ZMM
ARCHITECTS & ENGINEERS

April 3, 2013

Ms. Tara Lyle, Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East
PO Box 50130
Charleston, West Virginia 25305-0130

Subject: Expression of Interest for SIOH (Supervision, Inspection and Overhead) for the Access Control Point (ACP) at Camp Dawson
DEFK13013

Dear Ms. Lyle:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional design services for Supervision, Inspection, and Overhead (SIOH) / Type "C" services for the Access Control Point (ACP) located at Camp Dawson, near Kingwood, WV. Established in 1959, ZMM is a Charleston based, full service A/E firm, and is noted for design excellence and client focus.

Please note that as on several recent projects completed for the WVARNG, ZMM will collaborate with Capitol Engineering, Inc. (CEI) for site and civil SIOH services. CEI is a small, locally owned, service oriented, civil engineering firm located in Charleston. CEI has been a critical team member that has demonstrated both client responsiveness and technical excellence. Projects demonstrating ZMM's past collaborations with CEI are included in the attached information.

The ZMM/CEI team is uniquely qualified to provide SIOH for the Access Control Point at Camp Dawson for the following reasons:

- **Camp Dawson SIOH and Access Control Point Design Experience.**
  Our team has recent experience providing SIOH services at Camp Dawson, most recently on the Joint Interagency Training and Education Center (JITEC). ZMM/CEI working with AECOM, also participated in the design of the Access Control Point (ACP). During the design phase ZMM was responsible for assisting in the development of the technical specifications and bidding documents, while CEI provided the civil engineering for the site development and improvements. Our team's experience working at Camp Dawson, as well as our participation in the Access Control Point design will help ensure the quality of services that we will provide during the construction phase.

- **WVARNG Experience.**
  The members of our proposed team have provided construction phase (SIOH) services on multiple West Virginia Army National Guard (WVARNG) projects including the JITEC, the Regional Training Institute at Camp Dawson, the Jackson County AFRC, and Kingwood AFRC, the Glen Jean AFRC, the CFMO Expansion, the Tackett Family Readiness Center, and currently the Morgantown Readiness Center.

222 Lee Street, West • Charleston, West Virginia 25302
304.342.0159 office • 304.345.8144 fax
www.zmm.com

- **ZMM/CEI Approach and Methodology.**
  If selected for this endeavor, the ZMM/CEI team will serve as the WVARNG's quality control representative, working directly with the ACP project's Contracting Officer Representative (COR). Our detailed work plan is included in Section 1, and will include plan and specification interpretation and clarification, schedule monitoring, submittal review, submittal tracking, request for information (RFI) responses, supplemental drawings, payment application review and approval, contract modification evaluation, project schedule support, claims analysis, wage rate data collection, and coordination of the designer's and contractor's LEED responsibilities. Our approach and methodology will demonstrate our understanding of the effort required to provide comprehensive SIOH services.

Thank you for taking the time to review the attached expression of interest that includes information about our proposed methodology and approach for the project, the team qualifications, and relevant project experience. Additionally, please visit our website at www.zmm.com to see the full range of projects that we have designed, and to learn about working with ZMM from a client's perspective. We appreciate your consideration for this important assignment.

Respectfully submitted,
ZMM, Inc.

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

222 Lee Street, West • Charleston, West Virginia 25302
304.342.0159 office • 304.345.8144 fax
www.zmm.com

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CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

ZMM ARCHITECTS AND ENGINEERS
(Company)

(Authorized Signature)

ADAM R. KRASON, PRINCIPAL
(Representative Name, Title)

304.342.0159 304.345.8144
(Phone Number) (Fax Number)

02 · APRIL · 2013
(Date)

0000329

RFQ No. DEFI< 13013

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: ZMM ARCHITECTS AND ENGINEERS

Authorized Signature: [signature] Date: 02 · APRIL · 2013

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 2nd day of April, 2013

My Commission expires 10/6, 2018.

AFFIX SEAL HERE

NOTARY PUBLIC [signature]

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Lisa E. Bowles
ZMM, Inc.
222 Lee St., W.
Charleston, WV 25302
My Commission Expires October 6, 2018

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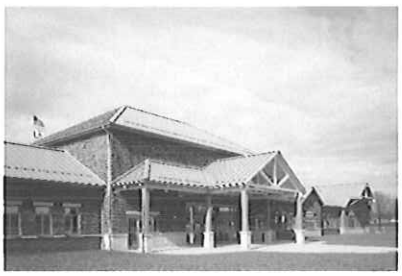
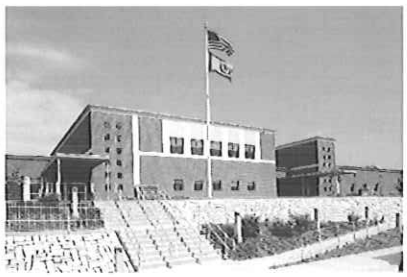
Approach and Methodology for Meeting ACP SIOH Project Goals and Objectives

ZMM Architects and Engineers and Capitol Engineering, Inc. (CEI) are uniquely qualified to provide professional services for Supervision, Inspection, and Overhead (SIOH)/Type "C" services for the Access Control Point (ACP) located on Camp Dawson, Kingwood, WV. Our team has recent experience providing SIOH services at Camp Dawson, most recently on the Joint Interagency Training and Education Center (JITEC). Our team, working with AECOM, also participated in the design of the Access Control Point (ACP). During the design phase ZMM was responsible for assisting in the development of the technical specifications and bidding documents, while CEI provided the civil engineering for the site development and improvements. Our team's experience working at Camp Dawson, as well as our participation in the Access Control Point design will help ensure the quality of services that we will provide during the construction phase.

ZMM takes a unique approach to providing construction phase, or SIOH, services. During the construction phase ZMM will assign a dedicated construction administrator, David Unrue, to the project. David has provided construction phase services on multiple West Virginia Army National Guard (WVARNG) projects including the JITEC, the Regional Training Institute at Camp Dawson, the Jackson County AFRC, and Kingwood AFRC, the Glen Jean AFRC, and currently the Morgantown Readiness Center. David will coordinate the efforts of the ZMM and CEI team throughout the construction process. David will be assisted by Theresa Dorsey, ZMM's construction phase administrative assistant to ensure that all submittals, shop drawings, and RFI's are tracked to ensure prompt responses to the contractor. Robert Fuller will also take an active role throughout the construction process to verify the quality of the site construction.


If selected for this endeavor, the ZMM/CEI team will serve as the WVARNG's quality control representative, working directly with the ACP project's Contracting Officer Representative (COR). Our work will include plan and specification interpretation and clarification, schedule monitoring, submittal review, submittal tracking, request for information (RFI) responses, supplemental drawings, payment application review and approval, contract modification evaluation, project schedule support, claims analysis, wage rate data collection, and coordination of the designer's and contractor's LEED responsibilities.

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Specifically, our team will focus our efforts on the following tasks:

- **Quality Assurance**
  Observe the Quality of the Work
  Notify the WVARNG and Designer of Record of Nonconforming Work
  Issue a Non-Compliance Notice (NCN) to Document and Track Nonconforming Work
  Work on a Regular Basis with the Contractor's Superintendent
  Attend Bi-weekly Progress Meetings
  Schedule Compliance Visits by Technical Staff
  Coordinate any WVARNG Required Testing and QA/QC Programs
  Review Shop Drawings, Product Data, and Samples to Verify Compliance
  Maintain records including:
  Correspondence
  Contract Documents
  Contract Modifications
  Request for Cost Proposals
  Supplemental Instructions
  Shop Drawings, Product Data, and Samples
  Supplementary Drawings
  Color Schedules
  Payment Applications
  Review of Work Progress/Unit Prices

- **Cost Control**
  Assist the WVARNG with Payment Application Review and Approval
  Review and Track Completed Work
  Provide Cost Estimates for Contract Modification Requests, VE Proposals, and/or Claims
  Prepare AIA Forms for Contract Modifications
  Maintain/Review Records for Time and Material Work

- **Schedule Control**
  Review Initial CM Schedule
  Observe Construction Progress to Confirm Compliance with Approved CPM Schedule
  Review Contract Modifications and/or Claims for Schedule Impact
  Review Monthly Schedule Updates and Provide Recommendations to the Owner

- **Project Closeout**
  Review Status of Work to Determine Date for Certificate of Substantial Completion
  Assist in the Review of "Punch-List" Items to be Completed or Corrected
  Issue the Certificate of Substantial Completion

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Complete a Final Inspection
Conduct an 11 Month Walk-Through
Provide Warranty Phase Support to the WVARNG

To provide these services, the ZMM/CEI team commits to attendance and participation in the bi-weekly progress meetings that will be conducted on-site during the execution of construction from the period of Notice to Proceed until the Substantial Completion. During the meetings we will provide recommendation and direction to the project delivery team, address issues, review progress payments, conduct observation and report of on-going construction operations, and, when necessary, document items of non-compliance by the contractor.

Our team also commits to providing regular compliance visits by our architects and engineers to ascertain the status, condition, and adherence to the design intent, plans and specifications. As the project nears completion, the ZMM/CEI team will conduct substantial completion inspection(s). Our services will also include the final inspection coordination, as well as start-up and training support, as well as support (as needed) throughout the warranty period, including an eleven month inspection to identify any additional work required by the contractor to ensure compliance with the contract conditions. This detailed construction phase services approach, our experience designing and providing SIOH services on West Virginia Army National Guard projects, as well as our experience working on the Access Control Point design will help to ensure the success of this critical project for Camp Dawson.

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Joint Interagency Training & Education Center

WVARNG

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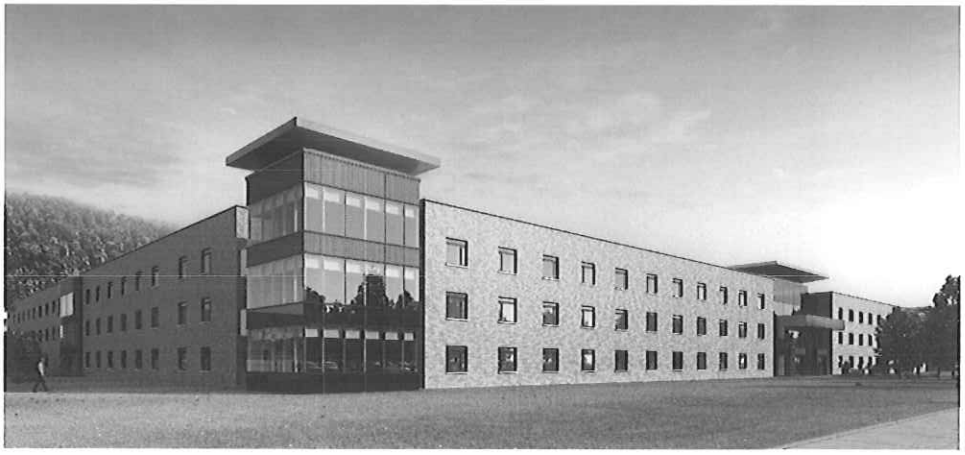
CEI



LOCATION:
Kingwood, WV

SIZE:
285,000 SF

COMPLETION:
2013

COST:
$78.4M

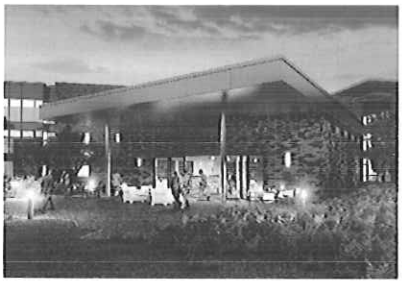
OWNER:
LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

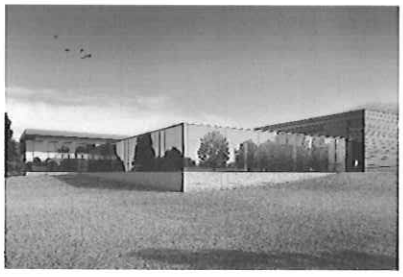
AWARD:
2011 AIA Honor Award
West Virginia Chapter
Excellence in Architecture

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

The project began with a review of the existing base master plan, followed by a revision of the master plan concept. JITEC is a training and educational facility – the vision behind the site design and updated master plan is that of a college campus atmosphere. The clients goal was to create a campus environment that integrates existing buildings with new ones, which was accomplished 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.





Joint Interagency Training & Education Center

Security requirements for the command center influenced the design of the attached, copper-clad "black box" that is an homage to the native rock stratification seen throughout the state.

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

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.

Robert C. Byrd - Regional Training Institute

WVARNG

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LOCATION:
Kingwood, WV

SIZE:
148,000 SF

COMPLETION:
2002

COST:
$21 Million

CONTACT:
LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

The Robert C. Byrd Regional Training Institute at Camp Dawson is a 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.

The goal of the owner was to provide a campus within a building, with clear circulation and for various uses. ZMM accomplished this objective by employing a large cylindrical mass that marks the main entry where guests can coordinate both their housing and educational needs.

Additionally, 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.

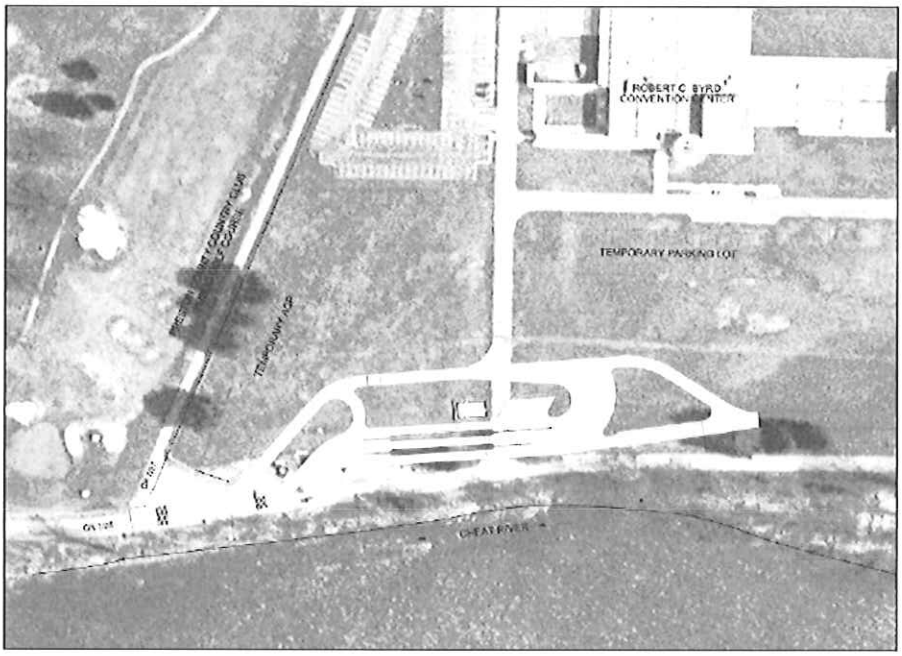
Camp Dawson Access Control Point

Site and Civil Design

CEI

LOCATION:
Kingwood, WV

CLIENT:
AECOM
Arlington, VA



The Access Control Point (ACP) Facility for the Joint Interagency Training Education Center (JITEC) is a 710+- square foot one-story cast in place concrete building including site improvements to replace an existing aging ACP facility at the West Virginia Army National Guard (WVARNG) facility at the North Gate to Camp Dawson, West Virginia. Camp Dawson is approximately 25 miles south of Interstate 68 and close to the City of Kingwood in the northeast corner of the State. Camp Dawson straddles both sides of the Cheat River and is encompasses 1,500+- acres. It is an active military post.

The project included the following major design elements:

1. Utilities

a. Water line extension
b. Sanitary sewer system extension
c. Utility relocations
d. Electric and telephone service

2. Access roads and vehicle facilities

a. 400 SY concrete paving
b. 4,500 SY asphalt paving
c. DOD-rated crash barriers
d. Traffic control devices

3. General site features

a. Earthwork and erosion control
b. Storm drainage system
c. Security fencing/force protection measures

The project included the following site investigation elements: 1. Preliminary engineering, planning, and field reconnaissance 2. Surveying and mapping 3. Preliminary subsurface investigation 4. Geotechnical investigation and laboratory testing.

Jackson County Armed Forces Reserve Center

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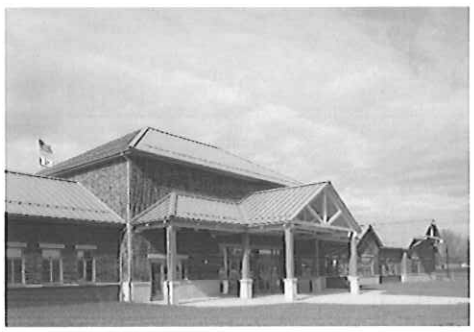


LOCATION:
Millwood, WV

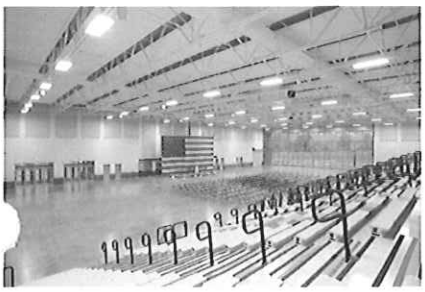
SIZE:
75,000 SF

COST:
$20M

COMPLETION:
Fall 2011

CONTACT:
LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

The new facility houses 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 also includes 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 is defined by a canopy that connects storage and locker areas to the expanded Drill Hall.

Morgantown Readiness Center

WVARNG

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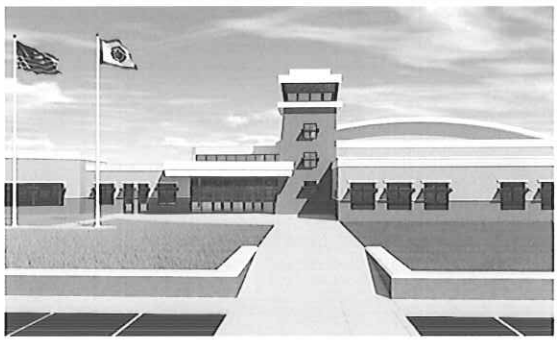
LOCATION:
Morgantown, WV

SIZE:
54,000 SF

COMPLETION:
Est. 2013

COST:
$ 18.5M

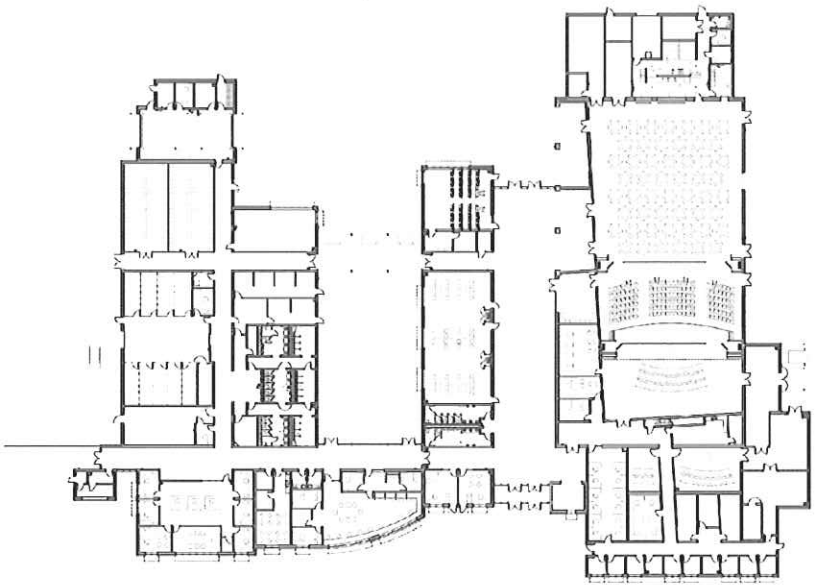
CONTACT:
Lt. Colonel David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



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.



Glen Jean Armed Forces Reserve Center

WVARNG

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CEI

LOCATION:
Glen Jean, WV

SIZE:
110,000 SF

COST:
$17M

COMPLETION:
2004

CONTACT:
LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

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.

Construction & Facilities Management Office

WVARNG

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CEI

LOCATION:
Charleston, WV

SIZE:
19,935 SF

COST:
$3.5M

COMPLETION:
2008

CONTACT:
Lt. Colonel David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

AWARD:
2009 AIA Merit Award,
West Virginia Chapter,
Achievement in Architecture

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

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

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

Tackett Family Readiness Center

WVARNG

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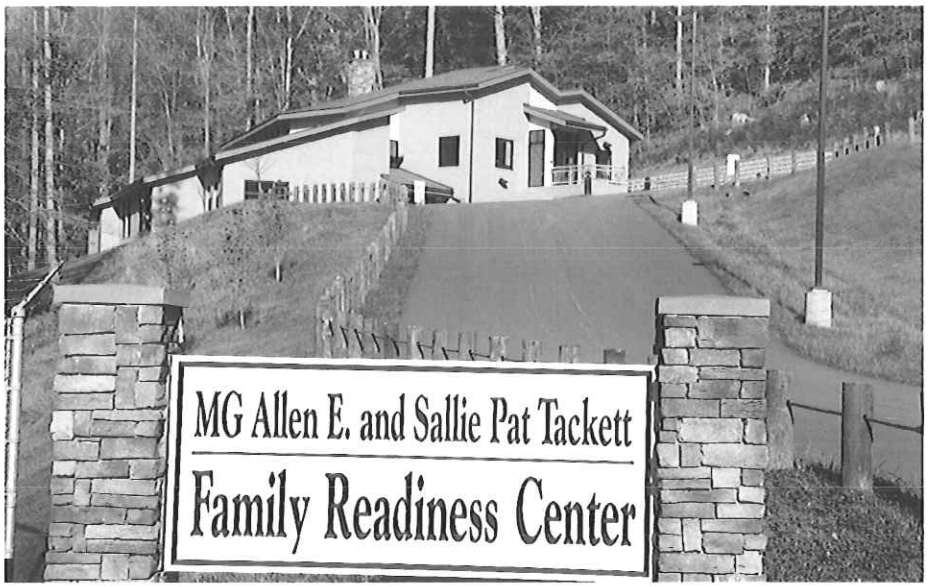
LOCATION:
Charleston, WV

SIZE:
7,400 SF

COMPLETION:
February 2011

COST:
$1.57M

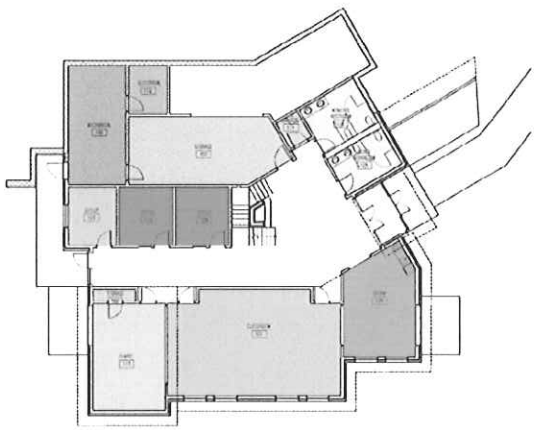
CONTACT:
LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



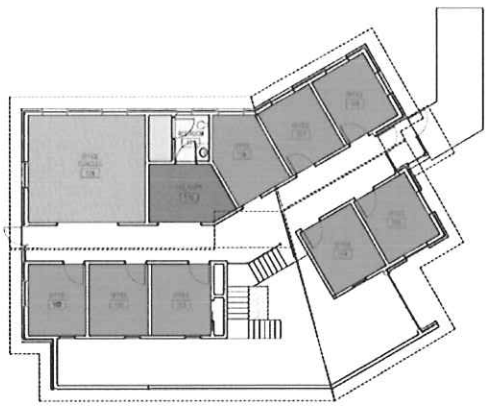
The Family Support Center is a two - story brick building with a sloped roof stepped into the wooded hillside adjacent to the Army National Guard facilities in Charleston, West Virginia.

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

Kingwood Armed Forces Reserve Center

WVARNG

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Camp Dawson, WV

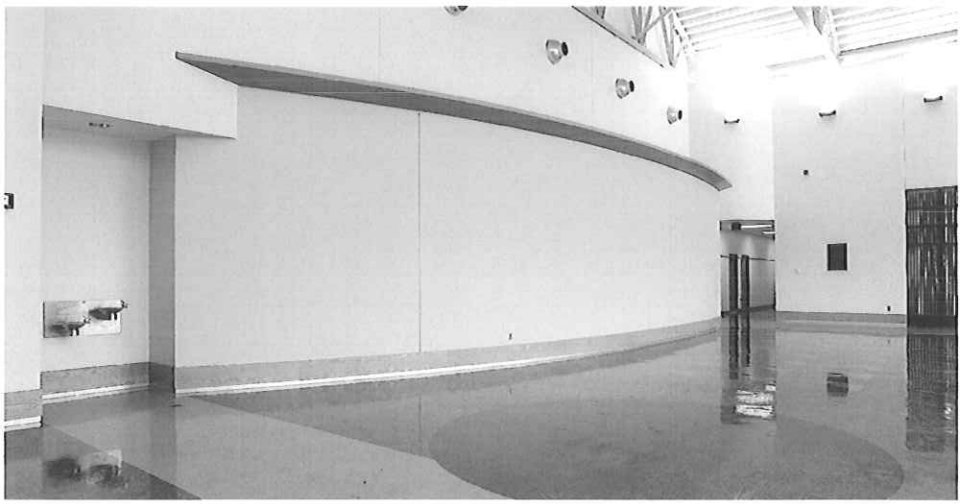
SIZE:
56,200 SF

COMPLETION:
2000

CONTACT:
LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

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.



LOGAN - MINGO READINESS CENTER

WVARNG

ZMM
ARCHITECTS & ENGINEERS

CEI

LOCATION:
Logan, WV

SIZE:
54,000 SF

COMPLETION:
2014

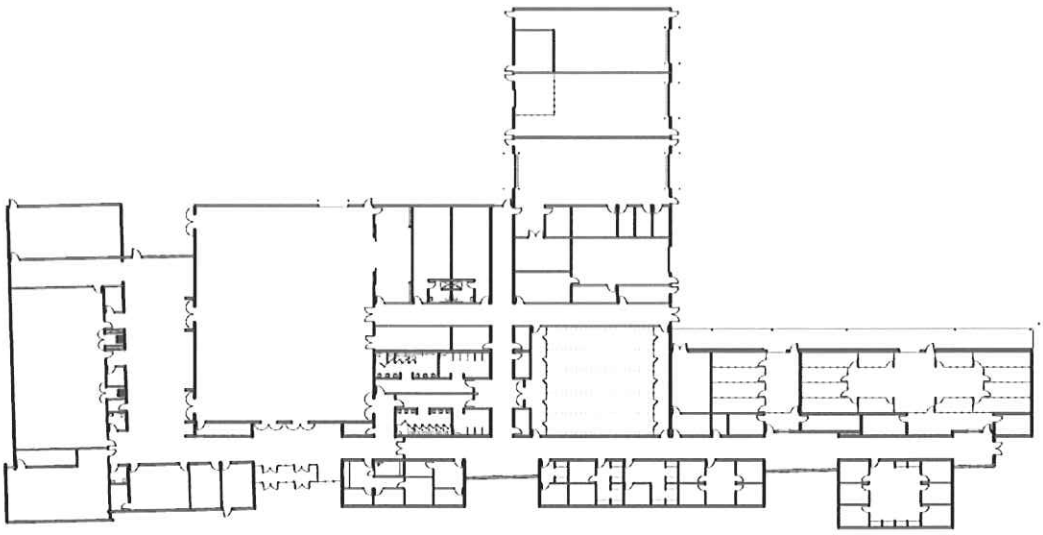
COST:
$12M

CONTACT:
LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

The design of the Logan-Mingo Readiness center was developed by examining both the program and building site, and developing strategies to design a facility that is functional, responds to site, security, and aesthetic parameters, while requiring minimal maintenance.

The building layout was developed by working closely with the end-users to determine the appropriate configuration of building spaces to maximize the efficiency of the operations, and to respond to the unique missions of the 150th Armored Reconnaissance Squadron and the 156th Military Police (LNO) Detachment. Clear separation of "public" and "private" areas within the facility, unique office configurations related to training requirements, and the addition of State Funded additional spaces.

The exterior (and in many cases the interior) aesthetic of the facility was driven by the location of the Readiness Center within an industrial park on a reclaimed surface mined site. The decision led to the use of reinforced cast-in-place retaining walls that became both a functional and visual focus. Similar pre-cast walls are used to anchor the facility at the Distance Learning Center, while a cast -in-place retaining wall serves as a part of the Anti-Terrorism/Force Protection design.



Parkersburg Readiness Center

ZMM
ARCHITECTS & ENGINEERS

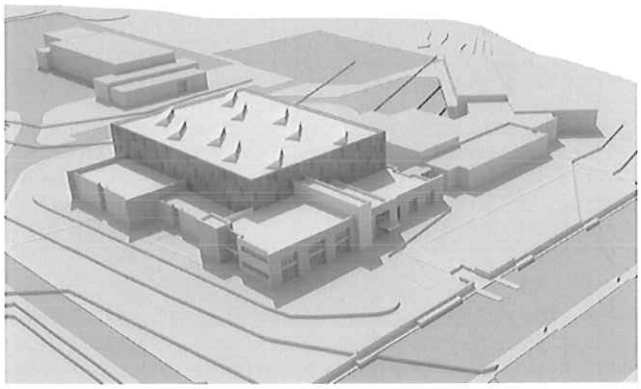
CEI

LOCATION:
Parkersburg, WV

SIZE:
60,000 SF

COMPLETION:
TBA

CONTACT:
Dr. Marie Gnage
President
West Virginia University
at Parkersburg (WVU-P)
300 Campus Drive
Parkersburg, WV 26104
304.424.8000



ZMM is currently working with West Virginia University at Parkersburg and the West Virginia Army National Guard on the design of an Activity Center at the WVUP campus in Wood County. The new facility will include a large multi-purpose gathering space that can be used for commencements, athletic events, trade shows, and performances. The space will be able to seat over 4,000 people with a central stage, and 3,500 people with a stage as the focal point. The space can also seat more than 800 people in a banquet setting, or hold more than 120 booths in a trade show configuration. Additional functions will include flexible classroom space, a veteran's assistance office, as well as a large fitness area. The total facility will include nearly 60,000 SF, and will serve as a focal point for student and community activity on the campus.

The proposed building has been designed to complement the existing structures on the campus, which include the Main Building, the Caperton Center, and the new Applied Technology Center. The face of the building will include brick walls with punched openings. The brick façade is separated from the main volume of the assembly area with metal panel and glass walls that are recessed. The stairway is utilized to provide a large vertical stone element to match a shear wall on the main building. The new assembly space is covered with a tapestry of blue/grey metal panels. The assembly area also contains a number of north facing monitors on the roof to introduce natural light into the space, and to help meet the sustainable design requirements for the project.

The project is currently in the design phase, with construction expected to commence in the Summer of 2014.

History and Philosophy of ZMM

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
Fax 304.345.8144
www.zmm.com

History

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

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

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

Community Support

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

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

Kanawha County Public Library

ZMM ARCHITECTS & ENGINEERS POPS

WEST VIRGINIA PUBLIC BROADCASTING

Professional Services

ZMM
ARCHITECTS & ENGINEERS

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

Advantages of an integrated Design Approach:

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

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

ZMM has maintained an average of 35 employees over the last five years. Our team has the expertise to provide the services below:

Pre-Design

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

Post Design

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

Design

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

History of Capitol Engineering, Inc.

LOCATION:
1206 Kanawha Blvd., E
Charleston, WV 25301

CONTACT:
Phone 304.344.0720
capitolengineering.com

History

Capitol Engineering, Inc. (CEI) proposes to perform civil engineering services for the West Virginia National Guard to develop planning and programming documents for various facilities. We have 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.

Why CEI?

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 50 National Guard projects in West Virginia.
- Management team has 30+ years and over 100 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.

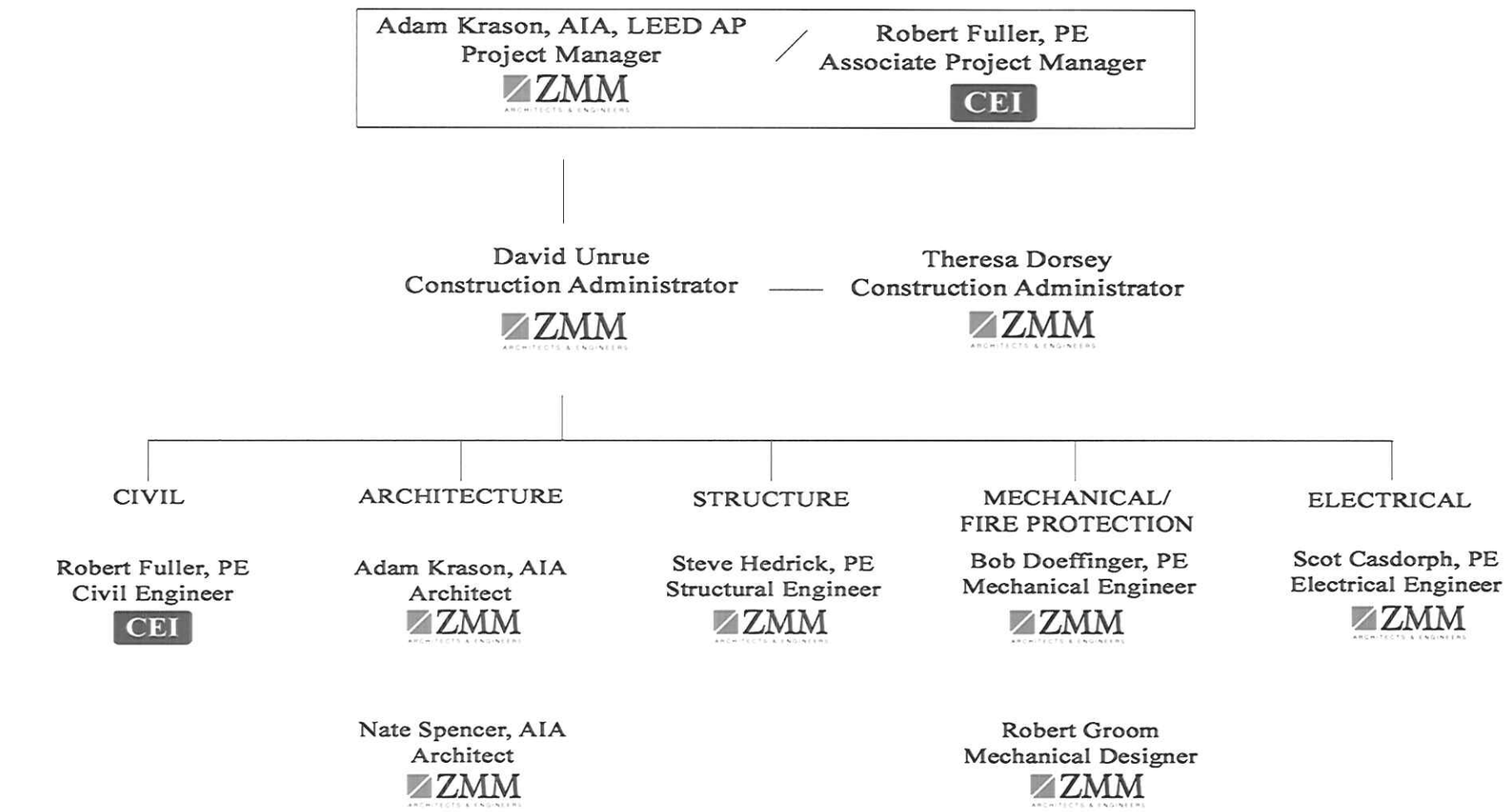
Services

- Civil Engineering
- Environmental Engineering
- Surveying & Mapping
- Construction Administration
- Mining Engineering

Significant Points

- Site investigation experience with undesirable/difficult sites - Glen Jean, Lewisburg, Fairmont, Elkins, Mingo/Logan Readiness Center
- Glen Jean civil design - nice use of site for both function and aesthetics - USPFO property has same potential
- AASF construction observation - worked with CFMO to maximize impact with the dollars available

Organizational Chart



Adam R. Krason, AIA, NCARB, LEED AP

ZMM ARCHITECTS & ENGINEERS

Role
Architect, Principal

Professional Registrations
Registered Architect (WV, OH, KY, VA)
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, Kingwood, WV. Mr. Krason was responsible for the preliminary programming, and participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Krason

Education
Bachelor of Architecture, The Catholic University of America, 1998

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

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

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

was also responsible for managing the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. 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 2009 AIA Merit Award, focused the client's resources on a new entry and corridor that separated the existing office space from the addition.

State Office Building #5, 10th Floor Renovation, 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.

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.

WVU at Parkersburg , Parkersburg, WV
Mr. Krason was the project manager for the Downtown Center (W.T. Grant Building). ZMM provided preliminary design services and a construction cost estimate for improvements to the building façade. Services included the development of as-built drawings, conceptual elevations, renderings, and modeling. Working closely with West Virginia University at Parkersburg ensured that the design reflected a contemporary and unified aesthetic.

Bridgemont Community and Technical College Davis Hall Renovation and Master Plan, 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.

Edgewood 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 Honor Award (2011): WVARNG Joint Interagency Training and Education Center (JITEC)
AIA Honor Award (2011): State Office Building #5, 10th Floor Renovation
AIA Merit Award (2009): WVARNG 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

Robert M. Fuller, PE

Role
Associate Project Manager, Civil Engineer, Site Design

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

Project Manager with over twenty (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 seventy (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, Incorporated:

Project Experience
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
CFMO Office Expansion
Elkins AFRC Utility Extensions
AASF #1 Apron Expansion/Rehabilitation and Taxiway Replacement
Camp Dawson Runway Extension
Camp Dawson Range Renovations
Camp Dawson Qualifications Training Range Preliminary Design Drawings
AASF #1 Emergency Taxiway Repair
JISOTF Initial Planning Study
Camp Dawson Range Renovations

Education
M.S. Engineering, Marshall University Graduate College, 1997

B.S. Engineering Technology, West Virginia Institute of Technology, 1989

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

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

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

David R. Unrue, AAIA

ZMM ARCHITECTS & ENGINEERS

Construction Administrator

Professional Credentials
CSI, Certified Construction Specifier (Construction Specification Institute)

CDT, Certified Construction Document Technologist

Mr. Unrue is responsible for overseeing the construction of ZMM projects. He is the liason between the Owner and Contractor. Responsible for biweekly site visits, attend progress meetings, certify applications for payment, change order processes, Request for information.

Mr. Unrue has performed construction administration services on a variety of building types including: Educational Facilities, Correctional Facilities, and Office/Light Industrial Facilities.

His past experience in the construction testing and environmental fields is a benefit to clients during the site preparation and foundation installation.

Project Experience
Joint Interagency Training & Education Center (JITEC)
Jackson County AFRC
Morgantown Readiness Center
State of West Virginia Division of Juvenile Services
West Virginia Regional Jail & Correctional Facility Authority
Tucker County Courthouse Annex
Southside Elementary/Huntington Middle School
Lincoln County High School
St. Albans High School
Milton Middle School
Marshall University Elevator Project
WV Housing Development Fund Office
Huntington East Middle School
Ft. Gay Elementary School
Job Corps Center, WV
Sears, Roebuck & Company, Retail Centers
Various Cabell County Schools, WV

Education
Bachelor of Science, University of Charleston, 1997

Associate of Science, West Virginia State University, 1992

Employment History
1991 - Present, Construction Administrator, ZMM
1985 - 1991, West Virginia Board of Regents, Charleston, WV
1979 - 1984, Charleston Area Architectural Firm, Charleston, WV

Civic Affiliations
- Associate Member, America Institute of Architects, West Virginia Chapter

Nathan Spencer, AIA

ZMM
ARCHITECTS & ENGINEERS

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.

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

Jackson County 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

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

several 3d models throughout the design process. The project is aiming for LEED Silver Certification.

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. He also participated on all production work through all phases. The project is aiming for LEED Silver Certification.

Judge Black Courthouse Annex, Wood County Commission, Parkersburg, WV. Mr. Spencer assisted with the design and programming 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.

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. A dental and health clinic is also on site for all enrolled students in the Kanawha County School District.

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.

Robert Doeffinger, PE

ZMM

Role
Mechanical Engineer

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

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

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

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

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

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

West Virginia Research, Education, and Technology – Building 704, South Charleston WV. Mr. Doeffinger is the engineering principal-in-charge of preparing a life safety analysis of the building as well as design services to improve

Education
Master of Science Architectural Engineering, Pennsylvania State University, 1976

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

Employment History
2010 - Present, President, ZMM
1976 - 2010, Vice President and Engineering Principal, ZMM

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

the exterior façade of Building 704 at the WV Research, Education, and Technology Park. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

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

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

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

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

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

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

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

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

Stephen Hedrick, PE

ZMM
ARCHITECTS & ENGINEERS

Role
Structural Engineer

Professional Registrations
Professional Engineer (WV)

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

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

Project Experience
Joint Interagency Training and Education Center (JITEC), Kingwood, WV. Mr. Hedrick was responsible for the overall structural design of the three story billeting addition. The project met the requirements of the building code along with the additional requirements of the Department of Defense for blast and progressive collapse resistance.

Jackson County AFRC, Millwood, WV. Mr. Hedrick was responsible for the overall structural design of the single story armory type structure. The project included the design of light weight metal trusses and long-span steel joists in the drill hall.

Wood County Justice Center, Parkersburg, WV. Mr. Hedrick was responsible for the structural design for this adaptive reuse project in Parkersburg WV. The existing 32,000 SF building will create a new Magistrate Court and a Sheriff's Department. The project is targeting a LEED Certification.

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

Bachelor of Civil Engineering, West Virginia Institute of Technology, 2001

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

Civic Affiliations
- American Institute of Steel Construction, Member

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

Edgewood Elementary School, Charleston, WV. Mr. Hedrick is involved with structural design on 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.

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

Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV. Mr. Hedrick is responsible for the structural design for a design team that is currently preparing construction documents for the renovation to an existing 7-story, 77,215 SF educational building. The project scope includes remedying several engineering and life safety deficiencies, as well as architectural improvements to the building envelope.

Southern West Virginia Community College, Williamson, WV. Mr. Hedrick is responsible for the structural design of the new 22,000 SF Applied Technology Center. The building featured large, flexible teaching areas that can adapt as the curriculum changes for each program. The project is targeting LEED Silver Certification.

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

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

Scot Casdorph, PE

ZMM ARCHITECTS & ENGINEERS

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
Jackson County AFRC, 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 Forces Reserve Center (AFRC), Military Entrance Processing Station (MEPS), and an Organizational Maintenance Shop (OMS). The AFRC contains the administrative and training space for the 77th Brigade Troop Command, the 1863rd Transportation Company, and the 150th Armored Regiment Company. The MEPS houses their administrative, medical, headquarters, testing and storage functions at the facility. A comprehensive 8,500 SF OMS vehicle maintenance shop provides space for six large service workbays for maintaining the military fleet.

Education
Bachelor of Science, West Virginia Institute of Technology, 1995

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

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.

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

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

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

West Virginia Housing Development Fund Office, Charleston, WV. Mr. Casdorph was responsible for the electrical design of the 37,000 SF office building which provides natural daylighting into its interior spaces coupled with an automatic dimming system and motorized shade controls. This 2-story administrative facility houses approximately 95 to 100 employees with a flexible open office floor plan 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.

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

West Virginia Research, Education, and Technology – Building 704 WV. Mr. Casdorph is the electrical engineer for building 704 and responsible for electrical power and lighting distribution. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

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

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

Robert F. Groom

ZMM ARCHITECTS & ENGINEERS

Role
Mechanical and Plumbing Designer

Mr. Groom's background includes nearly 40 years of mechanical and plumbing design.

This experience has been acquired through working on a variety of projects including: commercial, industrial, office, educational, healthcare, and correctional.

Project Experience

WV State Office Buildings #5, 6, & 7, Charleston, WV. ZMM completed an in-depth analysis of Buildings 5, 6, and 7 on the Capitol Campus. The study included the preparation of as-built plans, as well as an analysis of all building systems, including: Life Safety; Vertical Transportation; Mechanical; Electrical; Data; Façade; Structure; and Roofing. The analysis also included a study related to potential hazardous materials in the facility.

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

Additional Projects include:
WV Regional Jails and Correctional Facilities
WV Air National Guard Training Facility
Pratt & Whitney Aircraft of WV
Walker Machinery Company
Regional Training Institute at Camp Dawson
St. Albans High School
Multiple Plumbing Projects

Education
Mechanical and Plumbing Drafting
Center College, Charleston, WV, 1969

Employment History
1969 - Present, Mechanical and Plumbing Designer, ZMM

Michael D. Abernethy, IESNA

ZMM ARCHITECTS & ENGINEERS

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
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.

Joint Interagency Training & Education 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

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

consumption on the project by 40% compared to a baseline analysis.

Wood County Justice Center, Parkersburg, WV.
Mr. Abernethy is responsible for the lighting design electrical work for the Wood County chose an existing building in downtown Parkersburg to renovate for its Magistrate Courts, Sheriff's Department and Holding Center.

Judge Black Courthouse Annex, Wood County Commission, Parkersburg, WV. Mr. Abernethy was responsible for lighting designs and electrical work on this annex renovation. 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

Tucker County Courthouse Annex, Parsons, WV.
Mr. Abernethy is responsible for electrical and lighting designs for the Courthouse Annex renovation project and responsible for the HVAC systems. The Annex is a 4-story, 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Bridgemont Community and Technical College Davis Hall Renovation, Montgomery, WV. Mr. Abernethy was in charge for the interior lighting design on the Davis Hall building renovations. The project scope included remedying several life safety deficiencies, as well as improvements to the building envelope.

Edgewood Elementary School, Charleston, WV. Mr. Abernethy is responsible for the electrical and lighting design for this new school. 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.

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.

ZMM
ARCHITECTS & ENGINEERS

Award Winning Design

2012

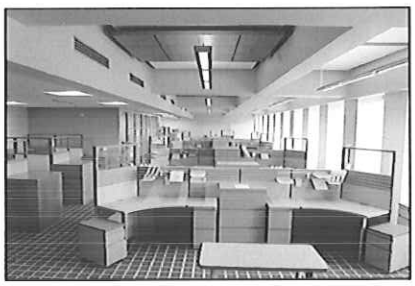
WV Housing Development Fund
2012 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter

2011

Southside Elementary/
Huntington Middle School
2011 - Honor Award
"Historical Preservation"
AIA West Virginia Chapter

2011

Joint Interagency Training
& Education Center (JITEC)
2011 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter



2011

State Office Building #5, 10th Floor
Office of Technology
2011 - Merit Award
"Architecture in Interiors"
AIA West Virginia Chapter

2010

Hacker Valley Pk-8 School
2010 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter

2009

Construction & Facilities
Management Office (CFMO)
2009 - Merit Award
"Excellence in Architecture"
AIA West Virginia Chapter

2008

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

2007

Lincoln County High School
2007 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter

2006

Gene Spadaro Juvenile Center
2006 - Merit Award
"Excellence in Architecture"
AIA West Virginia Chapter

ZMM
ARCHITECTS & ENGINEERS

Client Testimonials

Major General Alan Tackett
Retired Adjutant General – West Virginia National Guard

Description: Testimonial / ZMM Architects & Engineers

"When you look at the design work and the construction that was done on our facilities there is none better in the United States of America so why wouldn't we use local talent and local companies to do that. I don't think anybody could have done a better job for the West Virginia National Guard than what ZMM and our other people have done in constructing and building the National Guard into the 21st Century.

We've built nearly a billion dollars worth of facilities in the State of West Virginia and ZMM was one of our major Architects through all of that construction and not one project did we have problems with, or have anything bad to say and their all well built. Their all built to last for years and years and years, into the future. All will provide excellent facilities for men and women who are serving in the West Virginia National Guard for centuries to come. The facilities built were built in a way to where the communities get the maximum benefit from the tax payer's dollars that paid for those projects, and your design and set up has made those economic tools. When you look at the Armories that we've built, or the Armed Forces Reserve Centers, they have become economic tools for those communities and it was just fabulous the way we worked together as a team to make sure everything got done on time. The things that you all went out of your way to do to make sure that we got the kind of buildings that we wanted was far and above the call of duty.

I would recommend ZMM above any Architect that I have ever worked with. Your work, your dedication to your customer, and bringing a project in on time and in budget is probably the best I have ever seen."

Videos of testimonials are available at www.zmm.com.

Client References

LTC David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

MG Tacket (Retired)
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.595.1626

Dr. Marie Gnage
West Virginia University at Parkersburg
300 Campus Drive
Parkersburg, WV 26104
304.424.8000

Chuck Lawrence, Director
Department of Administration
Real Estate Division
1409 Greenbrier Street
Charleston, WV 25311
304.558.4331

Dr. Mark Manchin, Executive Director
WV School Building Authority (SBA)
2300 Kanawha Boulevard, East
Charleston, WV 25311
304.558.2541

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