



**Statement of Qualifications
for:
Architectural and Engineering Services**

West Virginia State Police - Various Projects
April 21, 2016



04/27/16 10:24:42
WV Purchasing Division



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

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

Proc Folder: 198605

Doc Description: Architectural/Eng. design services for various projects

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2016-03-29	2016-04-21 13:30:00	CEOI 0612 DPS1600000001	1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

FOR INFORMATION CONTACT THE BUYER

Tara Lyle

(304) 558-2544

tara.l.yle@wv.gov

Signature X

FEIN #

55-0676608

DATE

20 APRIL 2016

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

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: ZMM, Inc.

Authorized Signature: [Signature] Date: 20 APRIL 2016

State of West Virginia

County of Kanawha to-wit:

Taken, subscribed, and sworn to before me this 21 day of April, 2016.

My Commission expires April 16, 2023.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]
Purchasing Affidavit (Revised 07/01/2012)



CERTIFICATION AND SIGNATURE PAGE

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

ZMM, Inc.
(Company)

[Signature] ADM. R. KRASON, PRINCIPAL
(Authorized Signature) (Representative Name, Title)

304.342.0159 ; 304.345.8144 20 APRIL 2016
(Phone Number) (Fax Number) (Date)



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

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

Proc Folder: 198605

Doc Description: Addendum No. 1 - A/E design services for various projects

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2016-04-20	2016-05-05 13:30:00	CEOI 0612 DPS1600000001	2

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

FOR INFORMATION CONTACT THE BUYER

Tara Lyle
 (304) 558-2544
 tara.l.yle@wv.gov

Signature X

[Handwritten Signature]

FEIN #

55-0676608

DATE

27-APRIL-2016

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

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CEOI DPS1600000001

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


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

Addendum Numbers Received:

(Check the box next to each addendum received)

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

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

ZMM, Inc.
Company

Authorized Signature
21. APRIL. 2016
Date

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



April 20, 2016

Ms. Tara Lyle, Buyer Supervisor
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

**Subject: Architectural and Engineering Services for Various Projects
West Virginia State Police**

Dear Ms. Lyle:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional architectural and engineering services for various improvement projects throughout the state for the West Virginia State Police. It is our understanding that the projects will involve roof repairs, installation of overhead doors, development of a new garage and storage facilities, as well as improvements to the old Logan State Police office. The final task will involve the installation of military surplus generators at various West Virginia State Police facilities.

Established in 1959, ZMM is a West Virginia based, full service A/E firm, and is noted for design excellence and client focus. *In fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with fifteen design awards in the last ten years – an achievement unrivaled in West Virginia.* ZMM's team for this project continues a successful collaboration with TERRADON Corporation, a local woman-owned civil engineering and landscape architecture company. TERRADON recently provided the site planning for the new Summit Bechtel Reserve for the Boy Scouts of America. ZMM and TERRADON have previously collaborated on a variety of projects throughout the state including the West Virginia State Police Information Services Center in South Charleston.

Our team possesses the right combination of technical expertise, public safety design experience, and renovation design experience required to help ensure the successful implementation of these projects for the WV State Police. Our public safety experience includes work for various WV counties, as well as work for the West Virginia State Police, the West Virginia Army National Guard, the West Virginia Regional Jail & Correctional Facility Authority, and the West Virginia Division of Juvenile Services. Additionally, our renovation design experience has led us to be entrusted with designing improvements to some of West Virginia's most prominent buildings including the Charleston Civic Center, the Culture Center, the Clay Center, the State Capitol, and the Greenbrier. Below, please find a list of relevant projects:

ZMM Public Safety Design Experience

- WV State Police Information Services Center (Renovation)
- WV State Police Detachment, Kanawha City, WV
- WV State Police Detachment and Parkways Authority Maintenance Building, Beckley, WV
- WV Regional Jails, Various Locations
- WV Juvenile Centers, Various Locations
- Wood County Justice Center

- Tucker County Courthouse Annex
- Judge Donald F. Black Courthouse Annex, Parkersburg, WV
- Jackson County Sheriff's Department
- Joint Interagency Training and Education Center (JITEC), Camp Dawson, WV
- WVARNG Reserve/Readiness Centers: Kingwood, Glen Jean, Logan/Mingo, Millwood, Morgantown

ZMM Renovation Experience

- Charleston Civic Center Improvements
- State Capitol Building Roof Replacement
- Girl Scouts of Black Diamond Council Headquarters (Renovation), Charleston, WV
- Davis Hall Improvements, Montgomery, WV
- Wood County Justice Center/Judge Black Annex, Parkersburg, WV
- WVARNG CFMO Expansion, Charleston, WV
- Tucker County Courthouse Improvements/Annex, Parsons, WV
- Prosperity Center (Renovation of Charleston Transit Company) for Goodwill of Kanawha Valley
- West Virginia Culture Center Grand Hall Re-Lighting
- West Virginia Capitol Complex Buildings 5, 6, & 7 – Various Improvements
- Southside Elementary/Huntington Middle School (Commack Renovation), Huntington, WV
- Houston Coal Company Store Restoration, Kimball (McDowell County), WV
- 2nd Avenue Community Center, Charleston, WV

Perhaps most importantly, ZMM has worked collaboratively with the West Virginia State Police to implement several successful projects noted above, including two new detachments and the WVSP Information Services Center – a comprehensive renovation to the former Medical Examiner's Office, which had previously been an elementary school. We are hopeful that you have seen our commitment to design quality, budget and schedule control, and client service demonstrated through our service to the West Virginia State Police.

Thank you for taking the time to review the attached statement of qualifications that has been formatted as requested, and includes an approach that ZMM has developed for the project. Additionally, please visit our websites at www.zmm.com and www.terraddon.com to see the full range of projects that we have designed, and to learn about working with our team from a client's perspective. We appreciate your consideration for this important endeavor, and look forward to the opportunity to continue serving the West Virginia State Police.

Respectfully submitted,

ZMM, Inc.



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

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Project Approach and Methodology

West Virginia State Police

Architectural and Engineering Services for Various Projects

Background/History

The Request for Expression of Interest indicates that the West Virginia State Police intends to undertake a variety of improvements to their facilities throughout the State. This work will include:

- Roof Repair at Troop 2 Headquarters, Kearneysville, WV
- Installation of New Overhead Doors at WV State Police Academy, Dunbar, WV
- Development of a Garage Facility at Troop 3 Headquarters, Beverly, WV
- Storage Facility for Procurement Division, South Charleston, WV
- Renovation of old Logan State Police office, Logan, WV
- Installation of Military Surplus Generators, Various Locations



As a full-service design firm, ZMM Architects and Engineers is uniquely qualified to provide services on complex renovation projects. Our in-house team includes civil and structural engineers, architects, interior designers, as well as mechanical, electrical, and plumbing engineers. Additionally, TERRADON Corporation, a local woman-owned civil engineering firm is included on our team to assist with any large site/civil issues. ZMM and TERRADON recently collaborated on the WV State Police Information Services Center.

TERRADON



Qualifications

Our team has the right combination of public safety and renovation design experience required to assist the WV State Police with the proposed improvements. Our public safety experience includes work for various WV counties, as well as work for the West Virginia State Police, the West Virginia Army National Guard, the West Virginia Regional Jail & Correctional Facility Authority, and the West Virginia Division of Juvenile Services. Additionally, our renovation design experience has led us to be entrusted with

designing improvements to some of West Virginia's most prominent buildings, including the Charleston Civic Center, the Culture Center, the Clay Center, the State Capitol, and the Greenbrier. Below, please find a list of relevant projects:

Public Safety Design Experience

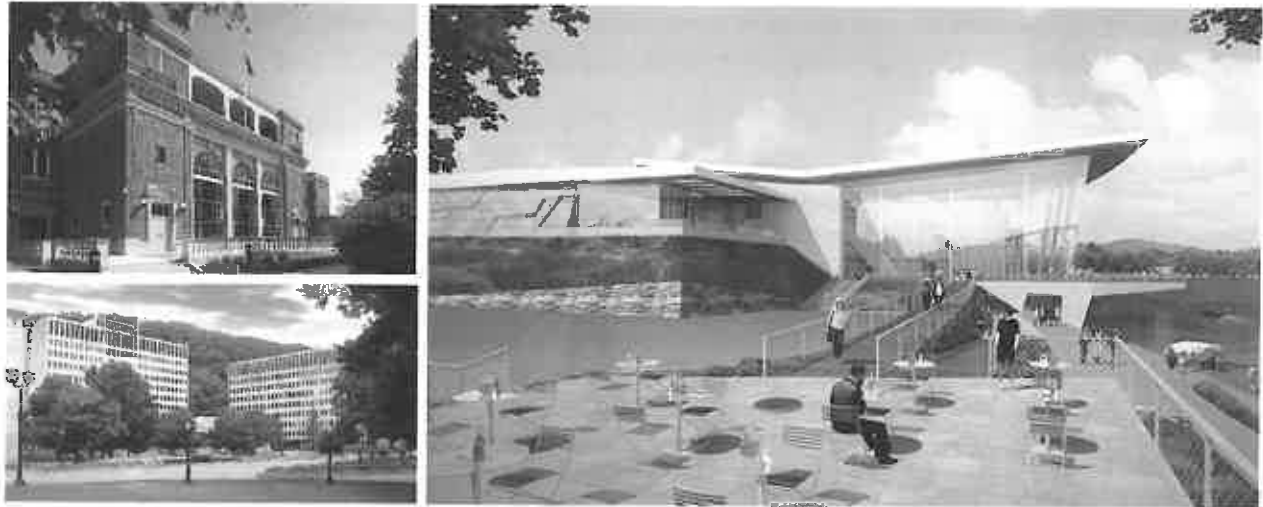
- WV State Police Information Services Center (Renovation)
- WV State Police Detachment, Kanawha City, WV
- WV State Police Detachment and Parkways Authority Maintenance Building, Beckley, WV
- WV Regional Jails, Various Locations
- WV Juvenile Centers, Various Locations
- Wood County Justice Center
- Tucker County Courthouse Annex
- Judge Donald F. Black Courthouse Annex, Parkersburg, WV
- Jackson County Sheriff's Department
- Joint Interagency Training and Education Center (JITEC), Camp Dawson, WV
- WVARNG Reserve/Readiness Centers: Kingwood, Glen Jean, Logan/Mingo, Millwood, Morgantown



Renovation Experience

- Charleston Civic Center Improvements
- State Capitol Building Roof Replacement
- Girl Scouts of Black Diamond Council Headquarters (Renovation), Charleston, WV
- Davis Hall Improvements, Montgomery, WV
- Wood County Justice Center/Judge Black Annex, Parkersburg, WV
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- West Virginia Culture Center Grand Hall Re-Lighting
- West Virginia Capitol Complex Buildings 5, 6, & 7 – Various Improvements
- Southside Elementary/Huntington Middle School (Cammack Renovation), Huntington, WV
- Houston Coal Company Store Restoration, Kimball (McDowell County), WV
- 2nd Avenue Community Center, Charleston, WV





Renovation Project Approach

ZMM has developed a unique approach for renovation projects. The first step in a successful renovation project involves conducting a thorough examination of the existing facilities to identify both deficiencies and opportunities. The purpose of the investigation will be to determine the condition of the major building systems, and to identify both immediate and long term enhancements that will be required to fully improve the building.

Prior to commencing the investigation, ZMM will review any documentation including plans, specifications, photographs, and reports that exist of the existing facilities. Additionally (if required), ZMM will prepare as-built plans of the facilities prior to the on-site investigation by the full A/E team.

The investigation is conducted by a team of building design professionals including Architects, Civil, Structural, Electrical, and Mechanical Engineers. The team will focus the investigation on the following systems:

- Site Conditions, Landscaping
- Building Structure
- Life Safety and Egress (Coordinated with the State Fire Marshal)
- Accessibility
- Building Envelope
- Interior Conditions and Finishes
- Plumbing Systems
- Electrical Service and Distribution, Emergency Power
- Lighting
- Mechanical Systems
- Data/IT Infrastructure
- Security Systems

Once the investigation is complete, the team will conduct an analysis to develop a list of recommended improvements to the buildings. These recommendations will be developed with input from the WVSP, so that the proposed improvements reflect the owner's vision for the project. Once the investigation effort is complete, the design team prepares an estimate of the probable construction cost. The result of the investigation will be a report that will serve as the basis for future project and design decisions. This

comprehensive approach ensures that all improvements are made in a manner that supports the overall vision of the facility – *and is the first step to delivering a project on budget* – by clearly defining the scope and project expectations.

Project Communication

During the design phase Adam Krason will serve as the primary contacts for the design team. All of these key team members as well as all primary WVSP contacts would be included on all communication to facilitate an open discussion throughout the project – in a manner that allows the WVSP to remain actively involved in all design decisions. All correspondence will be copied to this core group. As the project progresses regular bi-weekly meetings will be held to review investigation/design progress, outstanding issues, as well as any regulatory or budget concerns. Meeting minutes will be produced to document discussion items, decisions, and responsibility for follow-up. ZMM's recent experience working with the WVSP on the Information Services Center will help facilitate this open communication.

During the construction phase the project architect will coordinate the effort of the design team. All submittals, pay applications, and RFI's will be logged and tracked by Lee Turley. Ms. Turley will update the entire project team (WVSP, ZMM, and Contractor) weekly regarding outstanding items.

Budget Control

ZMM has been providing professional design services in West Virginia for fifty-six years. Over this time we have developed a thorough understanding of the various construction markets and associated bidding regions that exist throughout West Virginia. Our team for this project will include Win Strock, a former contractor that regularly provides independent estimates to ZMM. Mr. Strock and ZMM have successfully collaborated on the following projects:

- WVSP Information Services Center
- Clay Center Improvements
- Brooks Manor Addition and Renovations
- Edgewood Elementary School
- Ripley Readiness Center
- Logan-Mingo Readiness Center
- Morgantown Readiness Center
- State Office Building 5 & 6 – Various Projects



The design team, with the assistance of Mr. Strock will evaluate the projected cost at the end of each phase, confirming the estimate with recent experience and historical bidding data. Recent experience demonstrating our ability to control the project budget includes:

- Ceredo-Kenova Elementary School, Wayne County BOE
Bid 08/2015 - \$3M Under Budget
- Goodwill Prosperity Center, Goodwill Industries of Kanawha Valley
ZMM Estimate \$1.19M, Construction Cost was Under \$900K
- Glenwood School HVAC Replacement, Mercer County BOE
ZMM Estimate \$1.36M, Construction Cost of \$1M, 0.0% Change Orders

- Kenna Elementary School, Jackson County BOE
Project was Under Budget, 0.2% Change Orders
- Huntington East Middle School, Cabell County BOE
Project was \$1.2M Under Budget (\$23M), 1.7% Change Orders

Construction Duration

Nearly every project that ZMM is engaged to perform design services for has a 'hard' deadline for completion. ZMM consistently delivers on projects with challenging schedule constraints. ZMM will ensure that this project will be completed in the agreed construction period utilizing the following methods:

- ZMM has developed Division 1 documents that tie the receipt of all deliverables required to administer the construction phase of the project to payment applications. ZMM will reject any payment application that is not accompanied by all required information including submittal schedules and logs, RFI logs; updated project schedules, etc.
- ZMM monitors all construction phase submittals and correspondence to verify that we are returning information at a pace that will help expedite project completion. ZMM management reviews the status of all RFIs and submittals weekly. ZMM will also staff the construction phase with staff that will be able to provide immediate answers at the project site to expedite the work.
- ZMM will work with the WVSP to develop a realistic construction schedule that includes anticipated weather days. This schedule will be included in the specifications, and reviewed at the pre-bid meeting to reinforce the critical nature of meeting the schedule, and the intent of enforcing liquidated damages.

Experience with Each Required Discipline

As a full service design firm, ZMM Architects and Engineers employs all of the necessary staff to complete this project in-house. Our team is comprised of some of the leading professionals in West Virginia, and is experienced in each discipline noted below. Project experience and resumes demonstrating this expertise are contained in the attached proposal. ***Additionally, the quality of ZMM's design effort has been recognized by the American Institute of Architects West Virginia Chapter with fourteen design awards in the last ten years – an achievement unrivaled in West Virginia.***

Project Management	ZMM
QA/QC	ZMM
Civil Engineering	ZMM/TERRADON Corporation
Structural Engineering	ZMM
Architecture	ZMM
Interior Design	ZMM
Mechanical Engineering	ZMM
Electrical Engineering	ZMM
Estimating	Win Strock
Construction Phase	ZMM

Summary

ZMM possesses the project background and knowledge, public safety design experience, and renovation design experience to ensure the successful delivery of the various projects outlined in the Expression of

Interest for the West Virginia State Police. Our team's commitment to design quality, as well as our demonstrated success in providing services on complex renovation projects throughout West Virginia makes us the right partner for the West Virginia State Police for this engagement.



LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
Fax 304.345.8144
www.zmm.com

History of ZMM



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

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

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



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

Advantages of an integrated Design Approach:

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

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

Services

Pre-Design

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

Design

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

Post Design

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



Award Winning Design



2015

AIA West Virginia Chapter: Honor Award
Achievement in Architecture in Sustainable Design
Edgewood Elementary School
Charleston, West Virginia



AIA West Virginia Chapter: Merit Award
Achievement in Architecture
Kenna Pk-5 School
Kenna, West Virginia



2014

AIA West Virginia Chapter: Merit Award
Achievement in Architecture in Sustainable Design
Huntington East Middle School
Huntington, West Virginia



AIA West Virginia Chapter: Merit Award
Achievement in Architecture
Southern West Virginia Community & Technical College
Williamson, West Virginia



AIA West Virginia Chapter: Merit Award
Achievement in Architecture in Interiors/Graphics
Girl Scouts of Black Diamond Council
Charleston, West Virginia

2012

AIA West Virginia Chapter: Honor Award
Excellence in Architecture
West Virginia Housing Development Fund Building
Charleston, West Virginia



2011

AIA West Virginia Chapter: Honor Award
Excellence in Architecture in Historical Preservation
Southside Elementary/Huntington Middle School
Huntington, West Virginia

Additional Award Winning Design



AIA West Virginia Chapter: Honor Award

Excellence in Architecture

Joint Interagency Training & Education Center
Kingwood, West Virginia



AIA West Virginia Chapter: Merit Award

Excellence in Architecture in Interiors

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



2010

AIA West Virginia Chapter: Honor Award

Excellence in Architecture

Hacker Valley PK-8 School
Hacker Valley, West Virginia



2009

AIA West Virginia Chapter: Merit Award

Excellence in Architecture

Construction & Facilities Management Office (CFMO)
Charleston, West Virginia



2008

AIA West Virginia Chapter: Honor Award

Excellence in Architecture

Erma Byrd Center
Beaver, West Virginia

2007

AIA West Virginia Chapter: Honor Award

Excellence in Architecture

Lincoln County High School
Hamlin, West Virginia

2006

AIA West Virginia Chapter: Merit Award

Excellence in Architecture

Gene Spadaro Juvenile Center
Mt. Hope, West Virginia



LOCATION:
401 Jacobson Drive
Poca, WV 25159

425 North Jefferson
Lewisburg, WV 24901

CONTACT:
Phone 304.755.8291
Fax 304.755.2636
www.terraddon.com

Corporate Overview

TERRADON Corporation offers a multi-faceted approach to design engineering and consulting services. For more than 25 years TERRADON staff has provided a wealth of engineering solutions blanketing the Ohio Valley and the Appalachian Region with successful projects. The company built its reputation on expert personnel and quality, time-sensitive service. Those same founding principles hold true today.

Staff includes engineers, landscape architects, surveyors, planners, environmental scientists, designers, technicians and LEED Accredited Professionals.

The company maintains approximately 60 leading-edge staff in four locations: Nitro/Poca, WV; Lewisburg, WV; Charlton Heights, WV; and Columbus, OH. TERRADON'S departments work cohesively to provide turn-key solutions that strive to exceed client expectations.

About Terradon

The family-owned business has built a strong reputation by providing flexible, cost effective design solutions and maintaining the highest level of customer service. TERRADON is particularly suited to planning and design engineering within the mountainous areas of the Ohio Valley and Appalachian Regions. The firm has been recognized through numerous awards from professional organizations and agencies including the several State Divisions of Highways, Departments of Environmental Protection and the American Institute of Architects state chapters.

TERRADON's corporate culture promotes innovation and progressive thinking. Project leaders strive to sustain customers through a wide-range of planning and design engineering offerings. TERRADON employees understand the purpose behind their services and work to cultivate lasting relationships with clients through honest, hard work.

Service Offerings:

- Land Planning and Site Design
- Civil Engineering
- Environmental
- Geotechnical Engineering
- Surveying and Mapping
- Water/Wastewater
- Transportation Engineering
- Structural Engineering
- Storm Water Management
- Construction Oversight and Monitoring
- Materials Testing



Land Development Services Overview



Land Development covers a broad swath of TERRADON's service offerings and sees a large percentage of its annual revenue from repeat clients or referrals. The group is composed mainly of Landscape Architects and CAD designers who frequently team with every other department within the company.

TERRADON's Land Development department collaborates with public and private entities and has a strong presence in the education, recreation, public/civil, and commercial development sectors. TERRADON is recognized as a leader in providing site design and land planning services. The firm's team of professionals work closely with the client from the project's initial phase through a schematic design, construction documents and project delivery. T

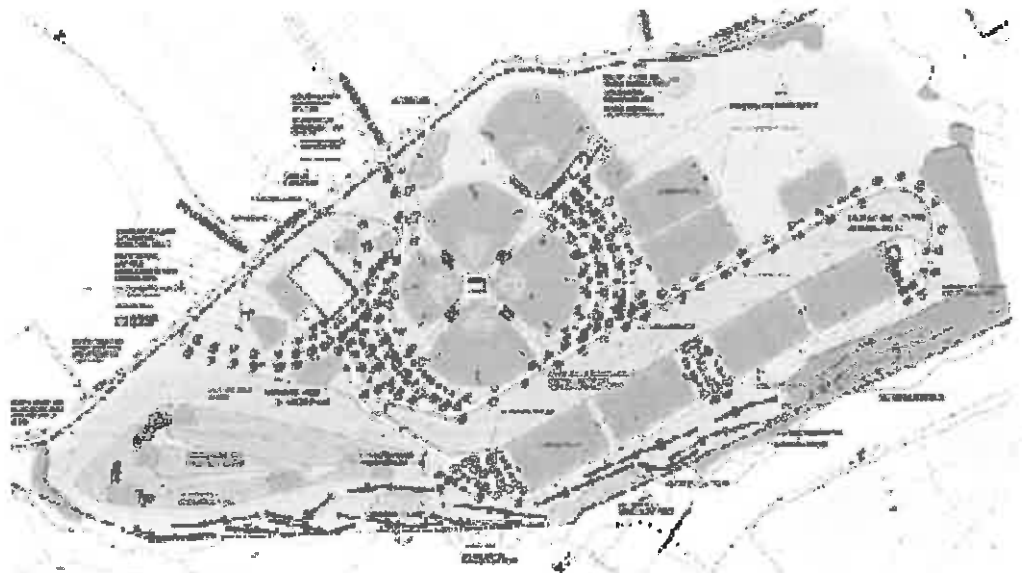
TERRADON's Landscape Development Group remains on the forefront of sustainable design, providing LEED Accredited Professionals to clients. Projects utilizing sustainable design best practices aid clients in significantly reducing energy costs on projects.

TERRADON's Land Development Group works in a variety of markets including: Higher Education, Parks/ Recreation, Commercial/Industrial, Civic/Public, K-12 Education and Medical.

Projects include: master planning, recreational planning, funding agencies assistance, economic development planning, surveying, engineering, architecture, historical preservation construction administration and inspection.

Land Development Services:

- Master Planning
- Presentation Drawings/Renderings
- Site Feasibility Studies
- Schematic Design
- Layout Plans
- Grading Plans
- Stormwater Management Plans
- Erosion Control Plans
- Planting Plans
- Construction Observation



Adam R. Krason, AIA, NCARB, LEED AP



Role

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

Charleston Civic Center, Charleston, WV

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

Education

Bachelor of Architecture, The Catholic University of America, 1998

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

Employment History

2007 - Present, Principal, ZMM

2007 - Present, Board of Directors, ZMM

2003 - Present, Architect, Project Manager, ZMM

1998 - 2003, Architect, Project Manager, Charleston Area Architectural Firm

Civic Affiliations

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

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

Wood County Justice Center, Parkersburg, WV

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

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 renovations, aiming for LEED-CI Certification, re-oriented the layout by drawing all private offices into the building core, providing access to daylight and views for all employees. The design also utilized acoustical ceiling clouds and bulkheads to maximize the acoustical performance, while also increasing the volume of the space.

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

Tucker County Courthouse Annex, Parsons, WV

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

Judge Black Courthouse Annex, 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.

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

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

- 2015 WV AIA Merit Award *Edgewood Elementary School, Charleston, WV*
- 2014 WV AIA Merit Award *Girl Scouts of Black Diamond Council, Charleston, WV*
- 2011 WV AIA Honor Award *Joint Interagency Training and Education Center (JITEC), Kingwood, WV*
- 2011 AIA Honor Award *State Office Building #5, 10th Floor Renovation, Charleston, WV*
- 2009 AIA Merit Award *WVARNG Construction and Facilities Management Office, Charleston, WV*

**Role**

Landscape Architect

Professional Registrations

Landscape Architect

LEED Accredited Professional

Greg Fox oversees TERRADON's Land Development Sector. Fox has been responsible for hundreds of notable commercial, educational and recreational site development projects during his 25+-year career. During his time as Land Development Department Head, TERRADON has earned Engineering Excellence Awards from the West Virginia Association of Consulting Engineers, numerous Merit Awards from the American Society of Landscape Architects, and the Gold Award from the American Council of Engineering Companies.

Project Experience**The Bechtel Summit National Scouting Reserve**

Provide Site Design for the 10,600+ acre site in Fayette County, WV. Responsible for site grading, construction drawings, NPDES design and coordination for all project subconsultants for NPDES permitting with WVDEP.

Greater Greenbrier Sports Complex

Provided Master Planning and Grading Design Services for the Greater Greenbrier Sports Complex located north of Lewisburg, WV. Five phases include: Master Planning, Grading Study, Full Construction Documents, Utility Layout, Road Design, Erosion and Sediment Control.

Advanced Technology Centers

Provided site grading, erosion and sediment control and utility design for two West Virginia Higher Education Policy commission Advanced Technology Centers located in Fairmont, WV and South Charleston, WV.

K-12 Educational Facilities

Responsible for Master Planning, Site Layout and Design, Schematic Renderings, Parcel Identification, Feasibility and Cost Analysis, and construction drawings for hundreds of k-12 educational facilities throughout West Virginia. Projects include new construction as well as renovations and additions.

Fairmont State University

Responsible for Master Planning and Design of inner campus, including design of seating fountain, drainage features and landscaping.

Education

B.S. landscape Architecture, West Virginia University

B.A. Geography & Planning, West Virginia University

Employment History

2010 - Present, TERRADON Corporation

1996 - 2000, MartinBoal Anthony & Johnson Architects

Marshall University

Responsible for Site Design, Utility Design, Grading and Drainage for Applied Sciences Building, Student Housing, Wellness Center and Parking Garage. Provided ADA compliancy on campus buildings and site design for existing soccer field.

Greenbrier Valley Medical Center

Responsible for master planning through site/civil construction documents for the Greenbrier Valley Medical Center in Lewisburg, WV.

Tazewell Community Hospital

Responsible for master planning through site/civil construction documents for the East Addition of the Tazewell Community Hospital in Tazewell, Virginia.

Thomas Memorial Hospital

Responsible for site/civil construction documents for Thomas Memorial Hospital in South Charleston, WV.

Robert Doeffinger, PE



Role

Engineering Principal, Project Manager

Professional Registrations

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

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

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

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

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

Project Experience

State Office Buildings #5, 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.

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, Bridgmont Community and Technical College
- City of Pt. Pleasant, WV – 2nd Ward Councilman for 20 years

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

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

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

West Virginia Research, Education, and Technology – Building 704, South Charleston WV Mr. Doeffinger is the engineering principal-in-charge of preparing a life safety analysis of the building as well as design services to improve the exterior façade of Building 704 at the WV Research, Education, and Technology Park. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

West Virginia Regional Technology Park (WRTP) - 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 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.



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

Cabell County Bus Transportation Complex, Huntington, WV Mr. Spencer was the project Architect on the Cabell County Transportation Complex is located on the site of the old Cox Landing Junior High School. Challenges on the project involved retrofitting the old school and site to accommodate the new use. The rear portion of the school was demolished to make room for the new maintenance portion of the building. The remaining front section of the school was renovated to include office space, storage areas, and a new staff development room. The new maintenance area includes a high-bay metal building with 14 back to back workbays, three of which have hydraulic bus lifts. A hand wash bay and a state of the art automatic wash bay were also included in the project. Extensive sitework was also involved in the retrofit project including a fueling station, bus parking, a sediment pond, and an extensive rework of the existing site utilities.

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

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

Probation Office.

Judge Black Courthouse Annex, 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.

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

Joint Interagency Education and Training Center (WVARNG), Kingwood, WV Nate 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. This project received LEED Gold Certification.

Morgantown Readiness Center (WVARNG), 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.

Highland Hospital, Charleston, WV

Mr. Spencer was the Project Architect on Highland Psychiatric Hospital. 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. This project consisted of 87,300 SF, \$26M addition to Highland Hospital in Charleston. The addition will include: administrative offices, training spaces, 165 patient beds, nurses stations, an out-patient treatment department, pharmacy, laundry, and building service spaces. A pedestrian bridge will connect the new facility to the existing hospital.

Edgewood 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.

Additional Projects:

Charleston Civic Center, Charleston, WV
Wayne High School, Wayne, WV
Crum PK-8 School, Crum, WV
Logan-Mingo Readiness Center, Logan, WV
Goodwill Industries, Charleston, WV

Stephen Hedrick, PE



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, as well as serving on the Board of Directors.

Project Experience

Charleston Civic Center, Charleston, WV

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

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 received LEED Silver Certification.

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

Education

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

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

Employment History

2013 - Present, Board of Directors, ZMM

2007 - Present, Structural Engineer,
ZMM

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

Civic Affiliations

- American Institute of Steel
Construction, Member

the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Joint Interagency Training and Education Center (WVARNG) 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. The project won LEED Gold Certification.

Edgewood Elementary School, Charleston, WV Mr. Hedrick was involved with the 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.

Kenna Elementary School, Kenna, WV

Mr. Hedrick was responsible for the structural design for the new Kenna Elementary School. The new school will serve approximately 375 students in grades Pre-Kindergarten through 5th Grade. The new facility replaces the existing school that was falling into disrepair and lacked the essential spaces for a thriving 21st Century learning environment. The site includes a separate bus drop-off area and parent drop-off area. There is also a designated Pre-K drop-off. A fenced Pre-K play area is provided, as well as a play area for the Grades 1-5. Several playing fields will be located on site as well.

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.

Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV

Mr. Hedrick was 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 and Technical College, Williamson, WV Mr. Hedrick was 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.

Jackson County Armed Forces Reserve Center, (WVARNG) 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.

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.

**Role**

Electrical Engineer

Professional Registrations

Professional Engineer (WV)

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

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

Project Experience

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

Glen Jean Armed Forces Reserve Center, (WVARNG), Glen Jean, WV Mr. Casdorff was responsible for the electrical design of the 102,000 SF military training facility which houses the Armed Forces Reserve Center (AFRC), Military Entrance Processing Station (MEPS), and an Organizational Maintenance Shop (OMS). The AFRC contains the administrative and training space for the 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

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

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

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.

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

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

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

Gauley River Elementary School, Craigsville, WV Mr. Casdorff was responsible for the electrical design of the new elementary school. The project is consolidating Beaver Elementary School and Craigsville Elementary School into a new 375-student school. The school houses 3 Pre-Kindergartens, 3 Kindergartens, 2 first grade, 12 1st-5th grade classrooms, activity room, cafeteria, kitchen, media center, and administration spaces.

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

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

**Role**

Senior Civil Engineer

Professional Registrations

Professional Engineer (WV)

As a Senior Engineer at TERRADON, Jim Nagy's primary focus is on designing civil engineering projects for public and private development projects throughout West Virginia. Nagy specializes in the design of water distribution systems as well as sewage collection systems. Nagy offers decades of hands-on experience and has previously provided design engineering services for schools, commercial developments, residential developments, public utilities and more. He earned a B.S. in Civil Engineering from West Virginia University and is a Professional Engineer in the State of West Virginia.

Project Experience

School Projects - Responsible for layout, design, and permitting of water and sewer lines for numerous school projects in WV. Projects entailed coordination with PSDs, municipal water and sewer departments, State and Federal regulatory agencies for design of facilities. Schools include: Blue Ridge Community and Technical College, Blue Ridge K-12, Burnsville Elementary, Flatwoods Elementary, Davis Elementary, Sutton Elementary, Little Birch Elementary, Frametown Elementary, Buffalo High School, Clay-Battelle High School, Confidence Elementary, Jefferson Elementary, East Hardy High School, Eastwood Elementary, Flinn Elementary, Geary Elementary, Gilbert High School, Greenbrier West high School, Hampshire High School, Harpers Ferry High School and 19 additional schools.

Commercial Developments - Responsible for layout, design, and permitting of water and sewer lines for numerous commercial developments in WV. Projects entailed coordination with PSDs, municipal water and sewer departments, State and Federal regulatory agencies for design of facilities. Developments include: Fairmont Federal Credit Union, Allegheny Energy Union (Fairmont), First Ward (Clendenin) Apartments, Milton Crossing, Tri-State Hotel and multiple convenience store sites throughout WV.

Charleston Replacement Housing - Utility design, primarily water, sewer and stormwater, and coordination of overall site activities with the project developer for multi-unit housing development. Each phase entailed the design and layout of several hundred feet of water, sewer and stormwater line, including multiple connections with the utility providers, i.e., the Charleston Sanitary Board and West Virginia American Water,

Education

B.S. Landscape Architecture, West Virginia University

B.A. Geography & Planning, West Virginia University

Employment History

2000 - Present, TERRADON Corp.

1996 -2000, Martin Boal Anthony & Johnson Architects

1993 - 1996, Site Designer, Self Employed

1989 - 1993, EG&G Inc.

Civic Affiliations

- American Society of Landscape Architects
- National Council on Landscape Architectural Registration Boards



and applicable permit applications. Also responsible for construction monitoring and provision of as-built drawings as required by the respective utility providers.

Cathcart – Devonshire Development, Scott Depot, WV - Designed sanitary sewer and water distribution system to serve more than 900 housing units in this private development.

Washington Woods Subdivision, Ravenswood, WV - Designed more than 9,000 feet of water and sewer line and a 500 gpm fire pump water booster station to serve a 150 lot subdivision.

Sawmill Village, Snowshoe, WV - Designed approximately 2,800 feet of 8" water line and sanitary facilities to serve the Sawmill Village development project in Snowshoe, WV.

Cabell County Water Main Extension Project - Worked on design and layout of approximately 46,000 feet of water main for the Salt Rock PSD/WVAW. Responsible for bidding, contract award, and project management.

Putnam County Water Main Extensions - Worked on design and layout of approximately 63,000 feet of water main and a booster pumping station for the Putnam County Commission/WVAW. Responsible for bidding, contract award, and project management.

Manila Ridge Water Main Extension Project - Worked on design and layout of approximately 38,000 feet of water main for the Putnam County Commission/WVAW. Project has not received funding yet. However, will be responsible for bidding, contract award, and project management.

**Role**

Civil Engineer

Professional Registrations

Professional Engineer (WV)

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

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

Project Experience**Girl Scouts of Black Diamond Council, Charleston, WV**

Ms. Cleland was the Civil Engineer on the new Volunteer Resource Center and Girl Zone/Urban Camp in Charleston, WV. The 18,000 SF project completely renovated an old car dealership into administrative offices, a community gathering space, and a small hotel (Urban Camp) for Girl Scouts visiting the Charleston area. This new main building brings all the operations of the Girl Scouts of the Black Diamond Council under one roof.

Tackett Family Readiness Center, Charleston, WV

Ms. Cleland was responsible for site design for a two story building located on a hillside. Due to the existing slopes, several analyses to determine the optimal finished floor elevations of the building. The building was set into the hillside to allow for on-grade access to both entrances. The access road was design with handicap parking at both entrances. The client wanted the building to have the least impact as practical for the site development. A large segmental block wall was

Education

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

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

Employment History

2016 - Present, Board of Directors, ZMM
2009 - Present, Civil Engineer, ZMM
2002 - 2009, Project Engineer, Potesta &
Associates, Inc
1993 - 1997, Aerospace Engineer,
United States Air Force

Civic Affiliations

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

utilized to limit disturbance of cut slopes.

General Services Division – Surplus Property, Dunbar, WV

Ms. Cleland is currently the Civil Engineer on the Surplus Property. This property consists of a new 20,000 SF metal building storage facility inclusive of 5,000 SF of new administrative offices. The new building will replace the existing structures currently located in the floodplain, and will address several site issues including proper drainage, traffic flow, and correct floor elevations in regard to current floodplain requirements. The demolition of the existing structures along with the new construction will be phased to maintain continuous operation of the facility.

West Side Elementary School, Charleston, WV

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

Edgewood Elementary School, Charleston, WV

Ms. Cleland was the Civil Engineer on the new Edgewood Elementary School. Ms. Cleland was responsible for the site development including utility extensions and relocations, stormwater drainage design, site pedestrian and traffic circulation, and parking area layout. The school was 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 integrates sustainable design principles to serve as a teaching tool for the students.

Harts PK-8 School, Harts, WV

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

Bridgemont (BrideValley) Community and Technical College - Master Plan, Montgomery, WV

Ms. Cleland is the Civil Engineer on the overall Master Plan services to Bridgemont CTC, ZMM worked with various stakeholders to develop a Master Plan for Bridgemont's current and future facilities at the Tech Park. The Master Plan incorporated the need to develop a consistency between Bridgemont's Montgomery and South Charleston campuses, while also integrating the Bridgemont brand into the Park. The final design included planning for a new classroom and laboratory building adjacent to Building 704, across from the Advanced Technology Center. Signage, site circulation, parking, and campus amenities were also included in this planning process.

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

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

WV State Police Information Services Center



LOCATION:
So. Charleston, WV

SIZE:
14,000 SF Renovation
4,000 SF New Construction

CONTACT:
Major Gary Tincher
Chief of Staff Services
West Virginia State Police
725 Jefferson Road
So. Charleston, WV 25309
304.746.2115
Gary.r.tincher@wvup.gov



The West Virginia State Police is currently renovating a structure that previously served as the State Medical Examiner's Office, and prior to that, an elementary school. The building is located adjacent to the State Police's main campus in South Charleston, WV. The building is currently undergoing extensive renovation, with the intent of transforming it into an Information Services Center. The divisions are currently housed in the main state police headquarters building.



The scope of the work includes a complete renovation to the 14,000 SF, two-story main building with a new 4,000 SF, one-story addition on the back. The old exterior masonry façade will be enveloped with a thin-brick veneer facing Jefferson Road and an exterior insulation and finish system in rear of the facility. New aluminum windows, high-performance glazing and new single-ply roof membrane complete the exterior. The interior will be converted into professional office space on both floors housing their Communications Division, Criminal Records Division and Traffic Records Division. The space was maximized by utilizing the wide corridors as office space, and creating new, appropriately scale corridors in a loop pattern through the existing classrooms



WV State Police Detachment Office



LOCATION:
Charleston, WV

COST:

SIZE:
2,164 SF

CONTACT:
Major Gary Tincher
Chief of Staff Services
West Virginia State Police
725 Jefferson Road
So. Charleston, WV 25309
304.746.2115
Gary.r.tincher@wvup.gov



The State Police Field Office is a new 2,164 SF facility. This new facility will serve as a headquarters for State Police Troop 7 and replaces an out-of-date building that had been constructed in the 1950s. The building was dedicated in honor of Cam Lewis, a former State Parkways Authority member and Department of Transportation employee.

The interior spaces include a processing room, squad room, private office, fully equipped kitchen, and a day room with an attached private bathroom. The exterior materials consist of brick and stone, and the interior flooring material is quarry tile to provide an ease of maintenance for the owner.



WV State Police and WV Parkway Authority Maintenance Building



LOCATION:
Beckley, WV

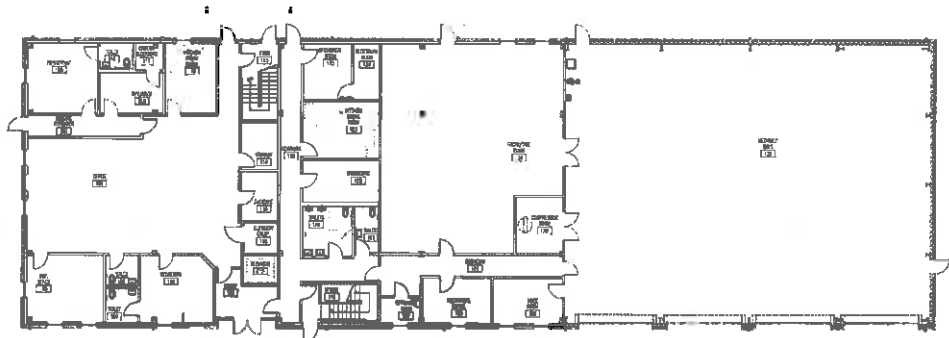
SIZE:
19,400 SF

CONTACT:
Cheryl Porterfield
Facilities Administrator
West Virginia Parkways
374 George Street
Beckley, WV 25801
304.256.6685

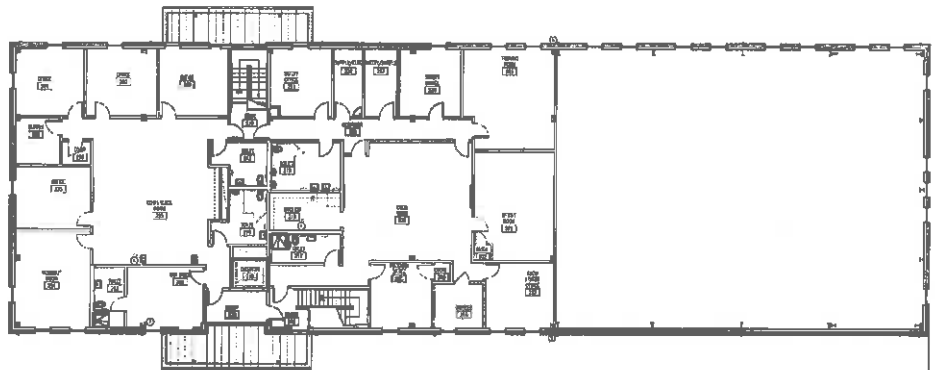


WV Parkway Authority needed to replace a variety of existing aging buildings with a new maintenance facility. The new 19,400 square foot building will include offices for maintenance staff, training staff, training center and a new WV State Police branch facility. The maintenance portion of the building will include four large bays equipped with overhead crane, truck lift and equipment to maintain the large fleet of trucks. Existing buildings will be removed to allow for the new building to be located on the existing site along with other support buildings.

ZMM, in consultation with HNTB engineers, was selected to design the new facility. The WV Parkway Authority had programmed the building requirements which ZMM developed into a building program to fit the existing restricted site. The four 26 foot high truck bays will be located next to a two story supply and support facility. The second story portion of the building will contain offices, training and meeting rooms along with lockers and exercise areas. The two story State Police facility will be located next to the maintenance facilities and we be serviced with common entrance, lobby, elevator, and stairs.



First Floor



Second Floor

Joint Interagency Training & Education Center

WVARNG



LOCATION:
Kingwood, WV

SIZE:
285,000 SF

COMPLETION:
2013

COST:
\$78.4M

OWNER:
MAJ Dan Clevenger
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 Gold 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.

Wood County Justice Center



LOCATION:
Parkersburg, WV

SIZE:
32,000 SF

COMPLETION:
2011

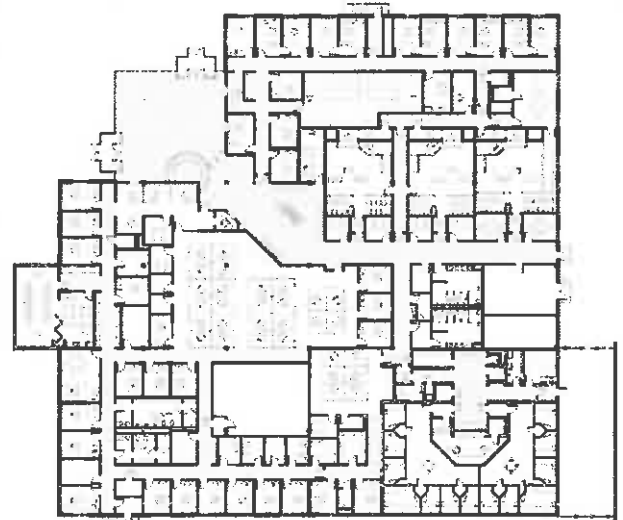
PROJECT COST:
\$5M

CONTACT:
Mr. Blair Couch
Commissioner
No. 1 Court Square
Suite 205
Parkersburg WV 26101
304.424.1978



This project was an extensive renovation of a 15 year old, 32,000 square foot, single story office building located in downtown Parkersburg, West Virginia. The building was purchased by the Wood County commission with the purpose of bringing together 3 government functions that had outgrown the 3 separate buildings that they occupied.

The renovated building consists of offices and 3 Courtrooms for the County's Magistrate Court system, public service windows for document pick-up and payment of fines, offices for the Sheriff's Department and Home Confinement and a 12-hour Inmate Holding Center.



Due to the building's new use, the interior was completely demolished leaving only the shell. The building's main entrance was relocated and redesigned to provide a new, more prominent identity to the building and to align with the new parking area created by the demolition of the adjacent existing magistrate court building. The old HVAC system was removed and replaced with a more energy efficient system and new, energy efficient lighting was installed. The project was designed around the U.S. Green Building Council's New Construction and Major Renovation Guidelines and is LEED Silver Certified.

Jackson County Sheriff's Office



LOCATION:
Ripley, WV

COST:
Est. \$1.6M

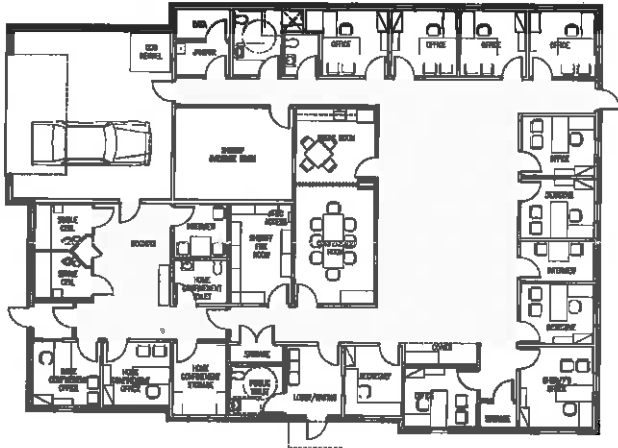
SIZE:
5,400 SF

CONTACT:
Sandy Garrett
Administrative Assistant
Jackson County Commission
Ripley, WV 25271
304.561.6539



The Jackson County Sheriff's Office was outgrowing their current facility, so a vacant lot was acquired adjacent to their existing building, which is located on the courthouse square in Ripley, WV. The one story sheriff's office will be approximately 5,500 sq ft. The cost is estimated to be \$1.5 million. The building will function as a full sheriff's office, as well as contain all home confinement reporting necessities for the county.

An improved booking area will contain two holding cells, sally port garage space, interview room, and all crucial processing equipment. The sheriff's office will include a conference room, advanced evidence storage, a work area for the deputies with room to grow, and personal offices for the sheriff, chief, captain, lieutenants, sergeants, and detectives. The public will enter through secured vestibules while staff will have key card access at entryways. The new state-of-the-art building will help the Jackson County Sheriff's Department serve the public more efficiently and effectively.



Jackson County Armed Forces Reserve Center

WVARNG



LOCATION:
Millwood, WV

SIZE:
75,000 SF

COST:
\$20M

COMPLETION:
Fall 2011

CONTACT:
MAJ Dan Clevenger
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.

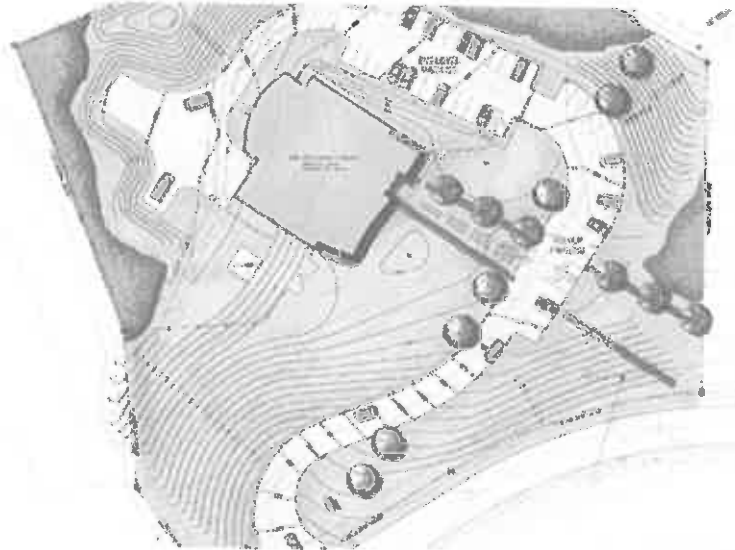


Civil/Public Building Experience



TERRADON Corporation, as a subconsultant, provided site civil engineering design for the Kanawha County Commission 911 Call Center, Lincoln County 911 Center and two Cabell County EMS Stations. For each facility, TERRADON services included:

- Design and Boundary Survey
- Full Site Engineering Drawings
- Layout
- Grading
- Drainage and Erosion Control



Kanawha County Metro 911

TERRADON performed engineering services as a subconsultant to the architect for the Kanawha County Commission for the 911 Center. TERRADON engineers considering site layout options in order to maximize land use while minimizing earthwork and utility installations, resulting in an end savings to the owner. TERRADON also designed parking, access, landscapes and hardscapes for the project. The Kanawha County Metro 911 Center is a central emergency hub who coordinates with 47 other agencies.



Lincoln County 911 Call Center

TERRADON Corporation, as a subconsultant, provided site civil engineering design for the Lincoln County Commission for the Lincoln County 911 Call Center. TERRADON performed engineering services as a subconsultant to the architect. TERRADON engineers considering site layout options in order to maximize land use while minimizing earthwork and utility installations.



Civil/Public Building Experience



WV Department of Administration State Office Building Fairmont, WV

TERRADON Corporation, as a subconsultant, is the Site/Civil consultant to the architect and also provided Environmental, Geotechnical and Survey services to West Virginia Department of Administration for the State Office Building located in Fairmont, West Virginia.

TERRADON's Environmental team provided phase 1 and phase 2 Environmental site assessments (ESA) for the site. Phase 2 ESA consisted of soil and ground water sampling and pesticide wipe sampling. The team also conducted asbestos survey and lead-paint survey. For the project, TERRADON prepared quantities for bid documents and provided over sight for demolition and abandonment.

TERRADON's Geotechnical experts conducted investigation of existing filled basements and foundation investigation and design of the Fairmont building site.



Public Safety Facilities with Garage/Storage Space



Fairmont Public Safety Building & Fire Station Fairmont, WV



TERRADON Corporation, as a subconsultant, provided site civil engineering design for the Fairmont Public Safety Building in Fairmont, WV. The Public Safety Building houses the Fairmont Public Works Department, the Fire Department and the Police Department. TERRADON services included: Geotechnical Engineering; Design and Boundary Survey, Full Site Engineering Drawings, Layout, Grading, and Drainage and Erosion Control.

TERRADON performed engineering services as a subconsultant to the architect. TERRADON engineers considered site layout options in order to maximize land use while minimizing earthwork and utility installations. TERRADON provided landscape and hardscape design as well.

Yeager Airport Fire/Crash/Rescue Station Charleston, WV

TERRADON Corporation, as a subconsultant, provided site civil engineering design for the Yeager Airport Fire/Crash/Rescue Station in Charleston, WV. TERRADON was a part of the design/build team and created civil engineering plans & specifications for the siting of this large, 6-bay drive-thru design station. The team worked with tight existing conditions and infrastructure to make the design work economically



Charleston Civic Center Expansion and Renovation



LOCATION:
Charleston, WV

SIZE:
283,000 SF

COMPLETION:
Est. 2017

COST:
\$75M

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



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

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

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



Charleston Civic Center Expansion and Renovation



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

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

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

WV State Capitol Roof Replacement



LOCATION:
Charleston, WV

COMPLETION:
TBA



The West Virginia State Capitol Building was constructed in 1924-1932 and is listed on the National Register. The scope of work includes replacement of the roof on connectors and roofs above as well as the base of the dome. This project started with an in-depth study of existing drawings and site conditions and a site visit to the Capitol to ascertain the actions necessary to provide the new roof system.

The investigation included:

- Review all Roofing Components for Integrity/Ability to Control Moisture Collection/Removal
- Conduct Destructive Testing (Multiple Roofing/Flashing Systems?)
- Hazardous Material Testing of Components (Paint, Mastic, Insulation, Caulking)
- Review all Points of Roof Access: Walkways, Walkway Pads, Stairs
- Work with GSD to Develop Recommendations for the Roofing System
- Consider Building Envelope Performance/Insulation Requirements

All the roof system components will need to be reviewed for their integrity and ability to control moisture collection and removal from the building's roof. The components that are to be reviewed will include parapet walls, railings, wall conditions, colonnades, roof penetrations, roof drains, roof equipment, and walking surfaces. Investigative holes will need to be cut into the existing membrane to identify conditions of insulation, roof deck and any remains of former roofing materials and flashing systems. Test of roofing materials will need to be made for any possible hazardous materials. Our ability to provide comprehensive design solutions will be advantageous as it relates to mechanical equipment curbs and structural supports.

A report will be prepared and presented showing findings and recommendations from the investigation of all the roof conditions. The report will include recommended option for the roof membrane material, discussion of repairs to roof components, as well as any required repairs to the roof deck. Also included in the report will be a preliminary cost estimate including cost differences for each proposed option. ZMM will provide construction observation services and will work with the owner's representative during the construction process. We will be responsible for reviewing all shop drawings and questions that occur during the project. ZMM will also participate in all progress meetings and make site visits on a regular basis. ZMM will remain available to assist the state throughout the warranty phase of the project.

State Office Buildings 5,6, & 7



LOCATION:
Charleston, WV

COMPLETION:
On-Going

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



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

Roof Replacement

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

Electrical Courtyard Improvements

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

Door and Window Replacement

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

State Office Buildings 5,6, & 7

Major Renovations

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

Caulk Replacement

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

Valve Replacement

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

State Office Building #5, 10th Floor

Office of Technology



LOCATION:
Charleston, WV

SIZE:
22,000SF

COST:
\$3.7M

COMPLETION:
2010

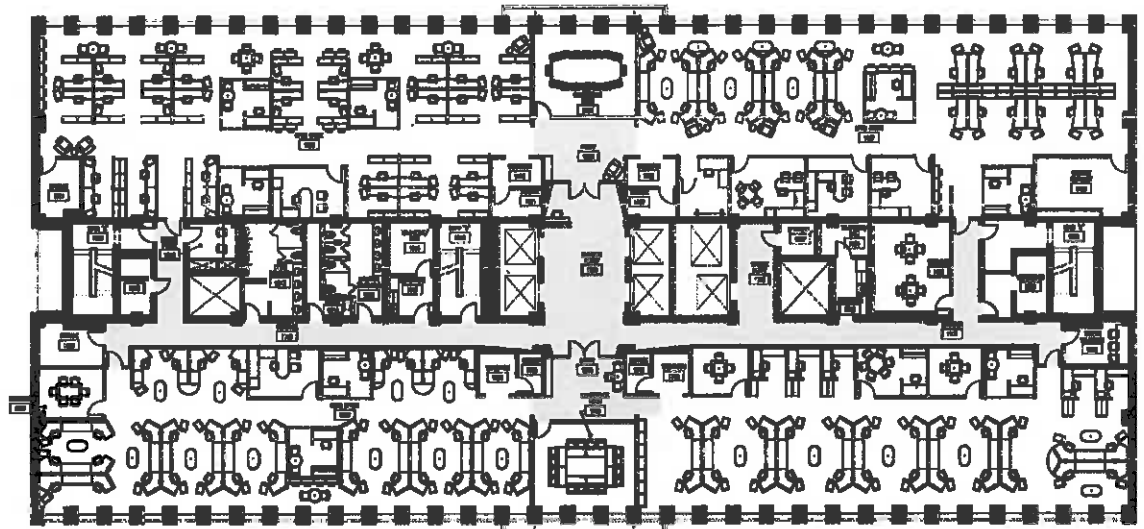
CONTACT:
Ross Taylor
Cabinet Secretary
Department of Admin.
Building 1, Room E119
Charleston, WV 25305
304.558.4331

AWARD:
2011 AIA Merit Award
West Virginia Chapter
*Achievement in
Architecture Interiors*



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

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



State Office Building #5, 10th Floor



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

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



Goodwill Prosperity Center

Historic Renovation



LOCATION:
Charleston, WV

SIZE:
10,200 SF

COMPLETION:
2015

COST:
\$960,000

CONTACT:
Cheri Bever, President
Goodwill Industries
215 Virginia Street, W.
Charleston, WV 25302
304.346.0811



Goodwill's newly renovated Prosperity Center is located on Virginia Street (West) in Charleston. This facility will help prepare members of the community for the workforce, and will expand Goodwill's outreach opportunities. Inside the facility is several classrooms, a computer room, and a Career Center that is equipped with all the tools needed to prepare and apply for a job. A spacious and colorful lobby provides a relaxed atmosphere for visitors. Inside the center is a "Suited for Success" room where work-appropriate clothing will be available to those who need it.

The building, which was once the Charleston Transit Authority's bus garage, underwent a major exterior transformation. Layers of stucco were removed to open up the old garage bays, and glass was infilled into these openings to give the center a tremendous amount of natural light. The original brick was exposed, repointed, and painted. The improvements made to the exterior showcase the historic nature of the building while upholding the modern amenities needed for today.



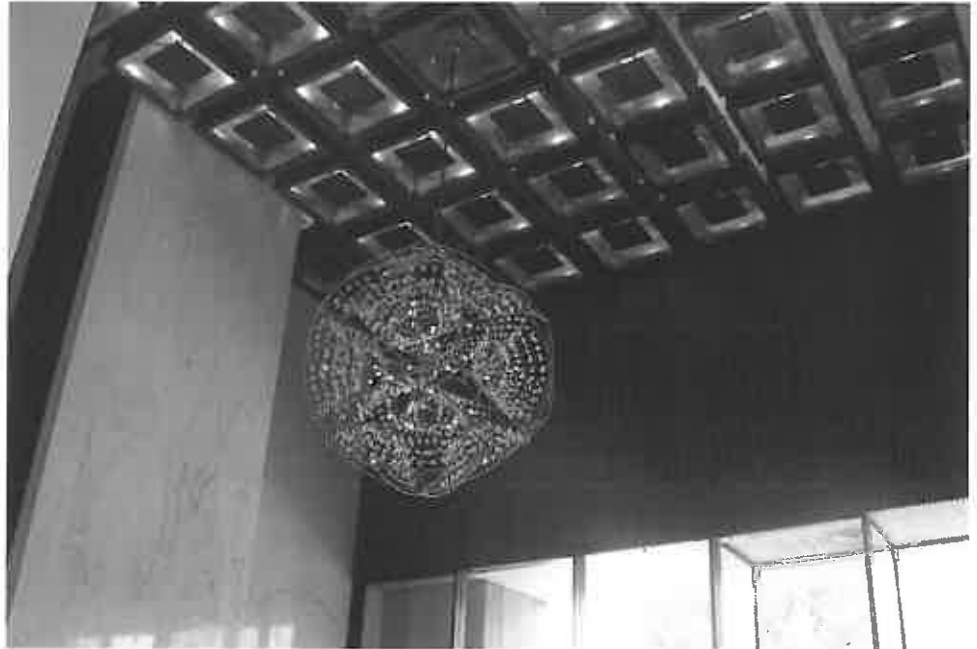
Cultural Center - Great Hall Lighting Wiring System



LOCATION:
Charleston, WV

COMPLETION:
2011

CONTACT:
Randal Reid Smith
Cultural Center Director
1900 Kanawha Blvd., E.
Capitol Complex, Building 9
Charleston, WV 25305
304.558.0220



ZMM completed the Great Hall Wiring System located at the Cultural Center on WV State Capitol Complex. The existing wiring and conduit system was approximately thirty-five years old and in need of drastic improvements. The existing conditions that were observed included the conduit and outlet boxes were mounted on the underside of the existing grating above the ceiling, the dimming circuits shared a common neutral, bad fixture connections and cables.

ZMM performed a complete survey and drawings of the existing conduit, wiring, and dimming systems. The circuiting requirements were confirmed and ZMM proposed new correction methods with a dimming equipment manufacturer.

The bidding documentation included the following:

- Drawings to indicate 141 dimmer circuits, conduit, and wiring to be removed back to the existing dimmer cabinet.
- Drawings to indicate new conduit and wiring requirements run above the existing grating with new twist-lock recap tacles for the lighting conditions.
- Drawings and details to indicate rewiring and cleaning methods to be used for 192 light fixtures.
- Specifications for all electrical work to be performed in accordance with National Electrical Code and all applicable codes.

Girl Scouts of Black Diamond Council

Volunteer Resource Center and Girl Zone/Urban Camp



LOCATION:
Charleston, WV

SIZE:
27,928 SF

COST:
\$5M

COMPLETION:
Fall 2013

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

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



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

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

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



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

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

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

Construction & Facilities Management Office

WVARNG



LOCATION:
Charleston, WV

SIZE:
19,935 SF

COST:
\$3.5M

COMPLETION:
2008

CONTACT:
MAJ Dan Clevenger
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.



West Virginia Lottery Headquarters

Office Building and Parking Garage



LOCATION:
Charleston, WV

CONTACT:
John Myers
Assistant Lottery Director
900 Pennsylvania Ave
Charleston, WV 25302
304.558.0500



The project is an extensive renovation of an existing 13-story office building and 7-story parking garage in downtown Charleston, WV. The building is currently owned and operated by the WV Lottery but also houses many other state government agencies.

Major renovations within the office building consist of the demolition and renovation of three existing tenant floors, the relocation of the existing fitness center and replacement of the existing roof. The West Virginia Division of Insurance is being relocated from their existing, outdated office space to floors 7, 8 & 9. Off the newly renovated elevator lobbies on each floor is a reception area which leads to an interior space primarily constructed of enclosed offices to better suit current department requirements. To provide contiguous floor space for the Division of Insurance an existing tenant space on the 6th floor is being demolished and renovated into the new fitness center located across from the existing Café. Construction on the roof includes the removal and replacement of the existing roof insulation and membrane and the installation of new roof davits and stainless steel guardrail meeting current OSHA requirements.

The existing precast concrete parking deck will be undergoing a widespread renovation including structural repairs and restoration, major electrical upgrades and an addition to the existing storage warehouse. After vast investigative work it was determined that bearing pads need to be replaced under the existing concrete double-tee framing members, concrete structure and topping slabs needed repair and concrete spandrel panels required epoxy injection to repair extensive cracking. Horizontal driving surfaces are receiving new waterproofing, sealant joint replacement and restriping. The circulation connector between the office building and the parking deck is in structural repair also, requiring partial demolition and reconstruction of the existing steel deck and concrete floor slabs. Electrical improvements will consist of new LED lighting throughout and additional pole fixtures on the top level along with power and life-safety upgrades. The one-story storage warehouse located underneath the existing parking deck is being increased by approximately 1,800 sf. The addition will consist of masonry exterior walls clad in EIFS with a sloped steel-framed roof and single-ply membrane system.



Tucker County Courthouse Annex Renovation



LOCATION:
Parsons, WV

SIZE:
21,000 SF

COST:
\$4M

COMPLETION:
2013

CONTACT:
Mr. Joel Goughnour
Tucker Cty Commission
211 1st Street, Suite 307
Parsons, WV 26287
304.478.2866 Ext 207



The Tucker County Courthouse Annex is 4-story, 21,000 square foot building located adjacent to the Tucker County Courthouse in Parsons, WV. The annex sits on the same lot as the courthouse with the original jailor's residence between the two. The location of the existing jailor's residence, which is listed on the National Register, created a challenging planning dilemma. ZMM explored three options for developing the Courthouse Annex. The first option, the original concept proposed by Tucker County, anticipated connecting the Annex at multiple levels via a connector.

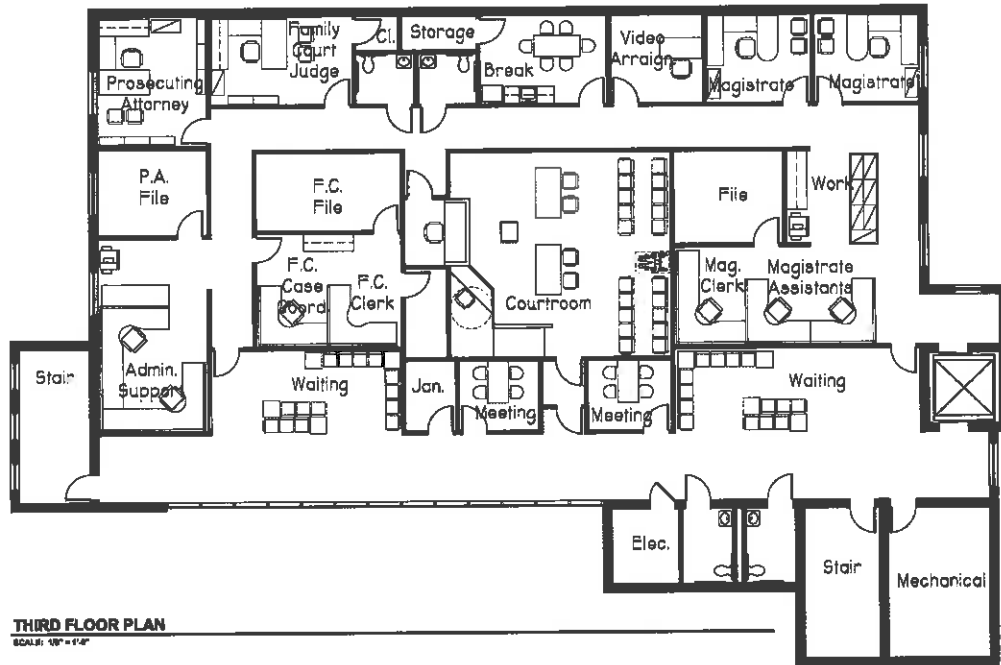
The problem with this approach was that the jailor's residence appeared like a building stuck within a larger complex, as well as the cost of the connector structure. ZMM also explored the option of relocating the jailor's residence, an approach that proved not feasible as the location of the facility justifies its historical quality. The final solution that was examined, and is currently being implemented, involved adding a separate elevator to the existing Tucker County Courthouse, and connecting the entry to the two facilities with an enclosed single level connector. This approach is the most efficient use of the County's resources, and also the best approach for the overall Courthouse site. 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.

The Tucker County Sheriff, currently housed in leased space, will occupy the space that is being vacated in the original Courthouse.

Tucker County Courthouse Annex Renovation

The office and courtroom spaces occupy the upper three floors, with enclosed parking on the ground floor. The enclosed parking on the ground level will ensure that all occupied spaces are located outside of the floodplain.

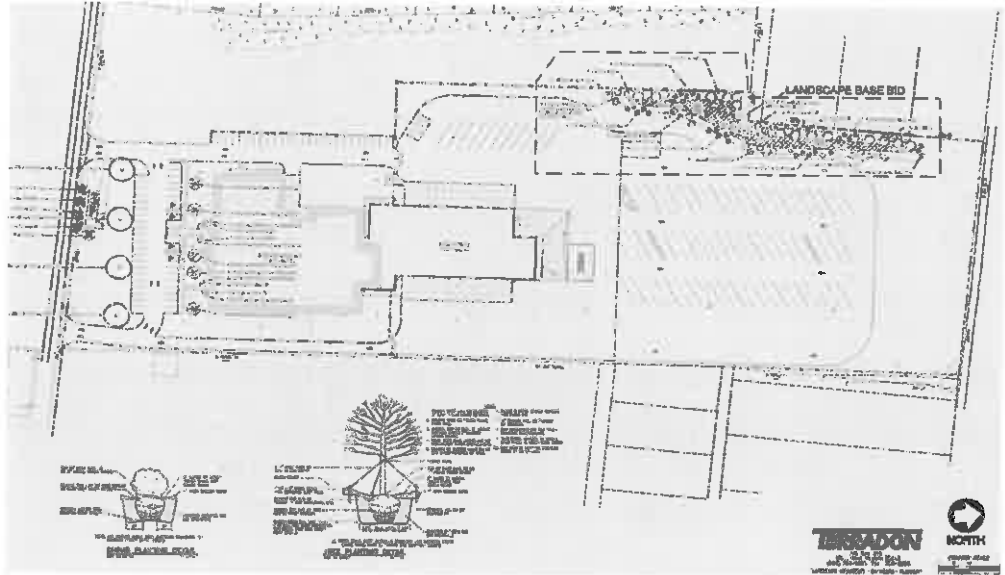
The architecture of the annex is meant to complement the existing Romanesque and Flemish styles of the Courthouse and jailor's residence. The red brick, stone base, brick banding, arched openings, and sloped rooflines help to create a unified feel, while the wall of glass adjacent to the public corridor that overlooks the courthouse brings a touch of modernity to the campus and provides natural light to the interior of the building.



Garage/Storage Space Experience



Cabell County Bus Garage Lesage, WV

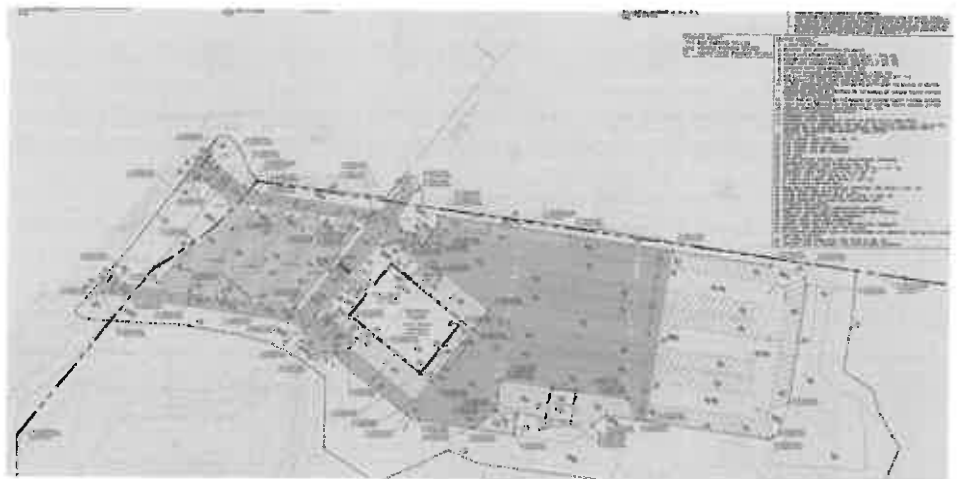


TERRADON Corporation, as a subconsultant, provided site civil design services for this major renovation project, approximately 85 of Cabell County Schools' 120 buses and modernize its transportation operations by offering better access to eastern and central schools in the county. The new facility includes storage space for the large fleet of buses, service and maintenance equipment and wash bays that meet new EPA standards. TERRADON services included: Civil Engineering, Land Development, Full Construction Documents, Layout, Grading, and Landscaping.

Jefferson County Bus Garage Charleston, WV

TERRADON Corporation, as a subconsultant, provided site civil design services for the Jefferson County Bus Garage. When construction begins, this facility will provide parking for more than 200 buses and more than 200 cars. A fueling island, wash bay and new facility building also comprise the location.

TERRADON services included: Civil Engineering, Land Development, Full Construction Documents, Layout, Grading, and Landscaping.



State Office Buildings 5,6, & 7 - Roof Replacement

WV Capital Complex
Charleston, WV

Replacement of existing roofing system with new fully adhered tapered insulation and new modified bitumen roofing system. The project involved major renovations to the cooling tower screens and installing a reflecting coating on the roofs surface. The project was a standard design, bid and build project of 57,560 square feet for \$1,560,000.00 and completed in 2011.



Cedar Lakes Conference Center - Reroofing Project

Ripley, WV
Installing new standing seam metal roofs and making miscellaneous repairs to 11 buildings. Project was a standard design, bid and build project of a total of 53,810 square feet for \$550,000.00 completed in 2006.



Renovations to Davis Hall, Bridgemont Community and Technical College

Montgomery, WV

This project was a multi-scoped renovation project, with a portion of the work involved replacing a 6000 square foot portion of the roof with new fully adhered EPDM roof membrane and making repairs to an additional 18,00 square feet of roof membrane. The total project cost was \$3,400,000.00 and completed in 2012.



Central Regional Jail HVAC and Roof Replacement

Sutton, WV
Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment.

Project was a standard design, bid and build project of 100,000 square foot facility with a bid price of \$900,000.00 was completed in 2007.



Southern Regional Jail HVAC and Roof Replacement
Beaver, WV

Replacement of ballasted EPDM roofing, walk pad system, flashing systems and HVAC equipment. Project was a standard design, bid and build project of 133,000 square foot facility and a bid price of \$1,300,000.00 was completed in 2008.



South Central Regional Jail HVAC and Roof Replacement
Charleston, WV

Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment.

Project was a standard design, bid and build project of 140,000 square foot facility and a bid price of \$1,400,000.00 completed in 2009.



Northern Regional Jail HVAC and Roof Replacement
Moundsville, WV Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment. Project was a standard design, bid and build project of 170,000 square foot facility and a bid price of \$1,800,000.00 and completed in 2010.

Southwestern Regional Jail HVAC and Roof Replacement
Holden, WV

Replacement of ballasted EPDM roofing, metal roofing system, walk pad system, flashing systems and HVAC equipment. Project was a standard design, bid and build project of 140,000 square foot facility and a bid price of \$1,498,000.00 to be completed in 2013.



Reroofing for Greenbrier County Board of Education

Smoot Junior High School Gymnasium
Rupert Elementary School, High Roof
Greenbrier West High School – Building 'C'
Replacement of existing membrane roof with mechanically fastened EPDM roof membrane. This project also included repairs to various Fascia, soffit and canopy conditions. The project was a standard design, bid and build project of 40,000 square feet for \$450,000.00 and completed in 2006.

Reroofing for Greenbrier West High School
Charmco, WV



Client References

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West Virginia State Police
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City of Charleston
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Greg Melton, Director (ZMM)
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304.561.6539

Joel Goughnour, County Administrator (ZMM)
Tucker County Commission
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Barbour County Parks Master Planning (TERRADON)
Barbour County Commission
304.457.4339

Palatine Park Master Planning (TERRADON)
City of Fairmont WV
304.366.6212

Greater Greenbrier Sports Complex (TERRADON)
Greater Greenbrier Sports Complex Foundation
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