

Expression of Interest  
for



**Cedar Lakes  
Educational Complex**

**ZMM**

Professional  
Architectural &  
Engineering Services  
for:

**Various Projects Contained  
within the 2000-2010 CEFP for  
Cedar Lakes**

David E. Ferguson, AIA, REFP, Principal  
ferguson@zmm.com



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ARCHITECTS & ENGINEERS

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WV PURCHASING  
DIVISION

February 3, 2011



ARCHITECTS & ENGINEERS

February 2, 2011

Ms. Shelly Murray, Buyer  
State of West Virginia, Purchasing Division  
2019 Washington Street, East  
PO Box 50130  
Charleston, West Virginia 25305-0130

**Subject: A&E Services for Various Projects Contained within the 2000-2010 CEFP for the Cedar Lakes Educational Complex**

Dear Ms. Murray:

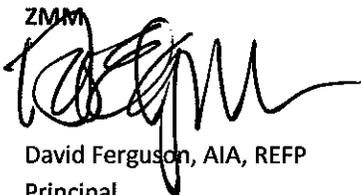
**ZMM** is pleased to submit the attached information to demonstrate both our experience and our capability to provide professional architectural and engineering design and construction administrative services for the various projects at Cedar Lakes, which are identified in the 2000-2010 CEFP. We are confident that our recent experience delivering professional services at Cedar Lakes, our significant renovation portfolio, our commitment to creating innovative and award winning facilities, and our ability to provide integrated architectural and engineering services from our office in Charleston will make **ZMM** a great partner for State of West Virginia Department of Education.

**ZMM** is one of few full service A/E firms in West Virginia, and is noted for design excellence and client focus. Our ability to provide complete design services from one location makes us uniquely qualified to participate on complex renovation and addition projects, and will provide the Department of Education with improved coordination of the construction documents, a single point of design responsibility, and improved control of the design schedule.

**ZMM's** education experience in West Virginia spans more than five decades, and includes work on over 200 educational facilities throughout the State. This experience includes new construction, addition, and renovation projects funded by the SBA. Additionally, **ZMM** recently provided professional design services for a variety of projects at Cedar Lakes, including: structural repairs; metal roofing; door and window replacement; site lighting; and repaving.

Thank you for taking the time to review the attached information that details our firm history and philosophy, 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 the opportunity to discuss your project and our qualifications in more detail, and appreciate the opportunity to be considered for this important assignment.

Respectfully submitted,

**ZMM**  
  
David Ferguson, AIA, REFP  
Principal

Cover Letter

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# Firm Qualifications

Registered Educational Facilities Planner (REFP)



LOCATION:  
222 Lee Street, West  
Charleston, WV

CONTACT:  
Phone 304.342.0159  
Fax 304.345.8144  
www.zmm.com

## Educational Facility Programming and Design

The design of functional, aesthetically pleasing educational facilities is driven by the early planning process. Curriculum delivery must precede and drive the entire design process or educational functionality will suffer. Our job as architects and educational planners is to listen and interpret the needs of the end user and Owner into the functional, constructed environment. For more than forty years **ZMM** has provided professional programming and design of educational facilities; over 175 educational facilities in West Virginia.

Our educational planning staff has a complete working knowledge of *Policy 6200 and the Handbook on Planning School Facilities* published by the West Virginia Department of Education, and the Guidelines and Procedures of the West Virginia School Building Authority.

Mr. David Ferguson and Mr. Rodney Watkins are **Recognized Educational Facility Professionals (REFP)** registered with the Council of Educational Facility Planners, International. Memberships can be verified by going to the CEFPI website ([www.cefpi.org](http://www.cefpi.org)) and search the directory through the REFP link .



D. Ferguson



R. Watkins

ZMM has provided Comprehensive Educational Facility Plans (CEFP) for 6 Counties in 2010. (Cabell, Nicholas, Logan, Wayne, Lincoln, Fayette)





THE COUNCIL OF EDUCATIONAL FACILITY PLANNERS INTERNATIONAL

June 3, 2008

Mr. David Ferguson , REFP  
Architect  
ZMM Inc  
222 Lee Street West  
Charleston, WV 25302  
USA

Dear Mr. Ferguson:

Congratulations! You have met the criteria and standards required to maintain CEFPI's professional designation as a Recognized Educational Facility Professional (REFP).

A certificate stating your designation is enclosed. In addition, your name and affiliation information will be included in a list of REFPs posted on the CEFPI Web site. We hope that you will state the REFP designation following your name on business and professional documents.

Under REFP guidelines, you must complete 15 credits of professional development within your three-year cycle to renew your designation. CEFPI will track the activities reported to us and mail you a certificate each year. Please note that you need to self-report training activities or courses that you take to earn REFP points. Please e-mail them to me ([sarat@cefpi.org](mailto:sarat@cefpi.org)) and I will update your records.

As an organization, we are proud of your professional achievements and pleased to have the opportunity to recognize you as an outstanding professional. Your training, experience, and expertise benefit the CEFPI membership and the field of educational facility planning.

Again, congratulations on your REFP designation. I look forward to working with you in the future. Please let me know if you have any questions or if I can be of further assistance.

Sincerely,

  
Sarat Pratachandran  
Research and Grants Coordinator  
Email: [sarat@cefpi.org](mailto:sarat@cefpi.org)

Enclosures



# Recognized Educational Facility Professional



## David Ferguson, REFP

### 2008

Has met the standards of excellence and criteria to be registered as a  
Recognized Educational Facility Professional  
by the Council of Educational Facility Planners International.

John K. Ramsey, CAE, CEFPI Executive Director and CEO

Merle J. Kirkley, REFP, CEFPI President



## Role

Architect, Principal

## Professional Registrations

Registered Architect (WV, OH)

Recognized Educational Facility Professional (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

### Southside Elementary and Huntington Middle School:

Mr. Ferguson led the programming and design effort on this 156,000 sq. ft. facility. This project encompasses all phases of construction; demolition, major renovation and new construction. The original historic 26,000 sq. ft. three story school building was preserved and the remaining less than

## 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, Board Director
- American Institute of Architects, Member
- Member, Council of Educational Facility Planners International (CEFPI)
- Recognized Educational Facility Professional (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

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.

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

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

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

**Highland Hospital:** Mr. Ferguson was responsible for the programming and design effort for this 90,000 sq. ft. Psychiatric Hospital. The design of this facility creates a new lobby space that connects the existing hospital to the new 4 story structure. The new facility replaces older antiquated spaces within the existing facility and adds new patient rooms to allow the hospital the expansion of patient care. The implementation of water recycling for the laundry facility and other "green" components were used as energy saving methods that have a long term impact on the hospital operation.

**Hacker Valley PK-8 School:** Mr. Ferguson was responsible for the programming and design effort for this facility. This 65 student, 31,000 sq. ft. school was a ground breaking facility for the county, West Virginia School Building Authority and the WV Department of Education. The project didn't fit within any standard guidelines or protocol for a new school. Mr. Ferguson was instrumental in developing new guidelines for schools of this size and grade level configurations. The design of this facility is also the recipient of the 2010 WV AIA Honor Award.

#### **Awards and Acknowledgements:**

2010 WV AIA Honor Award *Hacker Valley PK-8 School, Webster County Schools, Hacker Valley, WV*

2007 WV AIA Honor Award *Lincoln County High School, Lincoln County Schools, Hamlin, WV.*

2004 Education Design Showcase "Project of Distinction", *School Planning & Management Magazine*. St Albans High School, St Albans West Virginia, Kanawha County Schools.

2004 Impact on Learning Awards, "Effective Transformation", *School Planning & Management Magazine/CEFPI*. St Albans High School, St Albans West Virginia, Kanawha County Schools.

2004 Published American School & University Magazine's Architectural Portfolio, St Albans High School, St Albans West Virginia, Kanawha County Schools.

May 2005 Article, *Building Blueprints, Science Classroom/Laboratory*. *School Planning & Management Magazine*

March 2006 Article, *Construction Progress, Lincoln County Comprehensive High School, Lincoln County*. *West Virginia Construction News Magazine, West Virginia Contractor's Association*



**Role**

Educational Planning, Corporate Administration, Information Systems, & Business Development

**Professional Registrations**

Associate AIA  
REFP, Council of Educational Facility Planners, International

Mr. Watkins is a member of the marketing team, administers office technology systems, construction administration staff, and educational facility planning at ZMM. As a Principal of the firm he also has project as well as corporate administrative duties and serves on the Board of Directors.

Mr. Watkins' started his career in 1965 in the field of architectural drafting for an architectural firm in Charleston, WV. He began his educational planning experience in earnest in 1970 with a 7 year employment with Kanawha County Schools as Coordinator, and later as Director of Facility Planning, gaining a public sector view and experience base in school planning and design.

He is a **Recognized Educational Facility Professional** by the Council of Educational Facility Planners, International and has been involved in the planning and construction of over 100 school facilities throughout West Virginia.

**Project Experience**

**Kanawha County Schools:** Mr. Watkins most recently is Principal-In-Charge of the new "School of the Future" in Charleston for Kanawha County Schools. This exciting project will break new ground in the design of elementary schools. Mr. Watkins oversees all aspects of the design of this PK-5 School.

**West Virginia Housing Development Fund Offices:** Mr. Watkins is also the Principal In Charge of the new WV Housing Development Fund project, also in Charleston, in Kanawha City. This new office building has 33,000 square feet and will house over 100 employees of the WVHDF. It is scheduled for completion in the summer of 2011.

**Education**

Computer Programming,  
Center College, 1964

Architectural Drafting,  
Center College, 1965

**Employment History**

1991 - Present, Vice President, Principal,  
ZMM

1985 -1991, Principal and Partner, WV  
Architectural Firm

1977 -1985, Project Manager,  
Construction Administrator, WV  
Architectural Firm

1971 -1977, Director of Facilities Planning,  
WV Public School System

**Civic Affiliations**

- Associate American Institute of Architects, Member
- Board Member, FestivALL of Charleston WV,
- Past President, WV Music Hall of Fame



**Role**

Architect, Principal, Business Development

**Professional Registrations**

Registered Architect (WV, OH, KY)

LEED Accredited 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**

**Joint Interagency Training and Education Center**

**(JITEC):** 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

**Education**

Bachelor of Architecture; 1998

The Catholic University of America

Bachelor of Civil Engineering; 1997

The Catholic University of America

**Employment History**

2007 - Present, Vice President, 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
- WV Qualification Based Selections Council, President-Elect, 2011
- Leadership WV 2010
- Charleston Rotary
- West Side Main Street, Board of Directors 2008-2010
- City of Charleston Land Trust 2008-2010
- West Side Elementary School LSIC, Volunteer

production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. The project is aiming for LEED Silver Certification.

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

**Judge Black Courthouse Annex, Wood County Commission:** Mr. Krason was responsible for the programming and design of the adaptive reuse of a former commercial space and movie theaters into a modern courthouse annex. The Judge Black Annex included two independent circulation paths – a secure entry and lobby for access to the Family Court and Prosecuting Attorney, and public access to the Assessor and Sheriff's Tax Department. The facility also houses several large public meeting rooms.

**The Boulevard at 2412:** Mr. Krason was responsible for the design of 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. Mr. Krason also assisted with developing marketing materials for the project.

**Construction and Facilities Management Office Expansion (CFMO Expansion), West Virginia Army National Guard:** 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 2008 AIA Merit Award, focused the client's resources on a new entry and corridor that separated the existing office space from the addition.

**State Office Building #5, 10<sup>th</sup> Floor Renovation, State of West Virginia Office of Technology:** 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 improvements, 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.

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

**Awards and Acknowledgements:**

AIA Merit Award (2008): West Virginia Army National Guard Construction and Facilities Management Office Expansion

Organizer: Making the Business Case for Sustainability Conference, University of Charleston (2010)

Speaker: West Virginia Sustainability Summit, Discover the Real West Virginia Foundation (2010)

Speaker: Sustainable Schools West Virginia Summit, WVU (2009)

Article: The West Side Needs Structural Help, Charleston Daily Mail, January 2005

Article: Memorial to Vertical Towers: A Critical Review, West Virginia Executive, Summer 2004

Henry Adams Fund Certificate of Merit, Excellence in the Study of Architecture, AIA (1998)

Nathan C. Wyeth Award, Excellence in Design, D.C. Chapter of the AIA (1997)



## Role

Principal, Engineering Management, Corporate Management

## Professional Registrations

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

In addition to corporate management, 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 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, 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 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

### Joint Interagency Training and Education Center

**(JITEC):** 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.

**The Plaza at King of Prussia:** 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-

## Education

Master of Science Architectural Engineering; 1976  
Pennsylvania State University

Bachelor of Science Mechanical Engineering; 1973  
West Virginia University

## Employment History

2010 - Present, President, ZMM  
1976- 2010, 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, Bridgmont Community and Technical College
- City of Pt. Pleasant, WV – 2<sup>nd</sup> Ward Councilman for 20 years

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.

**NGK Oxygen Sensor and Spark Plug Plant:** 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.



## Role

Structural Engineer

## Professional Registrations

Professional Engineer (WV)

Mr. Hedrick is responsible for overseeing the design of the Structural systems, ensuring that the structural systems not only meet the building code requirements, but meet the long-term needs of the owner. He performs the analysis and design of the structural components to resist the loads from lateral and gravity forces. He coordinates with the other disciplines in order to integrate the Structural system into the building, working with the architects to determine the most economical way to construct the components of the building. Mr. Hedrick has participated on several LEED registered projects. Mr. Hedrick also oversees the work of other engineers and coordinates the office structural standards.

Mr. Hedrick began his career in structural engineering by designing large scale residential and light commercial structures for hurricane force winds. He has a broad range of experience in masonry, concrete, steel and timber design. In 2007, Mr. Hedrick moved back to Charleston, WV, to take a structural engineering position with ZMM where he supervises the design and production of the structural engineering projects.

## Project Experience

### Joint Interagency Training and Education Center

**(JITEC):** Mr. Hedrick was responsible for the overall structural design of the three story billeting addition. The project met the requirements of the building code along with the additional requirements of the Department of Defense for blast and progressive collapse resistance.

**Ripley Readiness Center:** Mr. Hedrick was responsible for the overall structural design of the single story armory type structure. The project included the design of light weight metal trusses and long-span steel joists in the drill hall.

**West Virginia House Development Fund Building:** Mr. Hedrick was responsible for the overall structural design of the two story steel frame and masonry building. The structure consisted of a composite concrete floor slab supported by steel beams and columns supported on a deep pile foundation.

## Education

Master of Science, Civil Engineering,  
University of Tennessee, 2003

Bachelor of Civil Engineering; 2001  
West Virginia Institute of Technology

## Employment History

2007 - Present, Structural Engineer, ZMM  
2003 - 2007, Structural Engineer, McCall  
Engineering, Inc.

## Civic Affiliations

- American Institute of Steel  
Construction, Member

**Huntington East Middle School:** Mr. Hedrick was responsible for the overall structural design of the single story school building. The design included masonry wall, metal panel walls and storefront glazing in order to allow additional light for the LEED designed project.

**Other Project Experience:**

Mr. Hedrick has researched and developed design criteria for structural insulated panels, prepared designs for earthquake and wind on FRP tanks. His role has also included supervising the work of design engineers in preparation of construction documents.



## Role

Electrical Engineer

## Professional Registrations

Professional Engineer (WV)

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

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

## Project Experience

### Joint Interagency Training and Education Center

**(JITEC):** 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. The project is targeted for LEED Silver Certification.

**Ripley Armed Forces Reserve Center:** 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:** Mr. Casdorff was responsible for the electrical design of the 102,000 SF military training facility which houses the Armed Forces Reserve

## Education

Bachelor of Science; 1995  
West Virginia Institute of Technology

## Employment History

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

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.

**West Virginia Housing Development Fund Office:** 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 floorplan utilizing modular underfloor wiring to accommodate any future modifications of the workspace with minimal disruption to the employees. The project is targeted for LEED Silver Certification.

**Southside Elementary/Huntington Middle School:** Mr. Casdorff was responsible for the electrical design of the 3-story 158,000 SF building housing a combined 1,000 elementary and middle school students. The facility currently sets on the site formerly occupied by two existing schools which served as community landmarks. The new building replaces the respected landmarks with a new state of the art facility embracing the architectural character and charm of the community.

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

**Lincoln County Comprehensive High School:** 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.

**J.M. Chick Buckbee Juvenile Center:** Mr. Casdorff was responsible for the electrical design of the maximum security juvenile detention center. The single story 26,000 SF facility houses intake, medical care, recreation, food service and offers educational programs to help rehabilitate young individuals.

**Gene Spadaro Juvenile Center:** Mr. Casdorff was responsible for the electrical design of the minimum security juvenile detention center which offers a softer approach to rehabilitation relying more on the affection from the caregivers than the restraints of lockdown helping young individuals make better life decisions.

**Lakin Correctional Facility for Women:** Mr. Casdorff was responsible for the electrical design of a dormitory style expansion on site of an existing correctional facility built exclusively for women. The new 124 bed, 24,000SF dormitory style housing unit provides ample amenities and a culinary arts program for the inmate population. An additional 9,500 SF Correctional Industries building was located near the dormitory and offers a garment, sewing and embroidery factory and manufactures inmate clothing, linens and office chairs.



## Role

Civil Engineer

## Professional Registrations

Professional Engineer (WV)

Ms. Cleland is responsible for the site design for ZMM projects. She coordinates with the project architects and mechanical and electrical engineers to integrate the site layout with the building requirements. Ms. Cleland works with the client and the architect to plan the site circulation, parking, and green space. She is responsible for storm water management and utility layout. For sites with environmental concerns, Ms. Cleland coordinates with the appropriate agencies and assists in permit applications.

Ms. Cleland began her career as a 2<sup>nd</sup> Lieutenant in the US Air Force as a project engineer for aerospace projects. After serving four years in the Air Force, she moved back to West Virginia and began her career in civil engineering. She began assisting lead engineers at an environmental and engineering consultant firm with air quality permitting, utility extension projects, and site development projects. After gaining experience at the consultant firm, Ms. Cleland joined ZMM as the civil engineer for the firm. She has experience with urban and rural site, storm water management system, and site design.

## Project Experience

**Harts PK-8 School:** Ms. Cleland was responsible for site design and permitting. The site was constrained by the Guyandotte River, State Route 10, and an unmarked cemetery in the middle of the site. The site was laid out to avoid disturbance of the cemetery and create a building pad and access roads to satisfy the client, State Fire Marshall, and vehicular circulation. The site preparation package included building pad grading, rough site grading, and storm water management. Ms. Cleland coordinated with the local utility agencies, WV Department of Transportation, the United States Army Corps of Engineers, the local floodplain manager, and the WV Department of Environmental Protection.

**Family Readiness Center (WVARNG):** Ms. Cleland was responsible for site design for a two story building located on a hillside. Due to the existing slopes, Ms. Cleland performed several analyses to determine the optimal finished floor elevations of the building. The building was set into the hillside to allow for on-grade access to both entrances. The access road was design

## Education

Bachelor of Science in Education,  
West Virginia State University, 2001

Bachelor of Science in Aerospace  
Engineering, United States Naval  
Academy, 1993

## Employment History

2009 - Present, Civil Engineer, ZMM

2002 - 2009, Project Engineer, Potesta &  
Associates, Inc.

1993 - 1997, Aerospace Engineer, United  
States Air Force

## Civic Affiliations

- National Society of Professional  
Engineers
- West Virginia Society of Professional  
Engineers

with handicap parking at both entrances. The client wanted the building to have the least impact as practical for the site development. A large segmental block wall was utilized to limit disturbance of cut slopes.

**West Side Elementary School:** Ms. Cleland was responsible for the site design and stormwater management for this site located within a city block. The site utilities were readily available and minimal grading was required for this site. The challenge was the stormwater management requirements. The pre-construction site conditions were a small school building and a large play field took up most of the site. The post- construction site conditions were the opposite creating a significant increase in stormwater runoff rate. A stormwater retention system was designed to infiltrate the majority of the stormwater and recharge the groundwater.

**Project Experience with Other Firms:** Ms. Cleland assisted with site development projects, utility extensions, pump station design, outlet structure design, and wastewater treatment plant design prior to coming to ZMM. In the eastern panhandle of West Virginia, Ms. Cleland designed the site layout and utilities for a planned hill side community with phased development plans. She assisted on the site utilities and sanitary sewer extension project for a two schools in Southern West Virginia.

Ms. Cleland also has experience with environmental investigations and air quality permitting. She assisted industrial clients with preparation and assembly of air permit application to the West Virginia Department of Environmental Protection. Ms. Cleland coordinated with the agencies through to permit issuance.

# History and Philosophy of ZMM



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

**CONTACT:**  
Phone 304.342.0159  
Fax 304.345.8144  
www.zmm.com

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

ZMM has maintained a diverse portfolio since the founding of the firm. Early commissions included higher education projects for West Virginia University and Concord College, State Office Buildings 5, 6, & 7 on the State of West Virginia Capitol Campus, and armories for the West Virginia Army National Guard. Maintaining a diverse practice for more than fifty years has provided ZMM with extensive experience in a variety of building types, including: educational facilities; governmental facilities (military, justice, correctional); healthcare facilities; commercial office space; light industrial facilities; and multi-unit residential facilities.

The original partners transferred ownership of the firm to Mr. Steve Branner, AIA and Mr. Robert Doeffinger, PE in 1986. Mr. Branner and Mr. Doeffinger helped guide and expand the firm to its present size of thirty-five (35) people. More recently Mr. Rod Watkins, REFP, Mr. David Ferguson, AIA, and Mr. Adam Krason, AIA, LEED-AP joined in ownership of the firm.



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 also employs a sustainability coordinator who assists our clients in determining appropriate sustainable design strategies for their projects. 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.

# History and Philosophy of ZMM

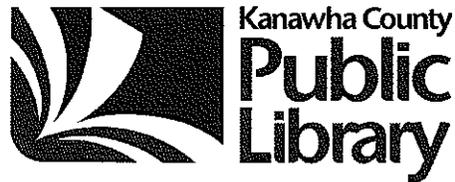


As ZMM enters our second half-century providing professional design services in West Virginia, we remain committed to the ideal of providing high quality, client focused, design solutions that meet budget and schedule requirements. This commitment to quality has been recognized through both State and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

## Community Support

In addition to our design efforts, ZMM is supportive of institutions and organizations that contribute to the cultural and educational landscape in West Virginia.

ZMM offers financial support to several community and state-wide institutions which reflect the superior quality that we strive to achieve on each of our projects. The following organizations also impact the educational environment through their support of local artisans, performances, broadcasts, and community service:



West Virginia Symphony Orchestra

# Professional Services



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 eight 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.

#### ZMM offers the following professional services:

##### **Pre-Design**

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

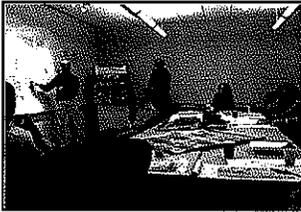
##### **Post Design**

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

##### **Design**

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

# Quality Assurance



At ZMM, we strive to be the best. Our Quality Assurance Program is one step in the process of exceeding our clients' expectations. Our QA/QC Program is led by Mr. Steve Branner, AIA and Mr. Rod Watkins, REFP, both Principals of the firm, who combined bring more than 80 years of experience ensuring the quality of every ZMM project.

## 1. Selecting the Project Team

ZMM's diverse staff ensures that each project team is made up of highly qualified members, each dedicated to the project's success. Project team members are selected based upon relevant experience, and ability to help achieve the client's vision.

## 2. Identifying Project Requirements

Project team members are fully integrated in each phase of the design process, ensuring a quality project from the beginning, to take advantage of early sustainable design decision-making. The project requirements are included in a 'Basis of Design' that each member of the project team can access. The 'Basis of Design' helps guide important project decisions.

## 3. Identifying Client Expectations

Knowing and understanding our clients' expectations is our goal. This knowledge gives ZMM a baseline for exceeding expectations.

## 4. Ongoing Project Reviews

As part of the ongoing project reviews, we conduct quality assurance evaluations during each stage of the project:

- Schematic Design Phase
- Design Development Phase
- Construction Documents Phase
- Construction Administration Phase

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

## 5. Post Project Review

At the completion of every project, ZMM staff members participate in a learning session to gain insight useful for future projects. These reviews typically include participation from the owner and the contractor

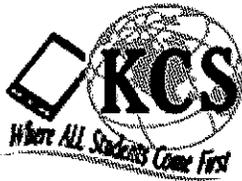
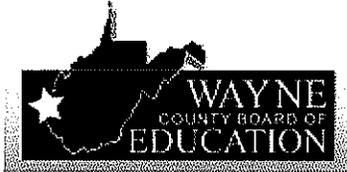
## 6. Staff Training, Assessment and Enhancement

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

# Quality Assurance



The quality of our work is key to our continued success and repeat client base.





## Role

Project Manager

## Professional Registrations

Professional Engineer (WV, IN)  
LEED Accredited Professional

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

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

## Project Experience

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

**Huntington East Middle School:** Mr. Pruett was responsible for the HVAC systems design for the LEED-registered school. This school features numerous sustainable features, including an air monitoring system for verifiable indoor air quality, variable refrigerant flow (VRF) systems for portions of the school that will operate year-round, preheating of the domestic hot water with the heating hot water return. Mr. Pruett also conducted an extensive energy analysis of the building and all of its systems to

## Education

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

## Employment History

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

## Civic Affiliations

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

maximize the effect of each component, resulting in a projected reduction in energy consumption of 32% compared to a baseline analysis.

**Project Experience with other firms:**

**Palm Beach County Convention Center:** Mr. Pruett was responsible for the HVAC systems design for the 350,000 square foot facility. These systems include a 2400 ton central chiller plant, a smoke evacuation system and 16 variable volume air handling units requiring complex controls for humidity control in the south Florida climate.

**Le Merigot Hotel:** Mr. Pruett was responsible for the HVAC systems design for the 100 room boutique hotel and lounge. The HVAC system features a heat recovery chiller, condensing boilers and an energy recovery air handling unit that treats all of the ventilation air for the building. The heat rejected from the heat recovery chiller is used to preheat the domestic hot water or the heating hot water, and due to the domestic hot water demand in the hotel and kitchen, the cooling towers rarely operate.

**Southern Indiana Career and Technical Center (SICTC):** Mr. Pruett was responsible for the HVAC systems design for the 262,000 square foot facility. The project features a complex air system necessitated by the diversity of the educational programs featured in the facility: welding, auto shop, building trades, electronics, radio/TV communications, culinary arts, etc. The main mechanical room was also designed to be an educational space, utilizing color-coded piping, a corresponding color-coded equipment schematic and an accessible controls workstation to aid the students in learning about building systems.

**North Central High School Natatorium:** Mr. Pruett was responsible for the HVAC systems design for the Olympic-size pool and athletic offices addition to the high school. The air distribution system was designed specifically to remove the chloramines from the pool surface, nearly eliminating the "pool smell" from the natatorium and making the air healthier for the swimmers.



## Role

Architect, Project Manager

## Professional Registrations

Registered Architect (WV)

Mr. Estep has worked as an Architect and Project Manager on many different project types such as Commercial Office, Educational (K-12 and Higher Education) and Judicial. His responsibilities include programming, design, document production and coordination of architectural and engineering disciplines.

Mr. Estep is one of ZMM's lead architectural designers, and has demonstrated the ability to deliver designs with a strong visual presence while maintain the clients budget.

## Project Experience

**Southern West Virginia Community College:** Mr. Estep was responsible for design and managing the project team 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 project is targeting LEED Silver Certification.

**Wood County Justice Center:** Mr. Estep was responsible for design and managing the project team for an adaptive reuse of an existing 32,000 SF building creating new Magistrate Courts and Sheriff's Department. The project is targeting LEED Certification.

**West Virginia Housing Development Fund Offices:** Mr. Estep was responsible for programming, design and managing the project team for a new 37,000 SF office building. The 2-story building, located on a former industrial site, features a widely flexible office/furniture layout and daylighting for the interior.

**West Side Elementary School:** Mr. Estep was responsible for design and managing the project team for a new 66,500 SF school for 380 students. In addition to typical instructional spaces, the school, located on an urban site, features a full dental clinic, a community health clinic and community office and meeting space.

## Education

Bachelor of Architecture,  
University of Tennessee, 1992

## Employment History

2003 - Present, Architect, Project  
Manager, ZMM

2001 - 2003, Architect, Director of  
Design, WV Architecture Firm

1997 - 2001, Project Architect, Associate,  
FL Architecture Firm

1992 - 1997, Architect, ZMM

## Civic Affiliations

- American Institute of Architects,  
Member

**Milton Middle School:** Mr. Estep was responsible for design and managing the project team for this new 96,000 SF school for 700 students. The design featured "wings" for each grade level and daylighting in all instructional spaces.

**Erma Byrd Center for Public Higher Education:** Mr. Estep was responsible for programming, design and managing the project team for a new 33,000 SF building consisting of offices and classrooms used by 6 different colleges and universities. Designed to be used as a teaching tool, the building features daylighting and sensors that monitor mechanical and electrical systems to allow students to see how the building reacts to changes in the environment.

**Riverview High School:** Mr. Estep was responsible for design and managing the project team for a new 138,000 SF school for 750 students. Extensive sitework (including road relocation) was required to create a site for this and the adjacent elementary school. This consolidated school replaced other flood-prone schools in the county.

**Bradshaw Elementary School:** Mr. Estep was responsible for design and managing the project team for a new 44,500 SF school for 370 students. Extensive sitework (including road relocation) was required to create a site for this and the adjacent high school. This consolidated school replaced other flood-prone schools in the county.

**Previous Experience:**

*North Dale Mabry Branch, Republic Bank.* Responsibilities included design, preparation of construction documents and coordinating with consulting engineers for an extensive addition and renovation project for new 2,500 square foot stand-alone branch in Tampa, Florida.

*WUFT-TV/FM - University of Florida.* Responsibilities included design, preparation of construction documents and coordinating with consulting engineers for an addition to existing television and radio facility consisting of new office and radio studio space in Gainesville, Florida.

*WUSF-TV - University of South Florida.* Responsibilities included design, preparation of construction documents and coordinating with consulting engineers for a new 25,000 square foot on-campus public television station in Tampa, Florida.

**Awards and Acknowledgements:**

Honor Award for Excellence in Architecture, AIA West Virginia (2008), Erma Byrd Center for Public Higher Education

Design Award, AIA Tampa Bay, (1999), WUSF-TV



**Role**

Interior Designer / Sustainability Coordinator

**Professional Registrations**

NCIDQ Certification #014182; 1997

LEED Accredited Professional, Building Design & Construction;  
2003

Jill Watkins is ZMM's interior designer and sustainability coordinator. After earning a BS in Interior Design from the University of Tennessee, Jill lived in Cleveland and Boston for 13 years before coming back home to Charleston in 2008. During that time she worked on a wide variety of commercial interiors projects, and nurtured a passion for sustainable design.

She was one of the founding members of the Cleveland Green Building Coalition; interior designer and sustainability coordinator for the Federal Courthouse in Youngstown Ohio, which was the first courthouse in the country and the first building in Ohio to become LEED Certified; she was interior designer and sustainability coordinator for Cubellis' corporate headquarters in Boston, which is now LEED for Commercial Interiors Gold Certified; Jill led the green effort that has since become part of Procter & Gamble's green building standards; she was Chapter President of the International Interior Design Association in Ohio for 4 years; and is currently involved with all of ZMM's LEED projects and several green building outreach efforts on behalf of the firm.

**Project Experience**

**Joint Interagency Training and Education Center (JITEC):**

Targeted for LEED for New Construction v2.2 Silver Certification.

For this multi-faceted and complex project, Jill assisted in coordinating interior design for the entire project, and led the interiors effort for the Billeting (hotel) building. Jill also played a leadership role in the LEED process as co-LEED Administrator and was instrumental in the team achieving several LEED credits. Jill was responsible for interior finish selections, finish plans, reflected ceiling plans, interior elevations, custom casework design and interior details.

**Education**

Bachelor of Science in Interior Design;  
1993

The University of Tennessee

**Employment History**

2008 - Present, Interior

Designer/Sustainability Coordinator, ZMM

2005 - 2007, Project Designer, Boston  
Architecture/Engineering Firm

1995 - 2005, Interior Designer, Various  
Cleveland Architecture/Engineering Firms

**Civic Affiliations**

- Bridgemont Sustainability Institute  
Advisory Council, Member
- FestivALL Steering Committee,  
Member
- Clay Center Development  
Committee, Member

**Ripley Armed Forces Reserve Center – WV Army National Guard:**

Targeted for LEED for New Construction v2.2 Silver Certification.

Jill worked closely with ZMM architects and engineers to fully develop the interiors package. Primary focus occurs in the main lobby, where coordination of exterior and interior finishes, lighting, and ceiling design was critical. In the Assembly/Drill Hall, Jill coordinated the interior acoustic requirements with finishes and architectural elements to create a unique, flexible space for many types of uses. Jill is LEED Administrator for the project.

**Huntington East Middle School:**

Targeted for LEED for Schools 2009 Silver Certification.

As LEED Administrator, Jill assisted in coordinating design decisions to maximize LEED points and overall operational savings for the client. Jill was also responsible for interior color selections and finish plans.

**Wood County Justice Center:**

Targeted for LEED for New Construction v2.2 Certification.

Wood County chose an existing building in downtown Parkersburg to renovate for its Magistrate Courts, Sheriff's Department and Holding Center, and Jill was responsible for programming, space planning, coordination with consultants, researching multiple standards and codes, interior finish selections, reflected ceiling plans and furniture selections.

**West Virginia Housing Development Fund Office:**

Jill was responsible for programming, interior elevations and details, lighting design, reflected ceiling plans and furniture and finish selections for this new 30,000 square foot office building.

**Other Project Experience:**

Procter & Gamble Gillette Corporate Headquarters, Boston, MA; designed to meet Boston Green Building Standards

Cubellis Corporate Headquarters, Boston, MA; LEED for Commercial Interiors Gold Certified

University of Akron Arts & Sciences Classroom Building, Akron, OH

University of Akron Student Affairs Building [programming], Akron, OH

Nathaniel R. Jones Federal Building and U.S. Courthouse, Youngstown, OH; LEED Certified

Beachwood Middle School, Beachwood, OH

Cleveland State University Library [schematic design], Cleveland, OH

**Awards and Acknowledgements:**

President, Ohio/Kentucky Chapter of the International Interior Design Association

Advisory Board Member, Cleveland Green Building Association

Vice President of Membership & Communication, Coalition of Interior Designers for Legislation in Ohio



## Role

Architect, Specifications Writer

## Professional Registrations

Registered Architect (WV, OH,)

LEED Accredited Professional

NCARB Certification

Construction Documents Technologist (CDT)

Mr. Epling is responsible for the creation and coordination of Project Manuals including specifications for all ZMM projects. The coordination duties include the incorporation of specifications from several design disciplines including structural, plumbing, HVAC, and electrical specifications.

Mr. Epling's duties also include determining the type and number of bid packages and resulting construction contracts for a particular project, and following through with the incorporation of the appropriate contract forms and contract conditions into the Project Manuals.

Mr. Epling began his career as a licensed Architect in October 1982 and has acquired experience in all aspects of the architectural practice working on a variety of building types including single-family homes, medical clinics, industrial facilities, theatre restoration, commercial-retail buildings, and college dormitory and elementary school remodeling.

Mr. Epling began working at ZMM in February 1998 and has worked in preparation and coordination of working drawings, construction contract administration, and beginning in June of 2006, took on the role of specifications writer and has remained in that capacity.

## Project Experience

Mr. Epling's recent project experience includes the preparation of Project Manuals for the following ZMM projects:

Erma Byrd Center – Beckley, West Virginia  
Joint Interagency Training & Educational Center (JITEC) –  
Kingwood, WV  
Milton Middle School – Cabell County, WV  
Barboursville Middle School – Cabell County, WV

## Education

Bachelor of Architecture;  
Virginia Polytechnic Institute and State  
University; 1977

## Employment History

1998 - Present, Project Architect &  
Specifications Writer, ZMM

1997 - 1998, Project Architect, OH Firm

1982 - 1997, Architect, Self Employed,  
Located in OH

1978 - 1982, Intern Architect, OH Firm

## Civic Affiliations

- American Institute of Architects,  
Member
- West Virginia Symphony Chorus,  
Member

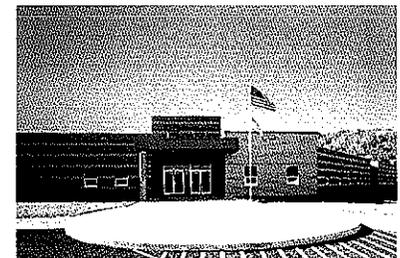
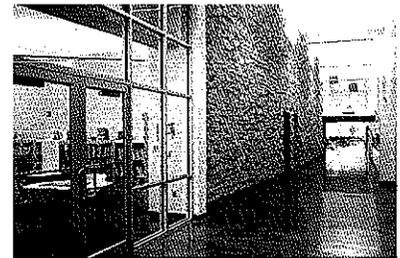
Southside Elementary/Huntington Middle School – Cabell County, WV  
laeger - Big Creek High School – McDowell County, WV  
Bradshaw Elementary School – McDowell County, WV  
Hacker Valley Pre K –8 School – Webster County, WV  
WV Army National Guard - Glen Jean Armed Forces Center – Glen Jean, WV  
WV Army National Guard – Ripley Armed Forces Reserve Center – Jackson County, WV  
WV Army National Guard – Morgantown Readiness Center – Morgantown, WV

**Cedar Lakes Comprehensive Educational Facilities Plan**  
**RFQ# EDD345321**



**Funded Projects:**

- Cedar Lakes Conference Center
- Lincoln County Comprehensive High School
- St. Albans High School - Renovations
- Greenbrier East High School - Renovations/Additions
- Spring Valley High School
- Huntington East Middle School
- West Side Elementary School
- Ft. Gay PK-8 School
- Harts PK-8 School
- Hacker Valley PK-8 School
- Martha Elementary School
- Wayne Elementary School
- Ronceverte Elementary School
- Village of Barboursville Elementary School
- Guyandotte Elementary School
- Comprehensive Educational Facility Plans for Several Counties in the State of West Virginia in 2010



# Cedar Lakes Conference Center

West Virginia Department of Education



LOCATION:  
HC 88, Box 21  
Ripley, WV 25271  
Phone: 304.372.7860

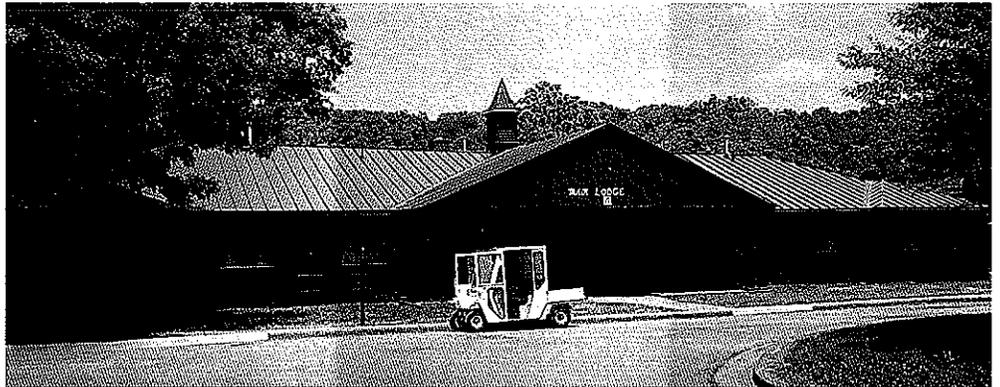
CONTACT:  
West Virginia Department of Education  
1900 Kanawha Blvd, East  
Charleston, WV 25305  
Phone: 304.558.3660



ZMM completed various renovation projects at Cedar Lakes Conference Center between 2006 and 2009. These projects included structural repairs and installing new standing seam metal roofing on numerous buildings at the conference center. Another project was upgrading doors and windows in numerous buildings on the site.



ZMM also completed a complete upgrading of the site lighting system and upgrades to the majority of the roads and parking areas.



# St. Albans High School

Kanawha County Schools



LOCATION:  
St. Albans, West Virginia

SIZE:  
216,500 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*



One outstanding feature of the completed renovation of St. Albans High School is its unique, inviting physical entryway and the aesthetically pleasing and functional commons/cafeteria area. The commons is a visual focal point of the school creating a natural flow from the front entrance, through the commons to the outside assembly/instructional area, it also serves as a connecting hub between the academic spaces and the physical education and auditorium areas.

Significant green space was retained and enhanced which providing an inviting and safe approach to the high school building. An outside amphitheater, located adjacent to the music and theater departments, provides ample space for music and drama productions as well as a gathering space for students. In response to the students need for more "outside living space" the rear dining plaza was created. It has a visual impact on the interior and provides a flexible learning environment for the students and educators.

The addition of an auxiliary gym, renovations to the auditorium complex, a new media center and other additions and improvements allow spaces for more extensive use by the community. Renovations to the auditorium resulted in a space that is educationally functional and is a source of pride for the students and the entire community.



# St. Albans High School

Kanawha County Schools



**LOCATION:**  
St. Albans, West Virginia

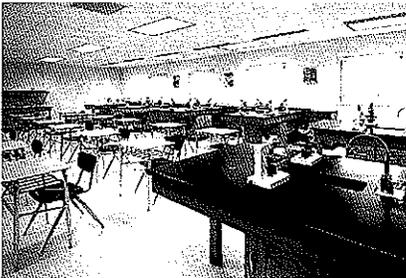
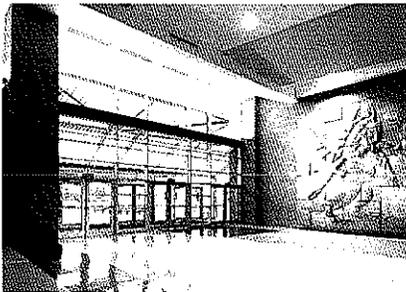
**SIZE:**  
216,500 SF

**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*



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.

St. Albans High School was completed during the summer of 2003 and was occupied by the student body at the beginning of the 2003-2004 school year.

# Lincoln County High School

Lincoln County Schools



**LOCATION:**  
Hamlin, West Virginia

**SIZE:**  
217,000 SF

**COMPLETION:**  
August 2006

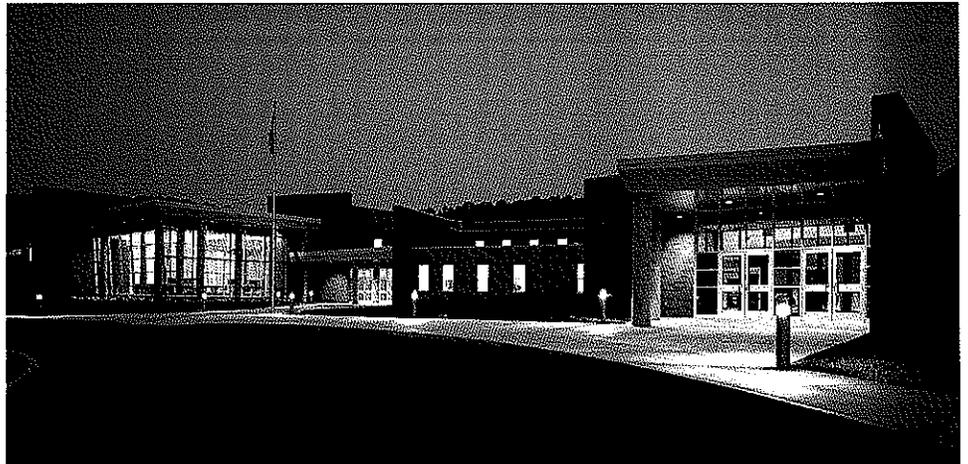
**COST:**  
\$32 Million

**CONTACT:**  
Mr. Steve Pauley  
Superintendent  
10 Marland Avenue  
Hamlin, WV 25523  
304.824.3033

**AWARDS:**  
2007 AIA Honor Award  
West Virginia Chapter  
*Excellence in Architecture*

Education Design Showcase  
*Project of Distinction award*

American School & University  
*Outstanding Building Design*



The Lincoln County High School combines four existing high schools into one. This facility includes 45,000 SF of both traditional and non traditional vocational space. Students have the opportunity to access vocational classes without leaving the building. Along with the traditional classrooms, some additional programs were added as well. The Health Occupations Lab will operate in conjunction with the Doctor's Office Clinic on site. Students enrolled in that program have the opportunity for "job shadowing. The Clinic operates six days a week, twelve months a year.



The high school is the focal point of the community and a community college wing occupied by Southern West Virginia Community College. The college offers classes during the day and evening. High School Students will have the opportunity to take college classes during the day. The community colleges Distance Learning facility and the Science and Computer Lab will be accessible to the high school students for daytime classes.



The building provides a unique learning opportunity for students. Day-lighting and automatic lighting controls provide state of the art technology for students to see how sustainable design, energy conservation, and technology work together. This facility is one of the first educational buildings in the state of West Virginia to include sustainable building design features. A fully integrated technology distribution system is provided throughout the building. Students and faculty have access to this technology computers throughout the facility.

# Greenbrier East High School

Greenbrier County Schools



**LOCATION:**  
Lewisburg, West Virginia

**SIZE:**  
205,057 SF

**COMPLETION:**  
Fall 2005

**COST:**  
\$11.8 Million

**CONTACT:**  
Mr. John Curry  
Superintendent  
202 Chestnut Street  
Lewisburg, WV 24901  
304.647.6457



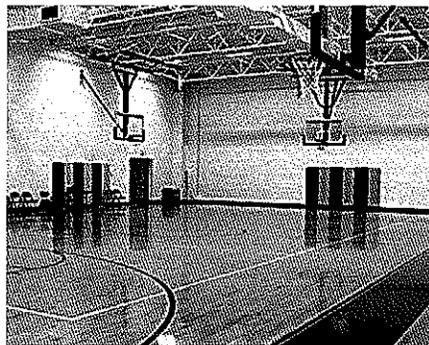
Greenbrier East High School was a campus style plan with six individual disconnected buildings. The County desired to construct a seventh disconnected structure to house 300 ninth grade students which would be moved to this facility to achieve a true middle school configuration in the County.



Instead, ZMM designed a concept that integrated ninth grade students into the existing facilities which allowed for a smaller addition to accommodate the enlarged enrollment. Also, the scheme provided enclosed connections between all buildings which eliminated 22 exterior, unsupervised entrances.

All seven buildings have different floor elevations, some differ by as much as 10 feet, but all are now fully accessible via interior corridors, ramps and elevators.

Included in this extensive renovation was replacement the 35 year old HVAC system, a new auxiliary gym, new classroom lighting and electrical systems, all of which will improve the learning environment for all 1200 students.



# Hacker Valley PK-8 School

Webster County Schools



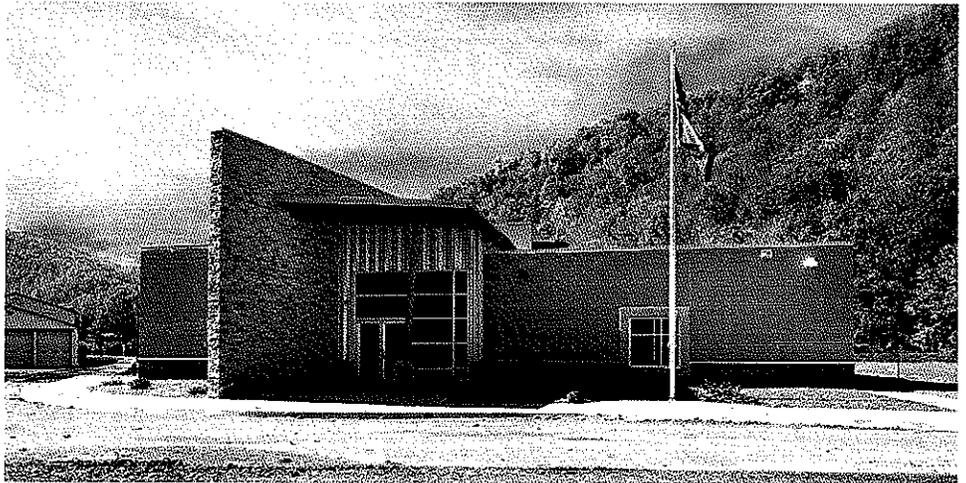
**LOCATION:**  
Hacker Valley,  
West Virginia

**SIZE:**  
30,433 SF

**COMPLETION:**  
2008

**COST:**  
\$8.2 Million

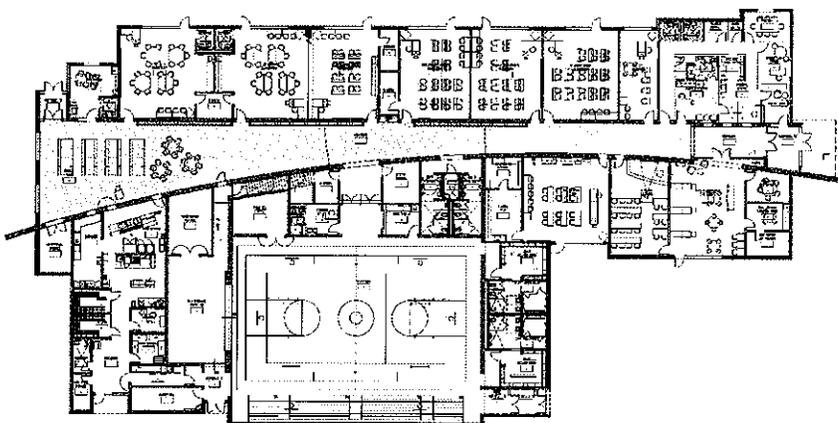
**CONTACT:**  
Mr. A.J. Rogers, Jr.  
Superintendent  
315 South Main Street  
Webster Springs, WV  
26288  
304.847.5638



The new Hacker Valley Pre-K-8 School replaces the old outdated modular facilities and metal building. It is constructed on beautiful farm land behind the existing school. The area is rich with community involvement, and home to many professional artisans.

This had an impact on the materials being selected for the building. The building is host to a large curved stone wall and heavy timber frame entrances. The remote area has a low student population which allowed some creative and unique spaces to be designed within the school.

The facility includes a dining room that doubles as a commons area and kitchen. The gymnasium area also has a stage area that serves as the music classroom. The science room serves as a dual purpose room for art classes. The Pre-K and kindergarten are separate classrooms that open directly onto the playground. The low enrollment dictates dual grades in each classroom. Each classroom also opens directly outside to outside classroom area.



# West Side Elementary School

Kanawha County Schools



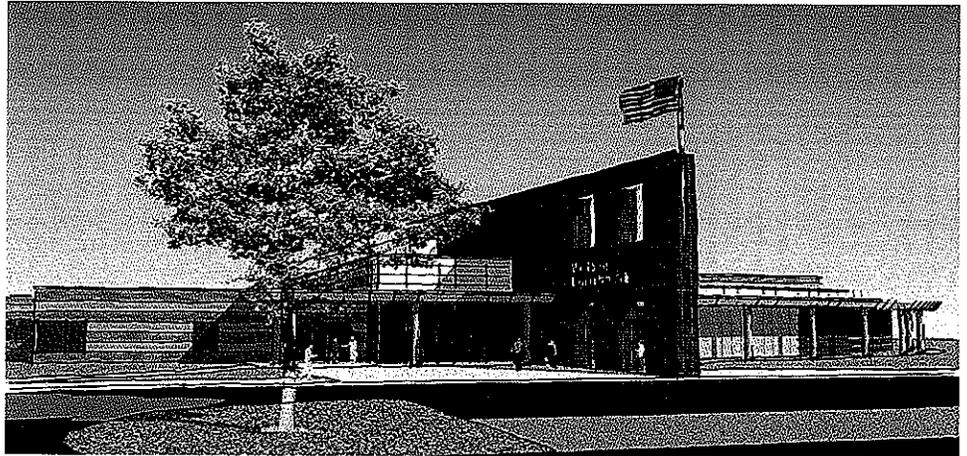
**LOCATION:**  
Charleston, West Virginia

**SIZE:**  
66,400 SF

**COMPLETION:**  
Est. 2011

**COST:**  
\$ 14 Million

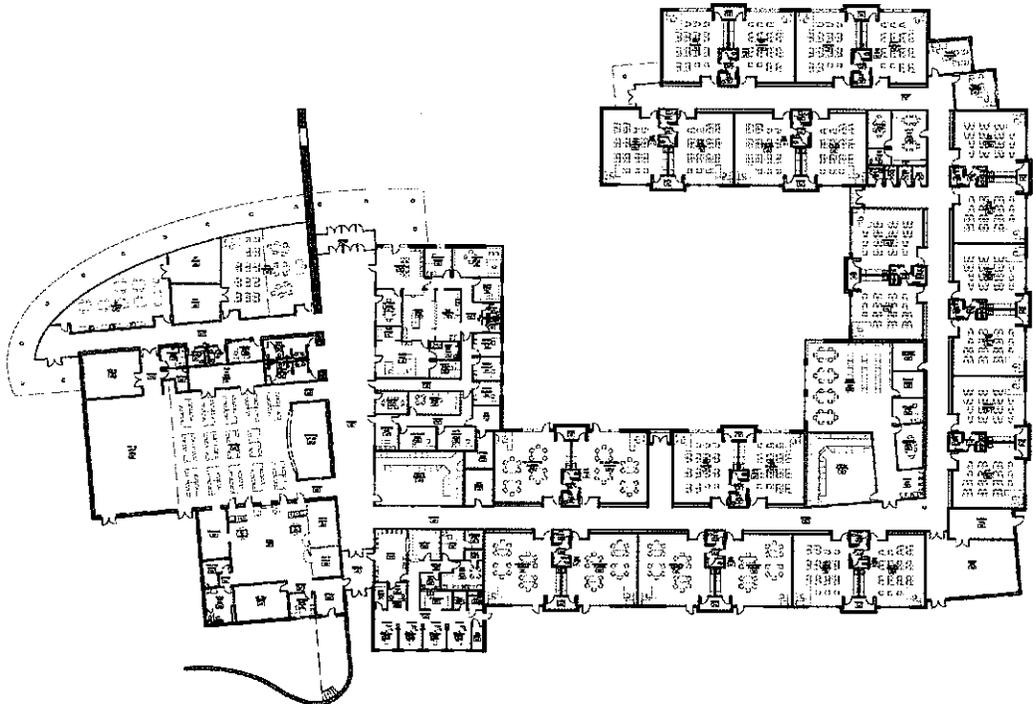
**CONTACT:**  
Dr. Ronald Duerring  
Superintendent  
200 Elizabeth Street  
Charleston, WV 25311  
304.348.7732



This new Elementary School will for the west side of Charleston will serve 380 students from pre-Kindergarten through 5<sup>th</sup> grade. The new school includes a commons/cafeteria space with an area for student performances, an activity room for Physical Education, full kitchen, Media Center, art room and music room.

Each classroom has its own restroom allowing teachers to have close supervision of the students. The new school will be a focal point in the community and will provide office space, meeting rooms and a computer classroom for adult education for neighborhood patrons.

A unique feature of this school is a complete dental clinic dedicated to serving the students of other local county schools. Each classroom has large windows for natural light, which studies have shown increased student achievement and teacher morale and reduce absenteeism.



# Martha Elementary School

*Cabell County Schools*



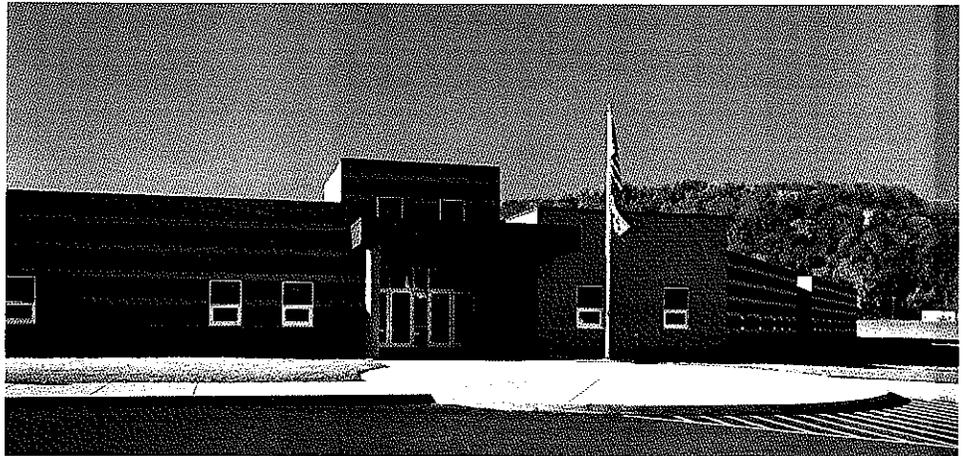
**LOCATION:**  
Martha, West Virginia

**SIZE:**  
33,000 SF

**COMPLETION:**  
2008

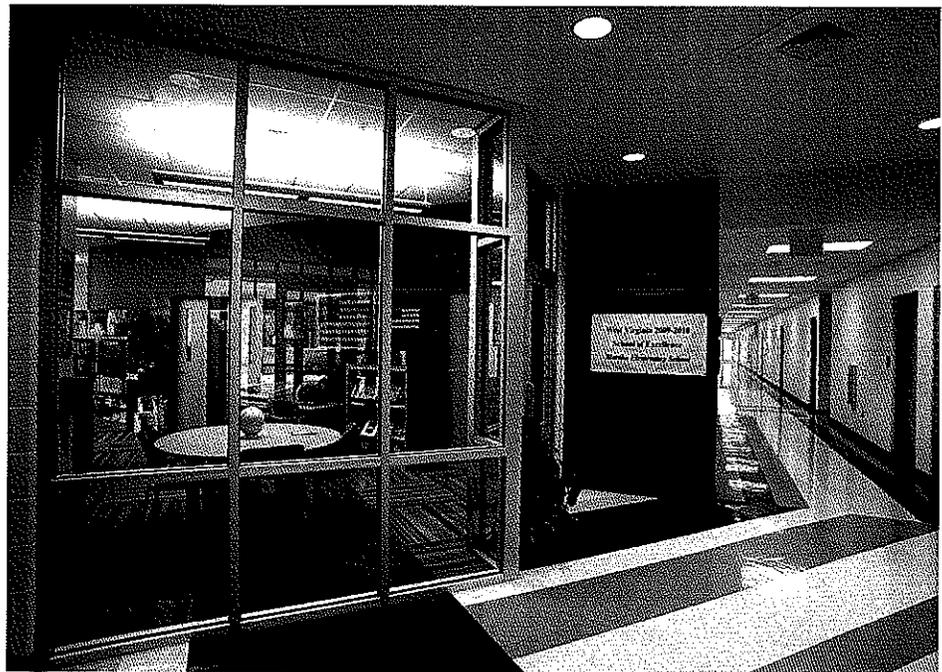
**COST:**  
\$6.9 Million

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



The New Martha Elementary school for 309 students replaces an old out-dated facility that was partially built as a temporary structure. It is constructed on beautiful rolling farm land behind the existing school.

The larger site allows for future expansion as enrollment increases and large play areas that the existing facility was not able to accommodate. The facility includes food preparation facilities, cafeteria, multi-purpose room, media center, art and music facilities, and traditional elementary classroom spaces.



# New Harts PK-8 School

Lincoln County Schools



LOCATION:  
Harts, West Virginia

SIZE:  
71,000 SF

COMPLETION:  
Est. Fall 2011

COST:  
\$14M

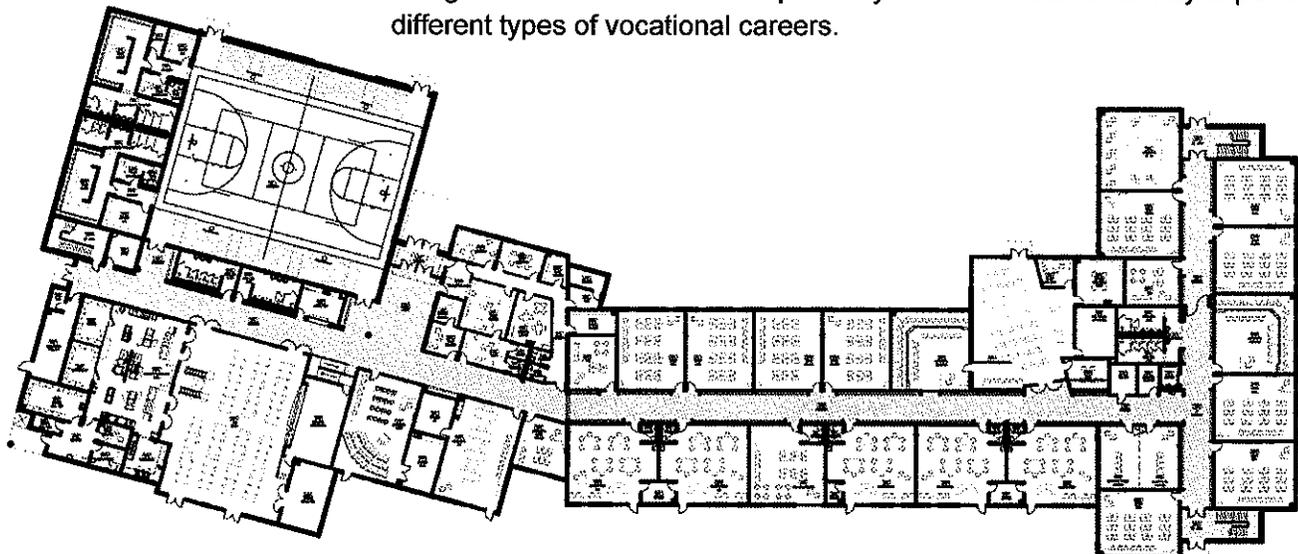
CONTACT:  
Mr. David Roach  
Superintendent  
10 Marlin Avenue  
Hamlin, WV 25523



The New Harts PK-8 School replaces two existing facilities that have been in disrepair and lacking the spaces and technology delivery systems required for 21<sup>st</sup> century learning skills. The total enrollment for the school is 455 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.

The Dining Room doubles as a seating area for the Stage, the Music and Art Classrooms are located close to the Stage and can be utilized as support spaces for a theatrical production. The Gymnasium is located easily for public access but can also be divided for simultaneous use by Elementary and Middle School classes.

The academic areas are flanked by a state of the art Media Center and three Computer labs, one for each grade configuration. One Computer Lab is located by the Media Center for adult instruction in the off school hours. Each Classroom has seven student computer locations and a teacher location. In addition to the typical classrooms there are Science Classrooms and Labs along with a new Vocational Exploratory Lab where students may experience different types of vocational careers.



# Wayne Elementary School

Wayne County Schools



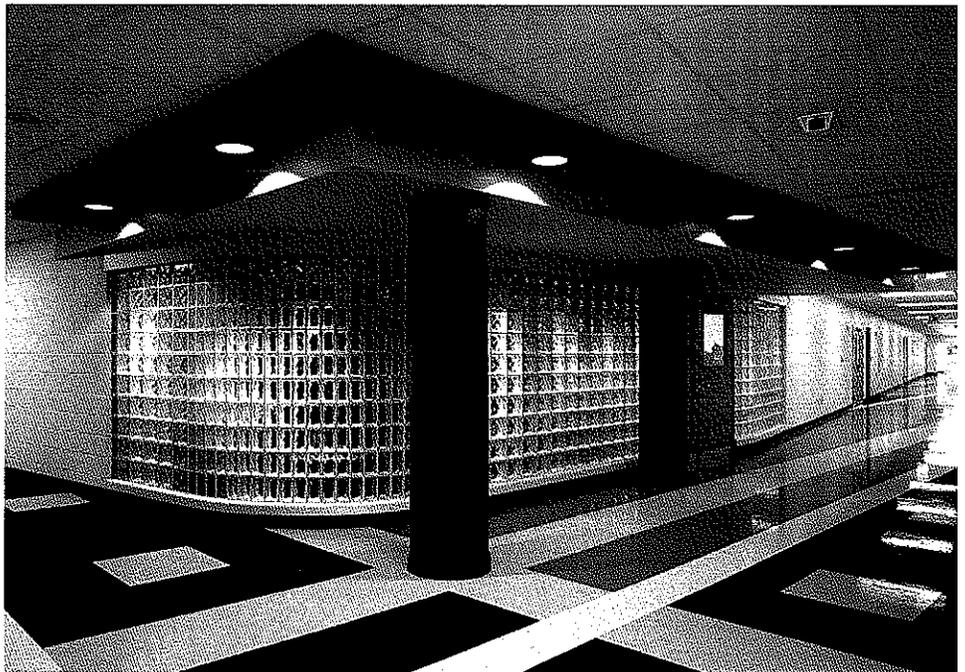
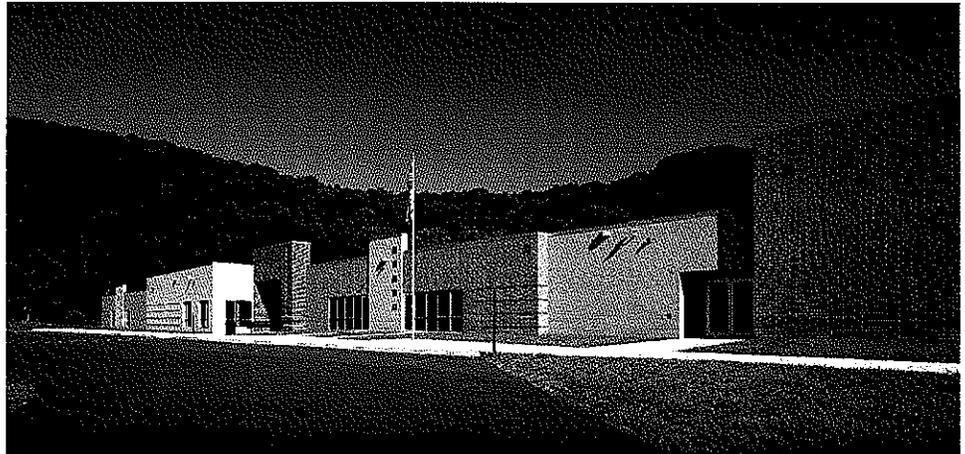
**LOCATION:**  
Wayne, West Virginia

**SIZE:**  
48,276 SF

**COMPLETION:**  
2006

**COST:**  
\$7.1 Million

**CONTACT:**  
Mr. Gary Adkins  
Superintendent  
PO Box 70  
Wayne, WV 25570  
304.272.5116



A state-of-the-art media center is the centerpiece of the new Wayne Elementary School, located in Wayne, WV. The use of bright, cherry color throughout the building helps create an exciting learning environment.

Designed for 600 Pk-5 students, this facility includes kindergarten rooms, classrooms, art, and music rooms, separate dining, physical education and other academic spaces.

# Village of Barboursville Elementary School

*Cabell County Schools*



**LOCATION:**  
Barboursville,  
West Virginia

**SIZE:**  
61,000 SF

**COMPLETION:**  
2001

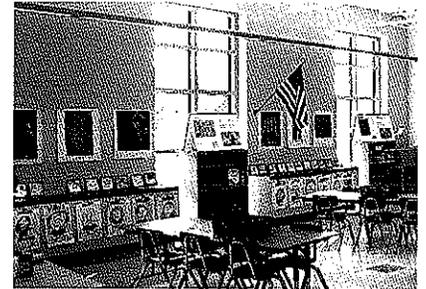
**COST:**  
\$7.2 Million

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

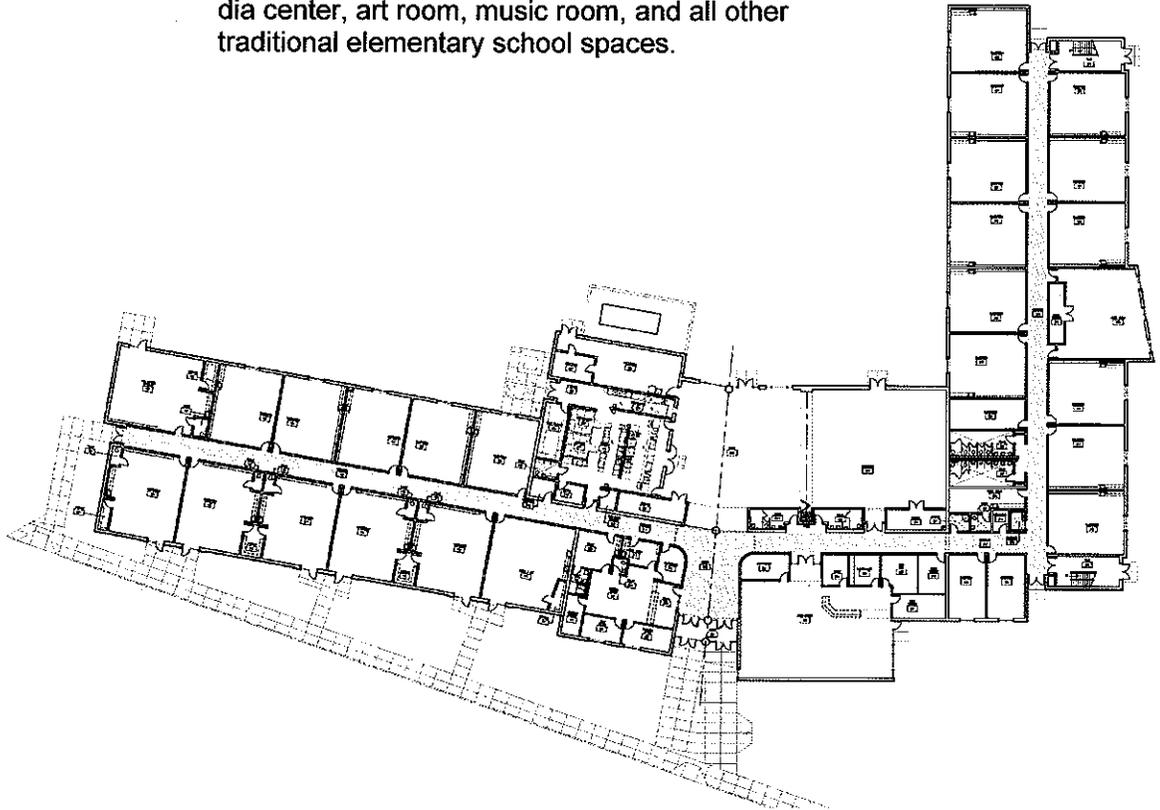


This new elementary school for 650 students is constructed in an urban area in the Village of Barboursville. The facility was constructed on an existing school site while the existing school remained in use.

After completion of the new facility the existing school was removed and the new playground was constructed in its place.



The new construction includes food preparation facilities, cafeteria, physical education room, media center, art room, music room, and all other traditional elementary school spaces.



# Erma Byrd Center

Public Higher Education Center



LOCATION:  
Beaver, West Virginia

SIZE:  
33,000 SF

COMPLETION:  
August 2007

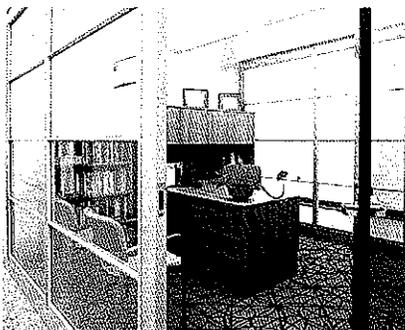
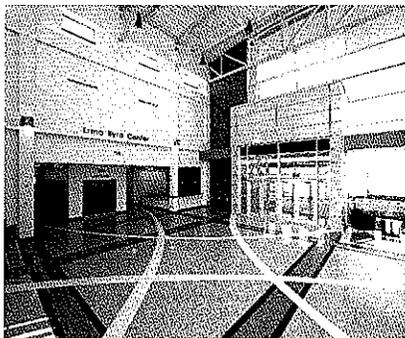
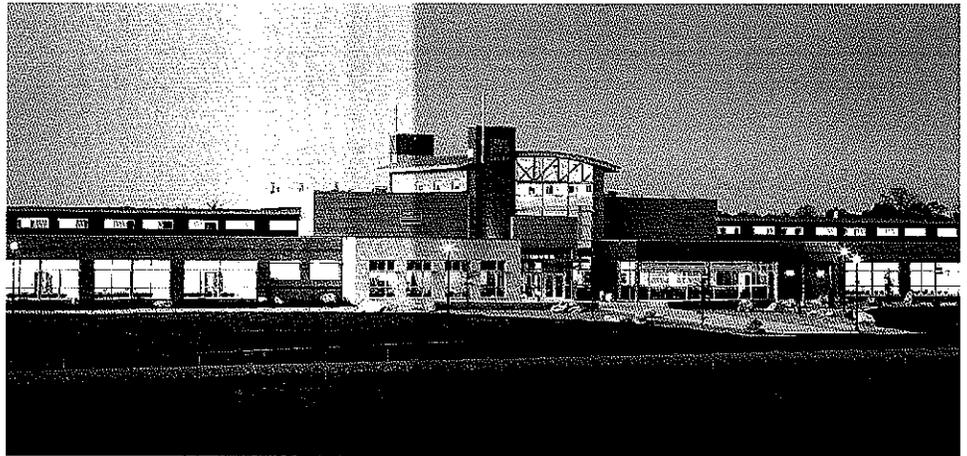
COST:  
\$7.5 Million

CONTACT:  
Thomas S. Acker S.J.  
Executive Director  
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.

# Southern WV Community Technical College

*Applied Technology Building*

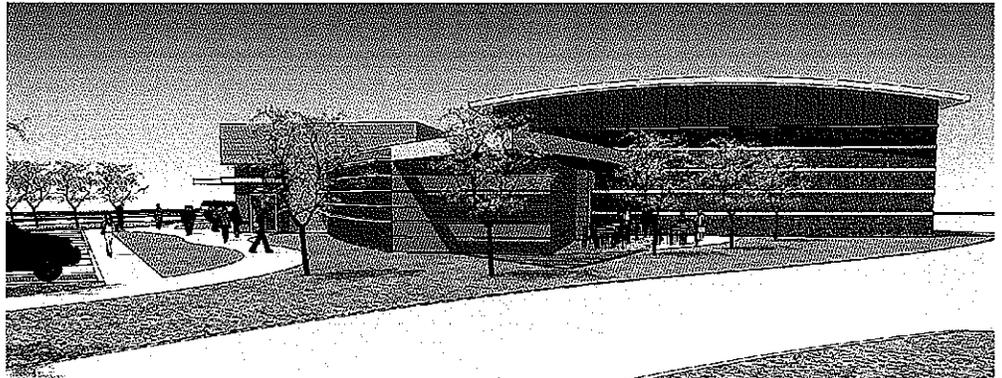


LOCATION:  
Williamson, West Virginia

SIZE:  
22,000 SF

COST:  
\$5.0 Million

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



**ZMM** is currently providing professional services for the design of an Applied Technology Building at Southern WV CTC's Williamson Campus. The proposed facility will house a welding and machine shop, a mining support program, as well as several allied health programs.



The space is being designed to maximize both flexibility and adaptability, and will reflect a modern/technological aesthetic while also blending into the overall campus. In addition to providing design services for the new Applied Technology Building, **ZMM** will also provide an update to the overall campus plan, with a focus on improving pedestrian and vehicular circulation.

## Bridgemont Community Technical College

*Davis Hall Renovation*

LOCATION:  
Montgomery,  
West Virginia

SIZE:  
70,000 SF

COST:  
\$1.7M

CONTACT:  
Dr. Jo Harris, President  
619 2nd Avenue  
Montgomery, WV 25136  
304.734.6600



Davis Hall includes approximately 70,000 SF of space over seven (7) stories. **ZMM** is in the process of conducting an assessment of the existing facility to assist Bridgemont CTC in developing both the scope of the current project as well as long range plans for the facility.

Several priorities have been identified, including building infrastructure improvements, building envelope improvements, and interior and furnishing upgrades. **ZMM's** services will include assisting Bridgemont in prioritizing upgrades based upon available funding.

# Southside Elementary & Huntington Middle School

*Cabell County Schools*



**LOCATION:**  
Huntington, West Virginia

**SIZE:**  
158,194 SF

**COMPLETION:**  
Est. 2010

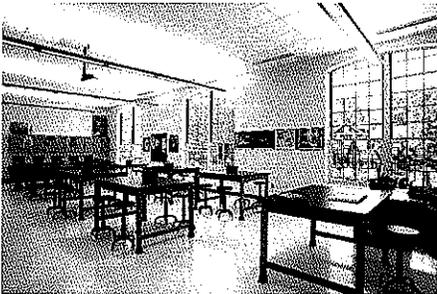
**COST:**  
\$27 Million

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



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.



# Southside Elementary & Huntington Middle School

Cabell County Schools



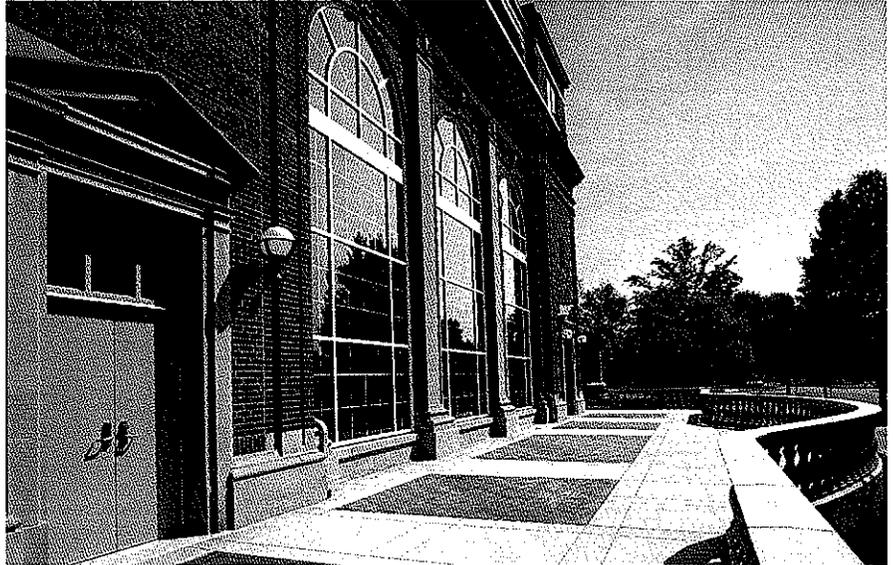
LOCATION:  
Huntington, West Virginia

SIZE:  
158,194 SF

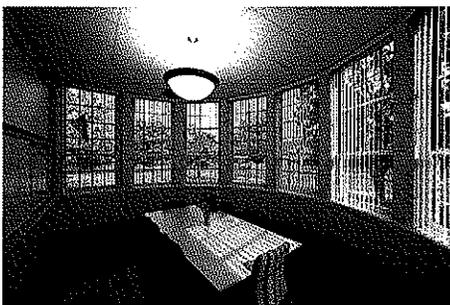
COMPLETION:  
Est. 2010

COST:  
\$27 Million

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



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



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



# State Office Building #5, 10th Floor

Office of Technology

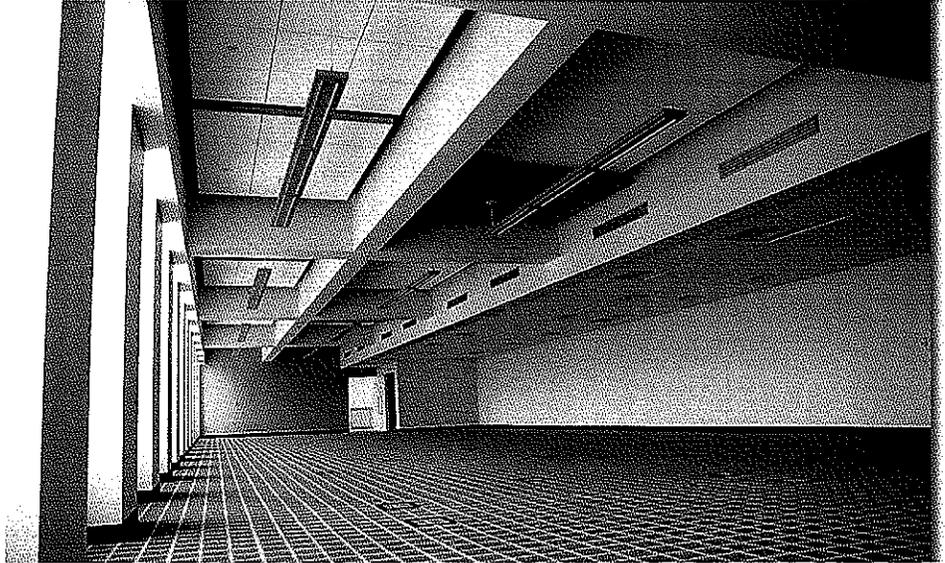


LOCATION:  
Charleston, WV

SIZE:  
22,000SF

COST:  
\$3.7M

COMPLETION:  
2010



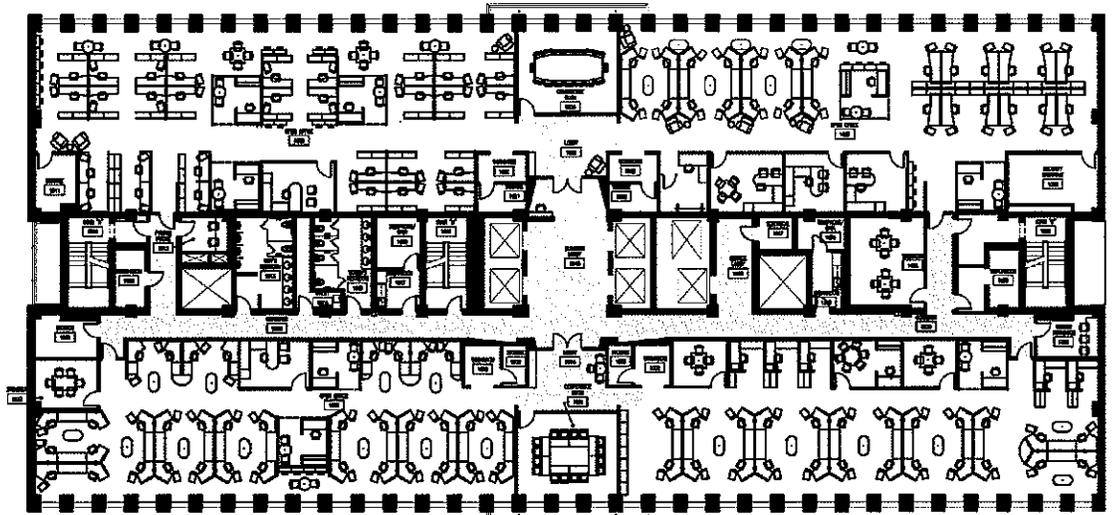
#### CONTACTS:

Mr. David Oliverio  
Director  
General Services  
Division  
1900 Kanawha Blvd. E  
Charleston, WV 25305  
304.558.3517

Mr. Chuck Lawrence  
Director  
Department of Admini-  
stration  
Real Estate Division  
1409 Greenbrier Street  
Charleston, WV 25311  
304.558.4331

The renovation of the tenth floor of State Office Building #5 on the State of West Virginia Capitol Campus was recently completed for the Office of Technology. The renovation was designed to meet the United States Green Building Council's LEED for Commercial Interiors standard. To commence the project, ZMM conducted a detailed investigation of State Office Buildings 5, 6, & 7, which included recommendations for improvement of the facilities. The renovation of the 10<sup>th</sup> floor of Building #5 was the first major interior renovation project that responded to the recommendations. The renovation was technically intensive, and included demolition of the existing construction back to the building structure, as well as significant hazardous material abatement.

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



# State Office Building #5, 10th Floor

Office of Technology



LOCATION:  
Charleston, WV

SIZE:  
22,000SF

COST:  
\$3.7M

COMPLETION:  
2010

#### CONTACTS:

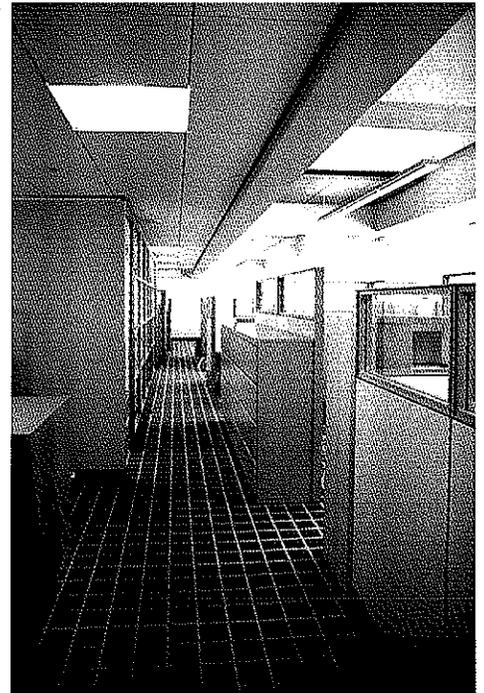
Mr. David Oliverio  
Director  
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1900 Kanawha Blvd. E  
Charleston, WV 25305  
304.558.3517

Mr. Chuck Lawrence  
Director  
Department of Admini-  
stration  
Real Estate Division  
1409 Greenbrier Street  
Charleston, WV 25311  
304.558.4331



To improve the opportunity for daylighting, office spaces have been "pulled-in" to the core of the building. This decision will allow for daylight to be introduced deep into the interior work areas, and will allow access to the daylight and views for all employees. The perimeter structural bays of the open office areas have a "coffered" ceiling. Ductwork for mechanical distribution is terminated at a bulkhead at the interior edge of the perimeter structural bay, allowing for more open volume and a more contemporary aesthetic.

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



# Joint Interagency Training & Education Center

WVARNG



LOCATION:  
Kingwood, West Virginia

SIZE:  
285,000 SF

COMPLETION:  
Est. 2012

COST:  
\$110 Million

CONTACT:  
Brigadier General Melvin  
L. Burch  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6450



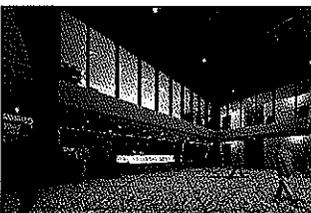
ZMM, in association with AECOM, is providing architectural and engineering design services for the Joint Interagency Training and Education Center (JITEC), an Army National Guard campus-style facility for training and operational mission support. Sited on 30 acres at the northern end of Camp Dawson between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



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



As the scale of the project includes several miles of roads, parking, and utility upgrades affecting the entire base, the project is being phased over a four-year construction period. Simultaneous construction of all of the new facilities, as well as phased construction in existing buildings, will minimize the disruption to current operations.



The new facilities are designed to meet all anti-terrorism/force protection criteria and are slated for LEED-NC silver certification from the U.S. Green Building Council. The new 82,000-SF operations building is prominently sited as the main focal point upon entering Camp Dawson through the secure access control point and visitor's center, also designed by AECOM. The building's exterior complements its West Virginia setting. The entire building front, composed of glass and pre-cast concrete walls, is open and inviting with glazing that reflects the surrounding trees and hills. Security requirements for the command center influenced the design of the attached, copper-clad "black box" that is an homage to the native rock stratification seen throughout the state.

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

# Joint Interagency Training & Education Center

WVARNG



**LOCATION:**  
Kingwood, West Virginia

**SIZE:**  
285,000 SF

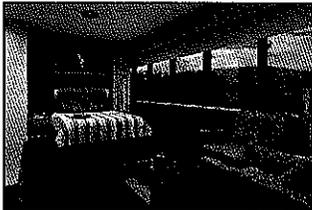
**COMPLETION:**  
Est. 2012

**COST:**  
\$110 Million

**CONTACT:**  
General Melvin L. Burch  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6450



Entry to the Joint Operations Center (JOC) is provided by a secure mantrap adjacent to a dedicated security office. Built to SCIF standards, the JOC contains a state of the art command center housing 48 permanent work stations in a theater-style configuration facing a large video wall, flanked by conference rooms and offices for both officers and support staff. Within the JOC is a secure area consisting of workstations, offices, and two divisible conference rooms with secure video conferencing capabilities. The secure area construction dictates a windowless environment, requiring proper lighting and creative use of materials to create an agreeable work atmosphere.



Adjacent to the JOC are three large training rooms, capable of seating 70 persons each. Lining the front of each room are LCD video walls with large, open areas for workstations, desks, and office equipment, as well as space for private offices. These rooms function primarily as training areas; however, their close proximity to the JOC allows maximum flexibility in securing the entire area from the rest of the building by means of card access-only doors.



The administrative office areas occupy a prominent position at the building's entry and consist of open office areas with workstations, private offices, conference rooms, and storage. The design of this area follows sustainable guidelines for daylighting, promoting a healthy work environment through the use of materials that comply with LEED requirements. The new 6,000-SF network server room, which serves as the base hub, occupies the second floor of the facility along with the building's engineering systems. All electrical, data and communications infrastructure is contained within raised access flooring throughout the building.

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

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

# Construction & Facilities Management Office

WVARNG



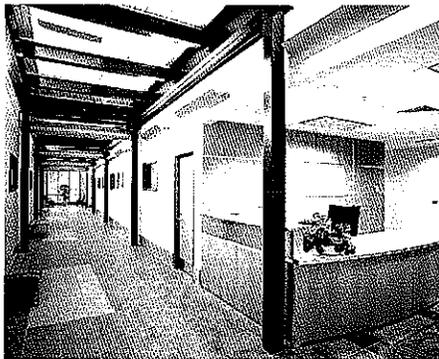
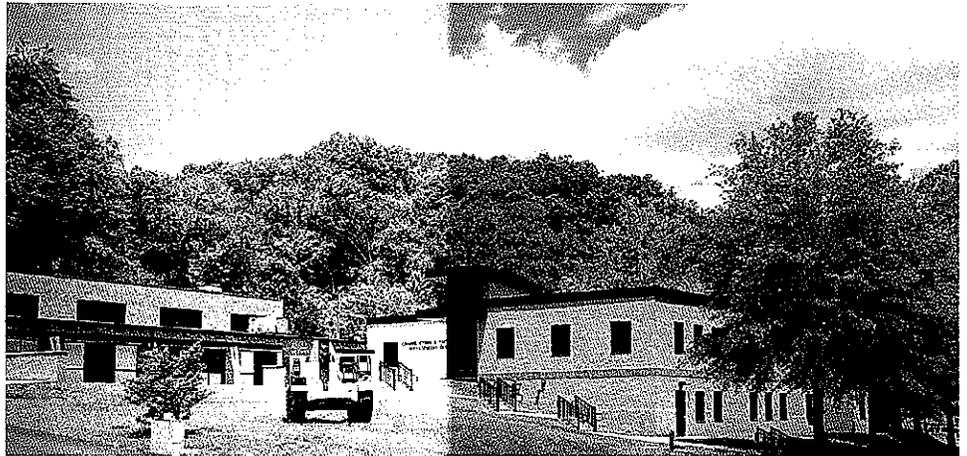
LOCATION:  
Charleston, West Virginia

SIZE:  
19,935 SF

COMPLETION:  
2008

CONTACT:  
General Melvin L. Burch  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6450

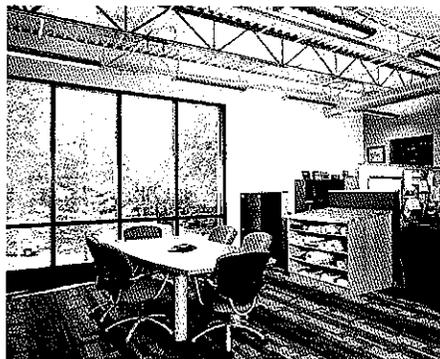
AWARDS:  
2009 AIA Merit Award  
West Virginia Chapter  
*Achievement in Architecture*



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



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



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

# Milton Middle School

Cabell County Schools



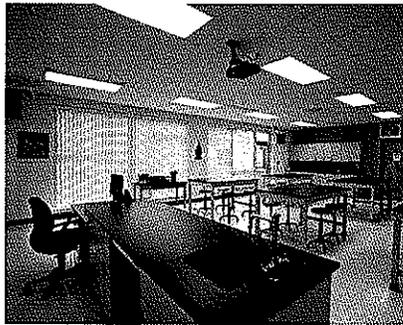
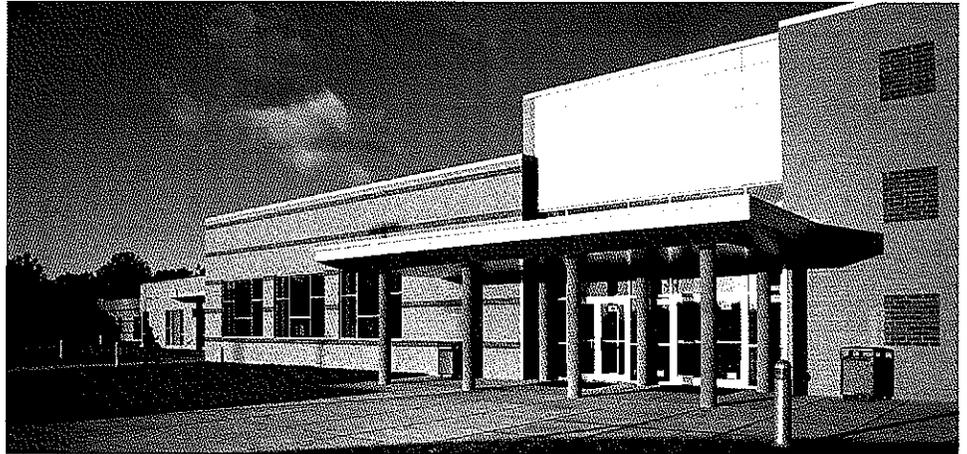
LOCATION:  
Milton, West Virginia

SIZE:  
95,858 SF

COMPLETION:  
2009

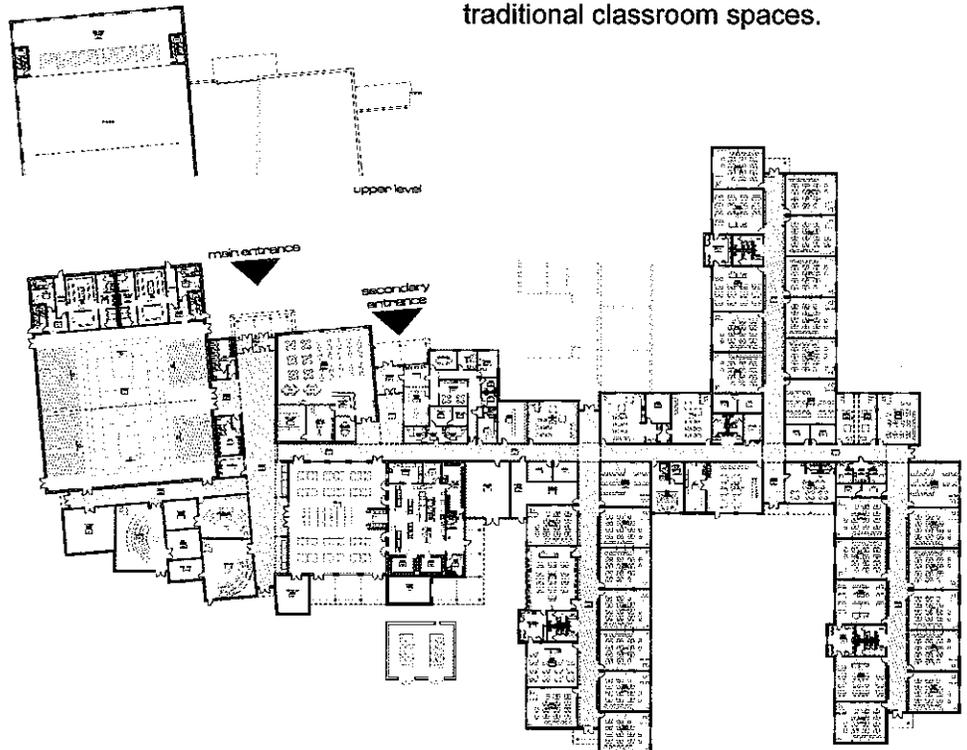
COST:  
\$18.7 Million

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



This new Middle School for 700 students, grades 6 through 8 is located in Milton, West Virginia, and includes a cafeteria/common use space, stage, full size gymnasium, food preparation facilities, science, art and music classrooms.

Each grade level is contained in its own "wing". Other spaces include a computer technology laboratory, band room, orchestra and choir rooms, a technical education classroom with large windows allowing for natural day-lighting, and other traditional classroom spaces.



# Barboursville Middle School

Cabell County Schools



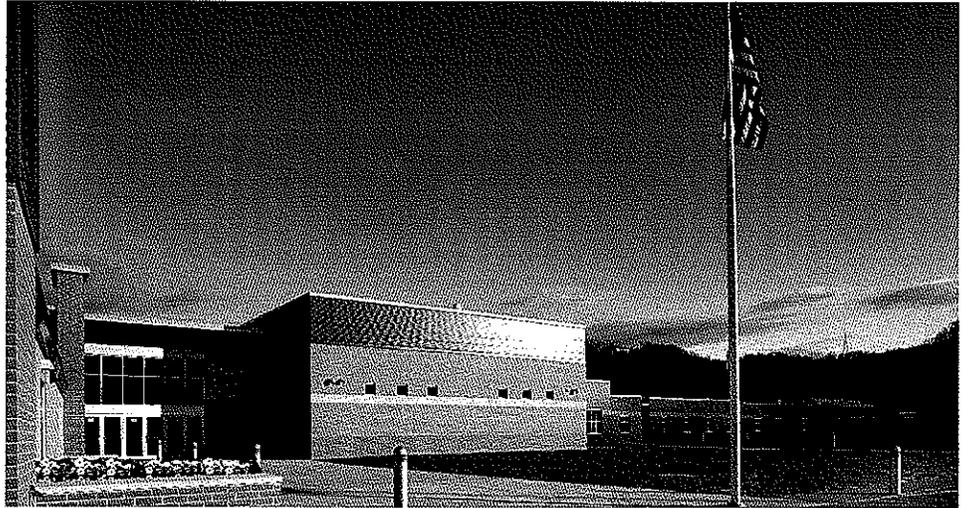
LOCATION:  
Barboursville,  
West Virginia

SIZE:  
114,791 SF

COMPLETION:  
2009

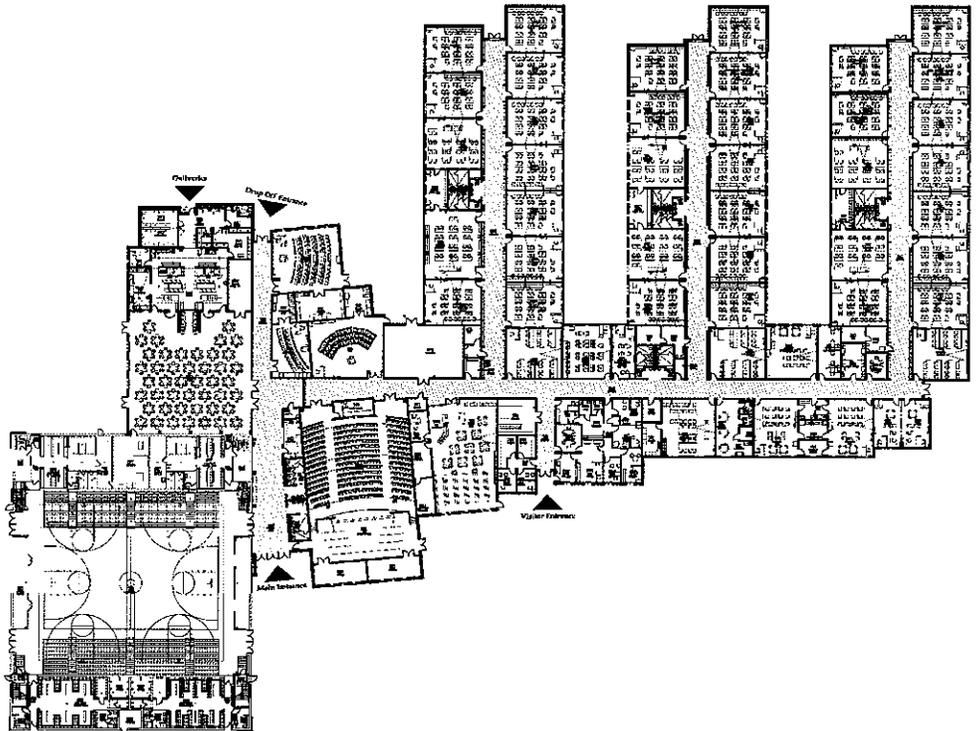
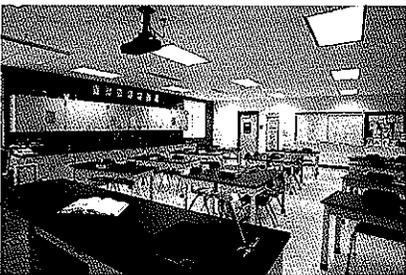
COST:  
\$16.7 Million

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

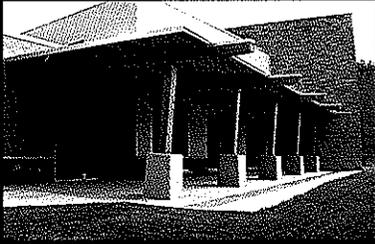


Barboursville Middle School was designed for 800 students, grades 6 through 8, and is located in Barboursville, West Virginia. This facility includes a cafeteria/common use space, stage, full size gymnasium, food preparation facilities, science, art and music classroom spaces.

This true Middle School will houses a computer technology laboratory, a technical education classroom, and separate science classrooms for each grade level.

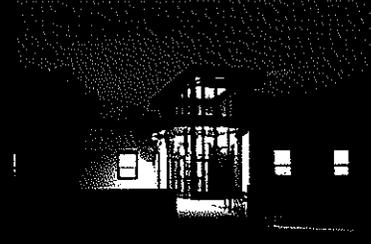


# Award Winning Design



2010

Hacker Valley PK-8 School  
Hacker Valley, WV  
2010 - Honor Award  
*"Excellence in Architecture"*  
AIA West Virginia Chapter



2009

Construction & Facilities  
Management Office  
Charleston, WV  
2009 - Merit Award  
*"Achievement in Architecture"*  
AIA West Virginia Chapter



2008

Erma Byrd Center  
Beckley, WV  
2008 - Honor Award  
*"Excellence in Architecture"*  
AIA West Virginia Chapter



2007

Lincoln County High School  
Hamlin, WV  
2007 - Honor Award  
*"Excellence in Architecture"*  
AIA West Virginia Chapter  
Education Design Showcase  
*"Project of Distinction Award"*  
American School & University  
*"Outstanding Building Design"*



2006

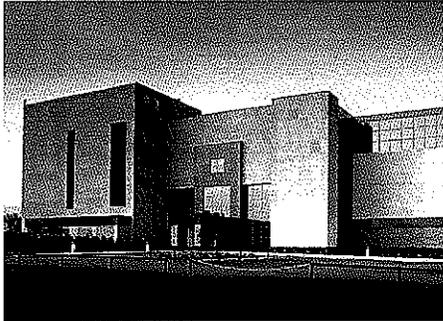
Gene Spadaro  
Juvenile Center  
Mount Hope, WV  
2006 - Merit Award  
*"Achievement in Architecture"*  
AIA West Virginia Chapter



2004

St. Albans High School  
St. Albans, WV  
2004 - Impact in Learning Award  
*"Effective Transformation"*  
Education Design Showcase  
*"Outstanding Building Design"*  
American School & University  
*"Outstanding Building Design"*

# Additional Award Winning Design



## **West Virginia Society of Architects Design Honor Awards**

**Corporate Headquarters Facility**  
Blue Cross / Blue Shield of West Virginia  
Charleston, West Virginia

**John XXIII Pastoral Center**  
Wheeling-Charleston Diocese  
Charleston, West Virginia

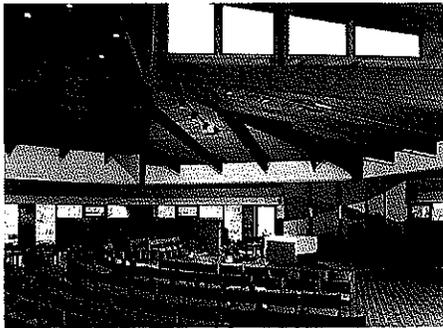
**Corporate Office Building**  
Contractors' Association of West Virginia  
Charleston, West Virginia

**One Bridge Place Office Renovation**  
Fisher-Bryson Properties  
Charleston, West Virginia

**United States Navy  
Admiral's Commendation  
Operations Building Alterations**  
Naval Security Group  
Sugar Grove, West Virginia

**Construction Specifications Institute  
Honorable Mention  
Restoration and Renovation Projects**  
Cottage Renovations to Federal Prison Camp  
Alderson, West Virginia

**Stonewall Jackson Lake  
Merit Award  
Design and Environmental Program**  
Recreation Area Basic Park  
Weston, West Virginia



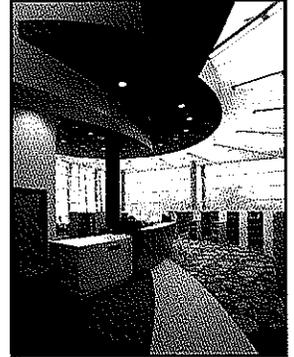


### Lincoln County High School

The 800 student, 217000 SF facility combines four existing high schools into one. This facility includes 45,000 SF of both traditional and non traditional vocational space. Students have the opportunity to access vocational classes without leaving the building. The building provides a unique learning opportunity for students. Day-lighting and automatic lighting controls provide state of the art technology for students to see how sustainable design, energy conservation ,and technology work together. This facility is one of the first educational buildings in the state of West Virginia to include sustainable building design features.

#### David L. Roach, Superintendent

Lincoln County Schools  
10 Marland Avenue  
Hamlin, WV 25523  
304.824.3033



### St. Albans High School

One outstanding feature of the completed renovation of St. Albans High School is its unique, inviting physical entryway and the aesthetically pleasing and functional commons/cafeteria area. The commons is a visual focal point of the school creating a natural flow from the front entrance, through the commons to the outside assembly/instructional area, it also serves as a connecting hub between the academic spaces and the physical education and auditorium areas. The addition of an auxiliary gym, renovations to the auditorium complex, a new media center and other additions and improvements allow spaces for more extensive use by the community.

#### Dr. Ron Duerring, Superintendent

Kanawha County Schools  
200 Elizabeth Street  
Charleston, WV 25523  
304.348.7732

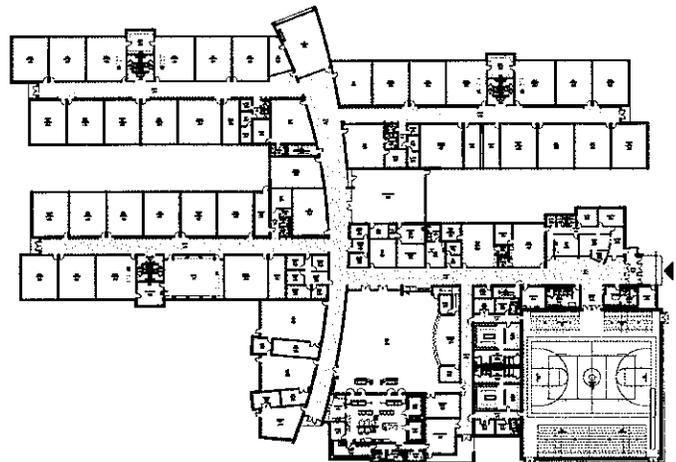


### Huntington East Middle School

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

#### William Smith, Superintendent

Cabell County Schools  
2850 5th Avenue  
Huntington, WV 25601  
304.528.5030



# The Higher Education Foundation

200 MAIN STREET, BECKLEY, WEST VIRGINIA 25801-4613

TELEPHONE 304 929-2010

FACSIMILE 304 929-2009

forwardsww@earthlink.net

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January 22, 2008

Mr. Rod Watkins, Vice-President, AAIA, REFP  
ZMM, Inc.  
222 Lee Street West  
Charleston, WV 25302

Dear Rod,

Last week, January 14, 2008, we began the second semester of use of The Erma Byrd Center at the Public Higher Education Center campus, Beaver, West Virginia. This endeavor has been a significant triumph for our area and is the first of its kind in West Virginia. Seven public colleges/universities have come together in a single center in a spirit of cooperation rather than competition.

This is a note to thank you and the ZMM family for the critical role with excellence that you played in this project. Initially, we had worked with another architect in Pittsburgh, but unfortunately a series of events made continuance with them impossible. We were then met with crucial deadlines for reformulating an entire building with a very constricted timeline and an equally restricted budget. We turned to ZMM.

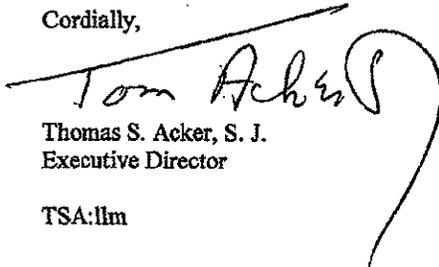
Our contract with you began in December, 2005. We had to complete architectural plans, bid the building, secure a contractor, and begin construction by July, 2006, in order to meet an opening date of August, 2007. ZMM was the perfect partner with us as we forged a new building on a yet raw campus and made it work.

The building designed by ZMM was elegant, yet simple. The budget parameters were met, including a striking view from I-64. The building design impresses all.

Radford & Radford was chosen as the builder, and ZMM worked with them expeditiously and effectively. The architectural plans were exceptionally clean, and the few change orders were almost entirely initiated by the owner as some afterthoughts developed. The project was completed on time, and the first semester was excellent. Over 131 classes were taught engaging 1,990 students.

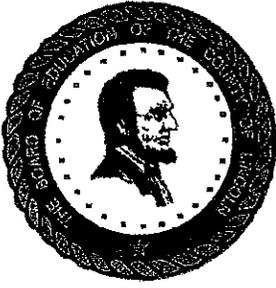
I simply wanted to send you this note of thanks for accepting a very daunting task, completing it with excellence, maintaining the very restricted budget, and making this whole project successful. We are now looking forward to a second building, and while we probably need by state law to seek architectural services through an RFP, I hope that ZMM will engage in the process. It would be to our benefit if ZMM were the winning architects. You have my highest recommendation and most sincere thanks.

Cordially,



Thomas S. Acker, S. J.  
Executive Director

TSA:llm



# Lincoln County Schools

David L. Roach  
SUPERINTENDENT

Jeff Huffman  
ASSISTANT SUPERINTENDENT

January 22, 2008

To Whom It May Concern:

As the previous superintendent of Cabell County Schools and present superintendent of Lincoln County Schools, I am in the unique position to comment on the services of ZMM, Inc., Architects and Engineers. They provided professional services in both of these counties and I found their services in both counties to be of the highest quality.

I have found, through my experiences with ZMM, that their services are equivalent to having additional employees of the school system. I base this statement on the fact that their representatives consistently monitor budget expenditures in order to stay within the project budget. Change orders are minimal and always justified. ZMM is present and accessible before, during and after project completion to assure the interests of the school system are being met. I particularly appreciate their support in dealing with contractors who may have remaining obligations or product deficiencies that need to be resolved following project completion.

Simply stated, ZMM works to assure that the interests of the client are met and refuses to bow to contractors by accepting less than quality work. I believe this is a rare quality and makes ZMM an elite company.

Sincerely,

David L. Roach  
Superintendent of Schools

Hacker Valley School  
11 School Loop Road  
Hacker Valley, West Virginia 26222  
304-493-6488

November 10, 2010

Dear Mr. Watkins,

I would like to take this opportunity to thank you for the computer equipment ZMM, Inc. donated to Hacker Valley School. The units were much needed by our school. The students have enjoyed having an additional computer station within their classrooms. Companies like yours certainly add to the quality of education within our school systems. With gratitude, I once again thank you.

Congressman Nick Rahall was at our school before the election and delivered a civics course for our middle school students. He commented about the building and was greatly impressed by the design. I explained your company designed our PK-8 school. He genuinely commented that this was the one of the most striking designs that fit into the natural surroundings he had seen. Kudos to all the design team!

On Monday, National Public Radio is coming to the community to research and do a story about the community, post office, and education of the community. We will be meeting at the school! The community utilizes the school for many functions. It is nice to see that education is at the center of the community. Thanks for making our environment conducive to community involvement.

Sincerely,



Kennetha Parker-Howes, Principal

Hacker Valley School

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

**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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (*West Virginia Code §61-5-3*), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Zmm, Inc.

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_\_

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 3<sup>rd</sup> day of February, 2011.

My Commission expires 10-6, 2018.

**AFFIX SEAL HERE**

NOTARY PUBLIC Lisa E. Bowles

