

Expression of Interest:

Charleston Complex Access Road and Utility Upgrades

REO# DEFK 11026

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WV PURCHASING DIVISION







February 24, 2011

Ms. Tara Lyle, Buyer
Department of Administration, Purchasing Division
Building 15
2019 Washington Street, East
Charleston, West Virginia 25305-0130

Subject: Maintenance Complex - Coonskin Park Area at the Charleston Armory

West Virginia Army National Guard

Requisition DEFK11026

Dear Ms. Lyle:

ZMM is pleased to submit the attached information to demonstrate both our experience and our capability to provide professional architectural and engineering services for the new Maintenance Complex at the Coonskin Park Area in Charleston for the West Virginia Army National Guard (WVARNG). We are confident that our recent experience designing the CFMO Expansion and the Tackett Family Readiness Center provides **ZMM** with unique insight into the Coonskin Campus, which will provide the Guard with improved services during the planning, design, and construction of this new facility. Please note that the CFMO Expansion includes the design of a pre-engineered metal building that is used to maintain equipment and vehicles.

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 maintenance facilities, and will provide the West Virginia Army National Guard with improved coordination of the construction documents, a single point of design responsibility, and improved control of the design schedule.

Thank you for taking the time to review the attached information that details our firm history and philosophy, experience, qualifications, personnel, and references. 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, Inc.

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

Principal

Project Approach: Coonskin Maintenance Complex

WVARNG



Methods

ZMM proposes to commence the design process by establishing the vision of the West Virginia Army National Guard (WVARNG) for the project. By establishing a clear vision and priorities for the project, ZMM will develop a project program and budget that will be utilized at the end of each design phase to ensure that the client's objectives are being maintained. Critical questions to be answered during this initial investigation/visioning phase will include:

- · Proposed Use of the Facilities
- Anticipated Project Budget
- Funding Method
- Bidding Approach
- Sustainability
- Subsurface Investigation
- Site Utilities
- Site Circulation
- Building Orientation
- Aesthetics
- Pre-engineered Building Selection
- Exterior Finishes
- Landscaping



Once the WVARNG has established the vision for the project, ZMM will work to develop a design solution that maximizes the construction funding. At the end of each design phase ZMM will meet with the WVARNG to ensure that the current plans for the Maintenance Complex are responding to the vision and constraints identified during the initial visioning and programming phases.

<u>Management</u>

ZMM proposes to provide services to the Coonskin Maintenance Facility Project using the same core team members that have participated on recent projects at the Coonskin Armory Complex for the WVARNG. ZMM will service this project from our office in Charleston, which is located near the project site. ZMM's team will be led by Mr. Adam Krason, AIA, NCARB, LEED-AP. Mr. Krason is a principal at ZMM, and has experience providing design services for the WVARNG on projects throughout the State. This experience includes work on projects with scopes ranging from small renovation and addition projects to the new Joint Interagency training and Education Center at Camp Dawson. ZMM's experience also includes providing design services on three projects at the Coonskin Armory Complex, including the Air National Guard Headquarters, the CFMO Expansion, and the Tackett Family Readiness Center.

Other key members of ZMM's full-service team include: Mary Jo Cleland, PE, a civil engineer with experience investigating the challenging utility and topographical conditions that exist at the Coonskin Campus; Steve Hedrick, PE, a structural engineer who provided design services for the Jackson County AFRC and the Tackett Family Readiness Center; Steve Cook, PE, a mechanical engineer, and Scot Casdorph, PE, an electrical engineer, both who have provided services on more than five facilities for the WVARNG, including the CFMO Expansion and the Tackett Family Readiness Center.







Project Approach: Coonskin Maintenance Complex

WVARNG



During the construction phase, David Unrue, CDT will lead ZMM's effort. Mr. Unrue has provided construction phase services on all of ZMM's recent projects for the WVARNG, and understands the importance of maintaining quality during the construction phase of the project. ZMM's experience working regularly with the WVARNG, and working recently at the Coonskin Armory site will be beneficial as we examine utilities, building orientation, and circulation on the campus.



Design Philosophy

ZMM's design philosophy is to deliver our client's vision. If you review the projects that ZMM has designed for the WVARNG, you will notice that no two projects are the same. Each project responds to the unique conditions of the community and site where the building is located. Each project also reflects the vision that was established by the WVARNG for the project. For example the JITEC Billeting Lobby Area reflects the first class hotel lobby identified by MG Tackett, while the Jackson County AFRC reflects an old Army Post, and the adjacent Order of the Eastern Star house as requested by MG Burch.





In addition to delivering your vision for the project, ZMM also focuses on the following critical issues during the design phase:

Budget

ZMM maintains recent bidding information, and regularly updates estimates to ensure that your vision can be delivered in the proposed budget. ZMM also works to focus your resources to ensure that the WVARNG is getting the most out of your construction funds. This approach was demonstrated at the CFMO Expansion where construction funds were focused on the main entry and corridor, while the remainder of the building utilized standard office space with load bearing masonry construction. This approach and project earned a 2009 WVAIA Merit Award.

Maintenance/Durability

A great design has no value if it the owner is unable to operate and maintain the facility. To help ease the maintenance burden, ZMM selects and specifies materials that require as little maintenance as possible. As a full service firm, ZMM also has our engineers regularly meet with the client to ensure that specified electrical and mechanical systems are compatible with other systems that the WVARNG operates. This coordination has recently been demonstrated with the fire alarm system compatibility issue.

Sustainability

ZMM works with each of our clients to determine the appropriate level of sustainability for each project. On most projects for the WVARNG this has meant designing to a USGBC LEED Standard, while on other projects the focus has been on improved daylighting and reduced energy consumption.



History and Philosophy of ZMM



LOCATION: 222 Lee Street, West Charleston, WV

CONTACT: Phone 304.342.0159 Fax 304.345.8144

www.zmm.com

Current Principals:





R. Doeffinger

D. Ferguson





A. Krason

R. Watkins

History

ZMM was founded in 1959 in Charleston, West Virginia by Ray Zando, Ken Martin, and Monty Milstead. Since the inception of the firm, ZMM has been dedi-

cated to providing an integrated approach to building design for our clients. ZMM delivers this integrated approach by providing all building related design services, including architecture, engineering (civil, structural, mechanical, and electrical), interior design, and construction administration from our office in Charleston. Our integrated design approach makes ZMM unique among architectural firms in



West Virginia, and helps to ensure the quality of our design solutions by providing more thoroughly coordinated construction documents.

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

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

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:







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

Design

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

Post Design

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

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 require ments 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 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; The Catholic University of America; 1998

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

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

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, 10th 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 10th Floor of State Office Building #5 for the Office of Technology. The improvements, aiming for LEED-Cl 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 21st Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students. Mr. Krason 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, and military facilities.

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

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

Project Experience

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; Pennsylvania State University; 1976

Bachelor of Science Mechanical Engineering; West Virginia University; 1973

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, Bridgemont Community and Technical College
- City of Pt. Pleasant, WV 2nd 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.

Regional Jails:

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





Role Architect

Professional Registrations

Registered Architect (WV)

Mr. Spencer is responsible for coordinating the efforts of the design team in preparing thorough and clear design documents. He has experience in all phases of design working on a wide range of building types including; military, educational, office, justice, and residential.

He has worked on several projects that are currently pursuing LEED certification. In addition to production, Mr. Spencer, is also experienced in 3d modeling. He has worked on several preliminary concept study models as well as high quality renderings and 3d models later in the design process. Mr. Spencer is also experienced in high quality physical models.

Mr. Spencer began his career in architecture with ZMM in 2003, working as a summer intern. After graduating in 2003, he began working at ZMM full time.

Project Experience

Joint Interagency Training and Education Center (JITEC): Mr. Spencer participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Spencer was also responsible for coordinating the 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.

Highland Medical Facility: Mr. Spencer was responsible for coordinating the production effort for the 60,000+ SF mental health facility. Mr. Spencer also produced several 3d models throughout the design process.

Morgantown Readiness Center: Mr. Spencer was a member of the production team for the 58,000 SF project, which housed the Army Band and associated performance spaces. Mr. Spencer also produced several 3d models throughout the design process. The project is aiming for LEED Silver Certification.

Education

Bachelor of Architecture; 2007 University of Tennessee, TN

Employment History

2009 - Present, Architect, ZMM 2007 - 2009, Intern Architect, ZMM 2003 - 2007, Summer Intern, ZMM

Civic Affiliations

 American Institute of Architects, Member **Ripley Armed Forces Reserve Center:** Mr. Spencer participated in the schematic design of the 76,000 SF Reserve Center in Jackson County, West Virginia. Mr. Spencer was also responsible for coordinating the production effort for the project. Mr. Spencer also produced several 3d models throughout the design process. The project is aiming for LEED Silver Certification.

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





Role Project Architect

Professional Registrations Registered Architect (WV) LEED Accredited Professional

Mr. Walker is responsible for overseeing the planning, design, and construction of a variety of types of building projects to meet the needs of the clients. Mr. Walker works with other in-house engineers and design professionals throughout the building process to provide a thoroughly integrated product. Mr. Walker also coordinates with various consultants, code officials, and government agencies to provide a quality building.

Mr. Walker has broad experience in scopes of both new and renovation projects throughout his years at ZMM.

Project Experience

Family Readiness Center – West Virginia Army National Guard: Mr. Walker was responsible for the design of a two story building set on a sloped hillside. The new facility will provide a variety of offices and public spaces including a chapel, multi-purpose area, a lobby, and a lounge.

The Retreat at Glade Springs Resort: Mr. Waker was responsible for the design of a variety of townhouses assembled into a multi-unit building that fit into the hilly terrain of the site.

Barboursville Middle School: Mr. Walker was part of the design team that was responsible for designing a replacement building for the existing middle school. The design required that the new school building be built where the existing building was occupied on the same size. An existing large gymnasium was renovated and incorporated into the next education complex.

Alderson Federal Prison Camp - New Housing Units: Mr. Walker was responsible for the design of two new 500 bed housing units. These units were constructed on the historical site of the first federal prison for women. The prison was in operation during the new construction of both housing units.

Blackwater Falls and Cacapon WV State Parks: Mr. Walker was responsible for the design of additions to the existing

Education

Bachelor of Science Architecture; 1973 The University of Cincinnati

Employment History

1979 - Present, Project Architect, ZMM 1977 - 1979, Designer, ZMM 1977, Designer, Holderby Engineering 1973 - 1976, City Planning, American Peace Corps, Iran

Civic Affiliations

- American Institute of Architects, Member
- West Virginia Society of Architects, Member
- Charleston Salvation Army advisory board 1990 – Present
- Advisory Board Chairman 1997 1998

historical lodge building for the two state parks. Mr. Walker incorporated new meeting rooms, elevator, pool and health spas into the existing lodge building and incorporated various renovations to existing buildings to make the buildings more usable for large groups.

Braxton County Memorial Hospital: Mr. Walker has worked on a variety of additions and renovations projects at the hospital. The renovations and additions were completed on the emergency room floor, medical surgical, radiology, laboratory, and outpatient areas while the hospitals departments were kept in operation.

Awards and Acknowledgements:

Design Award Received from the Corps of Engineers for: The Stonewall Jackson State Park Facilities

Mr. Walker received recognition in the *Charleston Gazette* Newspaper for his own home residence, which incorporated "passive solar" and other "Green" Design principals.





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 2nd 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

Civic Affiliations

States Air Force

- 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.



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; West Virginia Institute of Technology; 2001

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

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

Project Experience

Joint Interagency Training and Education Center

(JITEC): Mr. Casdorph was responsible for the electrical design of the 180,000 SF 3-story billeting/hotel expansion for the Army National Guard campus style facility for training and operational mission support. The expansion more than triples the facility size and increases the total capacity from 189 guest rooms to 600 guest rooms and suites. The project is targeted for LEED Silver Certification.

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

Education

Bachelor of Science; West Virginia Institute of Technology; 1995

Employment History

2000 - Present, Electrical Engineer, ZMM 1995 - 2000 Electrical Controls Systems Manager, WV Engineering Firm **Ripley Armed Forces Reserve Center:** Mr. Casdorph was responsible for the electrical design of the 76,000 SF single story military reserve center which serves both the West Virginia Army National Guard and the United States Army Reserves (USAR) units. The multi-use facility provides educational spaces for classrooms, distance learning, physical training and a weapons simulation center. The project is targeted for LEED Silver Certification.

West Virginia Housing Development Fund Office: Mr. Casdorph was responsible for the electrical design of the 37,000 SF office building which provides natural daylighting into its interior spaces coupled with an automatic dimming system and motorized shade controls. This 2-story administrative facility houses approximately 95 to 100 employees with a flexible open office 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. Casdorph 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. Casdorph 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. Casdorph was responsible for the electrical power distribution throughout the 216,000 SF facility containing high school classes, vocational education, technical community college classes and a community health clinic. The project was a 2007 AIA Honor Award Winner.

J.M. Chick Buckbee Juvenile Center: Mr. Casdorph 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. Casdorph 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. Casdorph 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.

Construction & Facilities Management Office

WVARNG



LOCATION: Charleston, West Virginia

SIZE: 19,935 SF

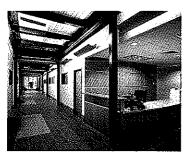
COST: \$3.5 Million

COMPLETION: 2008

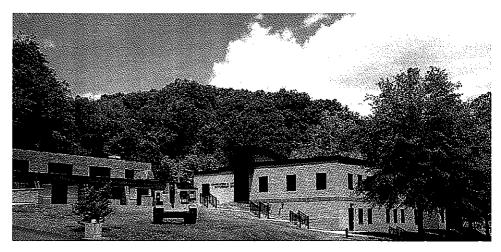
CONTACT: M.G. Melvin L. Burch WVARNG 1707 Coonskin Drive Charleston, WV 25311 304.561.6450

AWARDS:

2009 AIA Merit Award West Virginia Chapter Achievement in Architecture



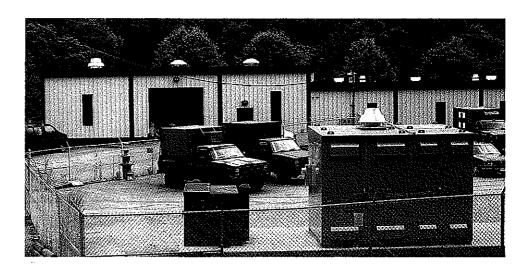




The Construction and Facilities Management Office (CFMO) Expansion project will bring all of the operations of the CFMO together under one roof. The branches that will occupy this facility include: Director of Engineering, Environmental, Planning and Programming, Facility Operations & Maintenance, Business 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.



MG Allen E. and Sallie Pat Tackett Family Readiness Center

WVARNG



LOCATION: Charleston, West Virginia

SIZE: 7,400 SF

COMPLETION: February 2011

COST: \$1.57 Million

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





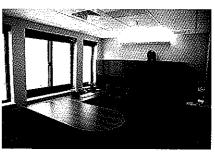


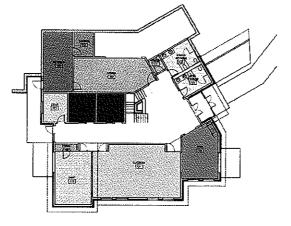
The Family Support Center is a two story brick building with a sloped roof stepped into the wooded hillside adjacent to the Army National Guard facilities in Charleston, West Virginia.

The building is designed to provide for a multitude of military family assistance, guidance, education, training, and mentoring programs.

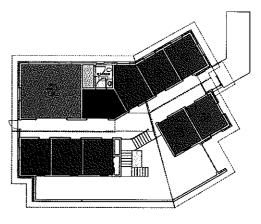
The support center contains 11 office spaces, a chapel, and a variety of class-room and meeting spaces for various programs. The building provides an abundance of natural light and a central fireplace to project a warm comforting and supportive atmosphere.











Upper Level

Gien Jean Armed Forces Reserve Center

WVARNG



LOCATION: Glen Jean, West Virginia

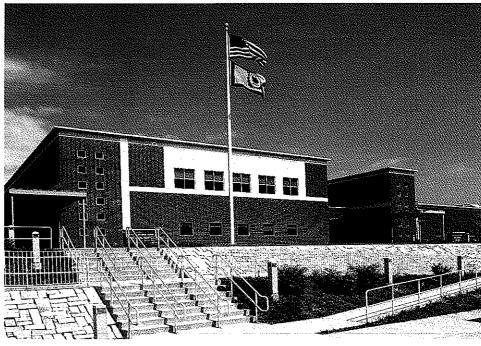
SIZE: 109,000 SF

COMPLETION: 2003

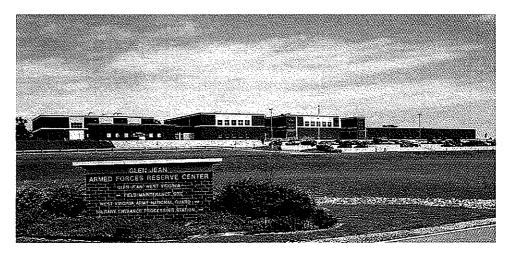
CONTACT: General Melvin L. Burch WVARNG 1703 Coonskin Drive Charleston, WV 25311 304.561.6450







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



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

Morgantown Readiness Center

WVARNG



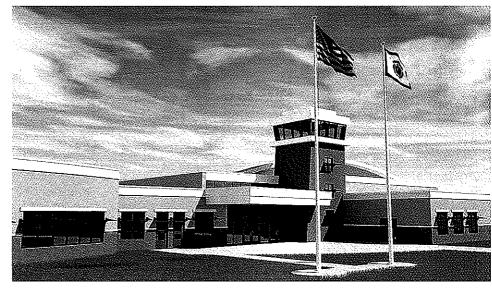
LOCATION: Morgantown, West Virginia

SIZE: 54,000 SF

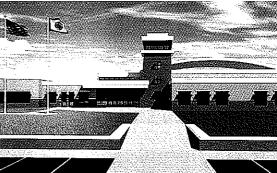
COMPLETION: Est. Sept. 2012, Bidding

COST: \$ 18.5 Million

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

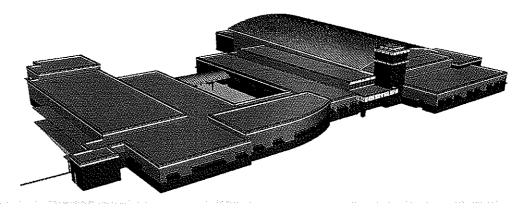


ZMM provided professional design services for the design of the Morgantown Readiness Center in Monongalia County for the West Virginia Army National Guard. The 54,000 SF Readiness Center will occupy a 35 acre tract on a former runway at the Morgantown Municipal Airport.



The Morgantown Readiness Center will house the 249th Army Band, and includes private and group practice spaces, rehearsal rooms, instrament storage, and a performance stage and fixed auditorium. To provide maximum flexibility the auditorium can be expanded into the adjacent Drill Hall through the use of a series of moveable partitions. All band spaces have been designed to maximize their acoustical performance.

The exterior of the facility was designed to meet the WVARNG's objective of providing a gateway to Camp Dawson. The exterior material selections as well as the building's massing (with a vertical element at the entry) reflect architectural features common at Camp Dawson. The vertical tower also mimics the aesthetics of an airport tower.



Ripley Armed Forces Reserve Center

WVARNG



LOCATION: Milwood, West Virginia

SIZE: 75,000 SF

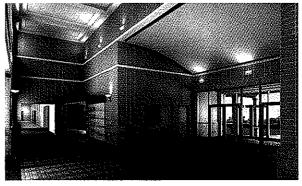
COST: \$20 Million

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



The new facility will house both the West Virginia Army National Guard (WVARNG) and the United States Army Reserves (USAR). The primary user for the WVARNG will be DET 1 821st Engineering Company, who will be supported by a FSC of the 1092nd. USAR occupants will include PLT AMMO 261 OD and PLT 1 (Postal) and PLT 6 (Postal) of the 44th Personnel Company. The facility will also included an expanded Drill Hall that can serve as a convention and meeting space, which is being funded by the Jackson County Commission, additional federal appropriations, and the State of West Virginia National Guard.

The relationship between the structures became crucial to the site layout. The new facility is centered on the existing house, increasing the exposure of the facility from Route 2 - the major route of vehicular travel that parallels the Ohio River. Once the aesthetic of the building was established, the massing of the new fa-



cility was defined by "breaking-down" the facility into smaller mass elements that more closely reflected the Georgian Style, and that of many Army "posts," such as Fort Meyer in Northern Virginia. The larger programmatic elements such as the Drill Hall and the storage areas employ an aesthetic that more closely implies their function.

The layout of the facility includes a main entry with the USAR and WVARNG Recruiting, Family Support, and Administrative areas located on separate sides (USAR to the left, WVARNG to the right). A transverse wing on the left houses all functions that have the potential for public use, such as the Drill Hall and the Educational component, while all primary military spaces developed along a similar perpendicular wing on the right. This allows for separate entries to be developed for public functions, while the remainder of the facility can be secured. The layout also creates a large central courtyard or parade field that would be located at lower grade to define the edge facing the river. This edge will also be defined by a canopy that connects storage and locker areas to the expanded Drill Hall.

Joint Interagency Training & Education Center

WVARNG



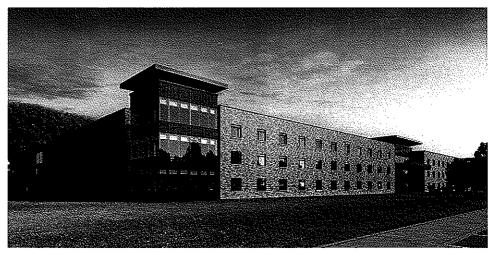
LOCATION: Kingwood, West Virginia

SIZE: 285,000 SF

COMPLETION: Est. 2012

COST: \$110 Million

OWNER: MG Melvin L. Burch WVARNG 1707 Coonskin Drive Charleston, WV 25311 304.561.6450



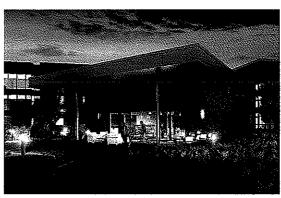
ZMM, in association with AECOM, is providing architectural and engineering design services for the Joint Interagency Training and Education Center (JITEC), an Army National Guard campus-style facility for training and operational mission support. Sited on 30 acres at the northern end of Camp Dawson between 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 checkpoint and visitor center; and design for walkway connectors between all the facilities.

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





The new facilities are designed to meet all anti-terrorism/force protection criteria and are slated for LEED-NC 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 precast 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. Continued...

Joint Interagency Training & Education Center







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

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

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

Walker Machinery

Utility Building



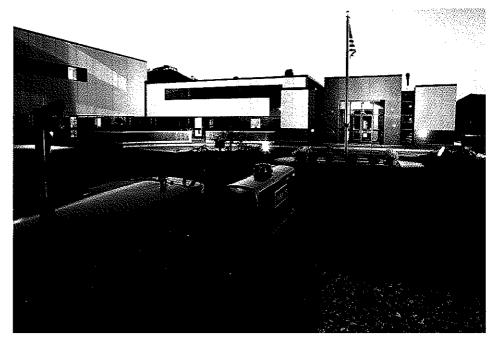
LOCATION: Belle, West Virginia

SIZE: 38,000 SF

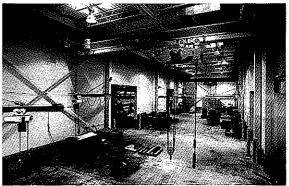
CONTACT: Mr. Richard Walker Chairman of the Board Walker Machinery 1400 East DuPont Ave. Belle, WV 25015 304.949.6400

Walker





A new facility for the repair and maintenance of earth moving and materials handling equipment, this building was designed with a steel structural frame, masonry walls, and a standing seam metal roof. Interior spaces include repair bays, welding areas, storage for parts and tools, and administrative



offices. Heating and ventilating systems provide environmental control in the shop and office areas are air conditioned. 20-ton bridge cranes, also designed by ZMM, are used in the shop for equipment hoisting and material handling.

Diesel Engine Re-Build Shop - 14,000SF

The existing repair shop was renovated to provide a staged/assembly line system to clean disassemble, inspect, repair, rebuild, and test diesel engines. New air conditioning, heating and ventilation systems were included and the roof structure was reinforced for the installation of new jib and overhead cranes, added to provide for efficient handling of materials and equipment.

Robert C. Byrd - Regional Training Institute

WVARNG



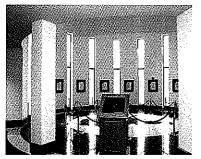
LOCATION: Camp Dawson, West Virginia

SIZE: 148,066 SF

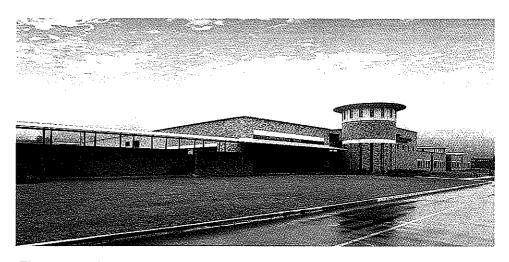
COMPLETION: 2002

COST: \$21 Million

CONTACT: General Melvin L. Burch WVARNG 1703 Coonskin Drive Charleston, WV 25311 304.561.6450







The Robert C. Byrd Regional Training Institute at Camp Dawson is a new 148,000 SF facility designed to provide training, dormitory, dining, and recreational facilities for the West Virginia Army National Guard. The facility, which includes 183 private dormitory rooms in addition to a wide range of training spaces is designed to accommodate a variety of both military and civilian training functions.

In addition to the housing and educational components, the facility also includes dining and recreational functions, including: a full-service dining hall; a snack-bar; a fitness center; an auditorium; as well as multiple group "break -out" or study rooms.

The design employs a large cylindrical mass that marks the main entry where guests can coordinate both their housing and educational needs. The housing wing is joined to the recreational and educational components with a large gathering/transitional space that often serves as an informal meeting area. Due to the success of the project, and growing use of the facilities, ZMM is currently assisting the West Virginia Army National Guard with training and dormitory expansions.



Kingwood Armed Forces Reserve Center

WVARNG

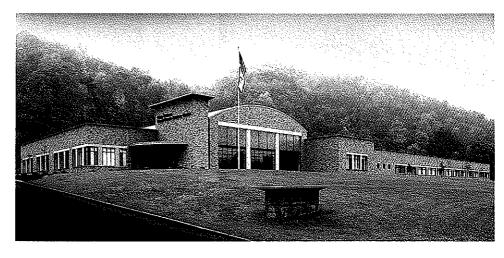


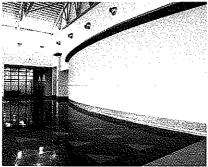
LOCATION: Camp Dawson, West Virginia

SIZE: 56,200 SF

COMPLETION: 2000

CONTACT: MG Melvin L. Burch WVARNG 1703 Coonskin Drive Charleston, WV 25311 304.561.6450





The Armed Forces Reserve Center will house five National Guard and Army Reserve Units and their support personnel. Its mission is twofold: first, to maintain readiness for its attached units and second, to serve as a resource to the surrounding community.



The primary readiness mission for the center's attached units is accomplished by providing designated spaces for each unit as well as general educational and gathering spaces that can be shared among the units.

The building's community mission is to provide a gathering space for social functions, a shelter-in-place in times of natural disaster, and a community education resource with distance learning network capabilities. It also includes kitchen and dining facilities and physical fitness areas.

West Virginia Air National Guard Headquarters



LOCATION: Charleston, West Virginia

SIZE: 90,000 SF

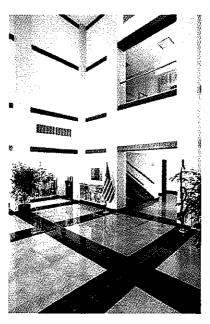
COMPLETION: 1993

CONTACT: General Alan Tackett WVARNG 1679 Coonskin Drive Charleston, WV 25311 304.341.6000





The main façade upon approach to the Headquarters of the 130th Airlift Group includes an end-to-end expanse of ribbon windows interrupted by a vertical tower that includes a multi-story curtain wall system. The remainder of the façade is clad in masonry and insulated metal panels that emphasize the solid, secure nature of the facility.



The building contains administrative offices, conference rooms, computer rooms, a clinic, locker and shower rooms, as well as recruiting offices for Air Force personnel. Direct digital controlled HVAC systems save energy by reducing temperatures in areas occupied intermittently.

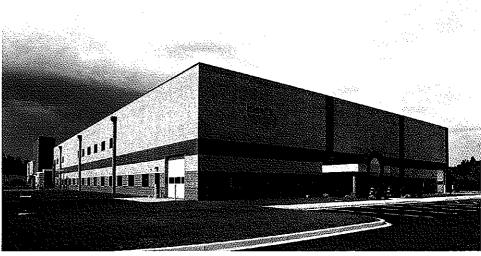
NGK Spark Plugs (U.S.A) Production Facility



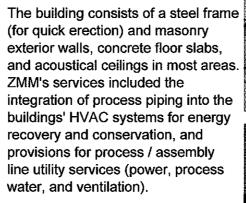
LOCATION: Sissonville, WV

SIZE: 80,000 SF

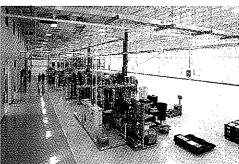
CONTACT: Mr. Dilip Shah Technical Maintenance Manger One NGK Drive Sissonville, WV 25320 304.988.0060

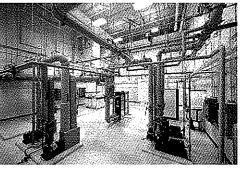


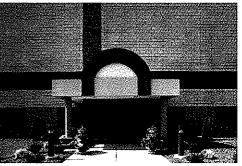
A manufacturing facility for automobile oxygen sensors, this plant contains 80,000 square feet of production/assembly area. The building includes management and administration offices, conference rooms, computer room, employee cafeteria, testing / quality control area, and a shipping / receiving area. The site provides parking for 250, extensive landscaping, and ample space for future expansion.



Due to the success of the first phase of the project, ZMM is currently assisting NGK with additional growth at their campus in Sissonville.







Erma Byrd Center

Public Higher Education Center



LOCATION: Beaver, West Virginia

SIZE: 33,000 SF

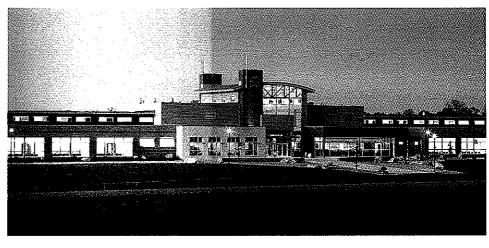
COMPLETION: August 2007

COST: \$7.5 Million

OWNER: Thomas S. Acker S.J. Executive Director The Higher Education Foundation 200 Main Street Beaver, WV 25801 304.929.2010

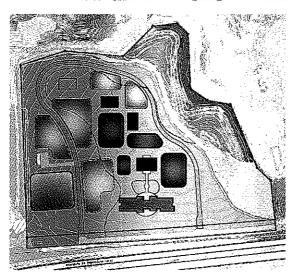
AWARDS: 2008 AIA Honor Award West Virginia Chapter Excellence in Architecture

American School & University Outstanding Building Design









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

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

A wind turbine and solar panels on site assist in reducing the overall utility costs and allow students to see first-hand the benefits of alternative energy sources.

This Higher Education facility sets a new standard for the learning environment and energy efficiency. The building is designed to maximize use of natural light and has sensors throughout that control the artificial light level by measuring the amount of light present in the space. The high-tech facility is the first building on what will become a campus for public higher education. It's placement at the front of the site allows the building to serve as a beacon of what is to come.

Lincoln County High School

Lincoln County Schools



LOCATION: Hamlin, West Virginia

SIZE: 217,000 SF

COMPLETION: August 2006

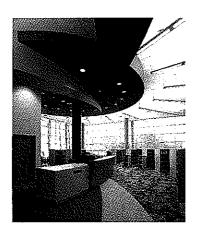
COST: \$32 Million

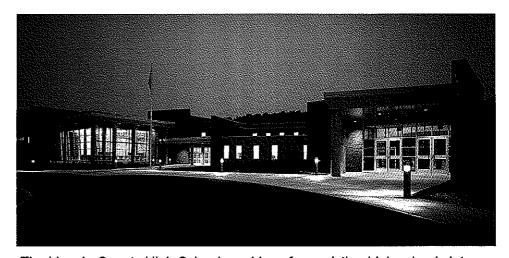
OWNER: Mr. David Roach Superintendent 10 Marland Avenue Hamlin, WV 25523 304.824.3033

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

Education Design Showcase Product of Distinction

American School & University Outstanding Building Design



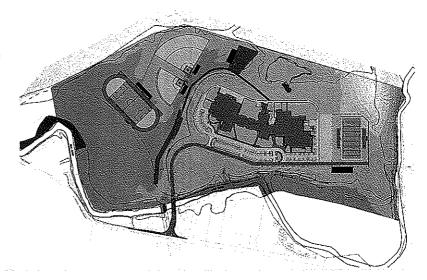


The Lincoln County High School combines four existing high schools into one. This facility includes 45,000 SF of both traditional and non traditional vocational space. Students have the opportunity to access vocational classes without leaving the building. Along with the traditional classrooms, some 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. Daylighting 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 these computers throughout the facility.



Wood County Justice Center



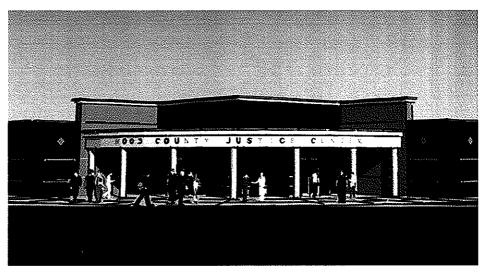
LOCATION: Parkersburg

West Virginia

SIZE: 32,000 SF

COMPLETION: TBA

CONTACT:
Mr. Rick Modesitt
Former Commissioner
No. 1 Court Square
Suite 203
Parkersburg, WV 26101
State of WV - Division of
Juvenile Services
304.481.4085



This project was an extensive renovation of a 15 year old, 32,000 square foot, single story office building. This building was purchased by the Wood County Commission in order to bring together 3 government functions that were housed in 3 separate buildings.

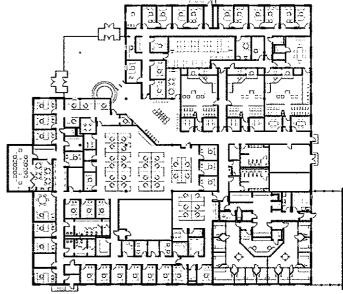


The program consists of office for the county's Magistrate Court system, 3 court rooms, and offices for the sheriffs department, home confinement officers as well as a 12-hour inmate holding center.

The building's main entrance was relocated and redesigned to provide a new, more prominent identity to the building and to align with the new parking area that was created by the demolition of the existing magistrate court

building. Skylights were located in open office areas and public waiting areas to provide more natural light inside the building and reduce electricity use.

The project was designed around the U.S. Green Building Council's New Construction and Major Renovation guidelines with a target of becoming LEED Certified.



Judge Black Courthouse Annex

ZZMM

LOCATION: Parkersburg, West Virginia

SIZE: 36,828 SF

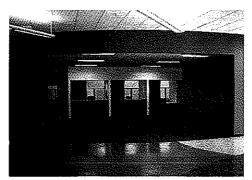
COMPLETION: 2005

CONTACT: Mr. Rick Modesitt Commissioner No. 1 Court Square, Suite 203 Parkersburg WV 26101 304.424.1984

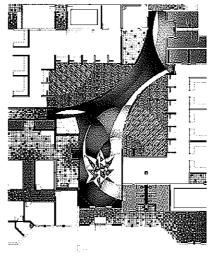




The Judge Black Annex project involved renovating an existing commercial building into county office and courtroom space for the Sheriff's Tax Office, Assessor's Office, Prosecuting Attorney's Office, and the Family Court. The design provided both secure and non-secure circulation, while taking advantage of the existing structural configuration to create large open volumes that lend the building prominence.



The interior design utilized rich colors and dramatic visual accents in public areas, with finishes selected for durability. Layered planes of varying colors accent the building's depth, and skylights provide daylight to county staff throughout the renovated office areas. Exterior improvements included the elimination of an existing storefront system as well as a change in the fenestration, to more closely match the existing courthouse and to change the character and typology of the existing facility.



St. Albans High School

Kanawha County Schools



LOCATION: St. Albans, West Virginia

SIZE: 216,500 SF

COMPLETION: 2003

COST: \$24 Million

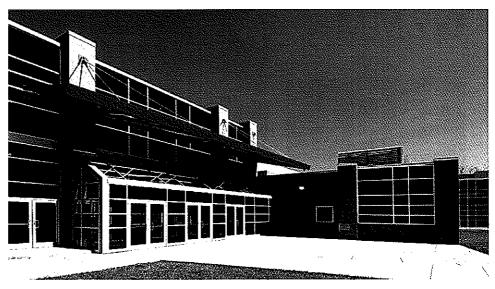
CONTACT: Dr. Ron Duerring Superintendent 200 Elizabeth Street Charleston, WV 25523 304.348.7732

AWARDS:

Impact on Learning Award Effective Transformation

Education Design Showcase Outstanding Building Design

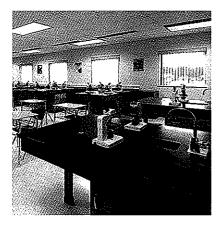
American School & University Outstanding Building Design

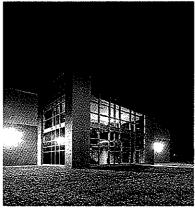


One outstanding feature of the completed renovation of St. Albans High School is its unique, inviting physical entryway and the aesthetically pleasing and functional commons/cafeteria area. The commons is a visual focal point of the school creating a natural flow from the front entrance, through the 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. Continued...







St. Albans High School







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



Southside Elementary & Huntington Middle School

Cabell County Schools



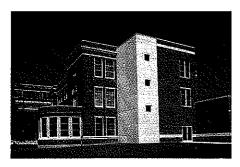
LOCATION: Huntington, West Virginia

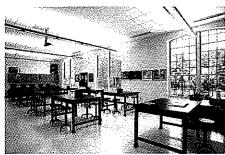
SIZE: 158,194 SF

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 21st century learning. Continued...

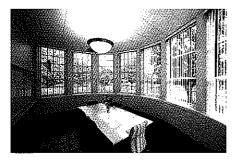


Southside Elementary & Huntington Middle School

ZZMM













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.



West Virginia Housing Development Fund

Office Building



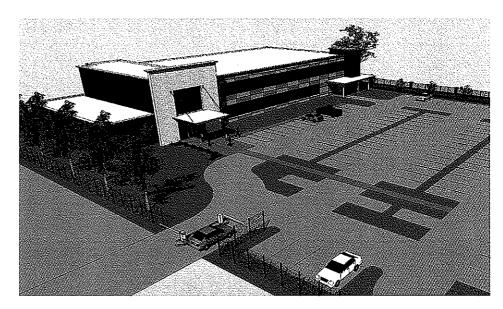
LOCATION: Charleston, West Virginia

SIZE: 36,000 SF

COST: \$8.5M

COMPLETION: Est. June 2011

CONTACT: Nancy Parsons Senior Director of Asset Management 814 Virginia Street, East Charleston, WV 25301 304.345.6475

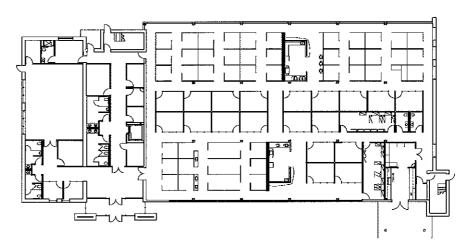


This project is presently designed to house approx. 95 to 100 employees in 36,000 square feet of new space in Charleston's Kanawha City neighborhood. The building will be a 2 story, steel framed structure with natural daylighting of interiors, and is



anticipated to be LEED Certified.

The access floor system, demountable partitions, and employee cubicles will give the office space total flexibility and will accommodate future reallocation of space as needed without interruption to coworkers. The site consists of 2 acres and will accommodate approx. 110 employee and visitor vehicles, and is located on a former industrial site



Dow Plant - Headquarters Building



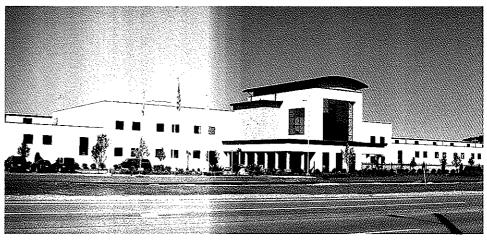
LOCATION: South Charleston, West Virginia

SIZE: 127,200 SF

COMPLETION: 2003

COST: \$6.5 Million

CONTACT: Mr. Jim Guidirini Plant Manager 437 MacCorkle Ave. So. Charleston, WV 25303 304.747.3418





The existing space was converted to an open office environment with work stations for 70 plant personnel on the second floor. The first floor was redesigned to contain locker / shower facilities, a lunch room and the emergency operations center for the South Charleston plant. The addition contains the visitors entrance and conference facilities on the second floor.



The exterior window-wall construction in the existing building was replaced with new energy efficient windows and a solid insulated EIFS clad wall system.

A new energy-efficient HVA/C system was installed in the building.



State of West Virginia

Capitol Food Court



LOCATION: Charleston, West Virginia

SIZE: 14,000 SF

COST: \$3.7 Million

COMPLETION: 2007

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



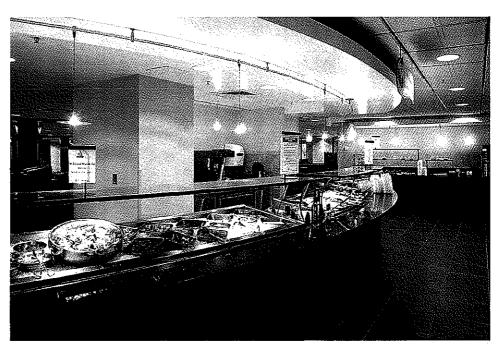






This project involved renovating an existing food service area in the WV Capitol Building. The new renovations include a full service kitchen, self serve area and seating for 300 people. ZMM worked with a kitchen consultant and provided demolition drawings, base architectural, mechanical and electrical drawings.

The project included design of the first phase of a wet pipe sprinkler system that will serve the entire Capitol. ZMM also provided the documents to replace the Capitol medium voltage transformers located in the basement vault. ZMM met stringent timeline for a critical construction completion date.



Award Winning Design





2009



2010

AIA West Virginia Chapter

Hacker Valley PK-8 School Hacker Valley, WV 2010 - Honor Award "Excellence in Architecture"

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

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

2008







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

St. Albans High School St. Albans, WV

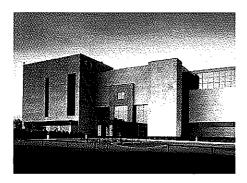
"Effective Transformation"

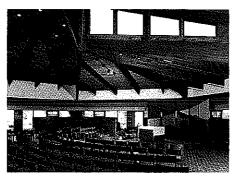
Education Design Showcase "Outstanding Building Design"
American School & University "Outstanding Building Design"

2004 - Impact in Learning Award

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

RFQ No. DEFK11946

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 exceed 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.

Vendor's Name: ZMM, INC. Authorized Signature: ACRY Date: Z4.FEB.2011 State of West Virginia County of Kanawha, to-wit: Taken, subscribed, and sworn to before me this 34day of February, 2011. My Commission expires 10-6, 20/8 AFFIX SEAL HERE NOTARY PUBLICATION & Bawles



WITNESS THE FOLLOWING SIGNATURE