



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

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

Proc Folder: 335602

Doc Description: A&E EOI for Existing Projects at the WV Schools for the Deaf

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2017-05-23	2017-06-22 13:30:00	CEOI 0403 DBS1700000001	1

**BID RECEIVING LOCATION**

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

**VENDOR**

Vendor Name, Address and Telephone Number:

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

06/22/17 10:10:48  
WV Purchasing Division

**FOR INFORMATION CONTACT THE BUYER**

Michelle L Childers

(304) 558-2063

michelle.l.childers@wv.gov

Signature X

FEIN # 55-0676608

DATE 6/21/2017

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



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

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

Proc Folder: 335602

Doc Description: ADDENDUM 1 - A&E EOI for Existing Projects at the WVDBS

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2017-06-16	2017-06-22 13:30:00	CEOI 0403 DBS1700000001	2

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michelle.l.childers@wv.gov

Signature X

FEIN # 55-0676608

DATE 6/21/2017

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.

David E. Ferguson, Principal

(Name, Title)

David E. Ferguson, Principal

(Printed Name and Title) ZMM, Inc., Architects and Engineers  
222 Lee Street, West, Charleston, WV 25302

(Address)

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

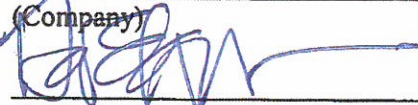
(Phone Number) / (Fax Number)

ferguson@zmm.com

(email address)

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

(Company)



(Authorized Signature) (Representative Name, Title)

David E. Ferguson, Principal

(Printed Name and Title of Authorized Representative)

June 21, 2017

(Date)

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

(Phone Number) (Fax Number)



**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.:** \_\_\_\_\_

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

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

**Addendum Numbers Received:**

(Check the box next to each addendum received)

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

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

ZMM, Inc., Architects and Engineers

\_\_\_\_\_  
Company

  
\_\_\_\_\_  
Authorized Signature

June 21, 2017

\_\_\_\_\_  
Date

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

Revised 6/8/2012



STATE OF WEST VIRGINIA  
Purchasing Division

## PURCHASING AFFIDAVIT

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

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

**DEFINITIONS:**

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

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

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

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

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

Authorized Signature: [Signature] Date: June 21, 2017

State of West Virginia

County of Kanawha, to-wit: 21st

Taken, subscribed, and sworn to before me this      day of June, 2017.

My Commission expires 10-6, 2018

**AFFIX SEAL HERE**

NOTARY PUBLIC [Signature]

*Purchasing Affidavit (Revised 08/01/2015)*







June 21, 2017

Michelle L. Childers  
State of West Virginia  
Department of Administration, Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305

**Subject: A&E for Existing Projects at the WV Schools for the Deaf and the Blind  
DBS1700000001**

Dear Ms. Childers:

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 the current CEFP at the WV Schools for the Deaf and the Blind and have intimate knowledge of the campus and all of their facilities. 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.

As a full service design firm, ZMM employs all of the disciplines in-house to undertake the maintenance projects outlined in the request for expression of interest. If selected to provide services for the project, ZMM would set up teams under the direction of David E. 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 (WVSDB). This approach 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 [www.zmm.com](http://www.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 for this important endeavor.

Respectfully submitted,

**ZMM, Inc.**

A handwritten signature in blue ink, appearing to read "David E. Ferguson".

David E. Ferguson, AIA, REFP  
Principal

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  - Renovation Projects
5. Client References





LOCATION:  
222 Lee Street, West  
Charleston, WV

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

### History of ZMM



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

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

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



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

**Advantages of an integrated Design Approach:**

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

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

**Services**

**Pre-Design**

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

**Design**

Architectural Design  
Sustainable Design  
Interior Design  
Landscape Architecture  
Structural Engineering  
Mechanical Engineering  
Electrical Engineering  
Civil Engineering  
Lighting Design  
Energy Consumption Analysis

**Post Design**

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





## Award Winning Design



### **2017**

**AIA West Virginia Chapter: Merit Award**

*Achievement in Architecture*

Explorer Academy

Huntington, West Virginia

**AIA West Virginia Chapter: Merit Award**

*Achievement in Sustainability*

Logan - Mingo Readiness Center

Holden, West Virginia

### **2016**

**AIA West Virginia Chapter: Merit Award**

*Achievement in Architecture in Interior Design*

Christ Church United Methodist

Charleston, West Virginia

**AIA West Virginia Chapter: Merit Award**

*Achievement in Architecture*

Gauley River Elementary School

Craigsville, West Virginia

### **2015**

**AIA West Virginia Chapter: Honor Award**

*Achievement in Architecture in Sustainable Design*

Edgewood Elementary School

Charleston, West Virginia

**AIA West Virginia Chapter: Merit Award**

*Achievement in Architecture*

Kenna Pk-5 School

Kenna, West Virginia

### **2014**

**AIA West Virginia Chapter: Merit Award**

*Achievement in Architecture in Sustainable Design*

Huntington East Middle School

Huntington, West Virginia





## Award Winning Design



### **AIA West Virginia Chapter: Merit Award**

#### *Achievement in Architecture*

Southern West Virginia Community & Technical College  
Williamson, West Virginia

### **AIA West Virginia Chapter: Merit Award**

#### *Achievement in Architecture in Interiors/Graphics*

Girl Scouts of Black Diamond Council  
Charleston, West Virginia

## **2012**

### **AIA West Virginia Chapter: Honor Award**

#### *Excellence in Architecture*

West Virginia Housing Development Fund Building  
Charleston, West Virginia



## **2011**

### **AIA West Virginia Chapter: Honor Award**

#### *Excellence in Architecture in Historical Preservation*

Southside Elementary/Huntington Middle School  
Huntington, West Virginia



### **AIA West Virginia Chapter: Honor Award**

#### *Excellence in Architecture*

Joint Interagency Training & Education Center  
Kingwood, West Virginia



### **AIA West Virginia Chapter: Merit Award**

#### *Excellence in Architecture in Interiors*

WV State Office Building #5, 10th Floor Renovation  
Charleston, West Virginia

## **2010**

### **AIA West Virginia Chapter: Honor Award**

#### *Excellence in Architecture*

Hacker Valley PK-8 School  
Hacker Valley, West Virginia



# History of Dickenson & Partners



**Dickenson & Partners**

CONTACT:  
John Dickenson  
Dickenson & Partners  
dickenpartners.com

## History



Dickenson & Partners 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, Winter & Company established a special consulting studio in 2001 to provide facilities programming for special needs projects and deaf/blind facilities, as well as programming for mobility-impaired users. WCSNS has consulted on projects across the nation and been recognized as one of the top firms in the country 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 cornerstone of Dickenson & Partners Special Needs Studio practice. The profile of designing for today's special needs and blind 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 Department of Education's "Special Education Facilities 2001" 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 blind students and their staff.

One of the truly measurable, tangible attributes we bring to the West Virginia School for the Deaf and the Blind 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.

Education and Residence life on campus must meet students needs and secure their ability to both succeed and develop. Plain and simple. Deaf students need an environment that is conducive to healthy living and learning. They need a sense of safety and security within the student community. They need to learn life skills tailored to their deafness to complement their academic progress and assist them in well-balanced individuals. And, they need opportunities and encouragement to grow.



## 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 90 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

#### West Virginia Schools for the Deaf and Blind, Romney, WV

Mr. Ferguson was the Principal-in-Charge for the CEFP plan with the direction of the WV Board of Education and the WV School Building Authority. ZMM Architects & Engineers combined forces with Dickinson & Partners, an architectural firm specializing in Special Needs Architecture, to have a complete understanding and working knowledge of the

### 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

- West Virginia Chapter, American Institute of Architects, President
- West Virginia Chapter, American Institute of Architects, Board Director
- American Institute of Architects, Member
- Member, Council of Educational Facility Planners International (CEFPI)
- Recognized Educational Facility Planner (REFP) by the CEFPI
- Professional Member, US Green Building Council
- High School Mentoring/Job Shadowing Program for 6 County School Systems
- WV AIA IDP Program Mentor/Advisor



requirements and challenges faced when designing for Deaf and Blind student population. ZMM understands the WV school Building Authority's policies and the guidelines of the WV Department of Education, along with the having a working knowledge of other state agencies, makes creating this document easier to navigate through the process.

**Explorer Academy, Huntington, WV** Mr. Ferguson was the project architect for this new Expeditionary School. He was responsible for the programming, design, and project management for the new 60,000 SF facility. It was the consolidation of Peyton Elementary and Geneva Kent Elementary in the east end of Huntington. The schools will be combined to form the incubator school, which will be housed in the former Beverly Hills Middle School facility that will be remodeled to fit the mold of the Expeditionary Learning model. The school opened in fall of 2015 and is the first of its kind.

**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.

**Huntington East Middle School, Huntington, WV** Mr. Ferguson was the project architect for this new Middle School. He 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 Gold 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.

**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.

**Southern West Virginia Community & Technical College, Williamson, WV** Mr. Ferguson is the Principal-in-Charge for this new 22,000 SF Applied Technology Center. The 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.

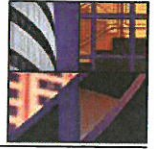
**Wayne County Bond Program:** ZMM assisted Wayne County Schools in passing an \$18,000,000. The passage of the bond will create a New Crum PK-8 School, a New Ceredo-Kenova Elementary School and Additions and Renovations to Wayne High School. The overall process involved community meetings, establishing goals and priorities, creating overall budgets and a project scope that the citizens would support. ZMM assisted Wayne County Schools with distributing information, working with the bond committee and Bond Council to establish the actual Bond Call and assisting with public awareness throughout the county. ZMM worked facilitated meetings with the WV School building Authority and Wayne County Schools to create an overall project Budget of \$42,200,000.

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

2017 WV AIA Merit Award Explorer Academy, Huntington, WV

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

# John C. Dickinson, AIA, CEFPI



## Role

Studio Director

## Professional Registrations

Registered Architect (KY, CO, NM, CA)

John Dickinson is a notable deaf Architect and project manager with over twenty five years of experience providing a wide range of architectural services for educational, healthcare, banking, telecommunications and commercial facilities. Mr. Dickinson received the AIA Award of Educational Design Excellence for his design of Columbine Senior High School in Littleton, Colorado.

Mr. Dickinson, who has been profoundly deaf since the age of two, has provided architectural services for deaf and blind schools and senior housing all over the U.S. and understands that developing facilities for the deaf and blind populations requires careful consideration of multiple issues. He has the ability to capture the intricacies and nuances of the deaf and blind environment and translate them into an effective setting that encourages performance and growth.

## Project Experience

### Gallaudet University, Washington DC

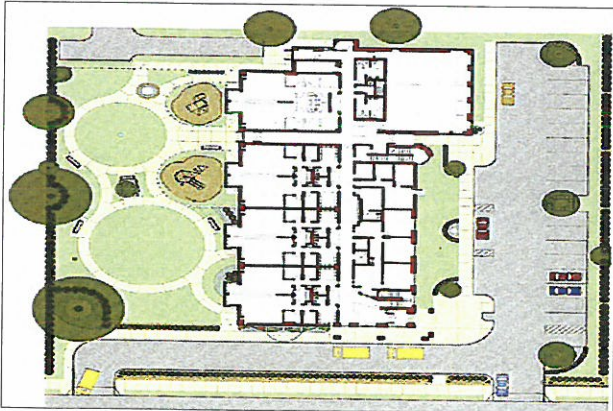
Sorenson Language & Communication Center Programming

### Rhode Island School for the Deaf, Providence, RI

Programming and New Facilities Feasibility Study

### Pennsylvania School for the Deaf, Philadelphia, PA

Campus Wide Master Plan and New Early Childhood Center (below)



## Education

Masters in Business Administration,  
University of Phoenix, 1998

Bachelor of Architecture, University of  
Kentucky, 1988

Diploma, E'cole des Architecture,  
Paris, France

## Employment History

1999 - Present, Principal, Studio  
Manager, Dickenson & Partners

## Civic Associations

- American Institute of Architects
- Council Educational Facility Planners International
- Colorado Association of the Deaf
- National Association of the Deaf
- National Task Force Deaf Seniors Coalition
- Board of Trustee-Colorado School for the Deaf and the Blind



**Middletown Deaf Housing and Apartments, Middletown, CT**  
New Mixed-Use Housing for the Deaf Design and Planning

**Colorado School for the Deaf and Blind, Colorado Springs, CO**  
Master Plan and Ritter Hall Programming & Design

**Ohio School for the Deaf, Columbus, Ohio**  
New Educational Center and Residence Halls  
(below)



**Governor Baxter School for the Deaf, Portland, ME**  
Master Plan and New K-8 Educational Center

**Rocky Mountain Deaf School, Denver, Colorado**  
New K-12 Campus



## Robert Doeffinger, PE



### Role

Engineering Principal

### Professional Registrations

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

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

After graduate school in Architectural Engineering, Mr. Doeffinger joined ZMM. He has over 35 years design experience in mechanical and electrical systems for buildings. He has a broad range of engineering experience in education, industrial and manufacturing facilities, large retail, correctional and jails, office buildings, and military facilities.

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

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

### Project Experience

#### State Office Buildings #5, 10<sup>th</sup> Floor Charleston, WV

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

### Education

Master of Science Architectural Engineering, Pennsylvania State University, 1976

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

### Employment History

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

### Civic Affiliations

- ASHRAE – Member of the Technical Committee Load Calculations Data and Procedures for 15 years, serving as chairman. Presently Chairman of the Research Subcommittee
- Advisory Board for the Department of Electrical Engineering Technology, Bridgemont Community and Technical College
- City of Pt. Pleasant, WV – 2<sup>nd</sup> Ward Councilman for 20 years

**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.

**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.

**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 aiming for LEED Silver Certification. The project is served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system.

**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.

**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.

**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.

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

**The Boulevard at 2412, Charleston, WV** Mr. Doeffinger was on the design team for the proposed Kanawha Boulevard Condominium project. The sixty unit project, located in the East End Historic District, included a design that increased in height as it stepped back from the Kanawha River, providing the opportunity for a series of outdoor living areas, while also respecting the massing of the adjacent residences in the Historic District.



# Samuel Butzer, PE, LEED AP BD+C



## Role

Mechanical Project Engineer

## Professional Registrations

Professional Engineer (WV, WI, IL)

LEED Accredited Professional

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

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

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

## Project Experience

### Charleston Civic Center, Charleston, WV

Mr. Butzer is the Mechanical Project Engineer on the expansion and renovation to the Charleston Civic Center project. The \$75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is scheduled for completion in 2018. The mechanical design is expected to reduce the energy requirements defined by ASHRAE 90.1-2013 by an estimated 25% and extensive water savings will be shown. The project includes a new chilled and hot water central plant with extensive replacement and upgrades to the facilities existing mechanical systems. Multiple phases of construction will allow the Civic Center to remain operational throughout the construction progress.

## Education

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

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

## Employment History

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

## Civic Affiliations

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

**Appalachian Regional Hospital, Beckley, WV**

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

**Glenwood Elementary School, Princeton, WV**

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

**Nicholas County Courthouse, Summersville, WV**

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

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

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

**Harrisville Elementary School, Harrisville, WV**

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



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



### Role

Principal

### Professional Registrations

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

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

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

### Project Experience

#### Charleston Civic Center, Charleston, WV

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

### Education

Bachelor of Architecture, The Catholic University of America, 1998

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

### Employment History

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

### Civic Affiliations

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

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

**State Office Building #5, 10<sup>th</sup> Floor Renovation (Office of Technology), Charleston, WV**

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

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

**Morgantown Readiness Center (WVARNG), Morgantown, WV**

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

**Construction and Facilities Management Office Expansion (WVARNG), Charleston, WV**

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

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

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

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

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

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

2017 WV AIA Merit Award Logan-Mingo Readiness Center, Holden, WV  
2016 WV AIA Merit Award Christ Church United Methodist, Charleston, WV  
2015 WV AIA Merit Award Edgewood Elementary School, Charleston, WV  
2014 WV AIA Merit Award Girl Scouts of Black Diamond Council, Charleston, WV  
2011 WV AIA Honor Award Joint Interagency Training and Education Center (JITEC), Kingwood, WV  
2011 AIA Honor Award State Office Building #5, 10<sup>th</sup> Floor Renovation, Charleston, WV  
2009 AIA Merit Award WVARNG Construction and Facilities Management Office, Charleston, WV



## Amanda Cheuvront, AIA, NCARB



### Role

Architect

### Professional Registrations

Registered Architect (WV)

Amanda is responsible for producing design development and construction documents. As an architect, she coordinates with the other disciplines in order to ensure sound and cohesive projects. Ms. Cheuvront also assists in the schematic and design development process.

Amanda began her architectural studies at Fairmont State University where she received a bachelor's degree in Architectural Engineering. She continued her education at The School of Architecture at UNC Charlotte.

After completing a Master of Architecture degree in 2009, Amanda began her career at ZMM. She has worked on a variety of educational, commercial offices, and healthcare projects.

### Project Experience

#### **West Virginia Schools for the Deaf and Blind, Romney, WV**

Ms. Cheuvront is currently the Project Architect and is working with the WV Board of Education, WV School Building Authority, and the West Virginia Schools for the Deaf and Blind to assist with creating a *Comprehensive Educational Facility Plan (CEFP)*. The CEFP 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. ZMM understands the WV school Building Authority's policies and the guidelines of the WV Department of Education, along with the having a working knowledge of other state agencies, makes creating this document easier to navigate through the process. Ms. Cheuvront attends all project meetings and site visits of the schools.

Huntington East Middle School (Architect)  
Explorer Academy (Project Architect)  
CAMC Teays Valley ICU Addition (Project Architect)  
Valley High School (Project Architect)  
Divide Elementary (Architect)  
Wayne County High School (Architect)

### Education

Master of Architecture,  
The University of North Carolina,  
Charlotte, NC, 2009

Bachelor of Science Engineering  
Technology, Fairmont State University,  
Fairmont, WV, 2006

### Employment History

2014 - Present, Architect  
2009 - 2014, Intern Architect, ZMM

### Civic Affiliations

- American Institute of Architects, Member
- West Side Elementary School, Volunteer
- CANstruction Design Team – 2 Yrs



## Scot Casdorph, PE



### Role

Electrical Engineer

### Professional Registrations

Professional Engineer (WV)

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

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

### Project Experience

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

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

#### **Southside Elementary and Huntington Middle School,**

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

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

Mr. Casdorph was responsible for the electrical design of the new elementary school. The project is consolidating Beaver

### Education

Bachelor of Science, West Virginia  
Institute of Technology, 1995

### Employment History

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



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

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

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

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

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

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

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

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

Mr. Casdorff is the electrical engineer for building 704 and responsible for electrical power and lighting distribution. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

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

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

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

## Michael J. White, PE



### **Role**

Structural Engineer

### **Professional Registrations**

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

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

### **Project Experience**

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

### **Other Jobs from Past Employers:**

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

### **Education**

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

### **Employment History**

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



## HVAC Renovation Experience



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

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

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

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

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

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

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

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

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



# HVAC Renovation Experience



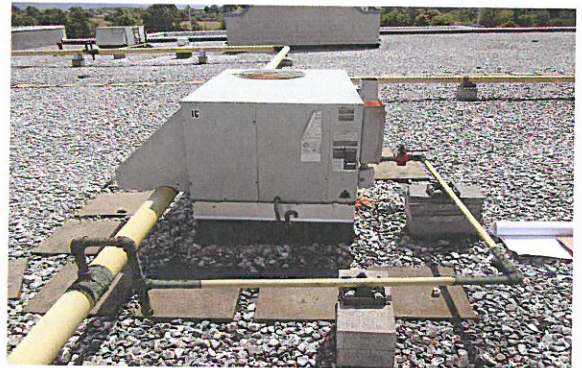
**Old Kanawha Valley Bank Building (2003)** - New cooling chiller.  
**(2015)** - New cooling tower.

**City Center East (2008)** Chiller Replacement.

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

## **Additional HVAC Projects:**

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





# The Plaza at King of Prussia

Multiple HVAC Replacements



COST:  
\$30M

COMPLETION:  
2006

CONTACT:  
Mr. Mickey McLaughlin  
Director  
Plaza Mall Management  
160 North Gulph Road  
King of Prussia, PA  
19406  
610.337.9272



## The Plaza at King of Prussia - Philadelphia, Pennsylvania

MP Services – Design Build

- 2,500,000 SF, 4,000-Ton Chilled Water Plant, VAV and CV
- Air Handling System
- Existing and New Spaces

## The Court at King of Prussia - Philadelphia, Pennsylvania

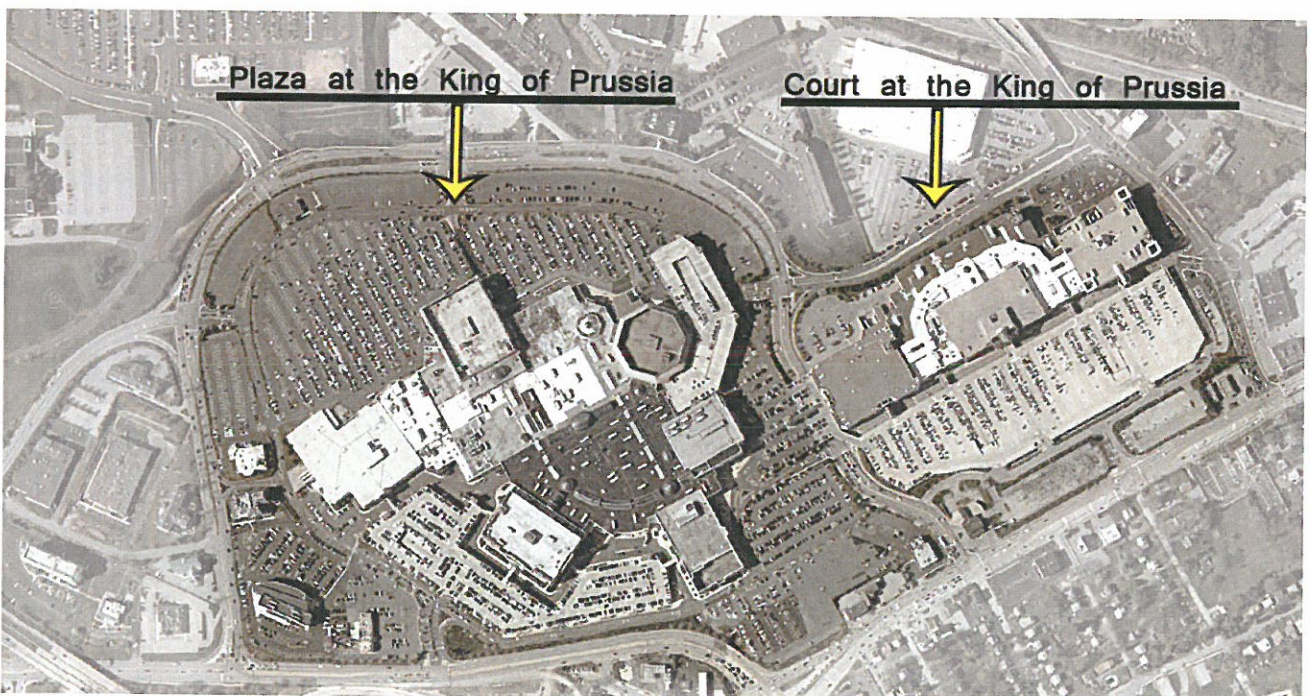
MEP Services

- Addition of a 3,000-Ton Chilled Water Plant Including
- New Structure and Replacement of All Air Handling Units
- Primary and Secondary Variable Chilled Water System

## The Plaza at King of Prussia - Philadelphia, Pennsylvania

MEP Services

- Addition of 800-Tons of Chilled Water Air Handlers Units
- Addition - 150,000 SF and New VS 1,250 Ton Chiller
- 5,000 Ton CHW Plant Primary Secondary Pumping





# Robert C. Byrd Regional Training Institute

WVARNG



LOCATION:  
Kingwood, WV

SIZE:  
148,066 SF

COST:  
\$21M

COMPLETION:  
2002

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



The Regional Training Institute at Camp Dawson is a new 148,066 square foot facility that will provide a setting for a variety of training classes, meetings, and conferences serving both military and civilian populations from the region and areas throughout the country. The facility includes classrooms, library, sleeping rooms, dining room, auditorium, swimming pool, Post Exchange and snack bar.

The Training Institute has a 400 Ton primary/secondary variable flow chiller water system, and an 8,800 MBH primary variable flow hot water system. The hot water system serves variable and constant value air handling units, fan coils, the swimming pool conditioner, and make up air units.





# St. Albans High School

Kanawha County Schools



LOCATION:  
St. Albans, WV

SIZE:  
172,596 SF

COMPLETION:  
2003

COST:  
\$24 Million

CONTACT:  
Dr. Ron Duerring  
Superintendent  
200 Elizabeth Street  
Charleston, WV 25523  
304.348.7732

AWARDS:  
Impact on Learning Award  
*Effective Transformation*

Education Design Showcase  
*Outstanding Building Design*

American School & University  
*Outstanding Building Design*



The renovation and additions include the razing of about 40% of the existing structure and the construction of the 124,000 SF of new facility. The scope of this extensive renovation included the replacement of the existing HVAC system, to include a new heating plant, a 500 ton chilled water plant, rooftop units and installation of one retrofitted high speed elevator.

Instructional spaces have been designed to be flexible, adaptable and accommodating for the more active, student oriented instructional programs and methods of the district. Classroom and other spaces are bright and welcoming for students and staff and appropriate space and equipment are provided to allow for the efficient and effective delivery of program objectives.

Responding to concerns from students, staff and the community, and due to the condition of existing science facilities, science wing was completely replaced with modern, functional and flexible space and equipment.

Provisions for new and emerging technologies were greatly enhanced throughout the building. The new media center is the central hub for technology and with the inclusion of an appropriate infrastructure, providing flexibility needed for the technology of the future.





# Glenwood Elementary School

Mercer County Schools

LOCATION:  
Princeton, WV

SCOPE:  
Duct Cleaning / Sealing  
HVAC

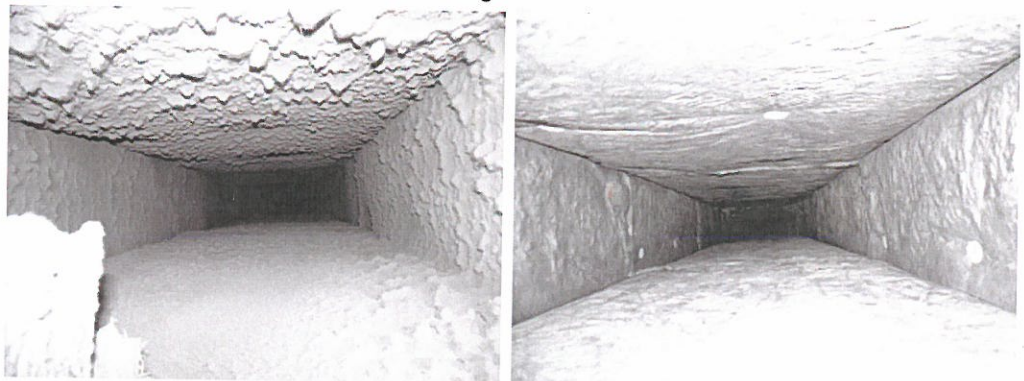
\*Under Budget



## **First Phase – Duct Cleaning and Sealing:**

All existing, internally lined supply and return ductwork was cleaned and then sealed with a non-toxic aerosol.

Pictures speak volumes for duct cleaning:



*Sealant reduced duct leakage by 2,772 CFM or approximately 8 tons of cooling.*



## **Second Phase – HVAC Improvements:**

Replace all existing, constant volume, single compressor Air Handling Units (AHUs) with new variable volume, multiple variable speed compressor AHUs.

VAV terminal units were installed within the existing ductwork to provide a new thermal zone and independent zone control for every classroom and occupied space.

Existing AHUs were fixed ventilation 24/7, new AHUs will utilize Demand Control Ventilation (DCV) with space monitoring of CO2 and outdoor air dampers to close off ventilation when building is unoccupied.

Install a new, condensing pony boiler to utilize the Hot Water system for VAV reheat and space heating to eliminate the use of existing duct-mounted electric heaters.

Install a new Building Automation System (ASI Controls) to facilitate proper control of all new HVAC systems and components.

Mercer County will receive AEP energy rebates for the expected reduction in electricity consumption.







## Additional HVAC Replacement Projects

The following projects were fully occupied during the HVAC replacement:

SIZE:  
14,100 SF

COMPLETION:  
2001

NEW CONSTRUCTION:  
14,100 SF

RENOVATIONS:  
2,500 SF

CONTACT:  
Dr. Ron Duerring  
Superintendent  
200 Elizabeth Street  
Charleston, WV 25311  
304.348.7732

### Dunbar Primary School - Dunbar, West Virginia



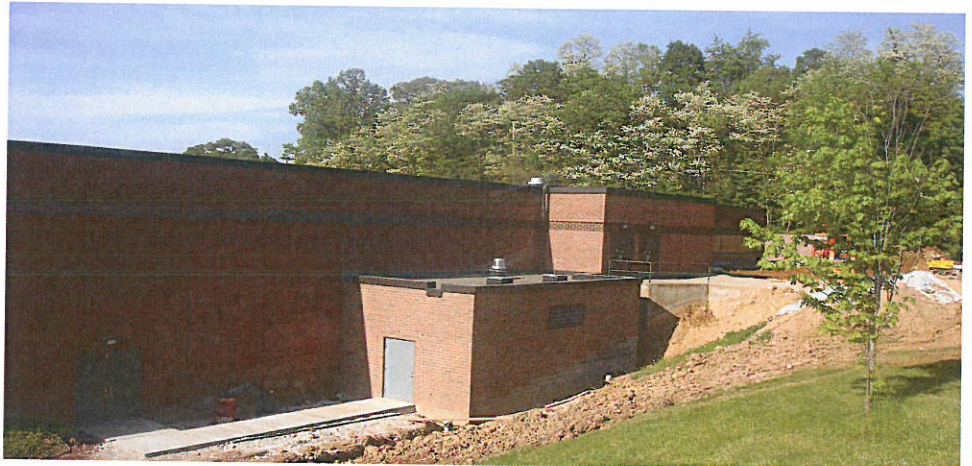
The school received additions and renovations along with extensive renovation of replacing of the existing HVAC system, to include a new unit ventilator system with hot and chilled water plants. The school was fully occupied during the HVAC project.

EXISTING:  
59,240 SF

ADDITIONS:  
616 SF

CONTACT:  
Mr. William Smith  
Superintendent  
2850 5th Avenue  
Huntington, WV 25702  
304.528.5030

### Spring Hill Elementary School - Huntington, West Virginia



HVAC renovation included new hot and chilled water systems and VAV rooftop air handling units with heat pipe heat recovery and critical reset ventilation controls in accordance with ASHRAE 62.



# West Virginia Schools for the Deaf and Blind

West Virginia Board of Education



LOCATION:  
Romney, WV

SIZE:  
300,000 SF

CONTACT:  
Dr. Lynn Boyer  
Superintendent  
301 East Main Street  
Romney, WV 26757  
304.822.4800

CONSULTANT:  
John Dickinson  
Dickinson & Partners  
405 Tarrytown Road  
Suite 1389  
White Plains, NY  
dickensonpartners.com



Per the direction of the WV Board of Education and the WV School Building Authority, the West Virginia Schools for the Deaf and Blind has undertaken the task of creating a *Comprehensive Educational Facility Plan (CEFP)*. ZMM Architects & Engineers combined forces with Dickinson & Partners, an architectural firm specializing in Special Needs Architecture, to have a complete understanding and working knowledge of the requirements and challenges faced when designing for Deaf and Blind student population. ZMM understands the WV school Building Authority's policies and the guidelines of the WV Department of Education, along with the having a working knowledge of other state agencies, makes creating this document easier to navigate through the process.

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, if necessary, through several phases of construction.

A planning team was established consisting of citizens, teachers, staff, and business owners. Goals and Objectives were developed and data was compiled concerning enrollment and population growth. Along with the educational plan that was developed, the existing facilities were reviewed for compliance with all state and local codes. The buildings and adjacent sites were also reviewed for any physical deficiencies along with educational deficiencies. The owner's insurance reports were also reviewed and any information outstanding will be incorporated into the document. Public meetings were conducted, and the final meeting was a public hearing for concerned citizens. At that meeting the public will be able to voice concerns of the process or the final outcome of the CEFP document.

The ultimate goal is to develop a comprehensive facility plan for the campus, based on local input, that can be implemented by the school.





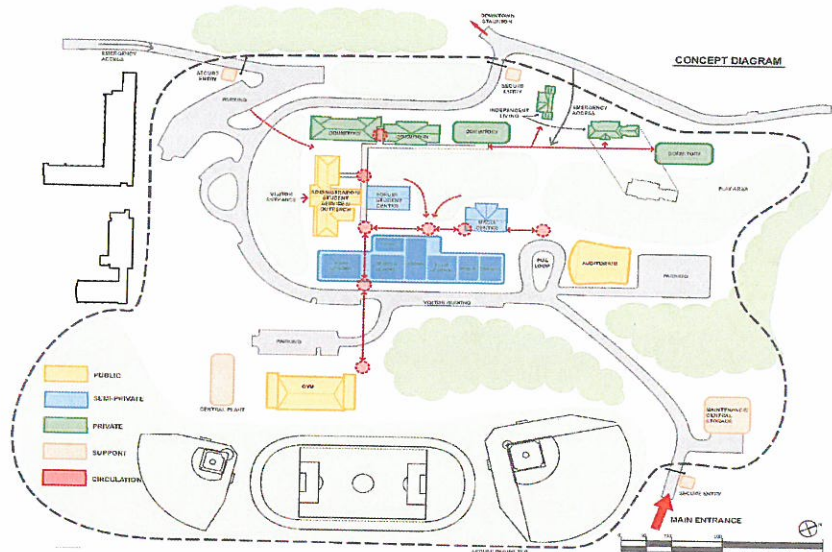
**Dickinson & Partners**

**LOCATION:**  
Scranton, VA

**COMPLETION:**  
Construction starts 2010

## Relevant Experience

### Virginia School for the Deaf and the Blind



The rural campus on which the schools are located is heavily regulated due to its civil war era history. This posed a huge challenge for the State of Virginia to maintain various programs and different special needs identities, while modernizing and expanding new educational programs. Winter & Company Special Needs Studio, along with BCWH of Richmond, Virginia, were selected to work with these constraints and create a new program, and design and build new facilities. Construction is scheduled to begin in 2010.

**LOCATION:**  
Philadelphia, PA

**COMPLETION:**  
TBD

### Pennsylvania School for the Deaf

*New Campus Master Planning*

Winter & Company Special Needs Studio and Winter & Company Urban Planning recently completed an update of the existing master plan to reflect the changing needs of the student population while creating a more integrated learning environment.

The master plan update evaluated the current and projected educational needs of the school, identified academic program needs, key campus historic resources, institutional goals and recommended a framework for capital improvement decisions.





# Southside Elementary & Huntington Middle School

Cabell County Schools



LOCATION:  
Huntington, WV

SIZE:  
158,194 SF

COMPLETION:  
2010

COST:  
\$27M

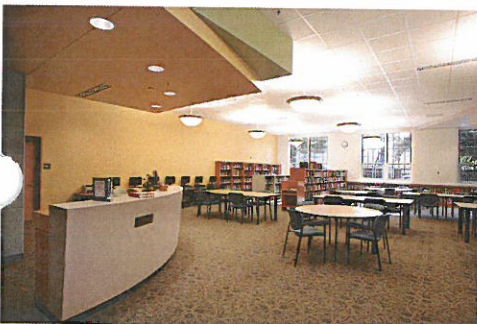
CONTACT:  
Mr. William Smith  
Superintendent  
2850 5th Avenue  
Huntington, WV 25702  
304.824.3033

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



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

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





## Relevant Experience



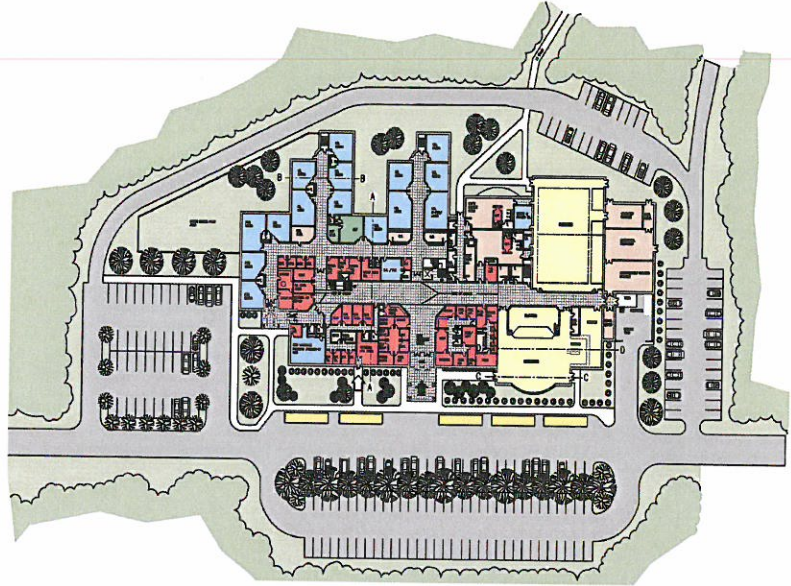
### Dickinson & Partners

LOCATION:  
Providence, RI

## Rhode Island School for the Deaf

### *A building fit for a kid...*

The Rhode Island School for the Deaf has extremely high expectations for their first new campus facility, commissioned by the State of Rhode Island. Drawn to the natural beauty of the site, Winter & Company Special Needs Studio, along with Design Partnership of Cambridge, worked to accomplish the project's main goal of creating a building that is sensitive to the size of students with special needs. Everything within the building from the stage in the "cafetorium" to the desks in the classrooms will be scaled for young children.



LOCATION:  
South Hartford, CT

SIZE:  
25,000 SF

COMPLETION:  
October 2009  
Philadelphia, PA

## Southbridge School

Winter & Company Special Needs Studio completed the design of a new 25,000 SF addition including a one-story classroom building and distance-learning center for the Southbridge School. The school will provide method distance learning classrooms to be utilized by the community and special education at the school. The new building includes a direct, level-to-level connection with its existing floors to provide maximum utility and to improve the accessibility of the original building.







## Explorer Academy

Cabell County Schools

LOCATION:  
Huntington, WV

SIZE:  
60,000 SF

COMPLETION:  
2015

COST:  
\$15M

CONTACT:  
Mr. William Smith  
Superintendent  
2850 5th Avenue  
Huntington, WV 25702  
304.824.3033



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

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

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

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

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







## Dickinson & Partners

LOCATION:  
Philadelphia, PA

SIZE:  
21,530 SF

COMPLETION:  
2005

## Relevant Experience

### Pennsylvania School for the Deaf



Winter & Company Special Needs Studio was hired by the school to work with the local architect on the programming and design to ensure that it accommodated the needs of the deaf and hard-of-hearing. The objectives were to create a functional deaf-friendly and economical facility that encourages activity and interaction and promotes excitement about learning. The new 21,530 SF building is organized along straightforward corridor arrangements. The project was completed in 2005.

LOCATION:  
West Hartford, CT

SIZE:  
110,000 SF

COST:  
\$27M

### American School for the Deaf

The American School for the Deaf was the first deaf school in the United States. Winter & Company Special Needs Studio, along with EYP-Boston, was honored to be selected to provide architectural and engineering services for comprehensive renovations to an 110,000 SF historic 1820s education building. The scope of work includes a complete renovation to the interior and exterior of the building. Project budget was \$27 million.







**Dickinson & Partners**

**LOCATION:**  
Washington, DC

**SIZE:**  
21,530 SF

**COMPLETION:**  
2005

## Relevant Experience

### Gallaudet University Clerc Residence Hall

An aging college residence hall hindered, rather than enhanced, the student life experience, and most of the halls had not been updated to accommodate advances in deaf resident's life and safety needs. Winter & Company Special Needs Studio along with ASG Architects and Deaf Space Group worked together to develop a concept design to provide new student apartments and a multimedia visual theater. The architectural language for the renovated hall was carefully developed to relate to the historic campus context and visual technology that are found around the campus. The drawings are completed but construction is on hold due to funding.



### Kentucky School for the Deaf

*Kerr Hall Renovation*

**LOCATION:**  
Danville, KY



The Kentucky School for the Deaf, located in Danville, Kentucky, serves over 200 deaf and special needs students from all over the state. Winter & Company Special Needs Studio was retained by the State of Kentucky in 2004 with the goal to open the school for fall semester of 2006. The building has been completely renovated to include 25 classrooms, library/media center, offices, visual arts technology lab and full science labs. Construction took less than 12 months to complete.



# Bridgemont Community & Technical College

## *Davis Hall Renovation*



LOCATION:  
Montgomery, WV

SIZE:  
77,215 SF

COMPLETION:  
Summer 2012

COST:  
\$4M

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



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

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

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



# Southern WV Community & Technical College

*Applied Technology Building and Campus Planning*



LOCATION:  
Williamson, WV

SIZE:  
22,000 SF

COMPLETION:  
2013

COST:  
\$5M

CONTACT:  
Dr. Joanne Tomblin  
President  
1601 Armory Drive  
Williamson, WV 25661  
304.235.6046

AWARDS:  
2014 AIA Merit Award  
West Virginia Chapter  
*Achievement in Architecture*

American School &  
University: *Outstanding  
Building Design*

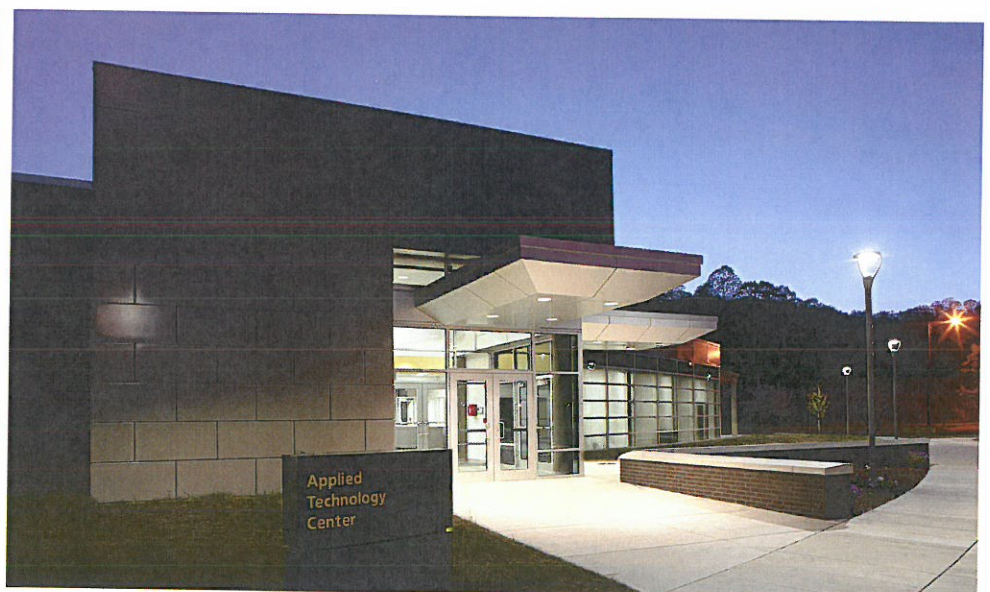


The new Applied Technology Center is located on Southern WV CTC's Williamson Campus. The 22,000 SF college houses a virtual welding shop, machine shop, mechatronics shop, a mining support program, administrative space and student support spaces, as well as several allied health programs. The space is designed to maximize both flexibility and adaptability, and will reflect a modern, "high-tech" aesthetic while also blending into the overall campus.

The large area for lab spaces is enhanced by black brick and surrounded by classrooms and support spaces highlighted by a curved glass wall with metal panel accents. The entrance is crafted with smooth metal panels and adjacent to textured patterned black brick construction to resemble coal.

A wood trellis area sits on round concrete columns shading the glass walls of the Administration and acts as an area for student gatherings. The strong contrast between the metal/glass and the wood trellis works to strengthen the outside space.

The facility is the first step in the progression of a planned campus expansion that will ultimately include expanding the campus into the adjacent property. The school is currently working on a new campus master plan, with a focus on creating green space and improving pedestrian and vehicular circulation.







## Erma Byrd Center

Public Higher Education Center

LOCATION:  
Beaver, WV

SIZE:  
33,000 SF

COMPLETION:  
August 2007

COST:  
\$7.5M

CONTACT:  
Rich Donovan  
Executive Director  
The Higher Education  
Foundation  
200 Main Street  
Beaver, WV 25801  
304.929.2010

AWARDS:  
2008 AIA Honor Award  
West Virginia Chapter  
*Excellence in Architecture*

American School &  
University: *Outstanding  
Building Design*



The Erma Byrd Center for Public Higher Education is the first building of its kind in the state. The 33,000 square foot center provides students the convenience of taking a variety of college classes offered by six different college and universities in a single location.

The new facility consists of standard classrooms, distance learning classrooms, a science lab, computer classrooms, a lecture hall, a multi-media library along with administrative office space for each college and university. Through technology, the building itself becomes an educational tool. Students are able to monitor the HVAC system and it's controls through web-based software thereby learning how the system works and how the climate and building design affect performance.

A wind turbine and solar panels on site assist in reducing the overall utility costs and allow students to see first-hand the benefits of alternative energy sources. This Higher Education facility sets a new standard for the learning environment and energy efficiency. The building is designed to maximize use of natural light and has sensors throughout that control the artificial light level by measuring the amount of light present in the space.

The high-tech facility is the first building on what will become a campus for public higher education. It's placement at the front of the site allows the building to serve as a beacon of what is to come.





# Charleston Civic Center Expansion and Renovation



LOCATION:  
Charleston, WV

SIZE:  
283,000 SF

COMPLETION:  
Est. 2017

COST:  
\$75M

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



The Charleston Civic Center Expansion and Renovation is a transformational project for both the city of Charleston and West Virginia. Our team is building on the strong authentic character of Charleston to remake the Charleston Civic Center into a more efficient, more sustainable, more dynamic and a more iconic best-in-class destination.

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

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





# Charleston Civic Center Expansion and Renovation



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

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

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



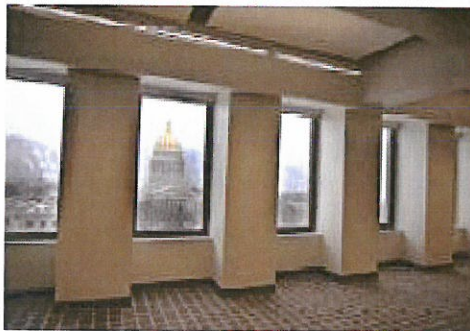
## State Office Buildings 5,6, & 7



LOCATION:  
Charleston, WV

COMPLETION:  
On-Going

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



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

### Roof Replacement

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

### Electrical Courtyard Improvements

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

### Door and Window Replacement

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



## State Office Buildings 5,6, & 7

### Major Renovations

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

### Caulk Replacement

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

### Valve Replacement

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



# Girl Scouts of Black Diamond Council

## Volunteer Resource Center and Girl Zone/Urban Camp



LOCATION:  
Charleston, WV

SIZE:  
27,928 SF

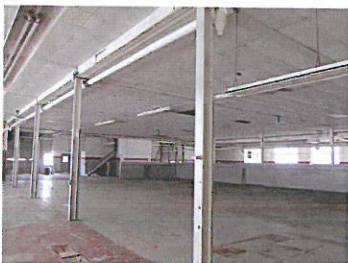
COST:  
\$5M

COMPLETION:  
Fall 2013

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

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

Interior Before Pictures

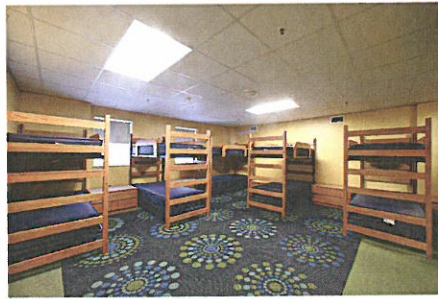


The New Girl Scouts of Black Diamond Council Volunteer Resource Center and Girl Zone/Urban Camp is located on the West Side of Charleston, WV. The 24,650 SF project completely renovates and upgrades the existing buildings at 321 Virginia Street. The buildings were built in the early and mid-1900's, and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

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

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





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

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

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



## Client References

Dr. Lynn Boyer, Superintendent  
301 East Main Street  
Romney, WV 26757  
304.822.4800

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

William Smith, Superintendent  
Cabell County Schools  
PO BOX 446  
Huntington, WV 25709  
304.528.5043

Dr. Ron Duerring, Superintendent  
Kanawha County Schools  
200 Elizabeth Street  
Charleston, WV 25311  
304.348.7732

Dr. Jo Harris, Past President  
Bridgemont CTC - Davis Hall  
619 2<sup>nd</sup> Avenue  
Montgomery, WV 25136  
304.741.4116