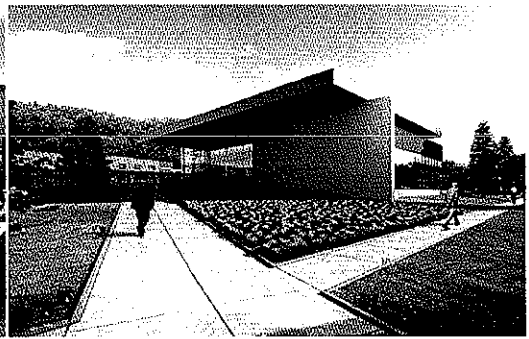
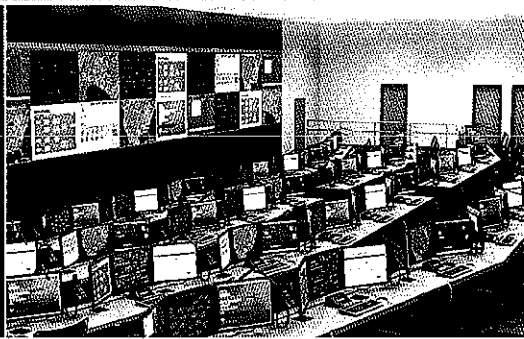


Expression of Interest
for:
West Virginia Army National Guard
Joint Operations Center
RFQ# DEFK11028



ZMM · AECOM · CEI

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ARMY NATIONAL GUARD



ARCHITECTS & ENGINEERS

March 21, 2011
Ms. Tara Lyle, Buyer
State of West Virginia Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, West Virginia 25305-0130

Subject: Expression of Interest to provide architectural and engineering services for the design of a Joint Operations Center (JOC) – DEFK11028

Dear Ms. Lyle:

ZMM is pleased to submit the attached information to demonstrate both our experience and our capability to provide professional architecture and engineering services for a New Joint Operations Center (JOC) in the vicinity of the West Virginia National Guard Headquarters in Kanawha County. ZMM will lead this team effort as this project continues a legacy of collaboration between ZMM, AECOM, and CEI, firms who successfully completed the design for the Joint Interagency Training and Education Center (JITEC) at Camp Dawson. Our recent effort designing a similar JOC at Camp Dawson, our public safety facility and operation center design experience, as well as our extensive experience designing facilities at the West Virginia National Guard's Coonskin Campus makes our team uniquely qualified to provide design and engineering services on this project.

Established in Charleston in 1959, ZMM is one of few full service A/E firms in West Virginia, and is noted for design excellence and client focus. ZMM's military and public safety design experience in West Virginia spans five decades, and has been recognized with both statewide and national planning and design awards. ZMM's recent experience designing the Air National Guard Headquarters, the CFMO Expansion, and the Tackett Family Readiness Center at the Coonskin Campus demonstrates our knowledge of the proposed site, as well as our ability to provide high quality design services.

AECOM provides nationwide A/E design services for multiple higher education, federal agency, military, and justice clients, and approaches every project with an in-depth examination of the client's aspirations, space requirements, and building technologies. AECOM has designed Operations Centers at the Army National Guard Headquarters in Arlington, VA, and at the Pentagon. In addition to their federal experience, AECOM has designed a Unified Communications Center for the District of Columbia, as well as a State Emergency Operations Center for the Pennsylvania Emergency Management Agency. In addition to leading the planning effort for the JOC, AECOM will focus on technology and security integration.

Thank you for taking the time to review the attached information that details our project team and approach, as well as our firm history and philosophy, experience, qualifications, personnel, and references. Additionally, please visit our website www.zmm.com to learn more about working with ZMM from a client's perspective. We look forward to presenting our ideas for this project, and appreciate the opportunity to be considered for this important assignment.

Respectfully submitted,

ZMM

A handwritten signature in black ink, appearing to read 'Adam R. Krason'.

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

ZMM, Inc.
222 Lee Street West • Charleston, West Virginia 25302
304.342.0159 voice • 304.345.8144 fax
zmm.com

Table of Contents



Cover
Cover Letter
Table of Contents

Section 1 Project Approach

Section 2 Our Team
Organizational Chart
Firm Profiles
Resumes and Qualifications

Section 3 Relevant Experience

Section 4 Sustainable Design
LEED Accredited Professionals
LEED Project Experience

Section 5 Award Winning Design

Section 6 References
Client References
Letters of Recommendations





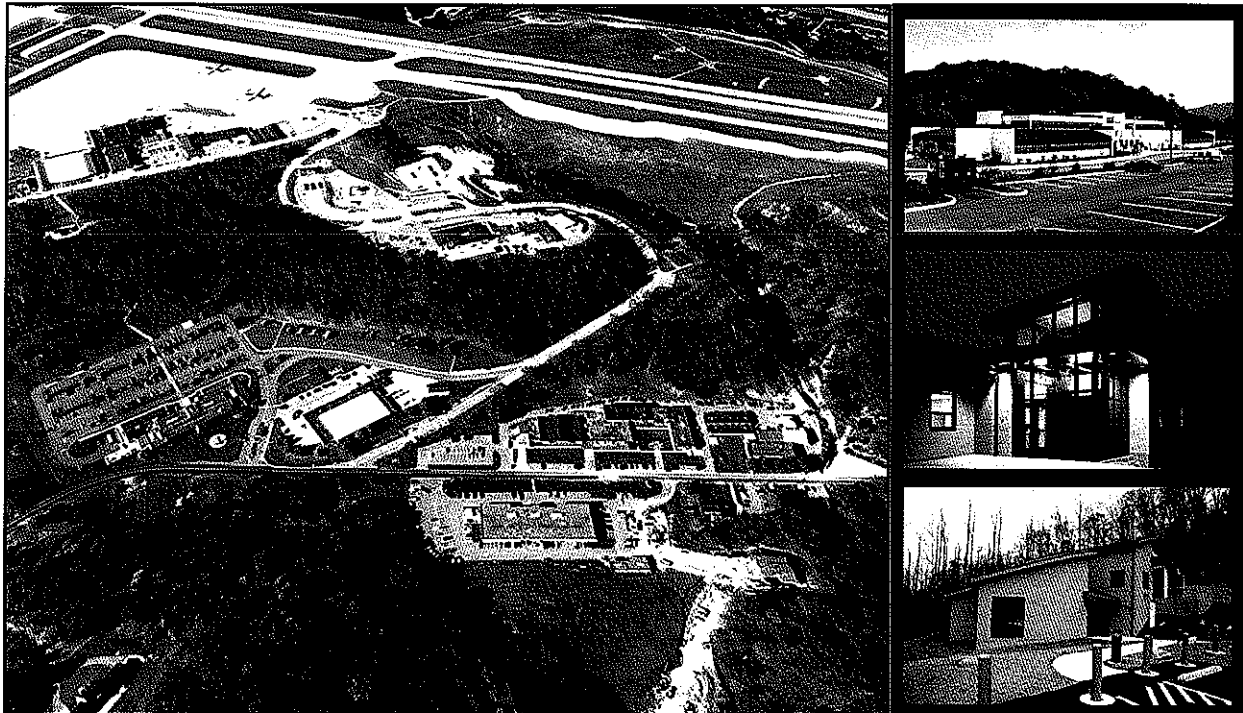
Project Team

The ZMM/AECOM/CEI team that is proposed for the Kanawha County Joint Operations Center is the same team that recently provided design and construction phase services for the Joint Interagency Training and Education Center (JITEC) at Camp Dawson. The JITEC project had a similar program and involved the coordination of multiple State and Federal agencies. The project also included the design of an operation training center that will be utilized to train local, state, and national agencies.

The JITEC project presented challenging scheduling and budget constraints. The project design for the \$65 million expansion to the RTI was completed, bid, and awarded in eight months. Quickly developing consensus among a varied group of stakeholders was critical in meeting the challenging schedule. ZMM's experience working with the State of West Virginia and the West Virginia Army National Guard, combined with AECOM's nationally-recognized operation center design experience, led to both a successful design process and a design solution that has a strong visual presence and functional layout. Key members of the JITEC design team, including Project Managers Adam Krason and Oscar Perez, Civil Engineer Robert Fuller, and Lead Designer Werner Mueller, will provide their expertise and experienced leadership to the Kanawha County Joint Operations Center project.

ZMM will lead the effort for the design of the Kanawha County Joint Operations Facility. ZMM's close proximity to the site and experience working at the Coonskin Campus will help ensure the success of the project. As with the JITEC, ZMM and AECOM will be full partners throughout the schematic design process, with AECOM leading the planning effort for the Joint Operations Center (JOC). CEI will also be instrumental throughout the design process, lending their site planning expertise and specialized knowledge of the Coonskin Campus to the effort. Throughout the construction document phase, ZMM will coordinate the overall design and documentation effort, while AECOM will focus on the JOC design and technology and security integration.

ZMM will lead the team effort throughout the construction phase. Our recent experience providing design and construction phase services at the Coonskin Campus (Air Guard Headquarters, CFMO Expansion, and the Tackett FRC) will help improve the implementation of the project for the West Virginia National Guard.



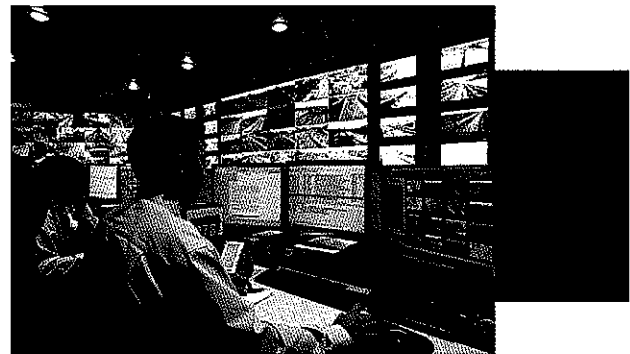


Public Safety and Operation Center Design

Public safety requires survivable communications systems that will withstand daily handling and abuse, as well as natural disasters. Therefore, primary and backup power, environmental control, and appropriate space for both communications systems and their support systems are essential. Public safety personnel use virtually every type of communications system available; all must be accommodated within the boundaries of the building and fit within the functional and operating constraints of the occupants. The communications systems also must be designed to allow outside agencies to operate within their communications systems. Through our work on public safety buildings, the ZMM/AECOM team understands how these facilities function, and the special requirements of the individuals who work and visit these important 24/7/365 community facilities. Our designers work with facility users to determine the spatial and adjacency needs for each space. Throughout the design process, these designers interact with all disciplines on a daily basis, ensuring all elements of the building design are coordinated.

The ZMM/AECOM team has an innovative approach and specialized experience in the design of public safety facilities and the state-of-the-art systems that support each function. Whether the project entails highly advanced security systems or the latest operations center technology, our design professionals are skilled in designing and administering the construction of emergency communication centers, operations centers, data centers, and law enforcement centers. Our experience encompasses public safety communication systems, 911 centers, dispatch systems, and emergency operations centers. Our dedicated staff provides propagation analysis and operations assessments as part of the needs analysis preceding radio system specifications, license applications, and the development of wide-area simulcast radio systems for government radio systems and communications centers, including those involving multiple government agencies. In addition to two-way radio applications, we are experts on:

- Emergency center integration
- Computer assisted dispatch systems
- Public safety and critical utility infrastructure communications
- Voice/data systems that facilitate and support communication
- Emergency, backup, and redundant power
- Fire protection
- Lightning protection
- System life-cycle planning
- Operations assessment
- Consolidation feasibility studies
- Cutover and relocation planning
- Budget planning and estimates



An important component of joint operation center design is the integration of technology and security into the facility. The ZMM/AECOM team provides technology infrastructure and business continuity facilities, intelligent transportation systems, and systems integration for facilities for a wide variety of federal, state, and local agencies. Our telecommunications engineers include Registered Communication Distribution Designers (RCDD), LAN/WAN Network Transport Systems (NTS) specialists, Physical Security Professionals (PSP), and Certified Information Systems Security Professionals (CISSP). In addition, our staff holds certifications in system integration from Microsoft, Cisco Systems, Nortel, and the audiovisual industry. We specialize in voice, data, audio-visual, and broadband communications engineering for internal facilities, as well as external infrastructure design for outside plant telecommunications systems. Our IT/Telecommunications services include detailed systems design, specification, implementation management, acceptance testing, cutover, post cutover trouble-shooting, and system expansion and upgrades.

Members of our team have also responded to recent threats to international security by providing design and integration of baggage screening devices at airports, as well as providing blast analysis for selected terminal buildings. We manage infrastructure protection and security contracts for government agencies in Australia and the United States. In recent years, we have provided security assessment and planning services for the Department of Homeland Security's new headquarters complex in Washington, DC, The Army National Guard's new Joint Staff Readiness Center in Arlington, VA, and such sporting events as the National Football League's Super Bowl XXXIX.

Project Approach



Unique Qualifications and Expertise

The ZMM/AECOM team's work on the Operations Building and JOC for the JITEC at Camp Dawson, WV, combined the best of ZMM and AECOM's resources into a single unified design team. This same unified team effort will be utilized for the Kanawha County Joint Operations Facility. By combining ZMM's local expertise and AECOM's national reputation as the leader in joint operation center and public safety facility design, we are able to offer a unique team with the expertise and experience to deliver high quality design services for your project.



We offer the following advantages of the ZMM/AECOM team:

- Recent relevant operation center design experience in WV (JITEC)
- Designers of the adjacent Air National Guard Headquarters
- Designers of two recent projects at the Coonskin Campus (CFMO Expansion, Tackett FRC)
- Principal involvement throughout the project
- Experience designing AFRCs and readiness centers throughout WV: Glen Jean, Camp Dawson, Morgantown, Logan-Mingo, Parkersburg, Jackson County
- Public safety facility and operation center design experts
- Strong project management
- Integrated technology and security design
- Reputation of client focus and design excellence
- Licensed, Experienced Professionals
- Reputation for providing an integrated design approach



Our team's experience with a wide range of public safety projects in both West Virginia and across the country has created an in-depth understanding of short- and long-term requirements for all levels of unique missions that joint operation centers must support. This understanding and expertise is critical to provide solutions for the facility's environmental, space, and functional needs. AECOM brings a national perspective, while ZMM will provide the local foundation for the project—as a team we are committed to the quality planning, design, and implementation of your project.



Design Approach

Our approach to the design of the Kanawha County Joint Operations Facility will begin by establishing the vision of the center for all involved stakeholders including the State of West Virginia, the West Virginia National Guard, the WV Department of Transportation, the National Weather Service, and all other local and state agencies that may participate at the Joint Operations Facility. Establishing a clear vision and comprehensive program and budget for the project will provide direction for future project decisions.



To commence the site design process, CEI, with the assistance of the West Virginia National Guard, will compile information regarding the proposed new Coonskin Complex secured perimeter, roadway alignment, and ACP. The ZMM/AECOM design team will consider various options for meeting the AT/FP requirements of the facility to maximize the available site. As the facility will occupy multiple levels, the design team will explore various options, including the potential for creating one or more subterranean levels to reduce the need for excessive fill to bring the facility up to the same level as the Air National Guard Headquarter Facility. This option has the potential to reduce the cost of the earthwork, while also keeping the scale of the facility proportional to the other facilities on the campus.

The location and design of the proposed facility also presents the opportunity to improve the overall Coonskin Campus. The proposed JOC may share parking with the adjacent Air National Guard facility. By locating the entry in a way that addresses the Air Guard Facility, the new site circulation can be designed to improve the orientation and prominence of the Air Guard Headquarters on the campus. The exterior design of the JOC can also help to unify the facilities on the Coonskin Campus by addressing both the aesthetic of the Air Guard facilities, and the exterior masonry materials that are more prevalent throughout the remainder of the campus. The concept of considering a more campus wide view of the design will ensure the most efficient use of the construction funds by helping to improve the overall campus through the design of the JOC.

To help reduce the project budget, the ZMM/AECOM team proposes a thorough analysis of the WV National Guard Coonskin Complex to determine if alternate site locations are available that would reduce the overall project cost. ZMM and CEI are currently undertaking a similar analysis for the Parkersburg Readiness Center.

Building Systems Analysis

If selected to design the Joint Operations Center, the ZMM/AECOM team would recommend undertaking a study to determine the most efficient and cost effective method of constructing the facility. To undertake this investigation a preliminary layout of the facility would be completed as the number of levels and the complexity of the floor plate will play a significant role in selecting the most efficient system. Building systems to be investigated would include:

- Tilt-up construction
- Pre-engineered metal framed construction
- Pre-cast construction
- Insulated concrete forms
- Load bearing masonry construction
- Steel frame construction

The ZMM/AECOM team completed a similar building system analysis on the JITEC Billeting Addition. After a thorough cost analysis, the team switched from a proposed steel frame (used at the RTI) to a load bearing masonry and pre-cast plank system – ultimately reducing the construction cost by more than \$1 Million.



Site Analysis

The proposed site is a former residential area along Coonskin Drive, adjacent to the existing WV Air National Guard Headquarters. All of the dwellings and improvements have been removed, leaving approximately three acres of lawn on rolling terrain available for the proposed facility. To bring the proposed site up to the same grade as the existing headquarters parking lots, fill material from elsewhere on the National Guard Complex will be required. Raising the site would facilitate sharing the existing parking lots and visually placing the building in the same plane as the Air Guard Headquarters building. A two-story structure would likely be necessary, due to the limited space available.

Campus Analysis

The WV National Guard State Headquarters is located on Coonskin Drive, just east of Charleston Yeager Airport (CRW) in Kanawha County. The existing route to the Headquarters continues past the campus to nearby Coonskin Park. As noted above, several projects are currently underway at the campus. In addition, proposed projects include the development of a new childcare center on the campus, as well as several maintenance facilities.

Upon approaching the campus, the first facility encountered is the WV Air National Guard Headquarters on the left side of Coonskin Drive. The Headquarters is a distinct multi-story building with a white masonry and metal panel veneer. The facility is distinct in its material palette, as the other significant buildings on campus feature some form of a tan/orange blended brick veneer. The facility is also distinct in that it is the only major facility that does not face Coonskin Drive. Passing the Air Guard Headquarters facility you encounter a secure ACP that leads into the Air Guard Complex, and ultimately to the Air Guard facilities at CRW. The complex also includes several smaller maintenance, training, and storage facilities.

After passing the Air Guard complex on the left, a visitor will encounter the Joint Force Headquarters Building on the left, while the Headquarter Annex sits on a knoll across the street. The Headquarters Building appears to have been built over several phases, and the first portion encountered is the Drill Hall. The Headquarters Building has the blended brick veneer noted above, and sets the tone for the campus with a series of modern sloping canopies. The Annex building utilizes similar materials on the façade; however, the brick is not a blend, and the darker colors from the blend on the adjacent buildings is used in a more distinctive manner on the Annex (primarily to highlight window and door lintels).



The last major facilities on the campus are the Recruiting and Retention Building and Construction and Facilities Management Office (CFMO) on the left, while an indoor range and the newly constructed Tackett Family Readiness Center (FRC) are located at a higher elevation, on the right side of Coonskin Drive. The proposed Childcare Center will sit adjacent to the new FRC. ZMM recently designed the facilities located at the end of the Campus (the CFMO Expansion and the FRC). Both buildings utilize the distinctive blended brick veneer. The CFMO Expansion is a more modern facility that creates an exterior plaza at the entry (shared with the Recruiting and Retention Building). The entry condition at the CFMO responds to the headquarter building's canopies, while the FRC facility maintains a more residential quality to respond to the mission of helping family members of deployed soldiers.

AT/FP

The proposed site is currently outside the perimeter of the WV Air Guard. However, the master plan for the Coonskin Complex calls for closing Coonskin Drive to the public, building a new access control point, and establishing a new perimeter that encompasses all Army and Air facilities. This will allow the use of smaller setback distances, since the JOC will be inside a controlled perimeter. Depending on the new Access Control Point (ACP) layout, one side of the proposed site will border the ACP and require the full 148-foot setback, unless blast mitigation is used. Blast mitigation could be a hardened building, a pre-cast concrete wall, or a soil berm.

Firm Profiles



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



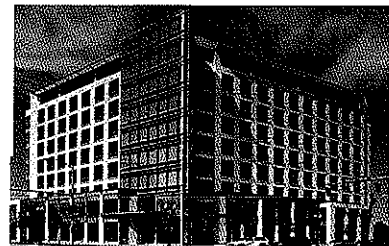
coordinated construction documents.

Over the last decade, ZMM has become a leader in sustainable 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.



While we have grown to become a global service provider, the AECOM office teaming with ZMM is comprised of the same professionals who are collaborating on the design construction of JITEC. Located in Arlington, Virginia, AECOM's National Capital Office (NCO) features nearly 200 designers and support staff in close proximity to ZMM and West Virginia, allowing us to provide dedicated, personalized service to the Joint Emergency Operations Center (JOC).



AECOM has performed more than 100 task orders for architectural and engineering services for the National Guard Bureau since 1994, under four consecutive IDIQ contracts. We currently have three task orders under our new contract and perform environmental services under an IDIQ contract for the Air National Guard. For the West Virginia National Guard, AECOM has performed more than one dozen tasks at Martinsburg in support of their Base conversion.

AECOM has planned, designed and built mission critical facilities of all sizes up to 650,000 SF, including command and control centers for government clients, joint operations centers for military bases, and communications centers for emergency dispatch facilities. Our specialists work in integrated teams to plan, analyze, design and construct scalable, redundant, and secure mission critical facilities, while respecting financial requirements. Continued...

AECOM

AECOM's specialized experience in the integration of security, technology and audiovisual systems is unique to most firms, and is demonstrated by our design experience on projects:

- Will County 911 Regional Dispatch Center, Will County, IL
- Timbrook Public Safety Center, Winchester, VA
- Johnson County Emergency Communications Center, Olathe, KS
- Consolidated Communications Center, Arlington, VA
- New York State Police Troop G Headquarters Replacement and State Operations Center, Colonie, NY
- Technology Design for Joint Traffic Management Center, New York, NY
- Puerto Rico Ports Authority (PRPA) - 4CI Command and Control Center, Puerto Rico
- Emergency Command Control Communications System 911 Centers, Los Angeles, CA

CEI

Capitol Engineering, Inc. (CEI) has experience planning, designing, specifying, preparing contract documents, bidding and performing contract administration on many types of military facilities including Readiness Centers, Airfields, Training Areas and Ranges. Our experience and resources give us the ability to handle both complex and routine projects.

CEI offers the highly specialized experience, attention to minute detail, and the unparalleled level of personal client support provided by a small boutique firm. We are particularly attractive because:

- Our management, engineering and professional staff has a combined total of over 120 years of experience, much of it acquired while working on military facilities.
- Staff has participation and completion of 15+ National Guard projects in West Virginia.
- Management team has 30+ years and over 50 projects total specialized experience providing timely, cost effective construction documents for military facilities.
- Experience to successfully handle all design situations and problem types anticipated to occur under this contract.
- Construction and Facilities Maintenance Office satisfaction with prior work/projects performed by key staff members.

CEI is a locally owned consulting engineering firm founded in 1999. CEI has steadily grown since its inception with three employees. CEI possesses in-house services in civil, environmental and mining engineering, contract administration, and surveying and mapping. Our staff is made up of two Professional Engineers, a Professional Surveyor, Project Engineers and Scientists, CAD Operators, Technicians, and administrative personnel. Our client base is comprised of contractors, architects, engineers, developers, private industry, and federal and state agencies.

Joint Operations Center

RFQ# DEFK11028

Adam Krason, AIA
Principal, Project Manager
ZMM

Oscar Perez, AIA
JOC Planning & Design
AECOM

Robert Fuller, PE
Site Design & Civil Engineer
CEI

Architecture/Interior Design

Werner Mueller, AIA
Lead Designer

Nathan Spencer, AIA
Architect

Rodney Pauley, AIA
Architect

Ivonne Garcia, AIA, LEED AP
Interior Designer

Jill Watkins, NCIDQ, LEED AP BD&C
Sustainability Coordinator

Engineering

Robert Doeffinger, PE
Engineering Principal

Tom Gillard, PE, LEED AP
Structural Engineer

Scot Casdorff, PE
Electrical Engineer

Security/Data/JOC Design

Timothy "Lance" Timmsen
Security Systems Specialist

Michael Abernethy, LC, IESNA
Lighting Designer

Kristian Zebrosky, RCDD/NTS, LEED AP
Information Technology Specialist

Aaron Adilman
Audiovisual Technology



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

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV.

Mr. Krason was responsible for the preliminary programming, and participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Krason was

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

also responsible for managing 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.

Construction and Facilities Management Office Expansion, West Virginia Army National Guard, Charleston, WV. Mr. Krason was responsible for the programming, architectural design, and project management of the office expansion. The project included the renovation and addition to an existing pre-engineered metal building. The design, which was honored with a 2008 AIA Merit Award, focused the client's resources on a new entry and corridor that separated the existing office space from the addition.

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

Judge Black Courthouse Annex, Wood County Commission, Parkersburg, WV. 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, Charleston, WV. 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.

State Office Building #5, 10th Floor Renovation, Office of Technology, Charleston, WV. Mr. Krason led an architectural and engineering team that completed a detailed assessment of State Office Buildings 5, 6, & 7. Once the assessment was complete, ZMM had the opportunity to implement the proposed improvements on the 10th Floor of State Office Building #5 for the Office of Technology. The 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, Charleston, WV. 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 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

JOC Planning and Design

Professional Registrations

Registered Architect (VA, MA, FL, CA)
LEED Accredited Professional
NCARB Certification

Mr. Perez has a diverse background as a designer, architect and project manager, providing him with the skill to visualize all aspects of the design and construction processes; this understanding successfully keeps all interested parties working efficiently and effectively together. He is highly regarded for his attention to detail, his skills in coordinating projects, and his familiarity with all projects phases, from planning and budgeting through site selection, design, and construction management.

An award-winning architect, Mr. Perez has been presented with several design awards that include the 2006 Air Force Design Excellence Award for the State Command Headquarters project in Reno, NV.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV. Project manager for this 283,000-SF, \$110 million project, which is slated for LEED-NC Silver certification. The project includes new design and renovation of multiple campus facilities, including a new 90,000-SF operations building housing the 36,000-SF Joint Operations Center (JOC). Built to SCIF standards, this state-of-the art command center houses 48 permanent workstations and features 2N UPS and an N+1 generator plant for redundancy and reliability.

Army National Guard Readiness Center, Arlington, VA.

Project manager for the new 250,000-SF headquarters building for the National Guard that houses a 35,000-SF Joint Operations Center. Slated for LEED-NC Gold certification, the design features redundant generators to support the entire facility, as well as redundant UPS cabinets with wet cell batteries to serve the mission critical spaces and specialty audiovisual equipment.

Air National Guard Readiness Center Expansion, Andrews Air Force Base, MD. Quality control manager for the multi-phase program management, master planning,

Education

Master of Architecture, University of Florida, 1980

Bachelor of Design, Architecture, University of Florida, 1978

Years of Experience

AECOM: 19 Years
Other Firms: 13 Years

Civic Affiliations

- American Institute of Architects, Member

architectural design and structural engineering for the \$75 million, four-story 170,000-SF addition to the ANG Readiness Center. The facility is slated for LEED-NC Silver certification and meets AT/FP standards.

National Guard Bureau IDIQ for Architectural-Engineer Services, Nationwide. Since 1994, has served as program manager for four consecutive IDIQ contracts. Projects consist of master planning, feasibility studies, planning, design guides, programming, new construction/renovation design and construction administration. Facilities include command and control centers, office buildings, industrial buildings, hangars, and composite buildings.

Relevant projects include:

- ANG 167th Airlift Wing, Martinsburg, WV.
- ANG 164th Airlift Wing, Memphis, TN.
- 152nd Air Wing Command Headquarters, Reno, NV.
- 152nd Air Wing Communications and Security Forces Facility, Reno, NV.
- Mississippi ANG Squadron Operations Facility, Jackson, MS.
- California ANG Headquarters, Moffett Federal Airfield, CA.
- Security Forces Training Facility Fort Bliss, El Paso, TX.

NASA Ames Research Center, Moffett Federal Airfield, CA. For over four years, Mr. Perez served as the deputy site director in charge of A/E services. Responsible for coordinating and setting policies and procedures for an A/E staff of over 70 people working on an average of 150 design projects per year. Role included client interface with NASA personnel and determining staffing and resources on projects. Developed and monitored CAD standards, estimating standards, and quality control procedures. Project manager for over 40 projects including offices, research laboratories, historic renovation projects, seismic upgrades, tenant fit-out and special projects such as centrifuges and anechoic chambers. Relevant projects include:

- **Ames Technology & Computer Center (ATCC).** Project manager and construction manager for the design and construction of the ATCC facility. The project consisted of site-adapting five modular buildings and renovating two existing buildings to create a new campus for a joint technology center sponsored by NASA and Silicon Valley high technology firms.
- **NASA Ames Research Center Office Building.** QC manager on the new 50,000-SF headquarters building. The project was designed to meet LEED-NC Gold certification and includes geothermal heating and cooling, photovoltaics and passive technology.
- **Building N232 Collaborative Support Facility.** Serves as the QA/QC manager for both the Preliminary Engineering Report and design of this new \$26 million, 48,000-SF facility that includes administrative office areas, conference spaces, ecological landscaping, renewable energy technology and wastewater treatment. This USGBC-registered project has a goal of LEED-NC Platinum certification.

NASA New Town Program at Langley Research Center, Hampton, VA. Under the GSA Design Excellence for New Construction program, quality control manager for the bridging design package for a new 72,000-SF, LEED-NC Silver slated administrative office building.



Role

Site Design & Civil Engineer

Professional Registrations

Registered Professional Engineer (WV, PA, OH)
OSHA 40-Hour Health and Safety Training
OSHA Supervisor Training

Project Manager with 20 years of experience with: site investigation, planning, design and contract administration services on military, site development and mine reclamation projects. Mr. Fuller has been fully responsible technically, managerially and administratively for the planning, investigation, design and contract document preparation for over 70 projects in the State of West Virginia.

Mr. Fuller has served as Associate Professor of Civil Engineering Technology at West Virginia University Institute of Technology on a full-time, part-time, and adjunct basis.

Mr. Fuller was principal or project manager for the following West Virginia Army National Guard Projects completed by Capitol Engineering, Inc. Descriptions of the projects with asterisks are provided elsewhere in this proposal.

- Joint Interagency Training and Education Center (JITEC)*
- Morgantown Readiness Center*
- Jackson County Armed Forces Reserve Center*
- Fairmont Armed Forces Reserve Center
- Elkins Armed Forces Reserve Center
- Glen Jean Armed Forces Reserve Center*
- Summersville Readiness Center
- Lewisburg Readiness Center
- C&FMO Office Expansion*
- AASF #1 Apron Expansion/Rehabilitation and Taxiway Replacement
- Camp Dawson Runway Extension
- Camp Dawson Range Renovations
- Camp Dawson Qualification Training Range Preliminary Design Drawings
- AASF #1 Emergency Taxiway Repair
- JISOTF Initial Planning Study

Education

Master of Science, Engineering, Marshall University Graduate College, 1997

Bachelor of Science, Engineering Technology, West Virginia Institute of Technology, 1989

Military Background

Service

- US Army Reserve, 1985-1988, Enlisted
- WV Army National Guard, 1988-2010, Lieutenant Colonel (Retired)

Key Tours

- Operation Enduring Freedom/Operation Iraqi Freedom, 2003-2004, Major, EN, Plans Officer
- Operation Iraqi Freedom, 2007-2008, Lieutenant Colonel, EN, Design Engineer

Civic Affiliations

- Society of American Military Engineers
- American Society of Civil Engineers
- American Institute of Architects Construction Specifications Institute



Role

Lead Designer

Professional Registrations

Registered Architect (MD)

Mr. Mueller brings almost 40 years of architectural design experience from the United States and abroad. Classically trained in Switzerland, he is a senior designer whose drawing skills enable him to visually communicate design ideas and options to clients. His work in both new construction and adaptive reuse spans an impressive range of facility types from transportation to diplomatic missions to technology campuses. His reputation for design excellence speaks to a balance between program and context, mindful of client requirements and budgetary constraints.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV. Designer for this 283,000-SF, \$110 million project, which is slated for LEED-NC Silver certification. The project includes new design and renovation of multiple campus facilities, including a new 90,000-SF operations building housing the 36,000-SF Joint Operations Center (JOC). 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.

Unified Communications Center, Washington, DC.

Provided creative design reviews and rendering studies for a 139,000-SF, state-of-the-art communications center that houses a 4,300-SF emergency operations and communications center. The award-winning secure facility features a comprehensive physical and technical security system, including blast resistance defenses.

Berkeley County Judicial Center, Martinsburg, WV.

Project designer for the \$20 million, 122,600-SF judicial center, an adaptive reuse of a turn-of-the-century mill, elevating it to the stature appropriate to a judicial facility.

NASA New Town Program at Langley Research Center, Hampton, VA.

Under the GSA Design Excellence for New Construction program, serves as a senior member of the design team responsible for the bridging design package for a new 72,000-SF, LEED-NC Silver slated administrative office building that is part of a secure campus.

Education

Degree in Building Design and Technology, Ecole Professionale, Zurich, Switzerland, 1969

Years of Experience

AECOM: 17 Years

Other Firms: 24 Years

Civic Affiliations

- American Institute of Architects, Member

design team through the schematic design phase. The project was designed to designed to Interagency Security Committee Level IV requirements.

US Department of Transportation Headquarters, Washington, DC. Served as design liaison to the building's design architect in support of AECOM's role as the Architect and Engineer of Record. For this new 2 million-SF headquarters complex, collaborated on the conceptual design concepts and continued to support the design team through the schematic design phase. The project was designed to Interagency Security Committee Level IV requirements.

Social Security Administration Complex, Baltimore, MD. As part of a developer-led team, serves as a senior designer for the new Social Security Administration complex, which includes a two-building office facility, a parking garage, and a separate daycare center. Slated for LEED-NC Silver certification, this secure complex is being designed to Interagency Security Committee Level IV requirements.

US Embassy Fiscal Year 2010 (FY-10) Expansion, Kabul, Afghanistan. As part of a task to prepare a design-build RFP, design principal for A/E planning through schematic design services for an embassy expansion on a secure site that includes a 300-desk office building addition; two multi-story, secure housing units with 420 apartments; two new parking facilities, perimeter wall and compound access control components; and associated infrastructure improvements.

US Embassy, Abuja, Nigeria. Project designer for this secure nine-acre embassy complex on a green site, which includes an 84,000-SF chancery office building. The complex is capable of operating independently of the local utilities and is self-sustaining. The exterior envelope is designed for blast pressures and prevention of progressive collapse.

Montgomery Park, Baltimore, MD. Project designer for the 1.35 million-SF adaptive reuse to transform an industrial facility into a high-technology office facility. Design effort included 250,000 SF of office space for the Maryland Department of the Environment. A concentrated effort toward sustainable design was part of the program requirements: stormwater retention for irrigation and grey water reuse, green roof technology, and ice storage.

US Border Patrol Station, Tucson, AZ. Project designer for a new, 20,000-SF border patrol station that conforms to the Davis-Monthan Air Force Base design criteria.



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

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV.

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, Charleston, WV. Mr. Spencer was responsible for coordinating the production effort for the 60,000+ SF mental health facility. Mr. Spencer also produced several 3-D models throughout the design process.

Morgantown Readiness Center, Morgantown, WV.

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, University of Tennessee, 2007

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, Ripley, WV. 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, Charleston, WV. 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

Architect

Professional Registrations

Registered Architect (WV, GA)

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

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

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

Project Experience

Morgantown Readiness Center, Morgantown, WV.

Mr. Pauley was the project manager for the 58,000 square foot multi-use facility which includes assembly rooms, kitchen and dining facilities, military supply storage as well as locker rooms. The building is also designed to house the 249th Army Band and their associated practice and support spaces. This area is highlighted by a 150-seat auditorium and state-of-the-art main rehearsal stage. This project is aiming for LEED Silver Certification.

Edgewood Elementary School, Charleston, WV.

Mr. Pauley is the project manager for the design team that is currently developing a new 60,000 SF elementary school on

Education

Bachelor of Architecture, University of Tennessee, 1992

Associate of Science, West Virginia Institute of Technology, 1986

Employment History

2010 - Present, Project Manager, ZMM
2008 - 2010, Project Manager, GA Firm
2006 - 2008, Project Manager, GA Firm
2005 - 2006, Sr. Project Architect, GA Firm
Jan. 2005 - Aug. 200, Project Architect, VA Firm

Civic Affiliations

- American Institute of Architects, Member

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.

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

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

Other Project Experience

One Federal Place, Birmingham, AL. Mr. Pauley was the project architect responsible for design, construction documents and construction administration for the 12-story, 466,600 SF speculative office building with attached 5-story, 520-car parking deck. The base of the office tower and parking deck, which are located in the heart of downtown Birmingham, are faced in granite to match the surrounding buildings. The tower is faced with architectural precast concrete panels and an insulated glass curtainwall system. The entrance lobby is highlighted by custom wood paneling and a highly-detailed granite floor.

North Georgia Technical College for GA Department of Technical and Adult Education Clarkesville, GA. Mr. Pauley was the project manager for the a major campus renovation which included the demolition of an old automotive classroom building, the renovation of Mobley Hall, the existing administration building, and the construction of two new education buildings, the Visual Technology Center and the Transportation Center.

- Mobley Hall, the main campus entry building, was refaced with new brick veneer and a new gable roof with entry feature was constructed covered in standing seam metal roofing.
- The Visual Technology Center is a 2-story, 28,000 SF state-of-the-art, photography, media and print building that is sited adjacent to existing educational buildings to create a formal "quad" within the campus. It contains a commercial print lab, a large photography shooting room, digital production rooms, a video production studio and is highlighted by a 2-story media gallery with glass façade open to the quad.
- The Transportation Center is a 37,000 SF educational building that is highlighted by three, high-bay spaces with clerestory windows opening into pitched standing seam metal roofs. These bays contain educational space for conducting repair and maintenance for automobiles, boats, large trucks and commercial earth-moving equipment.

Virginia Military Institute, Lexington, VA. Mr. Pauley was the project architect responsible for the design and construction documents for renovations and additions to various athletic facilities at VMI. The football stadium was renovated to include new entrances, concession facilities, scoreboard and visitor lock rooms. A new addition to the existing athletic building included lock rooms, a weight room and training facilities for VMI. The baseball stadium was fully-renovated to include new stadium seating, concessions, press box, dugouts and perimeter fencing.



Role

Interior Designer

Professional Registrations

Registered Architect (DC,VA, FL)
Interior Designer (FL)
NCARB Certification

Ms. Garcia has designed a variety of interior spaces over her 20 years of work. Her projects include new construction design for military clients, headquarters relocations, and office upgrade projects. She enjoys incorporating sustainable design elements into her projects and is adept at conforming to established design standards when applicable.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV. Interior designer for this 283,000-SF, \$110 million project, which is slated for LEED-NC Silver certification. Project includes a new 90,000-SF operations building housing the 36,000-SF Joint Operations Center (JOC). Built to SCIF standards, this state-of-the-art center houses 48 permanent workstations in a theater-style configuration facing a large video wall, flanked by conference rooms and offices.

Army National Guard Readiness Center, Arlington, VA.

Interior designer for the new 250,000-SF headquarters building that houses a 35,000-SF Joint Operations Center. Slated for LEED-NC Gold certification, the project includes a \$28 million FF&E package. The furniture portion, totaling \$14 million, provides furnishings for the command center, 1,200 workstations, over 100 private offices, an auditorium, classrooms, a fitness center, and multipurpose rooms, as well as specialty furniture. The package includes signage and interior graphics.

DHL Express Executive Offices and Boardroom

Renovation, Plantation, FL. Project manager for this 9,000-SF renovation, which included audiovisual and acoustic design. An envisioning session was held with the executives during the programming process to define the design direction in accordance with DHL's interior design manual.

Education

Bachelor of Architecture; University of Miami; 1989

Minor in Landscape Architecture/Art History; University of Miami; 1989

Years of Experience

AECOM: 5 Years
Other Firms: 16 Years

Civic Affiliations

- American Institute of Architects, Member

Ferrell and Fertel, PA, Miami, FL. Interior designer for this 60,000-SF law firm project, which included an extensive security and audiovisual package.

Zayed University, Abu Dhabi, United Arab Emirates. Interior designer for programming and architectural design for a new 40-building university campus that promotes interaction among the students, faculty and visitors.

Offices for Technology Corporation, NC. Project manager for interior architecture renovation, furniture specifications and art work specifications for 45,000 SF of office space, including training rooms, work rooms, and general offices.

DHL Express Campus Consolidation, Plantation, FL. Provided programming, blocking and stacking, and move diagrams for the 250,000-SF headquarters. The project involved consolidating building occupancy and preparing move diagrams for approximately 850 people.



Role

Sustainability Coordinator

Professional Registrations

NCIDQ Certification

LEED Accredited Professional, Building Design & Construction

Ms. Watkins is ZMM's interior designer and sustainability coordinator. After earning a BS in Interior Design from the University of Tennessee, Ms. Watkins 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; Ms. Watkins 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

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV.

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

For this multi-faceted and complex project, Ms. Watkins 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. She 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,
The University of Tennessee, 1993

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, Ripley, WV.

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

Ms. Watkins 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, she coordinated the interior acoustic requirements with finishes and architectural elements to create a unique, flexible space for many types of uses. Ms. Watkins is LEED Administrator for the project.

Wood County Justice Center, Parkersburg, WV.

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 Ms. Watkins was responsible for programming, space planning, coordination with consultants, researching multiple standards and codes, interior finish selections, reflected ceiling plans and furniture selections.

Huntington East Middle School, Huntington, WV.

Targeted for LEED for Schools 2009 Silver Certification.

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

West Virginia Housing Development Fund Office, Charleston, WV. Ms. Watkins 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 Firm 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

Structural Engineer

Professional Registrations

Professional Engineer (DC, MD)
LEED Accredited Professional
NCARB Certification

Mr. Gillard is a structural engineer with design experience in a variety of building types that include justice, public safety, and federal government clients. He is well-versed in designing with various structural materials, including composite steel, concrete, post-tensioned concrete, masonry and wood. His experience further includes: progressive collapse resistant design, design meeting blast resistance requirements, as well as various shallow and deep foundation systems.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV. Structural engineer for this 283,000-SF, \$110 million project, which is slated for LEED-NC Silver certification. The project includes new design and renovation of multiple campus facilities, including a new 90,000-SF operations building housing the 36,000-SF Joint Operations Center (JOC). Designed composite steel framing, brace frame lateral systems, and spread footing foundations on rammed aggregate piers.

Army National Guard Readiness Center, Arlington, VA. Structural engineer for the new 250,000-SF headquarters building that houses a 35,000-SF Joint Operations Center. Designed to meet LEED-NC Gold certification, the five-story triangular tower and three levels below grade is a conventionally reinforced concrete flat plate floor structure spanning to concrete columns supported by a concrete mat foundation. The structure was designed for the latest code requirements, wind and seismic, and meets the UFC standards for progressive collapse and blast design.

Air National Guard Readiness Center Expansion, Andrews Air Force Base, MD. Structural engineer for the \$75 million, four-story, 170,000-SF addition to the ANG Readiness Center. The facility is slated for LEED-NC Silver certification and complies with UFC 4-010-01 and 4-010-02 DOD Minimum Antiterrorism Standoff Distances for Buildings.

Education

Master of Science, Civil Engineering,
John Hopkins University, 1998

Bachelor of Science, Civil Engineering,
John Hopkins University, 1997

Years of Experience

AECOM: 2 Years
Other Firms: 10 Years

Civic Affiliations

- American Institute of Steel Construction, Member

Aerospace Data Facility-East, VA. As a structural engineer for tasks at this secure government facility, provided site upgrades, floor loading capacity checks, assessment of deteriorated structural elements, and structural designs for tenant fit-out projects.

US Coast Guard Operations Systems Center Feasibility Study, Martinsburg, WV. Structural engineer for the A/E evaluation of three alternatives to achieve an additional 192,000 SF of leasable Class A office administrative, training, and communication program space that is required to attain LEED-NC Silver certification. Project also included providing adequate parking for the entire Coast Guard campus. Structural designs included meeting GSA progressive collapse criteria.

US Federal Courthouse Annex, Wheeling, WV*. Structural design engineer for renovation and expansion of this 88,000-SF facility housing courts, court related agencies and interior parking. Designed to meet federal guidelines for progressive collapse, this \$21 million project included a composite floor framing, a moment frame steel structure and a foundation of auger-cast piles, pile caps and grade beams.

US Embassy Fiscal Year 2010 (FY-10) Expansion, Kabul, Afghanistan. As part of a task to prepare a Design-Build Request for Proposal, serves as structural engineer for planning through schematic design services for the expansion of the US Embassy. The FY-10 improvements include a 300-desk office building addition; two multi-story, secure housing units with 420 apartments; two new parking facilities, perimeter wall and compound access control components; and associated infrastructure improvements. Structural designs included concrete framing and two-way beam and slab systems.

**Denotes previous experience*



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

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

Ripley Armed Forces Reserve Center, Ripley, WV.

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

Glen Jean Armed Forces Reserve Center, Glen Jean, WV. Mr. Casdorph was responsible for the electrical design of the 102,000 SF military training facility which houses the Armed

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

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.

West Virginia Housing Development Fund Office, Charleston, WV. Mr. Casdorff was responsible for the electrical design of the 37,000 SF office building which provides natural daylighting into its interior spaces coupled with an automatic dimming system and motorized shade controls. This 2-story administrative facility houses approximately 95 to 100 employees with a flexible open office 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, Huntington, WV. 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 sits 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, Milton, WV. Mr. Casdorff was responsible for the electrical design of the new 96,000 SF facility housing 700 middle school students grades 6 through 8.

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

J.M. Chick Buckbee Juvenile Center, Romney, WV. 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, Mt. Hope, WV. 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, Lakin, WV. 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.

Timothy "Lance" Timmsen



Role

Security Systems Specialist

Mr. Timmsen has more than 15 years of experience in commercial and industrial security systems and has provided electronic security system design services for numerous projects. His knowledge of military security regulations and system requirements are most relevant to the JOC.

Additionally, he served as the interim chief of operations and operations officer for a year and half at the Emergency Operations Center (EOC) for the US Army Corps of Engineers, Europe District. He maintained accountability, security and operational awareness for over 400 civilian and military personnel operating both within and outside the Continental United States. While assigned to the EOC, he worked on developing AT/FP security plans, operations plans, concepts of operations, continuity of operation plans and various other plans to maintain accountability, security and safety for both his area of operation as well as other potential areas of conflict.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV. Security specialist for this 283,000-SF, \$110 million project, which is slated for LEED-NC Silver certification. The project includes new design and renovation of multiple campus facilities, including a new 90,000-SF operations building housing the 36,000-SF Joint Operations Center (JOC). Designed the ESS with various technologies integrated together to create a sound, safe and secure system. These technologies included an access control system (ACS), CCTV and intrusion detection system. Alarm monitoring, access control and surveillance of these systems is from the central control location in the SCC. Peripherals of the ACS on this project include card readers, electric locks, motion detectors and biometric readers.

Unified Communications Center, Washington, DC.

Designed the door control, card access, CCTV, intercom, paging, sound monitoring, and personal duress systems for this 139,000-SF, state-of-the-art communications center that houses a 4,300-SF emergency operations and communications center.

Army National Guard Readiness Center, Arlington, VA.

Provided electronic security systems design and engineering for a new 250,000-SF facility that houses a 35,000-SF Joint Operations Center (JOC), along with the remodel of the existing facility's

Education

Bachelor of Science, Project Management,
University of Phoenix, 2000

Associate in Applied Science, ITT
Technical Institute, 1995

Years of Experience

AECOM: 9 Years

Other Firms: 7 Years

control and monitoring room. The state-of-the-art JOC includes multiple integrated security technologies. Special focus was placed on security technologies provided in the SCIF.

BRAC National Capital Region Relocation Administrative Facility (NCRRAF), Andrews Air Force Base, MD. Security electronics systems designer for the \$117.7 million office building to support the relocation of 2,000 US Air Force staff in the National Capitol Region due to BRAC. Security design included a new access control, intrusion detection and CCTV systems designed to be locally monitored and controlled within the facility, as well as being remotely monitored and controlled at the existing AAFB Law Enforcement Desk.

US Army Indefinite Delivery Contract, Ft. Carson, CO. Designed the security systems for eight vehicle access control points onto the fort. Designed the radio frequency identification/vehicle registration tag reader system, surveillance and monitoring system, duress system, and access control system.

Pinal County Court and Sheriff Facility, Florence, AZ. Designed the card access, video surveillance, video recording, door control, intercom, paging, personal duress, bailiff call, jury call, judge alert, elevator control, voice/data infrastructure, detention and commercial hardware, detention equipment, glazing, doors, and frames for a new courts and sheriff facility.

Page Police and Fire Department Facility, Page, AZ. Designed the card access, video surveillance, video recording, door control, intercom, paging, personal duress, detention and commercial hardware, detention equipment, glazing, doors, and frames for a new police and fire stations.

Flagstaff Police Department Facility, Flagstaff, AZ. Designed the card access, video surveillance, video recording, door control, intercom, paging, personal duress, detention and commercial hardware, detention equipment, glazing, doors, and frames for a new police station.

Cedar Park Police Station, Cedar Park, TX. Designed the card access, video surveillance, video recording, door control, intercom, paging, personal duress, detention and commercial hardware, detention equipment, glazing, doors, and frames for a new police station.



Role

Lighting Designer and Electrical Technician

Professional Registrations

Master Electrician – WV License #M02891
Lighting Certification with the National Council on Qualification for Lighting Professionals (NCQLP)

Mr. Abernethy is responsible for overseeing the design of the lighting and electrical systems, ensuring that the electrical systems not only meet the program requirements, but also meet the long-term needs of the owner. He performs lighting, electrical and low voltage systems design, electrical load calculations and specifies the type of systems to be incorporated into the building. He coordinates with the other disciplines in order to integrate the Lighting and Electrical systems into the building. Mr. Abernethy has participated on several LEED registered projects; one of his key contributions to these projects is designing lighting systems that comply with energy codes and LEED requirements.

Mr. Abernethy began his career in engineering with ZMM in 1968. From 1970 through 1971 he was a construction drafting specialist and model maker in the US Army and after his honorable discharge in 1972 he became a staff engineering designer for FMC Inorganic Chemicals Corporation. In 1973 Mr. Abernethy returned to ZMM. He has a broad range of experience in the design and construction of commercial lighting and electrical systems, including K-12 schools, higher education facilities, industrial, manufacturing, military, commercial offices, malls and large retail facilities. Mr. Abernethy also has five years of experience as the office manager, estimator and purchasing agent for a highway lighting and traffic signal construction company.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV.

Mr. Abernethy was responsible for the interior and exterior lighting design of both the billeting expansion and the operations training center. The project utilizes less than 0.8 watts/SF for interior lighting, which has helped reduce energy consumption on the project by 40% compared to a baseline analysis.

Education

Associate in Science Drafting and Design Engineering Technology, West Virginia Institute of Technology, Montgomery, WV, 1997

Illuminating Engineering Society of North America (IESNA), Certificate of Technical Knowledge (TKE), 1996

Employment History

1992 - Present, Lighting Designer and Electrical Technician, ZMM
1988 - 1992, Estimator and Purchasing Agent, WV Signal and Light
1973 - 1988, Lighting and Electrical Designer, ZMM
1972 - 1973, Draftsman and Designer, FMC Inorganic Chemicals Division

Civic Affiliations

- Illuminating Engineering Society of North America – 15 Yr. Member
- Elder and Session Member – First Presbyterian Church, Charleston, WV

WV State Capitol Buildings #5, 6, & 7 - Electrical Switchgear up-grades, Charleston, WV. Mr. Abernethy was the project manager, designer and field investigator for a large medium and low voltage electrical switchgear emergency replacement which was accomplished over a long 2009 New Year's weekend.

St. Albans High School, St. Albans, WV. Mr. Abernethy was responsible for the initial electrical survey to determine the extent of demolition prior to reconstructing the school. As the lighting and electrical designer, he was responsible for ZMM receiving an IESNA Sectional Award for the building lighting design.

Lincoln County Comprehensive High School, Hamlin, WV. Mr. Abernethy performed the lighting and electrical design for this award winning ZMM project. The facility is a comprehensive school containing high school classes, vocational education, community technical college classes and a community health clinic.

NGK Oxygen Sensor and Spark Plugs Plants, Sissonville, WV. Mr. Abernethy has been the chief lighting and electrical designer for several projects for NGK. He was the designer for the initial Oxygen Sensor Plant and subsequent up-grades as well as the new Spark Plugs Plant and its continuing up-grades.



Role

Information Technology Specialist

Professional Registrations

Registered Communications Distribution Designer
Network Transport Systems Specialist
Certified in Convergent Network Technologies
LEED Accredited Professional

Mr. Zebrosky is a lead security and information technology (IT) specialist experienced in all aspects of telecommunications/network system design and modification for both public and private sector clients. Services he provides include security engineering assessment and design, including upgrade recommendations; security infrastructure design; technology installation and integration with existing systems; network security; LAN/WAN backbone recommendations and design; and security infrastructure design and construction management services for access control systems, CCTV systems, SCIFs, and integrated security and fire alarm systems.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV. IT specialist for this 283,000-SF, \$110 million project, which is slated for LEED-NC Silver certification. The project includes new design and renovation of multiple campus facilities, including a new 90,000-SF operations building housing the 36,000-SF Joint Operations Center (JOC). Built to SCIF standards, this state-of-the-art command center houses 48 permanent workstations in a theater-style configuration facing a large video wall. Within the JOC is a secure area consisting of workstations, offices, and two divisible conference rooms with secure video conferencing capabilities.

Unified Communications Center, Washington, DC. As a IT specialist, provided network and communications infrastructure design, specification and coordination for the new 139,000-SF technology, state-of-the-art communications center that houses a 4,300-SF emergency operations and communications center for police, fire, EMS and non-emergency public safety calls. Also provided consulting services during the value engineering and bidding phases.

Army National Guard Readiness Center, Arlington, VA. Provided technology services including IT, telecommunications, security and data systems expertise for this new 250,000-SF

Education

Bachelor of Science, Industrial Technology & Electronics, Appalachian State University, 2000

Years of Experience

AECOM: 9 Years
Other Firms: 7 Years

Civic Affiliations

- American Institute of Architects, Member

facility that houses a secure, 35,000-SF Joint Operations Center. Also coordinated AV and electronic security infrastructure design. Design included MDF relocation and re-design, outside plant services (including satellite and HF antenna connectivity); campus building interconnectivity; state-of-the-art technology infrastructure design; data center design and consulting (including data distribution, power, and HVAC coordination); high availability workstation and floor distribution design (including fiber to the desktop); technology spaces and pathway layout; and cabling design.

Consolidated Flight Operations Facility (CFOF), McGuire AFB, NJ. Lead network/technology engineer for the construction of the CFOF placed in an existing multi-building Air Force Facility campus. Provided the design and specifications for the cable infrastructure and telecommunications MTR and ITRs. Design effort included the access control, CCTV, public address system, and voice and data network infrastructure. Also provided construction management of the technology installation and integration of existing campus facilities in the outside plant design.

FBI Academy A/E Support Services, Quantico, VA. Project manager and lead security and IT specialist for security and telecommunications engineering support for this secure campus. Services include security and telecommunications systems assessment; technical consulting for upgrades; security infrastructure design for CCTV, access control, and SCIF facilities; voice and data network systems and infrastructure design; audio/video designs; agency standards compliance inspections; production of bid documents; cost estimate verification; and construction administration.

US Department of Transportation Headquarters, Washington, DC. As lead technology specialist, provided technology pathways concept design, and ancillary technology pathway coordination for this new two million-SF federal headquarters complex, which is classified as a Interagency Security Committee Level IV building.

Independence Air, Dulles Airport, VA. Lead network/technology engineer for the complete renovation of Concourse A and partial renovation of Concourse B for the new carrier based out of Dulles International Airport. Provided the design and specifications for the cable infrastructure and telecommunications pathways and spaces; coordinated the requirements and specifications of the various new and existing electronics involved in airport operations. Mr. Zebrosky also provided construction management services for the technology installation and integration with existing campus facilities.

Air Force Nuclear Weapons Center (AFNWC), Nuclear Sustainment & Integration Center (TSTIC), Albuquerque, NM. IT and telecommunications engineer on this fast-track project. The primary operational focus of the 24/7/365 centers is real-time tracking, command control, monitoring and positive inventory control of Air Force nuclear assets.

Aerospace Data Facility-East, VA. For this classified, federal government-owned, SCIF facility, provided IT and telecommunications expertise for facility upgrade projects, including assessing existing IT infrastructure and security measures and recommending enhancements and upgrades in support of the mission.



Role

Audiovisual Designer

Professional Registrations

RAM-W, Certified in Sandia National Labs Risk Assessment Methodology for Water Systems

Mr. Adilman has 20 years of experience in design, engineering, and project management for low-voltage technology systems including audiovisual systems, IT transport systems, wireless systems, structured cabling systems, and physical electronic security surveillance systems. He has also supported DoD clients and classified civilian agencies with C4I systems and command center design, security and communications infrastructure design, and information technology design and specification, including data centers and fire alarm systems.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV. Audiovisual designer for this 283,000-SF, \$110 million project, which is slated for LEED-NC Silver certification. The project includes new design and renovation of multiple campus facilities, including a new 90,000-SF operations building housing the 36,000-SF Joint Operations Center (JOC). Built to SCIF standards, this state-of-the-art center houses 48 permanent workstations in a theater-style configuration facing a large video wall. Within the JOC is a secure area consisting of workstations, offices, and two divisible conference rooms with secure video conferencing capabilities.

Unified Communications Center, Washington, DC.

Designed the audiovisual systems and infrastructure for a 139,000-SF, state-of-the-art communications center that houses a 4,300-SF emergency operations and communications center. Systems included several video display wall systems, high output projectors and plasma displays, facility-wide video and audio matrix switching, multipoint video teleconferencing, and an automated vehicle locator system. Provided construction documents and specifications and on-site construction phase services including overseeing vendor installation, test and turnover.

Army National Guard Readiness Center, Arlington, VA.

Provided advanced audiovisual systems design and

Education

Bachelor of Science, Industrial Technology, Illinois State University, 1990

iTRACKS Authorized Administrator, 2003
Extron Audiovisual Technologies, 2002

Years of Experience

AECOM: 10 Years
Other Firms: 10 Years

Civic Affiliations

- Building Industries Consulting Services International (BICSI)
- International Communications Industries Association (ICIA)

engineering for the new 250,000-SF headquarters building for the National Guard, designed to meet LEED-NC Gold certification. Design includes a 35,000-SF Joint Operations Center with several large, high-availability rear projection video/display walls; large format LCD direct view displays; high bandwidth video processing and switching technology; input/output command and control systems, and multi-display remote console. It also includes secure video teleconferencing; projection screens and equipment; and streaming broadband video distribution.

Aircraft Rescue Firefighting Facility (ARFF) Technology Systems Coordination and Commissioning, LaGuardia International Airport, NY. Mr. Adilman provided project oversight for this project involving the coordination and commissioning of technology systems for the Police Crisis Command Center and Aircraft Rescue Firefighting Facility (ARFF) that is currently under construction at LaGuardia International Airport in New York City. AECOM's services are broken into three tasks: initial assessment of the existing electronic systems within the ARFF; and testing commissioning and schedule review.

Department of Transportation, New York, NY. AECOM is providing security consulting services for this project involving both NYSDOT and NYCDOT and including systems inventory, system design and engineering, and construction administration services. Mr. Adilman is providing security expertise and project oversight.

San Francisco International Airport, Emergency Operations Center (EOC), San Francisco, CA. AECOM provided full design and construction management services for the new international terminal building, two new concourses, the ground transportation center, communications center and emergency operations center, including all telecommunications, security, facilities and emergency operations systems design, installation and testing. Mr. Adilman was lead engineer/designer for the new emergency operations center's voice/data/video infrastructure and audio-visual systems. The focal point of the EOC systems include a large video display wall system matrix, automated operations command consoles, and an interactive control system. Provided construction documents and specifications, on-site construction phase services including overseeing vendor installation, test and turnover.

Air Force Nuclear Weapons Center (AFNWC), Nuclear Sustainment & Integration Centers (TSIC), Kirtland Air Force Base, Albuquerque, NM. AECOM is providing design and engineering for the \$4.7M TSIC to be collocated within the existing 377 ABW Command Post facility. The primary operational focus of the centers will be real time tracking, command control, monitoring and positive inventory control of Air Force assets offering a true situational awareness atmosphere. Availability for the Centers must be designed around 24/7/365 operations and incorporate a high level of redundancy on critical systems. Due to construction budget constraints and schedule of deliverables, AECOM will utilize a fast-track methodology for the delivery of this task. Mr. Adilman is the Project Manager.

FBI Academy A/E Support Services, Quantico, VA. Designer for various technology tasks at this secure campus, including security and telecommunications systems assessments; technical consulting for system upgrades; security infrastructure design for CCTV and access control; voice and data network systems and infrastructure design; and audiovideo designs.

Aerospace Data Facility-East, VA. Provided advanced audiovisual design and engineering services for this SCIF facility, which includes office areas, boardrooms, conference rooms, auditoriums, and lecture rooms featuring command and control systems, video teleconferencing, display walls, projectors and direct view displays, and streaming digital and analog video and broadband communications.

Joint Interagency Training & Education Center

WVARNG



LOCATION:
Kingwood, West Virginia

SIZE:
285,000 SF

COMPLETION:
Est. 2012

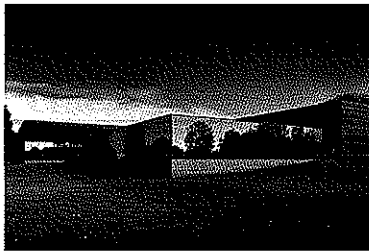
COST:
\$110 Million

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

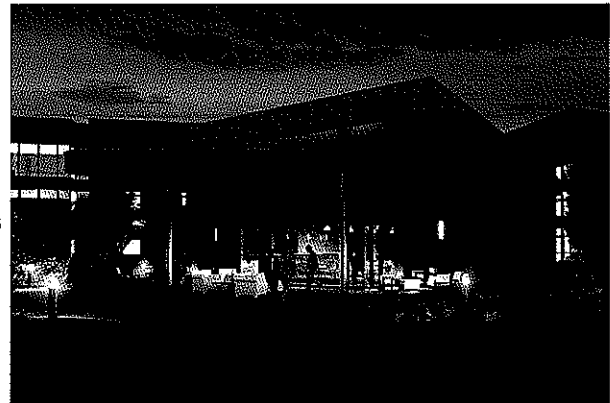


ZMM, in association with AECOM, is providing architectural and engineering design services for the Joint Interagency Training and Education Center (JITEC), an Army National Guard campus-style facility for training and operational mission support. Sited on 30 acres at the northern end of Camp Dawson between the Cheat River and the foot of Brier Mountain, this 285,000 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.

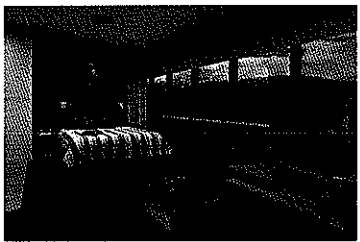
The project began with a review of the existing base master plan, followed by a revision of the master plan concept. JITEC is a training and educational facility the vision behind the site design and updated master plan is that of a college campus atmosphere. The design intent is to create a campus environment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



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. Continued...



Joint Interagency Training & Education Center



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.

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.

Pennsylvania Emergency Management Agency (PEMA)

Pennsylvania Department of General Services



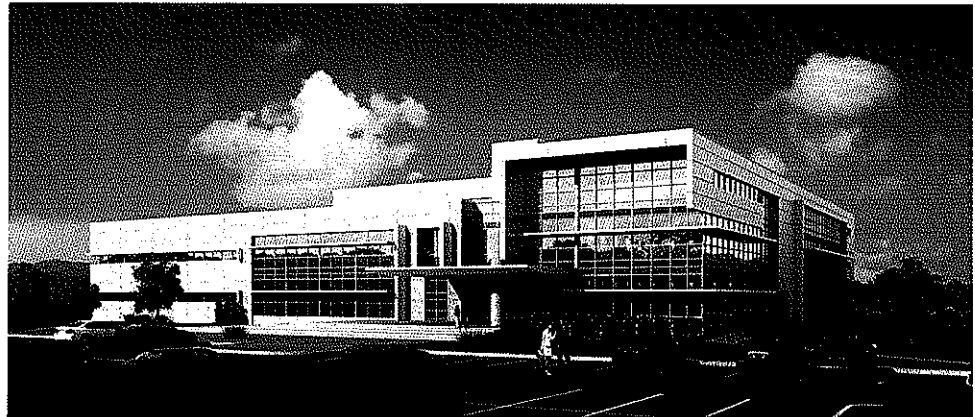
LOCATION:
Fort Indiantown Gap,
Pennsylvania

SIZE:
97,400 SF

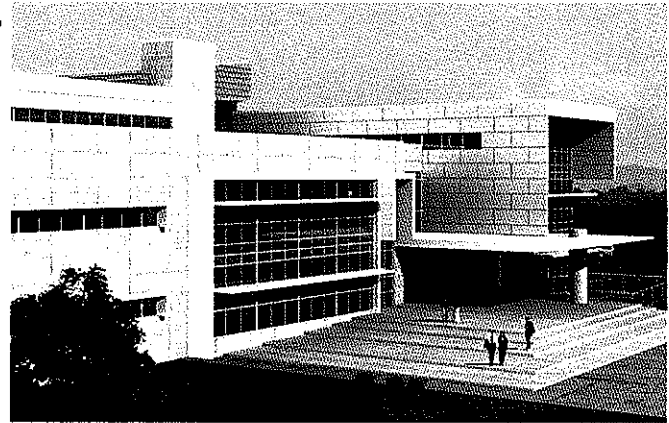
COST:
\$50 Million

COMPLETION:
Est. 2013

SERVICES:
Architecture
Building Engineering
Planning; Program-
ming
Communications
Information Technol-
ogy



AECOM, in joint venture, is designing a new \$50 million state emergency operations center (SEOC). The construction budget is \$40 million, with an additional \$10 million designated for IT and audiovisual systems. Designed to sustain emergency operations independent of outside utilities for up to five days, the design



team will provide a building that will be open to satellite communication, yet reinforced and secure for emergency staff.

Anticipated to be open by May 2013, the new facility will provide dedicated emergency services and disaster assistance for the state. All aspects of this facility's design will follow sustainability guidelines established by the US Green Building Council's LEED certification process to attain buildings that are less costly to operate and have a more positive impact on the environment. PEMA has a goal of design and construction equivalent to a LEED Silver rating, even though the project may not be formally submitted for LEED certification.

The approximately 97,400-square foot SEOC will contain:

- Pennsylvania Emergency Management Agency (PEMA) headquarters
- Offices of Homeland Security, the State Fire Commissioner, and the Administration's Radio Project
- Joint Information Center (JIC)
- Senior Leader Situation Room
- Pennsylvania Department Of Transportation Area Command
- Pennsylvania State Police Activation Watch Center
- Bureau Of Radiation Protection Watch Center
- All Hazards Fusion Center with a sensitive compartmented information facility (SCIF)

Unified Communications Center

District of Columbia



LOCATION:
Washington, DC

SIZE:
139,000 SF

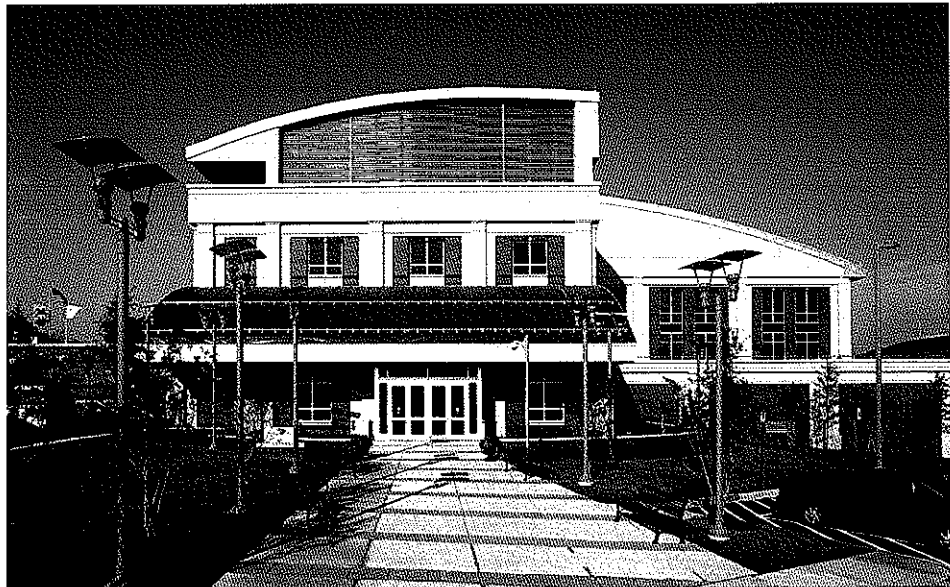
COST:
\$116 Million

COMPLETION:
2006

CONTACT:
Allam Al-Alami, PMP
Executive Program
Manager
2000 Washington St,
NW, 3rd Floor
Washington, DC
20009
202,671.2208

SERVICES:
Architecture
Building Engineering
Fire Protection
Information-
Technology
Communications
Interior Design

AWARD:
2007 Business Conti-
nuity and Disaster Re-
covery Award, Na-
tional Association of
State Chief Informa-
tion Officers
(NASCIO)



AECOM designed the new Unified Communications Center (UCC), a 139,000-SF, state-of-the-art communications center that houses a 4,300-SF emergency operations and communications center. The UCC houses what were previously separate call centers for police, fire, EMS and non-emergency public safety calls; integrating these services provides the District of Columbia with the necessary tools to face the continuing issues of emergency preparedness and security. The full redundancy of all mechanical, electrical and telecommunications systems and blast-resistant design are important factors for heightened survivability. During major emergencies, the UCC provides centralized regional coordination and communications involving the FBI, Capitol Police, US Secret Service and FEMA.

Blast Hardening

A formalized plaza space in front of the public entrance provides adequate prominence for the public representative functions of UCC facility, while meeting established security requirements for building setbacks. The three-story building, including the 90-foot-span roof over the column-free call center area, is blast hardened. A fully grouted concrete masonry unit exterior absorbs blast loads, and a fully grouted concrete masonry unit wall provides a high degree of resistance.

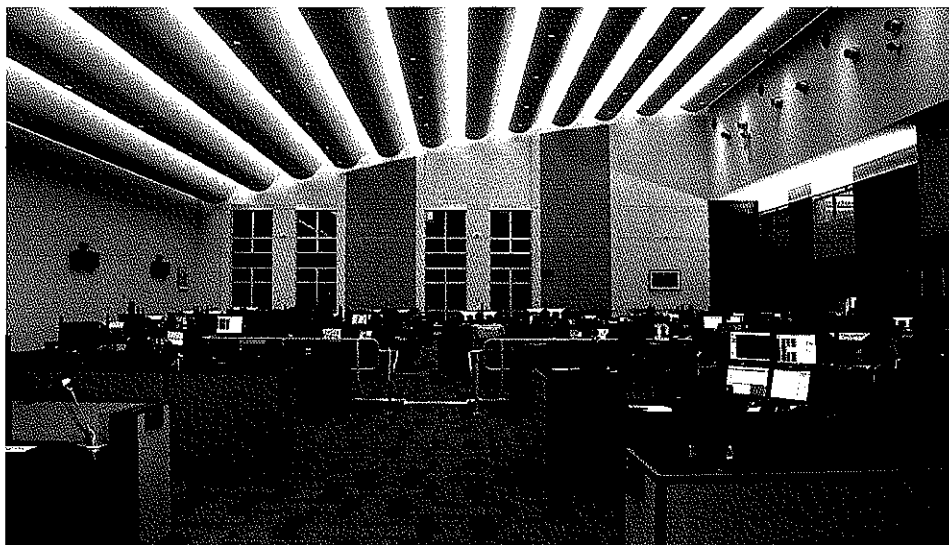
Engineering Systems Redundancy

The individual communications console module dictated the UCC's size and configuration, emphasizing the central role of communications. The city handles 8,200 calls daily, and with 100 consoles in the UCC, each console can manage 820 calls each day. Full redundancy with independent power generation was provided for all systems.

Our electrical design included a mission critical data center and call floor design with 99.999% availability, varying levels of redundancy and maintainability while keeping systems online. Systems designed included UPS cabinets, generators and generator paralleling switchgear, low voltage switchgear, static transfer switches and PDUs, dimming systems, energy monitoring and control system, and grounding systems for radio and IT systems.

Unified Communications Center

District of Columbia



Our team developed the basis of design for the building automation system (BAS), as well as systems integration. Systems included HVAC, life safety and smoke control systems lighting, security, card access and energy monitoring. Continued...The communications area is augmented by administrative headquarters space, federal government adjunct facilities, briefing and media centers, training rooms, a child development center and parking for 272 vehicles.

Employee Amenities

The 12,000-square foot daycare center, which serves UCC employees and the neighboring community, is an important element in the overall program. The center, which is also blast hardened, allows dispatchers to spend time with their children, helping to relieve stress after difficult calls. A landscaped terrace outside of the call center offers panoramic views of the Capitol building and provides additional stress relief.

Historical Context

The project commands one of the best views of the US Capitol from its site in Anacostia at the northeast corner of the historic St. Elizabeths Hospital campus. The original St. Elizabeths building, first occupied in 1855, is a designated National Historic Landmark. The UCC's proximity to St. Elizabeths historic buildings required a high level of contextual design, as well as approval from the National Capital Planning Commission and the US Commission of Fine Arts. The design fits contextually within the St. Elizabeths campus and uses punched window openings, key stones, column rendition and brick decorative trim details. The barrel vault roof over the call center integrates free flowing forms, bridging the gap between existing historic context and contemporary expression.

Commendations

"The building is so state-of-the-art that even (Secretary for Homeland Security) Chertoff admitted to a case of 'operations center envy'."

~The Washington Post, October 8, 2006

"Within the historic context of the St. Elizabeths' campus, [AECOM] has produced a state-of-the-art communications facility sensitive to its surrounding urban site and its role in Washington, DC...The full redundancy of all mechanical, electrical, and telecommunications systems, and the blast resistant design are important factors for heightened survivability."

~ Allam Al-Alami, Program Manager, Office of the Chief Technology Officer, DC Government

Construction & Facilities Management Office

WVARNG



LOCATION:
Charleston, West Virginia

SIZE:
19,935 SF

COST:
\$3.5 Million

COMPLETION:
2008

CONTACT:
MG 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.



West Virginia Air National Guard Headquarters

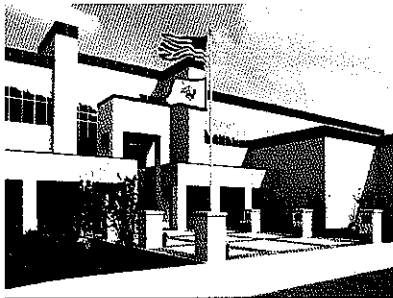
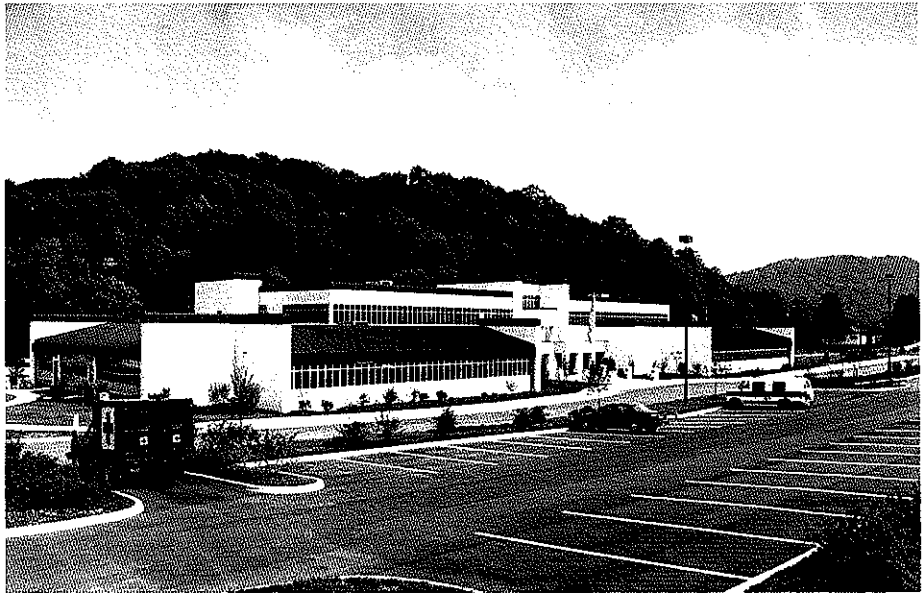


LOCATION:
Charleston, West Virginia

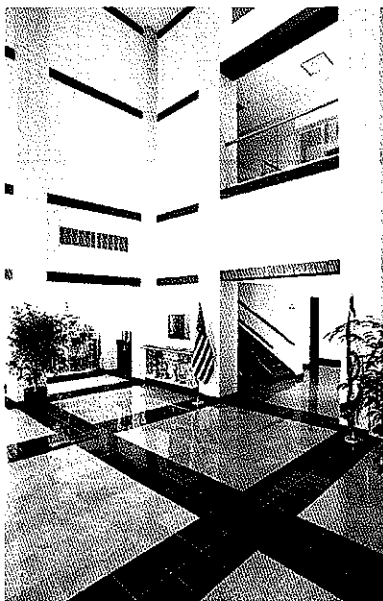
SIZE:
90,000 SF

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.

Robert C. Byrd - Regional Training Institute

WVARNG



LOCATION:
Camp Dawson, West Virginia

SIZE:
148,000 SF

COMPLETION:
2002

COST:
\$21 Million

CONTACT:
MG 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, snack-bar, fitness center, an auditorium; and group 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.



Glen Jean Armed Forces Reserve Center

WVARNG



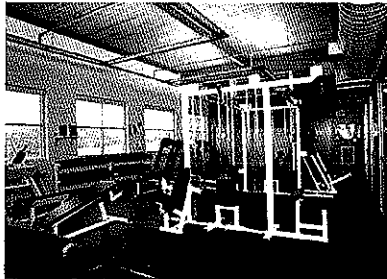
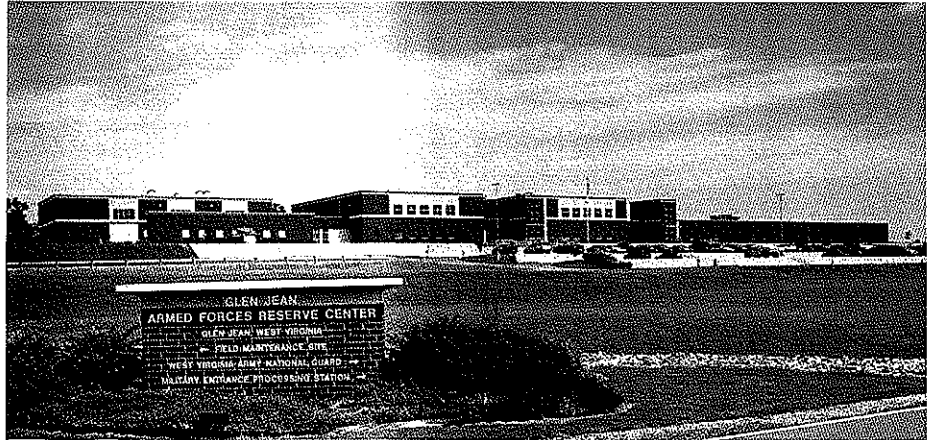
LOCATION:
Glen Jean, West Virginia

SIZE:
110,000 SF

COST:
\$17 Million

COMPLETION:
2004

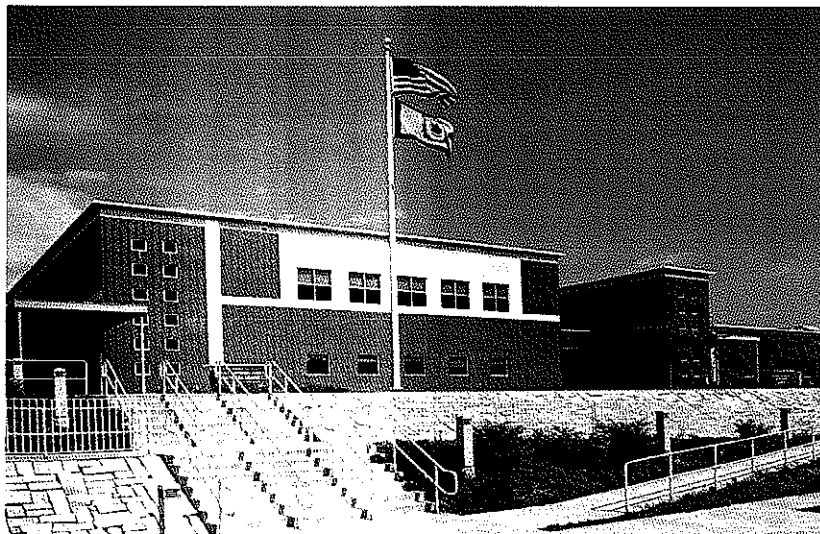
CONTACT:
MG Melvin L. Burch
WVARNG
1703 Coonskin Drive
Charleston, WV 25311
304.561.6450



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 to provide space for community functions.



Jackson County Armed Forces Reserve Center

WVARNG



LOCATION:
Milwood, West Virginia

SIZE:
75,000 SF

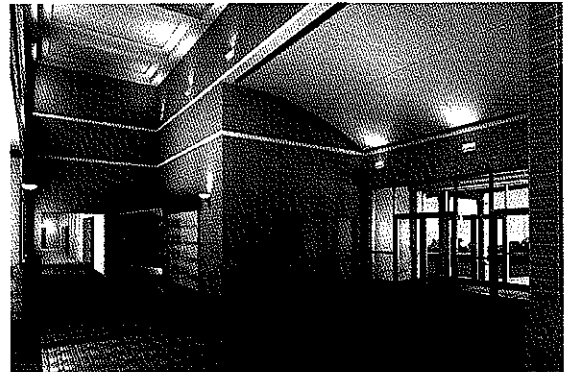
COST:
\$20 Million

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 include 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 facility 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.

Pentagon Integrated Emergency Operations Center

Washington Headquarters Service



LOCATION:
Arlington, VA

SIZE:
14,500 SF

COST:
\$3 Million

COMPLETED:
2009

CONTACT:
Dee Hendrix
DoD, WHS, RE&F Con-
tracting Office
Federal Office Building
#2, Room 1427
Washington, DC 20301
703.695.6672

SERVICES:
Architecture
Building Engineering
Communications
Security
Information Technology
Audiovisual



AECOM designed an Integrated Emergency Operations Center (IEOC) to combine the functions of three Pentagon operations centers into a single facility. Located on the first floor, this state-of-the-art facility is designed to increase the efficiency and effectiveness of daily and emergency response operations at the Pentagon.

Designers conducted collaborative conceptual design workshops and charrettes with representatives of each function to determine space needs. With the information gathered from site investigations and workshops, AECOM produced design documents for the facility.

Located at the facility's main entrance, offices that monitor the people and IEOC activities include an open office area that provides room for a small reception area and a private office for senior management. A walk-up window is located adjacent to the secure main entry door of the suite, allowing staff to handle visitors who do not have access to the secure space.

All spaces are served by existing mechanical systems; however, any electrical, telecommunications, or uninterruptible power supply (UPS) equipment that required additional conditioning is served by terminal units. Redundant units were added as required for critical spaces and equipment. All critical equipment loads located within the IEOC are served by existing panels fed from the Mission Critical Substation connected to emergency power system and a 150KVA UPS. A 6-inch raised access floor with a carpet tile finish enables cabling for IT/ audiovisual and other utilities to power the workstations and worktables.

Commendation

"This facility, so critical to effective Incident Management for the Pentagon Reservation, is the culmination of dedicated effort well-integrated between WHS, PFPA, and our partners. We can all be proud of our accomplishment to open the facility but not waiver in our vigilance to be prepared for future events."

~Mr. Ralph Newton, Director, Defense Facilities Directorate

Tackett Family Readiness Center

WVARNG



LOCATION:
Charleston,
West Virginia

SIZE:
7,400 SF

COMPLETION:
February 2011

COST:
\$1.57 Million

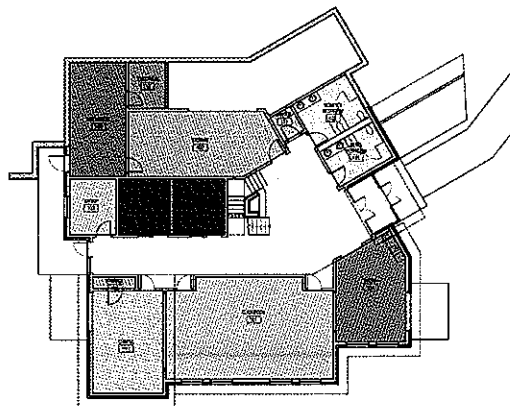
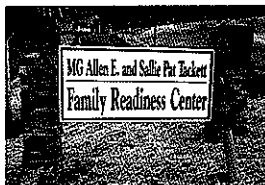
CONTACT:
MG Melvin L. Burch
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6450



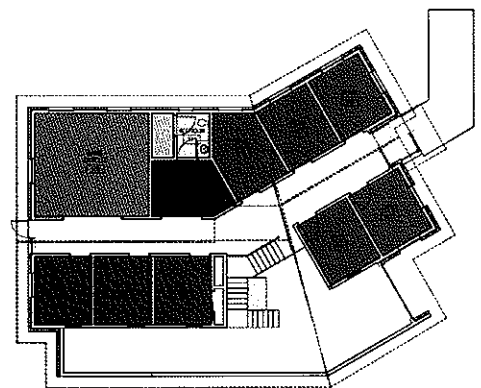
The Family Support Center is a two - story brick building with a sloped roof stepped into the wooded hillside adjacent to the Army National Guard facilities in Charleston, West Virginia.

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 classroom 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.



Lower Level



Upper Level

Morgantown Readiness Center

WVARNG



LOCATION:
Morgantown,
West Virginia

SIZE:
54,000 SF

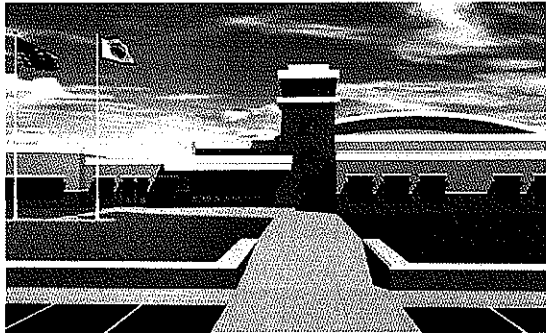
COMPLETION:
Est. 2012 (Bidding)

COST:
\$ 18.5 Million

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

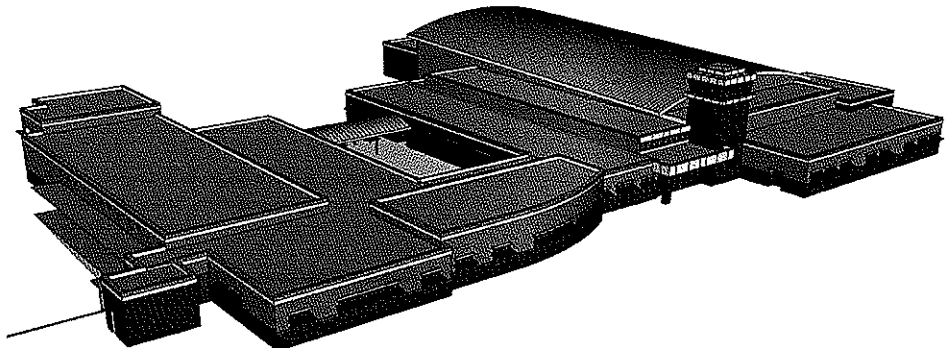


ZMM provided professional design services for the design of the Morgantown Readiness Center in Monongalia County for the West Virginia Army National Guard. The 54,000 SF Readiness Center will occupy a 35-acre tract on a former runway at the Morgantown Municipal Airport.



The Morgantown Readiness Center will house the 249th Army Band, and includes private and group practice spaces, rehearsal rooms, instrument 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.



Army National Guard Readiness Center

National Guard Bureau



LOCATION:
Arlington, Virginia

SIZE:
250,000 SF

COST:
\$128 Million

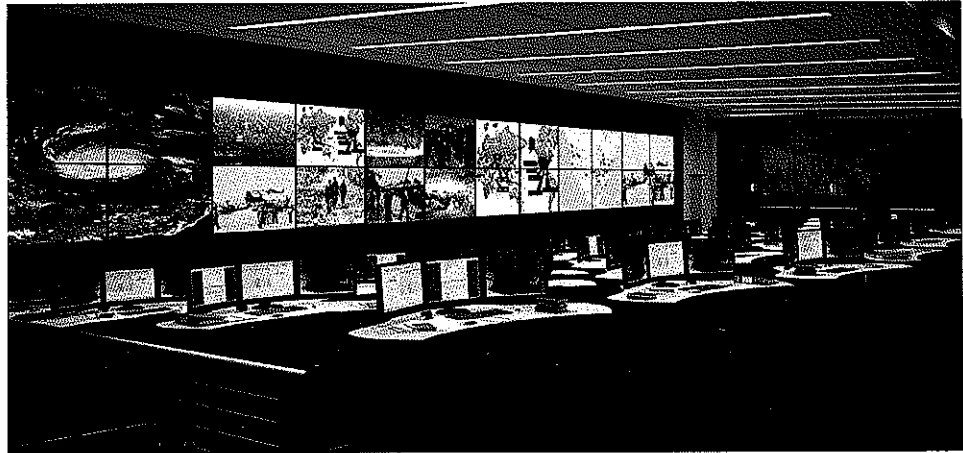
COMPLETED:
May 2011

CONTACT:
LTC Rodney Graham
National Guard
Bureau
111 South George
Mason Drive
Arlington, VA 22204

SERVICES:
Architecture
Interior Design
Building Engineering
Fire Protection
Telecommunications
IT/Audiovisual
Security
LEED Consulting
Commissioning

AWARDS:
• 2011 Washington
Building Congress
Craftsmanship
Awards, Sheeting and
Shoring

• 2011 Washington
Building Congress
Craftsmanship
Awards, Cast-in-Place
Concrete



As a result of Base Realignment and Closure, key elements of the Army National Guard Headquarters and Readiness Center and the National Guard Bureau Joint Staff will relocate to a new a 15-acre secure campus in Northern Virginia. Rather than creating a fortress, the solution projects a highly integrated image of landscape and building in which security restrictions play no visible role. Nearly 150,000 square feet of highly secure spaces, including a 36,000 square foot Joint Operations Center, are contained in three below-grade plaza levels, with 100,000 square feet rising above in a five-story tower. The tower, which appears to rise directly out of the landscape, occupies the plan footprint beyond the force protection setback requirements, and therefore is largely glazed.

Placing the Joint Operations Center and related secure spaces below grade, projecting into the force protection setbacks, provides long-span, highly flexible space for the many special mission requirements that do not require daylighting. Integrating these spaces with the landscape preserves the park-like outdoor spaces for the users. The design team took great care to create strong links from within the tower to the landscape, as well as from the below-grade spaces to the site topography. With a 24/7 mission, visual connection to the out-of-doors offers special benefits.

We provided comprehensive interior design services, including a \$28 million furniture, fixtures, and equipment (FF+E) package. The furniture portion, totaling \$14 million, will provide furnishings for 1,200 workstations, over 100 private offices, an auditorium, classrooms, a fitness center, and multipurpose rooms, as well as specialty furniture. The package includes signage and interior graphics, as well as \$14 million in audiovisual technology, including state-of-the-art video walls.

This facility is registered with the US Green Building Council and is slated to achieve LEED-NC Gold certification. Both the secure spaces and the tower will have vegetated green roofs. The heating, ventilating, and air-conditioning systems were designed for maximum energy, operating, and maintenance efficiency, while providing the required levels of thermal comfort, flexibility, and redundancy. The HVAC systems comply with ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings except Low-Rise Residential Buildings. By maximizing the energy efficiency of the HVAC systems, LEED credits will be pursued under Energy and Atmosphere Credit 1: Optimize Energy Performance.

Alapa'i Transit Center, Joint Traffic Management Center, Public Safety Operations Center

The City and County of Honolulu Department of Transportation Services



LOCATION:
Honolulu, Hawaii

SIZE:
95,000 SF

COST:
Initial Phase of JTMC, DEM, FD Communications + Central IT Services: \$50 million

Final Phase of Parking Garage + HPD Communications: \$90 million

SERVICES:
Architecture
Planning; Programming
Communications
Technology



The City and County of Honolulu, Department of Transportation Services (DTS) will construct a replacement bus transit center, a new Joint Traffic Management Center (JTMC) and Public Safety Operations Center (PSOC) at the existing Alapa'i Transit Center site at King Street and Alapa'i Street in downtown Honolulu, O'ahu, Hawaii.

The new 95,000-square foot structure housing the JTMC and PSOC will have six levels of office space and will occupy the northern half of the project site. Planned into this mission critical facility are office and operations spaces for the city and state transportation and emergency services agencies. The traffic control center will consolidate all dispatching and monitoring operations of each agency and be used for day-to-day traffic management operations.

The emergency communication and operations center will consolidate functions for the Honolulu Police Communications, Fire Communications, and Emergency Medical Services. In addition to essential services, this facility will house the central servers for the Honolulu Department of Information Technology.

Three levels of secure parking with 275 spaces will be adjacent to the existing police parking garage. AECOM has been engaged to provide programming, planning, and complete architectural design services for this project, in conjunction with local management and engineers. Design includes:

- Sensitive compartmented information facility (SCIF) space
- Telecommunications systems
- Audiovisual systems
- Anti-terrorism/force protection
- Intrusion detection system
- Redundant electrical and mechanical systems
- Backup power
- Fire protection/alarm

As part of this full-service project, AECOM personnel have been instrumental in the planning for the JTMC and are the civil engineers for the bus transit center. AECOM's public safety communications specialty division is providing critical communications consulting for the radio and public safety systems.

Kingwood Armed Forces Reserve Center

WVARNG

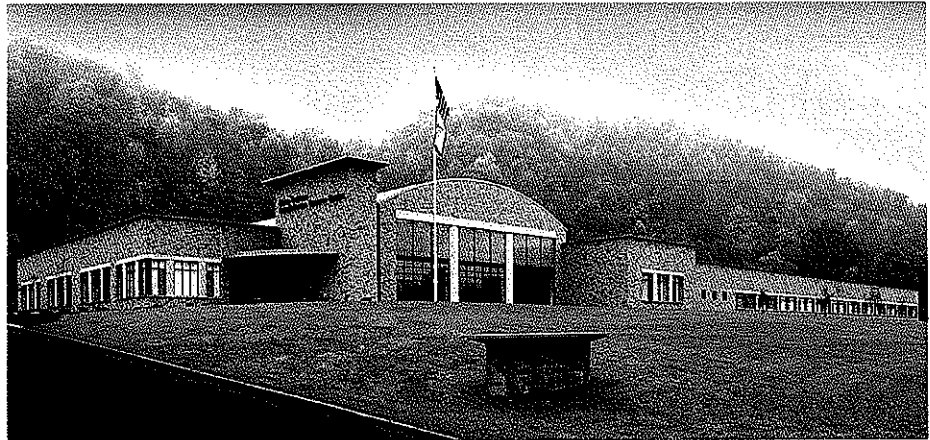


LOCATION:
Camp Dawson, West
Virginia

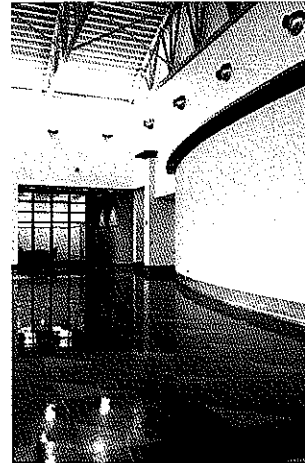
SIZE:
56,200 SF

COMPLETION:
2000

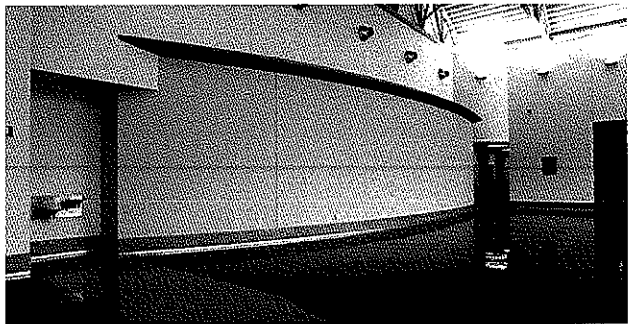
CONTACT:
MG Melvin L. Burch
WVARNG
1703 Coonskin Drive
Charleston, WV 25311
304.561.6450



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.

LEED ACCREDITED PROFESSIONALS



"I became a LEED Accredited Professional because I believe that good design has value and the ability to impact our daily lives. The application of sustainable design principles enhances this value, and employs an integrated design approach that can improve both our environment, as well as the performance of building occupants. Sustainable design showcases the value of design through demonstrated improvements in the performance of the students and employees who occupy our building." - Adam R. Krason, Principal (ZMM)



I became interested in alternative energy sources, such as wind and solar power, in the late 1970s when the US faced the first oil crisis during the Carter administration. During my graduate studies, I researched passive heating and cooling systems, such as building orientation, materials, and overhangs, that had been employed for centuries on houses and building prior to air conditioned buildings techniques that we simply ignored in the last three decades when energy became cheap. While it's currently fashionable to be green, I have researched and employed sustainable solutions for more than 35 years; becoming a LEED Accredited Professional was just a formal way of documenting a belief that has carried me through the decades as to how to approach building design. - Oscar Perez, Project Manager (AECOM)



I first learned about LEED as a result of working with a European client requiring sustainable consciousness in the design of their spaces. Whether a project will achieve certification or not, utilizing sustainable products and practices that are healthy for clients and sensitive to the environment benefits us all. Today there is an ever increasing awareness in the industry towards the development of new products and practices that makes every project a unique solution. That is the part that I enjoy. - Ivonne Garcia, Interior Designer (AECOM)



"Becoming a LEED AP was the culmination of years of environmental advocacy in the design community. Since then, it has allowed me to explore new avenues of design projects, and to provide leadership to clients, colleagues and the community. I believe LEED allows design teams to be more creative and cohesive because of the benefits of early project decision-making. It also makes design more fun!" - Jill Watkins, Sustainability Coordinator (ZMM)

LEED EXPERIENCE



At ZMM, we believe that sustainable design is just good design. We are leaders in West Virginia through our projects and our sharing of knowledge:

First green secondary school in West Virginia – Lincoln County Comprehensive High School
First green higher education project in West Virginia – Erma Byrd Center for Higher Education Sustainable design partnerships with and LEED presentations for:

- The Clay Center
- Natural Capital Investment Fund
- West Virginia Department of Education
- West Virginia School Building Authority
- West Virginia Association of School Administrators
- West Virginia Department of Environmental Protection
- Habitat for Humanity of Kanawha and Putnam County
- Kanawha County Solid Waste Authority
- Half Moon Seminars
- Travel Green Appalachian



AECOM's mission is to enhance and sustain the world's built, natural, and social environments. Our adherence to this goal has been realized by clients, as demonstrated by ranking in the top five "Green Design Firms" by *Engineering News-Record* for 2010. We have worked with municipalities, governmental agencies, cutting-edge institutions, and Fortune 500 corporations to establish protocols for green building and raise international awareness regarding the significant benefits of sustainable design. AECOM is an active member of the US Green Building Council (USGBC) and has extensive experience with the LEED project rating system. Currently, AECOM has 870 LEED APs.

AECOM has designed facilities for all levels of certification; our USGBC-certified or pending projects include:

- 7 Platinum
- 50 Gold
- 71 Silver
- 22 Certified

Energy Conservation and Efficiency

AECOM has extensive experience with the design of energy-efficient mechanical, electrical, plumbing, and building automation systems. We accomplish this in a number of ways, including the following:

- Reducing energy demand by designing efficient buildings with smaller footprints, while meeting the program requirements.
- Orienting buildings on the site to optimize the use of free energy, such as natural daylight, and to reduce energy load on the buildings by careful placements of doors and windows. The placement of the building on the site should take into consideration the local climate, such as wind directions and solar exposure.
- Designing the building envelope to comply with ASHRAE standards or the local energy code, if more stringent. The envelope should have appropriate insulation and air barrier to reduce infiltration. Other strategies include weatherstripping for doors and windows and glazing for doors and windows with appropriate insulating and shading performance.
- Designing mechanical equipment with maximum available efficiency.
- Utilizing economizers and energy recovery to the maximum extent possible to minimize energy usage.
- Designing control systems to react dynamically to changing conditions.

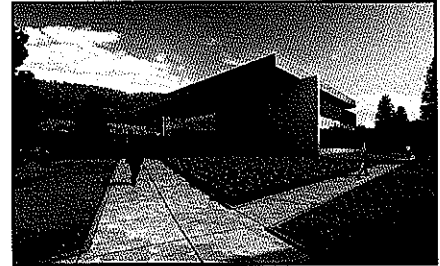
LEED EXPERIENCE



Joint Interagency Training and Education Center (JITEC), WVARNG

This 285,000 square foot project at Camp Dawson in Kingwood, West Virginia is registered under LEED-NC v2.2. Program elements incorporate an operations training and simulation center for the National Guard Bureau, homeland defense and training offices, classroom spaces and a billeting (hotel) component. While the project and existing site is complex in nature, the project expects to achieve LEED Silver. Highlights include:

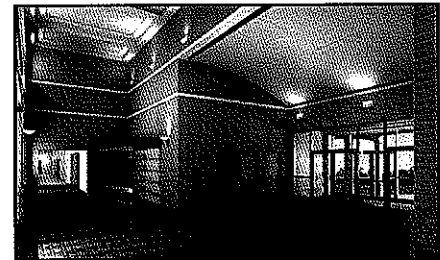
- Stormwater reduction measures (vegetative roof, bioswales, etc.)
- Low flow fixtures, waterless urinals and dual-flush toilets to reduce water use
- Enhanced commissioning
- Highly efficient HVAC systems
- Construction waste management
- Increased use of local materials
- Increased indoor air quality measures



Jackson County Armed Forces Reserve Center, WVARNG

At 63,000 square feet, this new reserve center gets its inspiration from a Georgian-style house that sits on the site. Registered under LEED-NC v2.2, sustainable design highlights include:

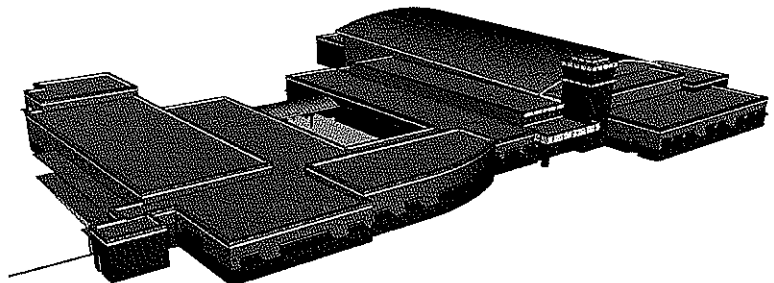
- Stormwater – reduced quantity and increased quality measures
- Low flow fixtures, waterless urinals and dual-flush toilets to reduce water use
- Vertical and horizontal exterior sunshades plus superior glazing
- Highly efficient HVAC system
- Construction waste management
- Increased use of local materials
- Increased indoor air quality measures



Morgantown Readiness Center, WVARNG

At almost 70,000 square feet, this new readiness center will serve as a gateway to the Joint Interagency Training and Education Center at Camp Dawson. Registered under LEED-NC v2.2, sustainable design highlights include:

- Stormwater – reduced quantity and increased quality measures
- Heat island effect reduction
- Low flow fixtures, waterless urinals and dual-flush toilets to reduce water use
- Highly efficient HVAC system
- Increased use of local materials
- Construction waste management
- Increased acoustical performance



LEED EXPERIENCE



State of West Virginia Office Buildings #5, 6 and 7

These 3 existing office buildings, comprising nearly 500,000 square feet of space are in need of extensive upgrades to improve life safety and environmental safety of employees. Interior renovations will also significantly improve workers' morale and productivity. The project is registered under LEED-NC v2.2.

Highlights include:

- Recycling of all existing demountable partition systems plus construction waste management
- New Energy Star roofs reduce heat island effect
- Low flow fixtures and dual-flush toilets to reduce water use
- New windows and central HVAC system will reduce energy consumption
- Significant indoor air quality improvements
- 95% of all office furniture is Cradle-to-Cradle Certified and Greenguard Certified



Additional Anticipated LEED Registered projects in WV:

Wood County Justice Center
Logan Readiness
Jackson County Armed Forces Reserve Center
Huntington East Middle
SWCTC



In addition to the above, ZMM's Sustainability Coordinator, Jill Watkins, has nearly 15 years of experience with sustainable design and LEED, including significant contributions to:

- New Federal Courthouse, Youngstown, Ohio – the first courthouse in the U.S. and the first building in Ohio to become LEED Certified
- Cleveland State University New Recreation Center – LEED Certified
- Procter & Gamble / Gillette Headquarters – Boston Green Building Standards required strict adherence to LEED-NC – Anticipated LEED credits and sustainable design features led to P&G's green building standards for all U.S. facilities
- Cubellis, Inc., Boston, Massachusetts – Slated for LEED-CI Gold Certification
- Raytheon, Waltham, Massachusetts – Slated for LEED-CI Gold Certification



Habitat
for Humanity®
of Kanawha & Putnam County

815 Court Street
P.O. Box 70160
Charleston, WV 25301-0160
(304) 720-0141 Fax (304) 720-4352
info@habitatwv.org

February 23, 2009

To whom it may concern:

I am writing in support of ZMM and the sustainable practices they have helped to make possible at Habitat for Humanity of Kanawha and Putnam County. Adam Krason of ZMM was responsible for the *REUSEd Materials, RESTOREd Lives* project conception and greatly assisted in developing the program and securing the funding.

RESUEd Materials, RESTOREd Lives is a program of the Habitat ReStore in which we collect construction and demolition waste from jobsites and either recycle or resell the material. The project was funded in full by the Sustainable Kanawha Valley Initiative in the fall of 2008. The grant funding enabled us to purchase large, used shipping containers that will be placed on construction sites for collection of materials. The containers will be picked up at the completion of the project for sorting, recycling and reselling at the Habitat ReStore.

According to the United States Environmental Protection Agency, construction and demolition waste comprise 35% of landfills. By salvaging these materials we are reducing the amount of waste that enters the local landfills and we are also providing additional funding to build Habitat homes. Without the help of Adam Krason and ZMM, *REUSEd Materials, RESTOREd Lives* would not have been possible.

Sincerely,

Amy McLaughlin
ReStore Director
Habitat for Humanity of Kanawha and Putnam County



west virginia department of environmental protection

Public Information Office
601 57th Street, South East,
Charleston, WV 25304

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

February 21, 2009

Adam R. Krason, AIA, NCARB, LEED AP, Architect
ZMM Architects and Engineers
222 Lee Street, West
Charleston, WV 25302

Dear Mr. Krason,

As Sustainability Officer with the West Virginia Department of Environmental Protection, it is my pleasure to write a letter in support of ZMM Architects and Engineers and their efforts to work with West Virginia organizations committed to improving their built and natural environments and organizational sustainability... or triple bottom line... profit, people, and planet.

The diverse staff at ZMM Architects and Engineers has expert knowledge, skills, and abilities with respect to the United States Green Building Council's Leadership in Energy and Environmental Design® Green Building Rating System™ and about broader sustainability concepts, principles and the environment in West Virginia.

I have worked with Mr. Krason and Ms. Jill Watkins with "Green Building Workshops" and creating a statewide program that builds capacity and provides leadership development opportunities for individuals and organizations embracing sustainability and looking for the complementary relations among the environment, economy and culture I West Virginia. Their inspiring work ethic, wisdom and integrity speak volumes about the manner in which they conduct business and represent themselves throughout West Virginia Communities.

The WVDEP is encouraged by ZMM Architects and Engineers' efforts and how it will lead to eventual Skill Set development and interdisciplinary program enhancements with other sustainability concepts and principles such as:

- Energy and cost efficiency;
- Alternative and renewable energy;
- Sustainable building design, construction, operation and maintenance that supports the United States Green Building Council's Leadership in Energy and Environmental Design® Green Building Rating System™;
- Creation of green businesses and collar jobs; and,
- Others.

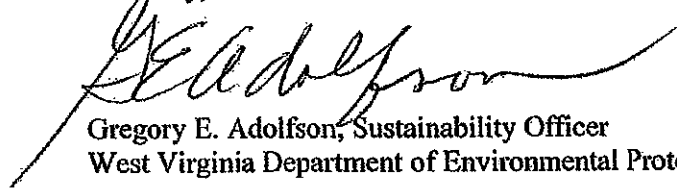
ZMM Architects and Engineers support our capacity building and leadership development activities, and complements and augments WVDEP programs such as:

- Sustainable Communities – a program that targets homeowners, schools, businesses, and community institutions dedicated to energy and water conservation, waste minimization and elimination, pollution prevention, and other sustainability concepts and principles that build sustainable communities... strong local economies, wholesomely vibrant communities, and healthy environments.
- Environmental Excellence – a program that targets regulated and non-regulated organizations in an effort to promote, reward, and encourage superior environmental performance within West Virginia organizations that meet the requirements of program eligibility including an exemplary environmental performance record, commitment to develop and implement an environmental management system, establish environmental performance goals, promote public involvement, and to positively impact the quality of life for all West Virginians by improving the economy, environment, and society through incentives, public participation, innovative technologies, and sustainability concepts. This program is the companion to the United States Environmental Protection Agency's National Environmental Performance Track.
- I Travel Green – a program that targets West Virginia travel and tourism organizations that is an entirely voluntary, affordable program that Registers and Benchmarks travel and tourism organizations that have made a commitment to continually enhance their operations that improve environmental, socio-cultural, and economic performance through evaluating their operations; setting goals, establishing objectives and targets, developing programs; and taking specific actions toward environmental, socio-cultural, and economic sustainability. I Travel Green is designed to support the West Virginia Division of Tourism's "West Virginia Wild and Wonderful" brand, give the state and travel and tourism organizations a marketing edge, promote smart practices, reduce costs, educate travelers and tourists, and protect the beauty and vitality of West Virginia's landscape.

In conclusion, I fully support the efforts of ZMM Architects and Engineers as you seek support for institutionalizing your programs. Any program, that incorporates sustainability concepts and principles and focuses on building capacity and developing leaders in sustainability throughout West Virginia, will benefit our people, our communities, and our overall return on investment. This will support the foundation for building a sustainable future for West Virginia.

Should you have questions, or require additional information, please do not hesitate to contact me at (304) 926-0499 X1332 or gregory.e.adolfson@wv.gov.

Sincerely,



Gregory E. Adolfson, Sustainability Officer
West Virginia Department of Environmental Protection

Award Winning Design



Army National Guard Readiness Center, Arlington, VA

As a result of Base Realignment and Closure, key elements of the Army National Guard Headquarters and Readiness Center and the National Guard Bureau Joint Staff will relocate to a new \$128 million facility on a 15-acre secure campus in Northern Virginia. Nearly 150,000 SF of highly secure spaces are contained in three below-grade plaza levels, with 100,000 SF rising above in a five-story tower.

- 2011 Washington Building Congress Craftsmanship Awards, Sheeting and Shoring
- 2011 Washington Building Congress Craftsmanship Awards, Cast-in-Place Concrete

AECOM

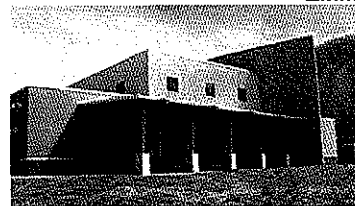


Hacker Valley PK-8 School, Hacker Valley, WV

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 rich with community involvement and home to professional artisans impacted the materials being selected for the building. The building is host to a large curved stone wall and heavy timber frame entrances.

- 2010 Honor Award for Excellence in Architecture, AIA West Virginia

ZMM



Berkeley County Judicial Center, Martinsburg, WV

The Berkeley County Judicial Center design is an adaptive reuse of the Berkeley Building, a 1920s woolen mill, as a new judicial center. AECOM elevated the building to the stature and identity of a judicial facility by using appropriate materials and civic massing. The 122,600-SF judicial center houses nine courtrooms and seven hearing rooms.

- 2010 Honor Award for Excellence in Architecture, AIA West Virginia

AECOM

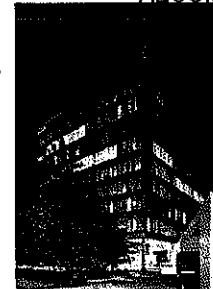


Los Angeles Police Department Police Administration Building, Los Angeles, CA

The new LEED Gold certified, 500,000-SF LAPD Police Administration Building features areas dedicated to police administration and investigative operations, plus large assembly spaces including a conference center, the Police Commission hearing room and the Compstat (computer comparison statistics) Command Center. In addition to below-grade parking for 365 cars, a 200-seat cafe and 450-seat auditorium are located adjacent to the building along Main Street.

- 2010 AIA Committee on Architecture for Justice, Justice Facilities Review
- 2010 AIA Merit Award for Built Architecture, AIA Colorado
- 2010 AIA Merit Award for Built Architecture, AIA Denver
- 2010 Design Award, Southern California Real Estate Development Forum
- 2010 Grand Prize, Los Angeles Business Council
- 2010 Public/Institutional Honor Award, Westside Urban Forum Westside Prize Awards
- 2010 "Q" Award, The Alliance for Quality Construction
- 2010 Rose Award (30th Annual Roses and Lemon Awards) Downtown Breakfast Club
- 2009 Building Team of the Year, President's Award - AIA, Los Angeles Chapter
- 2008 LABC Community Impact Award to the City of Los Angeles

AECOM

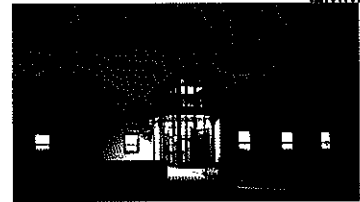


Award Winning Design



Construction & Facilities Management Office, Charleston, WV

The Construction and Facilities Management Office (CFMO) Expansion project brings all of the operations of the CFMO together under one roof. 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.



- 2009 Merit Award for Achievement in Architecture, AIA West Virginia

Air National Guard (ANG) Readiness Center Expansion, Andrews AFB, MD

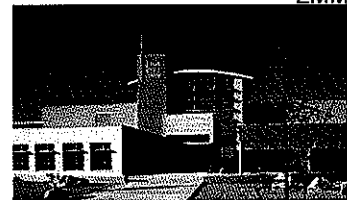
AECOM designed this four-story, 170,000-SF expansion of the ANG Readiness Center. A contemporary statement featuring large expanses of curtainwall and exposed structural elements, the expansion creates a bold contrast with the existing ANG facility, while also complying with AAFB architectural and planning standards. The dynamic balance of the materials palette of the existing building and the addition provides a unifying element of harmony, creating a new campus environment.



- 2008 Design Excellence Awards, Honor Award for Concept Design, Air Force Design Awards Program, Air Force Agent Awards and Air Force

Erma Byrd Center, Beaver, WV

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 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.



- 2008 Honor Award for Excellence in Architecture, AIA West Virginia

Unified Communications Center (UCC), Washington, DC

The new Unified Communications Center (UCC), a high technology, state-of-the-art call center, houses what were previously separate call centers for police, fire, EMS and non-emergency public safety calls. Integrating these services provides the District of Columbia with the necessary tools to face the continuing issues of emergency preparedness and security.



- 2007 Business Continuity and Disaster Recovery award, National Association of State Chief Information Officers (NASCIO)

Award Winning Design



Lincoln County High School, Hamlin, WV

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. The high school is the focal point of the community and a community college wing occupied by Southern West Virginia Community College.

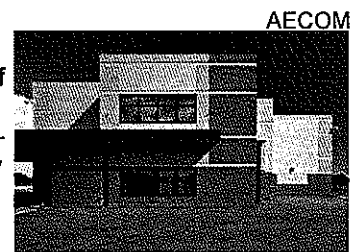
- 2007 Honor Award for Excellence in Architecture, AIA West Virginia



Joint Strike Fighter (JSF) Test and Support Facility, Patuxent River, MD

The \$25 million JSF Test and Support Facility project included the design and construction of two new high-tech buildings (Buildings One & Two), relocation of a wind tunnel, demolition of seven existing buildings, and renovations to an existing hangar to support the Base's future fleet of nine F-35 test airplanes. Building One, which features high-tech data processing areas, responds contextually to the architectural fabric of an existing adjacent hangar.

- 2006 Excellence Award, Public Building Category, Design-Build Institute of America, National Capital Chapter



Gene Spadaro Juvenile Center, Mt. Hope, WV

Completed in 2004, the building is constructed of load-bearing masonry walls with brick and natural stone veneer. Lighting was carefully designed to supplement natural sunlight and ensure comfortable lighting levels. The "softer" approach to this minimum-security facility anticipates program funding through federal IV-E regulations, and relies on staff involvement for security rather than bars and hardware.

- 2005 Merit Award for Achievement in Architecture, AIA West Virginia



St. Albans High School, St. Albans, WV

The \$24 million renovation of St. Albans High School was completed in 2003. 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.

- 2004 Impact in Learning Award in Effective Transformation
- 2004 Education Design Showcase for Outstanding Building Design
- 2004 American School and University for Outstanding Building Award



Client References



- **Mr. Chilton Lilly, Project Manager**
West Virginia Regional Jail & Correctional Authority
1325 Virginia Street, East
Charleston, West Virginia 25301
304.558.2110

- **Dr. Mark Manchin, Executive Director**
State of West Virginia School Building Authority
2300 Kanawha Boulevard, East
Charleston, West Virginia 25311
304.558.2541

- **Mr. Thomas S. Acker, S.J., Executive Director**
The Higher Education Foundation
200 Main Street
Beckley, West Virginia 25801
304.929.2010



- **Mr. Allam Al-Alami, PMP, Executive Program Manager**
Unified Communications Center
Frank D. Reeves Municipal Center
2000 14th Street, NW, 3rd Floor
Washington, DC 20009
202.671.2208

- **LTC Rodney Graham, Program Manager**
Army National Guard Readiness Center - National Guard Bureau
111 South George Mason Drive
Arlington, VA 22204
703.607.7138

- **Dee Hendrix, Project Manager/COTR**
Pentagon Integrated Emergency Operations Center
DoD, WHS, RE&F Contracting Office
Federal Office Building #2, RM 1427
Washington, DC 20301
703.695.6672



**WEST VIRGINIA ARMY NATIONAL GUARD
CONSTRUCTION & FACILITIES MANAGEMENT OFFICE**

1707 Coonskin Drive

Charleston, West Virginia 25311-1085

Phone: 304-561-6339 Fax: 304-561-6458 DSN: 623-6339



15 April 2009

WV Higher Education Policy Commission
Chief Procurement Officer
Richard Donovan
1018 Kanawha Blvd. East
Suite 700
Charleston, WV 25301

Dear Mr. Donovan,

The AECOM/ZMM Team has been assisting the West Virginia Army National Guard with the design of a 285,000 SF addition to the Robert C. Byrd Regional Training Institute (RTI) at Camp Dawson, near Kingwood, West Virginia. The new JITEC (Joint Interagency Training and Education Center) will include highly flexible educational facilities that will serve a dual use in the case of a state wide or national emergency. These facilities will include sophisticated data systems, video walls, and also incorporate a high level of electronic security.

The AECOM/ZMM Team has exceeded our expectations, delivering a high level of local expertise, complimented by the knowledge base of a large design firm. The Team's commitment to design quality has been demonstrated through the development of a site strategy that evokes a campus, while maintaining all of the programmed spaces in one facility. The JITEC design balances the need to re-orient the campus while also complimenting the existing RTI. The technical ability of the AECOM/ZMM Team has also been demonstrated through the design of redundant power and HVAC systems, as well as through the examination of various building components to meet the requirements of LEED Silver.

The AECOM/ZMM Team has been very responsive and has done an excellent job of communicating the West Virginia Army National Guard's vision for this project. Additionally, the design team has provided these services within a compressed timeframe to meet our requirements. Please contact me if I can provide any additional information about our experience with the AECOM/ZMM Team.

MELVIN L. BURCH

Brigadier General

West Virginia Army National Guard

Assistant Adjutant General



DEPARTMENT OF THE ARMY
NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

August 22, 2008

NGB-ARZ-DF

Mr. Oscar Perez, AIA
DMJM H&N
3101 Wilson Boulevard, Suite 900
Arlington, VA 22201

RE: National Guard Bureau Readiness Center
Conclusion of Architectural and Engineering Design Services

Dear Oscar,

On behalf of the Army National Guard, I would like to express my appreciation to the DMJM/CH2M HILL design team for their extraordinary efforts during programming, planning and design for the Readiness Center. Your team has created a stunning facility that will both meet our operational needs and express the vision of the Guard in the 21st century.

From the project's onset, the design team has worked in partnership with the Guard to understand our needs, develop options for a very constrained site with strict force protection constraints, review the sustainability possibilities and set this project firmly on the path to LEED-NC silver certification. Your team has designed a facility that meets the needs of our staff and the multiple missions of 26 directorates. Throughout this design process, you have worked with us to ensure our success in collaborating with county and federal agencies, as well as with the Arlington community. The DMJM team has continuously monitored and controlled the project's costs and held this fast-track process to the original tight schedule for occupancy.

As we move into construction, I look forward to the continuation of our successful partnership and to the realization of Guard's mission requirements in a facility that will be both functional and striking.

Sincerely,

A handwritten signature in black ink, appearing to read "Rodney M. Graham".

Rodney M. Graham
Lieutenant Colonel, Army National Guard
Program Manager, ARNGRC Addition

Note: DMJM is a legacy AECOM firm.

The Higher Education Foundation

200 MAIN STREET, BECKLEY, WEST VIRGINIA 25801-4613

TELEPHONE 304 929-2010

FACSIMILE 304 929-2009

forwardsww@earthlink.net

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.

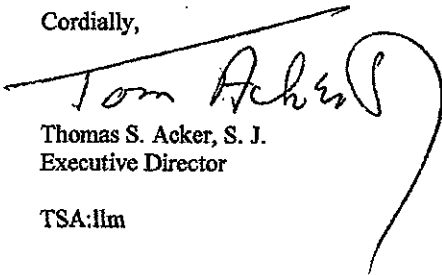
Our contract with you began in December, 2005. We had to complete architectural plans, bid the building, secure a contractor, and begin construction by July, 2006, in order to meet an opening date of August, 2007. ZMM was the perfect partner with us as we forged a new building on a yet raw campus and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

GOVERNMENT OF THE DISTRICT OF COLUMBIA
OFFICE OF THE CHIEF TECHNOLOGY OFFICER



January 20, 2004

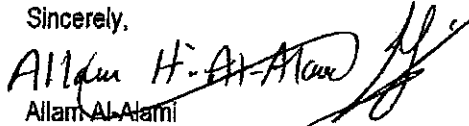
Mr. Jon Miller
Vice President
DMJM Design
1525 Wilson Boulevard
Suite 1100
Arlington, VA 22209

Dear Jon,

As construction begins on the Unified Communications Center (UCC) project, let me take this opportunity to express our pleasure with the design of this facility and the commitment and dedication of the entire design team to get us to this point. Within the historic context of the St. Elizabeth's campus, DMJM Design has produced a state-of-the-art communications facility sensitive to its surrounding urban site and its role in Washington, DC. DMJM Design was flexible and professional in dealing with the challenges encountered during the design phase. Such challenges included responding to changing program requirements following the events of September 11, 2001, addressing the needs of each of the facility stakeholders, and preparing multiple critical presentations for the approving entities having jurisdiction for this region. Your exceptional preparations provided us with two presentations before the Commission of Fine Arts, which were subsequently approved without any building design modifications. In addition, DMJM successfully guided the design process through the National-Capital Planning Commission and District of Columbia Zoning approvals. DMJM's support was also instrumental in obtaining the EISF and the building permit for this facility.

The integration of the District's Metropolitan Police Department, Fire and Emergency Medical System, Emergency Management Agency and Traffic Management Agency in this facility will enhance the District's ability to deal with continuing issues of Homeland Security. The full redundancy of all mechanical, electrical, and telecommunications systems, and the blast-resistant design are important factors for heightened survivability. We are counting on DMJM Design's support during the construction phase and we are confident that we have the right team assembled to deliver and bring online this mission-critical facility to serve the people of the District of Columbia.

Sincerely,


Allam Al-Atarni

UCC Program Manager
Office of the Chief Technology Officer
District of Columbia Government
c/o OCTO Construction Trailer
2720 Martin Luther King Jr. Avenue
Washington, DC 20032
(202) 645 9330

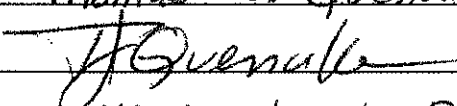
441 4th Street, N.W., Washington, DC 20001 (202) 727-2277, Facsimile (202) 727-6857

Note: DMJM is a legacy AECOM firm.

PAST PERFORMANCE EVALUATION FORM

(Check appropriate box)

Performance Elements	Excellent	Good	Acceptable	Poor	Unacceptable
Quality of Services/ Work	✓				
Timeliness of Performance	✓				
Cost Control	✓				
Business Relations	✓				
Customer Satisfaction	✓				

1. Name & Title of Evaluator: Thomas J. Quenville, PROGRAM MANAGER
2. Signature of Evaluator: 
3. Name of Organization: NASA - Langley Research Center
4. Telephone Number of Evaluator: 757 864-7286
5. State type of service received: Planning, design, interior design, technical support during construction
6. State Contract Number, Amount and period of Performance Task Order Contract
GSA Contract # : GS-03P-08-DXC-0019, Various Amounts, 3/31/08 to present
7. Remarks on Excellent Performance: Provide data supporting this observation. Continue on separate sheet if needed) See attached sheet.
8. Remarks on unacceptable performance: Provide data supporting this observation. (Continue on separate sheet if needed)

AECOM Past Performance Evaluation Form

Supporting Data for Excellence Performance Rating

AECOM Design has been working with NASA since 2008 with services including: planning, design, interior design, and technical support during construction for a \$250M major development project. AECOM was competitively selected by a joint NASA /GSA team in 2008 for a 5-year contract (1 year + 4 optional years). To date AECOM has completed or is in the process of completing 4 major task orders: (1) Preparation of conceptual design/bridging documents for the Phase 1 office building - complete, (2) Preparation of interior/furniture design for Phase 1 office building – complete, (3) Preparation of conceptual design/bridging documents for Phase 2 conference facility – in process, (4) Preparation of Program Development Study for Phase 3 Laboratory – in process.

AECOM has exceeded expectations in all areas. The design team members assigned to the project are experienced, extremely hard working, and very flexible in handling changing directions and divergent opinions. We really appreciate the open design process promoted by AECOM. The customer is encouraged to participate in the design process and decision making at all phases of work. We really feel part of the design team. The quality of work has been exceptional, especially the completion of the conceptual design phases of the building designs. AECOM complies with all contract requirements and can be relied upon to fully document all meetings and decisions. The design and drawing packages produced are accurate, well-coordinated among disciplines, and complete.

AECOM has provided excellent cost control for both design and construction budgets. AECOM has completed all design work within agreed to costs with minimal or no costs changes. AECOM provided continual cost control checks throughout the project to make sure the overall project remains on track. Also, there have been minimal cost changes during construction because of design errors.

AECOM has completed all work on or ahead of schedule. Schedule performance has been excellent. AECOM has excellent business relationships and can be relied upon to provide a very professional briefing and presentations at various levels of the organization. The design presentations to NASA's senior management have been outstanding.

I highly recommend AECOM to others for future design work.

Sincerely,



Thomas J. Quenville

New Town Program Manager

757 864-7286

The County Commission of Wood County

No.1 Court Square, Suite 203
Parkersburg, West Virginia 26101
(304) 424-1984



ROBERT K. TEBAY

RICK MODESITT

DAVID BLAIR COUCH

COUNTY ADMINISTRATOR

Marty Seufor
424-1976

COUNTY CLERK

Jamie Six
424-1850

March 3, 2008

Dear Sir/Madam:

This is a letter of reference for Adam R. Krason, ZMM, Inc. The County Commission of Wood County has employed ZMM, Inc. on several projects, most notably the renovation of the Judge Black Annex.

Mr. Krason has always been extremely professional and has proven himself to be very flexible in meeting our needs. He is friendly and easy to work with. He has proven to be an asset to the County and we anticipate a long-term relationship with ZMM, Inc. in the coming years.

Sincerely,

THE COUNTY COMMISSION OF WOOD COUNTY

Handwritten signature of Robert K. Tebay in black ink.

Robert K. Tebay, President

Handwritten signature of Rick Modesitt in black ink.

Rick Modesitt, Commissioner

Handwritten signature of David Blair Couch in black ink.

David Blair Couch, Commissioner

WCC:ah

RFQ No. DEFK11028

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.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: ZMM, INC.

Authorized Signature: *[Signature]* Date: 14-MARCH-2011

State of West Virginia

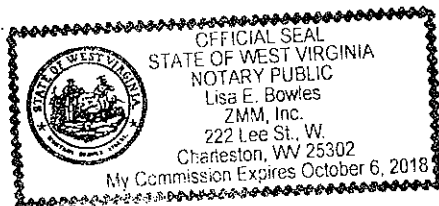
County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 14th day of March, 2011.

My Commission expires 10-6, 2018.

AFFIX SEAL HERE

NOTARY PUBLIC *[Signature]*





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

Request for Quotation

RFQ NUMBER
 DEFK11028

PAGE
 2

ADDRESS CORRESPONDENCE TO ATTENTION OF
 TARA LYLE
 304-558-2544

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

DIV ENGINEERING & FACILITIES
 ARMORY BOARD SECTION
 1707 COONSKIN DRIVE
 CHARLESTON, WV
 25311-1099 304-341-6368

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
03/08/2011				

BID OPENING DATE: 03/22/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
------	----------	-----	--------	-------------	------------	--------

VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.

ALRK
 SIGNATURE

ZMM, INC.
 COMPANY

22 MARCH 2011
 DATE

NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.

REV. 09/21/2009

END OF ADDENDUM NO. 1

0001	1	JB		906-00-00-001		
ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).