly coordinated construction documents.



ZMM has maintained a diverse portfolio since the founding of the firm. Early commissions included higher education projects for West Virginia University and Concord College, State Office Buildings 5, 6, & 7 on the State of West Virginia Capitol Campus, and armories for the West Virginia Army National Guard.

Maintaining a diverse practice for over 60 years has provided ZMM with extensive experience in a variety of building types, including educational facilities, governmental facilities (military, justice, correctional), healthcare facilities, recreation facilities, commercial office space, light industrial facilities, and multi-unit residential buildings.

The original partners transferred ownership of the firm to Robert Doeffinger, PE and Steve Branner in 1986. Mr. Doeffinger and Mr. Branner helped guide and expand the firm to its present size of 35 people. Over the past 20 years David Ferguson, AIA, and Adam Krason, AIA, LEED-AP joined in ownership of the firm. In 2020, Randy Jones also joined in ownership of the firm when ZMM acquired Blacksburg-based OWPR Architects & Engineers to create a regional design firm that employs more than 50 highly-skilled professionals.



ZMM has become a leader in sustainable / energy-efficient design, and a trusted resource on complex renovation projects. ZMM's unique renovation project approach and ability to

ZMM ARCHITECTS ENGINEERS

About ZMM Architects & Engineers (cont.)

provide comprehensive design services has also led the firm to be selected to improve landmark buildings, including the Charleston Coliseum & Convention Center, the Clay Center for the Arts and Sciences, the State of West Virginia Culture Center, and the West Virginia State Capitol Building. Additional significant projects designed by the firm include the Explorer Academy (Cabell County Schools), the Logan-Mingo Readiness Center, the Manassas Park Community Center and Natatorium, the design of the Fourth High School (Frederick County Public Schools), the new Harrington Waddell Elementary School (Lexington City Schools), CAMC Teays Valley ICU, and Ridgeview Elementary School (Raleigh County Schools). ZMM has also provided design services on more than 300 school projects throughout the region.

ZMM's building-related design services include:



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

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



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

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

As ZMM looks to the future, we remain committed to the ideal of providing high-quality, client-focused design solutions that meet budget and schedule requirements. We listen, we respond promptly with innovative and efficient solutions, and we deliver quality projects and develop lasting relationships. You see us in YOUR community every day.



AWARD WINNING DESIGN

2020

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

AIA West Virginia Chapter: Merit Award
Achievement in Architecture
Ridgeview Elementary School
Crab Orchard, West Virginia



2019

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



2018

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



2017

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

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



2016

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



ZMM
ARCHITECTS
ENGINEERS

AWARD WINNING DESIGN

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



2015

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



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

2014

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



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

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



2012

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



2011

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

ZMM
ARCHITECTS
ENGINEERS

Dickinson + Partners

www.dickinsonpartners.com

Firm Overview



American School for the Deaf - New Gallaudet-Clerc K-12 Education Center

CORE EXPERTISE

Dickinson + Partners (D+P) offers extensive experience in programming and design of educational and housing facilities for the deaf and the blind, with the goal of enhancing performance and meeting the needs of owners and users. Although substantial guidelines exist for addressing design needs for persons with mobility impairments, little formal literature exists that describes the special programming requirements for deaf and blind populations. In response to this need, D+P was founded in 2001 to provide facilities programming and design for special needs projects including facilities deaf, blind, and mobility-impaired users. D+P has consulted on projects all over the world and been recognized as one of the top firms in the world in the area of special needs programming and design. Our clients appreciate our ability to meet schedules, honor budgets and solve problems.

The design of innovative living and learning environments has long been a cornerstone of Dickinson + Partners practice. The profile of designing for today's special needs education facilities is changing. State governments and school agencies are upgrading and expanding programs, facilities and systems to meet new standards, set forth by the Americans With Disabilities Act (ADA) and the International Disabled Standard (IDS) guidelines. In addition, continual advancements in technology and the constant need for adaptive reuse require agencies, architects and planners to be forward-thinking and solution oriented. Plans must provide for new and effective visual and functional communication access for special needs students and their staff.

We Listen, Innovate, and Deliver.

One of the truly measurable, tangible attributes we bring to any project is our adept ability to listen, comprehend, and communicate closely with you every step of the way. We communicate in a language and a manner that is meaningful and of value to you. We do not bring our own agenda or prescription for the design of your building. Instead, we develop ideas and solutions that are custom-tailored for you, and are derived from the unique participants and circumstances that frame any given design venture. You will have at your fingertips a top team with experience and passion for this project type, all whom are committed to elevating the genre of each component each phase of the way.







425 West Capitol Avenue, Suite 1528 Little Rock, AR USA 72201 - 720.459.5273 Voice/VP - Email: info@dickinsonpartners.com

RELEVANT EXPERIENCE

WV Schools for the Deaf and the Blind

2022

- Blue & Gold Building Renovations (Currently in Design). The scope of work is to completely renovate the existing Blue & Gold Building to accommodate 2-3 meeting / conference rooms, small kitchenette or café style kitchen, student activity space, toilets and building support space. The existing HVAC systems, plumbing, electrical, interior partitions, ceilings, and finishes will be removed as part of this renovation. All exterior windows and exterior doors will be replaced and a new fire suppression system and fire alarm system will be included in this project. Exterior ADA access to the building and a new water service / fire service entrance will be included in the design documents.



- Keller Hall Re-Roofing (Currently in Design). The scope of work is to re-roof Keller Hall. The project would include replacement of the existing roofing membrane, rigid insulation, metal coping, and perimeter wood nailers. A new roof hatch will be included in the project.

- ZMM Architects & Engineers conducted a study and evaluation of architectural and engineering components of Seaton Hall for the purpose of short-term planning and budgeting. As part of the building assessment, ZMM provided recommendations for renovations and equipment replacement. which generated a list of capital projects. This project list outlines a scope of work along with recommendations on what time of year the work should commence, approximate duration of the construction and if phased construction should be considered. As the projects were developed, consideration was given to concerns of potential major equipment failures which could

not only render the building unusable for a period but could also result in a large, unexpected capital expense.

The evaluation process was to determine the viability of the complex of buildings and determine the cost / benefit to renovate the existing aging facility so it may return to use. Comparisons of building renovation costs / maintenance cost versus complete building replacement were generated. The proposed projects outlined in this study will rehabilitate the existing building and provide the WV Schools for the Deaf and the Blind a long-lasting facility that will not require significant renovations for thirty to forty years.

2020

- In 2020 ZMM prepared the floor plans for Keller Hall and started to develop the overall standard for each building plan for the campus books.
- ZMM has developed plan books and campus maps for multiple higher education institutions throughout WV, including:
  BridgeValley CTC
  New River CTC
  Southern WV CTC
  Mountwest CTC
  WVSU
  WVSOM





2019

- In 2019 ZMM provided design services for renovations to Seaton Hall. This included a new walk-in freezer, improvements to the loading dock, new power generator, and ADA renovations (exterior

- stairs and ramps). Portions of this work was completed by the U.S. Military. ZMM had to conduct structural assessments on the portion of the old bakery that the U.S. Military demolished.



- ZMM provided design services for the exterior masonry restoration and reroofing for the Blue & Gold Building. This building is on the national historic register and the renovations had to be approved by WVSHPO.

- ZMM provided design services for vehicle gates around Keller Hall.

- ZMM provided design services for demolition of the Arnold House and construction of the new parking lot at IRC. Design included site lighting (which Owner has purchased light poles). Lot is currently graded gravel.

- ZMM provided design services for the demolition of the Arnold House and the partial demolition of the Old Bakery at Seaton Hall. These buildings were on the national historic register and the demolitions/renovations had to be approved by WVSHPO.

- ZMM designed the renovations to Keller Hall. This project was a very short design time to accommodate the 2019 project with the U.S. Military. This renovation included upgrades to the water service, electrical service upgrades, restroom / shower renovations, ADA renovations, new food service kitchen and interior finish renovations.



WEST VIRGINIA SCHOOLS for the DEAF and the BLIND

- ZMM did the roof replacement on Blue & Gold, and ZMM has replaced roofs on educational facilities throughout West Virginia.

- At Seaton Hall in 2019, ZMM designed the emergency generator for the building as part of the new freezer installation.

- ZMM has designed full-building generators for educational facilities, healthcare facilities, and military facilities throughout West Virginia.



ZMM ARCHITECTS ENGINEERS

ROOF REPLACEMENTS

State Office Buildings 5,6, & 7 - Roof Replacement
WV Capital Complex
Charleston, WV
Replaced existing roofing system with new fully adhered tapered insulation and new modified bitumen roofing system. The project involved major renovations to the cooling tower screens and installing a reflecting coating on the roofs surface. The project was a standard design, bid and build project of 57,560 square feet for $1,560,000.00 and completed in 2011.



Cedar Lakes Conference Center - Reroofing
Ripley, WV
Installed new standing seam metal roofs and making miscellaneous repairs to 11 buildings. Project was a standard design, bid and build project of a total of 53,810 square feet for $550,000.00 completed in 2006.



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



Greenbrier County Board of Education
Smoot Junior High School Gymnasium
Rupert Elementary School, High Roof
Greenbrier West High School – Building 'C'

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



- Wayne County Schools (6 Schools)
- Boone County Schools (4 Schools)
- Nicholas County Schools (3 Schools)
- Mason County Schools (Multiple Facilities)
- Ranson Elementary School (Partial)
- Greenbrier County Schools
- Pleasant Hill Elementary School
- Keyser Middle School
- WV School of Osteopathic Medicine (Multiple Facilities)

ZMM ARCHITECTS ENGINEERS

WINDOW REPLACEMENTS

- WV State Office Buildings 5, 6, & 7
- Cedar Lakes Conference Center
- Bridgemont Community & Technical College
- Hamlin Middle School
- Cabell County BOE Office
- Tiskelwah Center
- Culloden Elementary School
- Ona Elementary School
- Geneva-Kent Elementary School
- Altizer Elementary School
- Salt Rock Elementary School
- Meadows Elementary School
- Mason County BOE Office
- General Services Administration
- Dunlow Elementary School
- Peyton Elementary School
- WV Rehabilitation Center
- Richwood High School
- Ranger Elementary School
- Hamlin Pk-8 School









ZMM ARCHITECTS ENGINEERS



WEST VIRGINIA SCHOOLS FOR THE DEAF & THE BLIND

LOCATION	SIZE	COMPLETION	COST
ROMNEY, WV	300,000 SF	2019	$2M

Per the direction of the WV Board of Education and the WV School Building Authority, the West Virginia Schools for the Deaf and the Blind completed the task of creating a Comprehensive Educational Facility Plan (CEFP).

ZMM combined forces with Dickinson & Partners, a firm specializing in special-needs architecture, to understand the requirements and challenges faced when designing for the deaf and blind student population. The purpose of the CEFP is to provide the owner a long-range plan that addresses the requirements for new construction and major renovations. Comprehensive planning is a way of identifying the best route to the future through a workable plan for handling priority-related and anticipated changes. The CEFP defines ultimate goals for the institution and accounts for the facilities required to achieve these goals. The goals are defined, then realized through several phases of construction, if necessary.

Once the planning effort was complete, ZMM designed several improvements that were implemented by the WVSDB and the Department of Defense. The scope of work included restroom and dormitory renovations, as well as masonry restoration and roofing replacement.





ZMM ARCHITECTS ENGINEERS

Dickinson + Partners

Uniting Education, Special Needs & Architecture
www.dickinsonpartners.com

New Gallaudet-Cleric K-12 Educational Center
American School for the Deaf
Hartford, Connecticut





Completion Date: October 2013, **Renovation:** Current

Square Footage: 55,000 **Construction Cost:** $17,000,000

Dickinson + Partners Project Team:

John Dickinson , AIA—Project Architect/Consultant

Reference:
American School for the Deaf
Jeffery Bravin, Executive Director
Thomas Wood, COO
139 North Main Street
West Hartford, CT 06107
(860) 570-2300



Old Gallaudet Hall

Founded in 1817, American School for the Deaf (ASD) is the first permanent school for the deaf in the United States and is the birthplace of American Sign Language. It is a world renowned leader in providing comprehensive educational programs and services for deaf and hard-of-hearing students.

The concept for the new K-12 Educational Center was to replace the 100,000 square foot 1930's era Gallaudet Hall and to create the social hub of the campus. The site solution for the project resolves several key areas in the heart of the campus, primarily the main campus green.

The new building opened the 2013 school year and is specially designed to address the unique learning style of deaf and hard of hearing children. This includes state-of-the-art amplification equipment, proper levels of lighting, a visual public address system and the latest educational interactive whiteboard technology. The design features 26 classrooms with science and life skills labs, counseling, speech, occupational and physical therapy workspaces as well as a library, Student Health Center, food service and cafeteria.

The new facility will also incorporate specialty birth to three spaces and an audiological suite and a multipurpose room which can be used by the community







WV STATE OFFICE BUILDINGS 5, 6, & 7

LOCATION
CHARLESTON, WV

AWARDS
2011 AIA WV MERIT AWARD

Nearly 50 years ago, ZMM (as Zando, Martin & Milstead) designed the original West Virginia State Office Buildings 5, 6, and 7.

Over the past decade, ZMM has assisted the State of West Virginia General Services Division with various improvements to the buildings, which commenced with an assessment that examined the condition of the buildings, as well as cost and phasing options for various upgrades. Improvements undertaken have ranged from substantial renovations to maintenance and repair projects. ZMM provided design services for the renovation of the 10th Floor of Building 5 for the Office of Technology, which focused on demonstrating the potential for renovating the floors 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 was delivered considerably under the anticipated budget.

The next phase of renovation involved abatement, demolition, new construction, and updated life safety systems. ZMM assisted with roof replacement for all three buildings, utilizing white EPDM roofing material, with consideration being given to sustainability. ZMM also assisted with expanding the electrical courtyard, improving the electrical service entry, replacing windows and entry doors, providing design services to replace the caulk between the exterior limestone and precast panels, and a valve replacement project to isolate mechanical risers.





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Dickinson + Partners

Uniting Education, Special Needs & Architecture
www.dickinsonpartners.com

Minnesota State Academy for the Deaf
Wilkins Hall
Fairbault, MN USA





Construction Cost: $ 11,000,000
Size: 35,000 GSF

Year of Completion: 2018
Project Team:
John Dickinson, AIA –Design Architect/Consultant
Julie Husband, AIA— Project Manager

Client:
State of Minnesota
Minnesota State Academy for the Deaf
Supt. Terry Wilding
615 Olof Hanson Dr.
Faribault, MN 55021





This 44 bed residence hall for the Minnesota State Academy for the Deaf (MSAD) in Faribault, MN consolidates boys and girls together in a single shared facility. Built to replace aging and inefficient existing Frechette Hall, it is the first new residence hall built on campus since the 1960's. Conceived of as a **"Go home Go School concept"** the building is comprised of two main wings connected by a single story entrance lobby. Beyond housing its students, the new dormitory creates an iconic campus space for the MSAD and strengthens the relationship to the existing campus buildings. The two story building steps with the sites topography to reduce its apparent height and allow for seamless and accessible connection between inside and out. Finished with warm materials, comfortable furniture and flooded with daylight, the residence hall employs the principals of Deaf Space to create a homelike environment that is tuned to deaf sensibilities.

Designing spaces for Deaf-Hard of Hearing and Low-vision users were built upon the ADA's guidelines and includes acoustic considerations: ambient, mechanical, and material noise, but also lighting. By designing the spaces to include diffused natural light, minimizing corners and niches, using simple texture and color variations we were able to improve visibility between spaces. These details were combined with legibility of the floor plan to create a highly accessible facility to meet their programmatic needs.

The design team collaborated early to clearly identify strategies to guide team members through design and construction to achieve Minnesota B3 standards. Specific attention was focused on maintaining high indoor environmental quality through creative and intentional control of daylighting, vibrations, thermal comfort, and acoustics for a user demographic sensitive to light, sound, and vibrations.

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Campus-wide Master and Utilization Plan
Tennessee School for the Blind
Nashville, TN USA



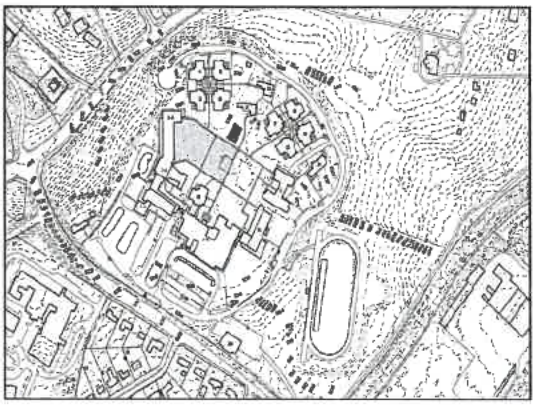
Services:

Masterplanning
Facilities Condition Assessment
Facility Optimization Solutions
Special Needs Life and Safely Planning
Utilities Assessment

Total Square Footage: 180,000 GSF

Project Highlights:

120 acres / Expansive Views
Pedestrian Boulevard
Separation of Pedestrian and Vehicular Traffic
Life and Safely Plan for the Blind and VI



Per the direction of the State of Tennessee, the Tennessee School for the Blind has undertaken the task creating Campus-wide Master and Utilization Plan (CMUP).

The purpose of the CMUP is to provide the owner a long range plan that addresses the requirements for new construction, major renovations and utilization issues. Comprehensive master planning is a way of identifying the best route to the future through a workable plan for handling priority related and anticipated changes. The CMUP defines ultimate goals for the institution and accounts for the facilities required to achieve these goals. The goals are defined then realized, if necessary, through several phases of construction.

Along with Dickinson + Partners team, Stakeholders group was established consisting of locals, teachers, staff and the community. The ultimate goal is to develop a comprehensive facility plan that hinges on close collaboration with students and educators in creating personalized facility metrics in support of the State's mission. An fundamental part of any master plan creates alignment between facilities and educational goals. An Educational Optimization Assessment measures:

CAPACITY for students and specific program needs

BALANCE and COMFORT of formal, informal and productivity of learning environment

TECHNOLOGY alignment to amplify learning for the Blind

SECURITY and supervision components



HIGHER EDUCATION CAMPUS DEVELOPMENT PLANS

LOCATION
WEST VIRGINIA

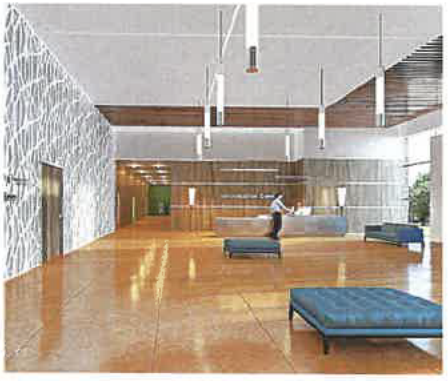
COMPLETION
2012 - PRESENT

ZMM Architects & Engineers has created Campus Development Plans (often referred to as Master Plans) for a variety of institutions throughout West Virginia.



These plans have been developed for:

- West Virginia State University (in association with TERRADON)
- New River Community and Technical College
- Southern West Virginia Community and Technical College
- BridgeValley Community and Technical College



Details of these plans are as follows:

West Virginia State University

ZMM Architects & Engineers, in conjunction with BSP and TERRADON, were selected to develop a 10-year Campus Development Plan for West Virginia State University's campus in Institute, WV. The project commenced with a review of all existing information available about the campus and targeted facilities. Following the stakeholder meetings, ZMM conducted building assessments of the major academic buildings, as well as the kitchen adjacent to the main dining area. This information was supplemented by a recent campus building inventory that had been conducted. The information gathered through this variety of activities was

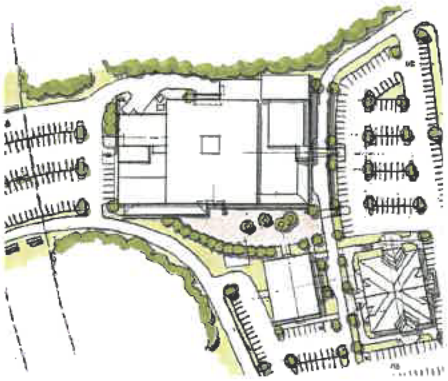
ZMM ARCHITECTS ENGINEERS

Higher Education Campus Development Plans (cont.)

then synthesized into an overall campus development plan. The plan, which covers a 10-year period, projects the need for new construction, property acquisition, site improvement and building renovation, and includes a phased approach for the implementation of campus improvements. The document is supplemented with a visual master plan that reflects the implemented improvements.







New River Community and Technical College

ZMM Architects & Engineers worked with New River Community and Technical College to develop a Master Plan that improved the efficiency of space usage across the school's four campuses:

- Raleigh County (including Ghent ATC)
- Lewisburg
- Princeton
- Summersville

When the plan was completed, New River Community and Technical College had elected to reduce their overall footprint from 14 to 7 facilities. This improved the efficiency of space usage from 262 SF/FTE to 190 SF/FTE. ZMM visited the remaining facilities to develop a plan to address deferred maintenance issues. The plan also anticipated a modest addition to the facility in Summersville to accommodate several programs that are currently housed off-site.

Southern West Virginia Community and Technical College

ZMM Architects & Engineers commenced the Southern WVCTC master planning process by having a team of architects and engineers visit all of the campuses and sites:

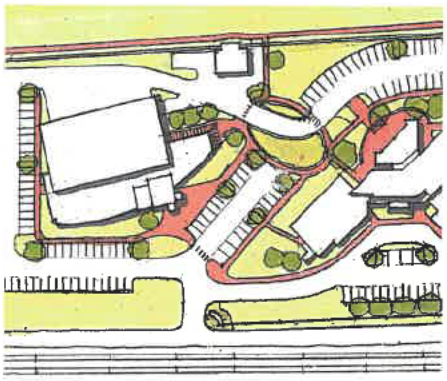
- Logan Campus
- Williamson Campus
- Boone Campus/Lincoln Site
- Wyoming/McDowell Campus

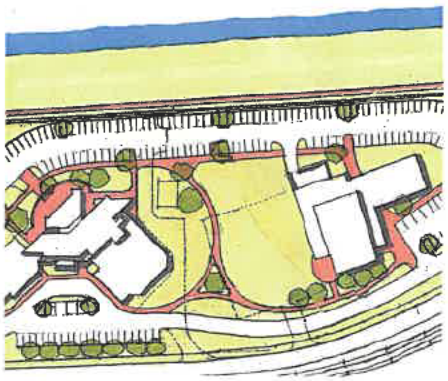
Following these campus visits, ZMM conducted stakeholder meetings at each location. At the meetings stakeholders discussed positive attributes, challenges, and needs for each facility and campus. Following the stakeholder meetings, an Executive Steering Committee was convened to review the outcomes of the stakeholder meetings, and to assist



Higher Education Campus Development Plans (cont.)

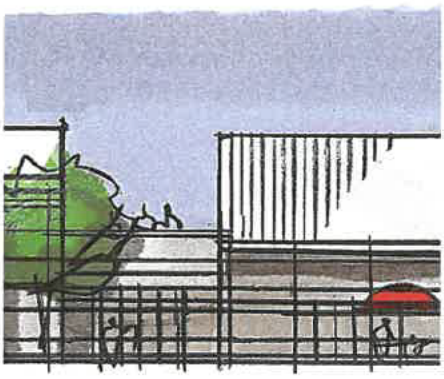
in developing an overall strategy and framework for the plan. Based upon these meetings, several themes emerged that helped guide the development of the Master Plan. It was determined that the plan would include standards for signage, lighting, and exterior finishes. Additionally, although a significant expansion of facilities is not envisioned, the Master Plan will include the potential development of a new facility on property that has already been acquired adjacent to US 119. This new facility will replace the Boone County Campus, which is currently located in a shared facility with the Boone County Career and Technical Center. The new facility would serve as a gateway to Southern's other facilities, and the location on US 119 will give the College the opportunity to draw additional students from the greater Charleston area. Due to the scope of the development of this new facility, the Master Plan includes a strategy to address improvements both with and without the new Boone County Campus. Other potential improvements included updating Southern's two largest facilities - Building 'A' on the Logan Campus, and the Main Building on the Williamson Campus, as well as the development of *Student Success Centers* on all campuses (starting in Logan).

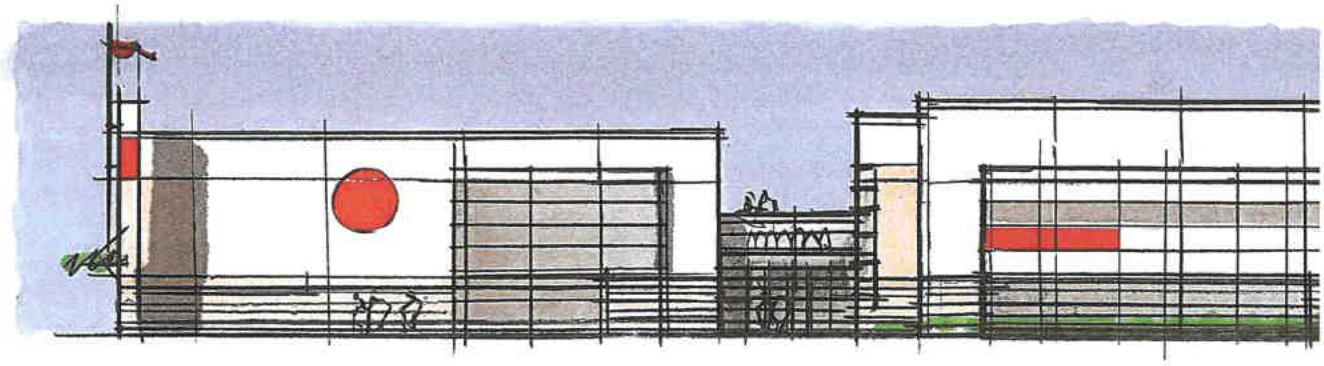




BridgeValley Community and Technical College

ZMM Architects & Engineers has produced several Campus Development Plans for BridgeValley CTC (previously Bridgemont CTC and Kanawha Valley CTC). The master plan includes assessments of existing facility conditions on the Montgomery and South Charleston Campuses, including deferred maintenance, building code issues, and energy efficiency. An analysis was included that identifies current and future space needs, parking requirements, current land use and future property acquisition, infrastructure development, sustainability, landscaping, and pedestrian circulation. The plan also includes project budgeting and a multi-year capital improvement plan. An assessment of the impact of projected enrollment and demographic changes on facilities was provided along with a delineation of how the campuses will interact and support each other and improve efficiency. Recent updates have included additional investigation of existing facilities on the Montgomery Campus and in the historic Elk City neighborhood on Charleston's West Side, as well as the Stone & Thomas Building in downtown Charleston.







CHARLESTON COLISEUM & CONVENTION CENTER

LEED SILVER

LOCATION	SIZE	COMPLETION	COST	AWARDS
CHARLESTON, WV	283,000 SF	2018	$100M	2019 AIA WV HONOR AWARD, CITATION & PEOPLE'S CHOICE AWARD

The Charleston Coliseum & Convention Center expansion and renovation was a transformational project for both the city of Charleston and West Virginia.

Our team built on the strong authentic character of Charleston to remake the Charleston Convention Center into a more efficient, sustainable, dynamic, and iconic best-in-class destination.

The design of the expansion and renovation of the Charleston Convention Center was 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, and trapping. This set the local character. Our design started with an organizational concept inspired by this history. The Convention Center has distinct active nodes to celebrate each activity; arena, convention, and banquet. These nodes are connected like the hills and cut-rock faces that are seen throughout the state, as people work to connect to each other through the landscape. The first critical design objective was to create separate entries and identities for the arena and convention center. This allowed for simultaneous events and clarity of use. For the Convention Center to thrive, it needed a real ballroom assembly space. Located overlooking the Elk River, the ballroom pre-function space is the most dramatic feature of the center.





ZMM ARCHITECTS ENGINEERS



MARSHALL UNIVERSITY SMITH HALL RENOVATION

LOCATION	SIZE	COMPLETION	COST
HUNTINGTON, WV	22,000 SF	2017	$920K

Smith Hall is located on Third Avenue on Marshall University's main campus in downtown Huntington, WV.

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

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





ZMM ARCHITECTS ENGINEERS



WOOD COUNTY TECHNICAL CENTER

LOCATION	SIZE	COMPLETION	COST
PARKERSBURG, WV	59,500 SF	2020	$10.4M

This project consisted of a two-story, 28,500 SF addition and renovation to the existing single-story 31,000 SF facility.

One-story and two-story areas were constructed on the south end of the existing building, which relocated the building's main entrance and added a bus loop and parking lot. The addition showcases the new entry lobby and a flexible 3,500 SF commons space for multiple classroom settings, large group events, and other public/community functions. The existing facility was dated and located adjacent to Parkersburg South High School. One of the owner's goals was to enhance the center's educational spaces and provide a separate identity for the technical center, differentiating it from the high school, as the center serves all students in Wood County.

The licensed practical nursing and adult education programs were relocated to the addition from another facility. 4,000 SF were added to the undersized welding shop. The new two-story area, administrative office area, and welding lab were constructed with a brick veneer façade. The new stair towers and entrance were clad in metal wall panels. The office suite areas were constructed with partitions, providing flexibility for future expansion or reconfigurations. The existing building was reconfigured to accommodate an options classroom, ProStart catering kitchen and classroom, and a therapeutic lab/classroom. Exterior windows and insulated panels were replaced, along with exterior doors and door hardware.





ZMM ARCHITECTS ENGINEERS



SOUTHSIDE ELEMENTARY / HUNTINGTON MIDDLE SCHOOL

LOCATION	SIZE	COMPLETION	COST	AWARDS
HUNTINGTON, WV	158,194 SF	2010	$27M	2011 AIA WV HONOR AWARD

ZMM designed the facility to maintain the historic character of the façade and auditorium, while replacing the remainder of the school. The community has maintained a landmark, while developing state-of-the-art schools.





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

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

ZMM ARCHITECTS ENGINEERS



RAVENSWOOD MIDDLE SCHOOL

LOCATION	SIZE	COMPLETION	COST
RAVENSWOOD, WV	40,000 SF	2019	$14M

Ravenswood Middle School is a unique project that addresses the critical design and societal issues of walkability, student safety, preservation, and efficiency.

The project was originally envisioned as a new school that would be located at a previously undeveloped site, which was located several miles from downtown Ravenswood. The site had been selected due to the lack of available property in the city. As part of the planning process, the project team developed an alternate solution to renovate and expand Ravenswood High School.

The existing Ravenswood High School was designed in 1960 by locally renowned architect Henry Elden, who has been recognized for the design of his Charleston-based residence and studio – Top O Rock. The high school campus was composed of three structures – an academic building, a gymnasium, and a performing arts building (auditorium). The structures were all designed in a modern style, with simple geometry, and an abundance of glass, masonry (natural stone and brick), and glazed tile. The middle school was designed to seamlessly connect all the existing high school structures in a way that complements the existing architectural features in a manner that is contemporary, but compatible.





Ravenswood Middle School (cont.)

The project scope included 40,000 SF of new construction to accommodate 360 students in grades 6-8. The two-story academic wing is located between the existing high school cafeteria and the auditorium, while the middle school physical education area is located between the cafeteria and the existing gymnasium. The placement of the academic wing allowed for the reallocation and reorientation of several existing classrooms from the high school to the middle school, which was also a response to declining enrollment.

Although the facility was designed to limit interaction between middle school and high school students, with separate bus loading/unloading areas and separate entrances for middle school and high school students, multiple shared spaces were included to improve efficiency. Those shared spaces, including a kitchen, cafeteria, and band room, will not be occupied by high school and middle school students simultaneously.

In addition to the middle school, upgrades were also made to the existing high school. These improvements include the replacement of the HVAC system, ceiling and lighting replacement, as well as minor interior and finish upgrades. The $14M project was completed and occupied in time for the 2019-2020 academic year. The educational planning and design approach has led to an efficient solution that improves student safety, preserves an important cultural resource, provides a walkable location for the middle school, and has secured "a viable educational facility within the City of Ravenswood for decades to come."









CABELL COUNTY EXPLORER ACADEMY

LOCATION	SIZE	COMPLETION	COST	AWARDS
HUNTINGTON, WV	60,000 SF	2016	$15M	2017 AIA WV MERIT AWARD

The Explorer Academy is the first of its kind in West Virginia – a school that employs an Expeditionary Learning model.

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

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







GIRL SCOUTS OF BLACK DIAMOND COUNCIL

LOCATION	SIZE	COMPLETION	COST	AWARDS
CHARLESTON, WV	24,650 SF	2013	$5M	2014 AIA WV MERIT AWARD

The 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-1900s, 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.

ZMM ARCHITECTS ENGINEERS

Girl Scouts of Black Diamond Council (cont.)

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 are more like a youth hostel than a camp. The rear of the Girl Zone/Urban Camp reflects 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 is a vibrant addition to the emergent west side community. The modern aesthetic of the facility will appeal to Girl Scouts and reflect one of the Girl Scouts' Journeys: *It's Your World – Change It!*





ZMM ARCHITECTS ENGINEERS

David E. Ferguson, AIA, REFP



Role
Principal

Professional Registrations
Registered Architect (WV, OH)
Recognized Educational Facility Planner (REFP)

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

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

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

Project Experience
WV Schools for the Deaf and the Blind, Romney, WV
Mr. Ferguson was the principal on multiple projects at the WVSDB. Projects include: 2010-2020 CEFP, Keller and Seaton Hall renovations, exterior restoration and re-roofing at the Blue and Gold building, campus floor plans and a multitude of other design services.

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

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

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

Marshall University - Smith Hall, Huntingotn, WV
ZMM worked closely with Marshall University professors to determine the correct acoustics to meet the accreditation needs for the college. Being an extension of the Fine Arts Department, the Owner also felt that it was necessary to address the overall aesthetics for a creative mind and inspire the students. Taking inspiration from the Thundering Herd, the building was transformed with a mature palette and pops of green selected by the renovation committee.

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

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

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

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

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

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

John C. Dickinson, AIA, CEFPI

Principal of Dickinson + Partners

Curriculum Vitae

Education:

Masters in Business Administration,
University of Phoenix, 1998

Bachelor of Architecture,
University of Kentucky, 1988

Diploma, E'cole des Architecture,
Paris, France, 1987

Professional Affiliations

American Institute of Architects (AIA)

Colorado School for the Deaf and
the Blind, Chair of the Board of Trustee

Council of Educational Facility
Planners International (CEFPI)

National Association of the Deaf (NAD)

National Autism Association (NAA)

John Dickinson is one of most prominent deaf architects in the world. A recognized expert in his field, John is often invited to speak, write and participate in conferences and lectures. Mr. Dickinson is the founder of Dickinson + Partners, a consulting firm that offers collaborative visioning, programming, design and planning expertise to schools throughout the country. A wide range of rich experiences have deepened John's perspective, allowing for a holistic approach virtually unparalleled in the industry. Creating architecture with some of the most renown educational architecture firms, he collaborates as an educational facility planner with some of the country's most thoughtful clients.

For over 30 years, John has planned and designed meaningful places for learners across the country. Through an exceptionally creative approach, he has designed schools and living spaces with both focused and playful spaces. As you review his portfolio, you will notice the breadth of artistic expression that results from listening to his client's desires. Working with a focus on community, John is a master at bringing together the school community, parents, students, and the larger community to create consensus and engagement.

Prior to founding Dickinson + Partners, John was Principal and Director of Special Needs Studio at Winter & Company an Architectural and Urban planning firm in Boulder, Colorado.

Professional Experience







AEC New K-12 Deaf School for Girls and Boys
Campus Master Plan, New K-12 Education Center
Doha, Qatar
(Photo left)

American School for the Deaf
New Gallaudet-Clerc K-12 Education Center
West Hartford, CT

Minnesota State Academy for the Deaf for the Deaf
New Residence Hall
Faribault, MN
(Photo left)

West Virginia School for the Deaf and the Blind
CEFP Project
Romney, WV

Tennessee School for the Blind
Campus Master Planning, and Utilization Plan
Nashville, TN
(Photo left)

Chris A. Campbell, AIA, LEED AP

ZMM ARCHITECTS ENGINEERS



Role
Project Architect

Professional Registrations
Registered Architect (WV)
LEED Accredited Professional
NCARB ([redacted])

Mr. Campbell joined ZMM in November of 2017. Prior employment experience includes serving in the capacity of Architect and Project Manager for a variety of projects. This experience includes Educational (K-12 and Higher Education), Commercial Offices, Automotive Dealerships, Justice (Homeland Security and Department of Justice Offices), and religious spaces. Mr. Campbell's responsibilities include programming, design, documentation, coordination of the architectural and engineering team, and construction administration. Project responsibilities comprised all duties from project inception to completion. Mr. Campbell began his career in 1996 and until 2006 was primarily working on K-12 educational projects throughout West Virginia. From 2006 until present the majority of his projects were Higher Education.

Project Experience

WV School for the Deaf and the Blind, Romney, WV
BridgeValley CTC Master Plan Update, Montgomery, WV
Williamstown Elementary School, Williamstown, WV
Wood County Technical Center, Parkersburg, WV
Nicholas County High School, Summersville, WV
Multiple Fayette County Schools – Fayetteville, WV
Staats Building Assessment, Charleston, WV

Stone and Thomas Build-Out for BridgeValley CTC
Mr. Campbell is the Project manager on the BridgeValley Community & Technical College renovation project. This project consists of renovating the existing Stone & Thomas building in downtown Charleston and relocating their headquarters here. Renovations include creating a student union and life spaces on the basement level. The street level will contain student life spaces, digital learning commons, 100-person classroom, and lecture stair to access the mezzanine level. The mezzanine will contain student services spaces. The second and third floors will contain classrooms, administrative and faculty offices. The fourth floor is comprised of allied health programs, with a simulated hospital floor for an enhanced education experience. The fifth floor contains multi-function laboratory spaces.

Education
Bachelor of Architecture, University of Tennessee, 1996

Employment History
2020 - Present, Board of Directors, ZMM
2017 - Present, Architect, ZMM
2006 - 2017, Architect, Project Manager, Charleston Area Architectural Firm
1996 - 2006, Architect, Project Manager, Charleston Area Architectural Firm

Civic Affiliations
- WV American Institute of Architects, President, 2006-2007
- WV American Institute of Architects, Executive Committee, 2001-2009
- WV American Institute of Architects, Intern Development Coordinator, 2000-2005
- University of Charleston, Interior Design Advisory Board (2014 - 2016)

Previous Work Experience

Arthur Weisberg Applied Engineering Complex, Marshall University, Huntington, WV
Mr. Campbell was the project architect on the new Applied Engineering Complex. The $52M, 145,000 SF five-story facility houses six academic and research programs. The facility was designed to promote collaboration and communication between departments, programs, faculty and students. Mr. Campbell was responsible for the overall management of the design team, construction documentation and construction administration. This project was awarded LEED Gold certification which was the first LEED certified building on Marshall University's campus. The sustainable design features include stormwater management which is also utilized as an educational tool. A green roof was utilized over the advanced materials testing laboratory. Stormwater is collected from the green roof and samples can be collected in a lower level laboratory allowing opportunities to study ecological effects of various plantings.

New Headquarters Building, Blue Ridge Community and Technical College, Martinsburg, WV
Mr. Campbell was the project architect for the new headquarters building for one of West Virginia's fastest growing Colleges. The $16M, 45,000 SF facility relocated several of the College's programs from an existing campus which could no longer support the growing student population. The three-story facility is comprised of classrooms, faculty offices, administration, science laboratories, allied health laboratories, and associated student support spaces. Mr. Campbell was responsible for the overall management of the design team, construction documentation and construction administration. In 2016, this project received a Merit Award from AIA West Virginia for the exterior massing of elements and the design intent to incorporate the historic buildings and factories/mills located in Martinsburg. A couple years after the completion of this project, Mr. Campbell presented the College's ten-year master plan to the State Council for the Community and Technical College System of West Virginia. Mr. Campbell was responsible for conducting on-site facility evaluations for all 3 campuses, conducted steering and vision meetings with the College's stakeholders, reported analysis, and prepared the final report.

Virginia Thomas Law Center for the Performing Arts, West Virginia Wesleyan College, Buckhannon, WV
Mr. Campbell was the project architect for the new $7M performing arts center. The design of the facility reflected the historic administration building while providing a vision for the future. The facility consists of a 374-seat performance hall, gathering spaces, dressing rooms, and building support spaces. The performing arts center was designed to be utilized by the and Theatre and Dance Department as well as offering a public facility for events and conferences. Mr. Campbell's project duties included facility programming, schematic design, overall management of the design team, construction documentation, and construction administration.

University High School, Monongalia County Schools, Morgantown, WV
Mr. Campbell was the project architect for the new 217,000 SF high school. The design of the $29M, 1,500 student facility was a throwback to the traditional school buildings with a large frontage presence consisting of classrooms. Mr. Campbell's project duties included facility programming, schematic design, overall management of the design team and construction documentation.

Ram Stadium, Shepherd University, Shepherdstown, WV
Mr. Campbell was the project manager for the new 2,100 seat home side bleachers and press box/ concessions building. The design of stadium and facility complimented the historic Shepherdstown and campus architecture. Mr. Campbell's project duties included, programming, overall management of the design team and construction documentation. In 2002, this project received a Merit Award from AIA West Virginia for the exterior massing of elements and the design intent to incorporate the historic buildings and factories/mills located in Martinsburg.

Carly Chapman



Role
Interior Designer

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

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

Project Experience

Southern West Virginia Community & Technical College, Williamson, WV Mrs. Chapman was the Interior Designer for the new Applied Technology Center. The 22,000SF building featured large, flexible teaching areas that can adapt as the curriculum changes for each program. The facility is the first step in the progression of a planned campus expansion that will ultimately include the adjacent Readiness Center. ZMM is also providing a new campus master plan, with a focus on creating green space and improving pedestrian and vehicular circulation. This project was designed to meet the USGBC LEED Silver standards.

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

WVSOM Tech Building Expansion (Testing Center), Lewisburg, WV
Mrs. Chapman is currently the Interior Designer on the design of the new testing center at WVSOM. The new testing center was designed to connect to the Tech Building to the CEC and will accommodate 220 students. The Testing Center does not

Education
Bachelor of Interior Design, University of Charleston, 2012

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

have exterior windows, features from both buildings including masonry banding and natural stone elements were used to provide human scale, while natural lighting is introduced in the concourse and pre-function space.

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

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

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

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

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

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

Pipestem Resort State Park Lodge, Pipestem, WV
Mrs. Chapman is currently the interior designer on the renovations to 88 guestrooms on first floor, bathroom expansions on the 7th floor, renovations to the dining area with a bar addition, renovations to all conference rooms, finish selections and renovations in the lobby. ZMM will be replacing the ceilings and lightings in all public spaces and guestroom corridors in the main McKeever lodge building. Mountain creek lodge will receive new roofing on the guestroom and restrooms in the tram building.

Robert Doeffinger, PE



Role
Engineering Principal

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

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

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

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

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

Selective Project Experience

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

Education
Master of Science Architectural Engineering, The Pennsylvania State University, 1976
Thesis: Air Change Measurements using a Tracer Gas Technique

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

Employment History
2005 - Present, President, ZMM
1983 - 2005, Vice President and Engineering Principal, ZMM
1976 - 1983, Mechanical Engineer

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

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

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

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

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

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

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

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

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

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

John Pruett, PE, LEED AP



Role
Senior Mechanical Engineer

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

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

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

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

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

Tucker County Courthouse Annex, Parsons, WV
Mr. Pruett was the Mechanical Engineer for the Courthouse Annex renovation project and responsible for the HVAC

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

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

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

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

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

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

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

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

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

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

Grant H. White, PE



Role
Electrical Engineer

Professional Registrations
Professional Engineer (WV)

Mr. White brings more than 14 years' experience and serves as the Electrical Engineer at ZMM. Mr. White provides electrical design services for a vast number of projects consisting of commercial, educational, correctional, institutional, and military facilities.

Mr. White 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.

Project Experience
Valley Health Systems, Huntington, WV
Keith Albee Theater - Renovations, Huntington, WV
WV School of Osteopathic Medicine, Lewisburg, WV
Braxton County Cooler Freeezer
Jefferson County Schools – Transportation Technology Center
Jefferson County Schools – Ranson Elementary School
Jefferson County Schools – Sheperdstown Elementary School
Jefferson County Schools – Washington High School Aux Gym
Woodrow Wilson High School Renovations/Additions
Braxton County Middle School Renovations
WVDNR Tomblin Wildlife Management
Frederick County Public Schools -Old Aylor Middle School – HVAC Renovations
Frederick County Public Schools Board Office – Corridor and Restroom Renovations

Education
Marshall University Graduate College, South Charleston, WV – Completed Project Management and Engineering Law classes in the Engineering Management Program, 2007 - 2008

Bachelor of Science in Electrical Engineering, West Virginia University Institute of Technology, 2007

Employment History
2021 - Present, Electrical Engineer, ZMM
2018 – 2021, Electrical Engineer, CDI Engineering
2017 – 2018, Controls Engineering Specialist, Trane
2014 – 2017, Electrical Engineer, CDI Engineering

David Gunnoe, PE, CAP



Role
Electrical Engineer

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

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

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

Project Experience

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

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

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

Ronnie L. Burdette, PE



Role
Structural Engineer

Professional Registrations
Professional Engineer (WV)

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

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

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

New River Primary / Oak Hill Middle School, Oak Hill, WV
This project included two separate projects located on the same site. Both buildings were designed to be ICF and steel construction.

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

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

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

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

Employment History
January 2017 – Present, Structural Engineer, ZMM
May 2016 – Dec 2016, Civil/Structural EIT, Jacobs Engineering
May 2015 – Dec 2015, Civil/Structural EIT, CDI Corporation

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

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

Benjamin S. McMillan, PE, LEED AP

ZMM ARCHITECTS ENGINEERS



Role
Civil Engineer

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

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

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

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

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

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

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

CLIENT REFERENCES



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Thomas Wood, COO
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