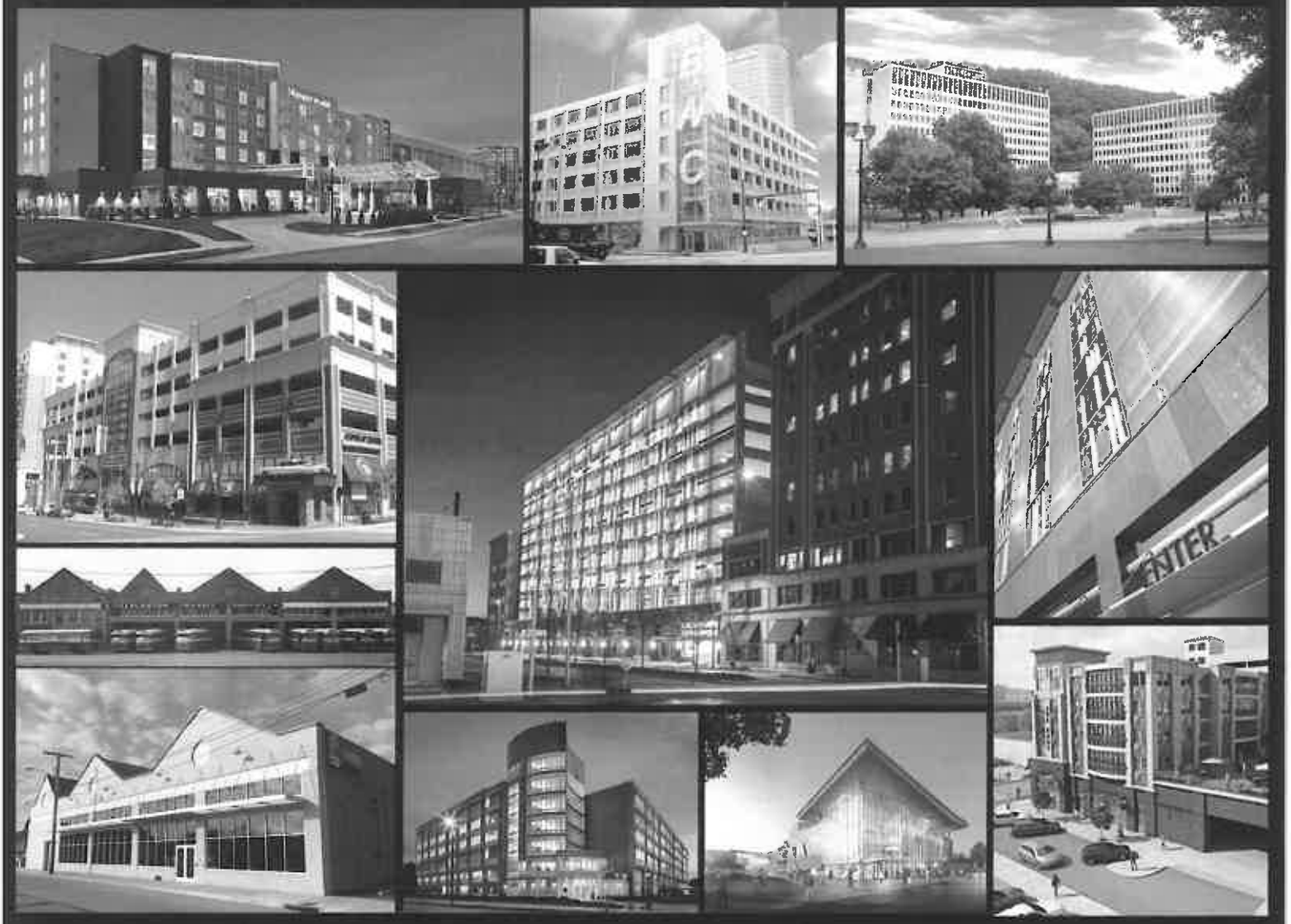

ZMM

ARCHITECTS & ENGINEERS

In Association with:

DESMAN

Design Management



# Expression of Interest:
# Parking Garage Consulting Services

GSD1600000006

November 12, 2015

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

# State of West Virginia
# Centralized Expression of Interest

**Proc Folder:** 101750

**Doc Description:** EOI Parking Garage Consulting Services

**Proc Type:** Central Contract - Fixed Amt

| Date Issued | Solicitation Closes | Solicitation No | Version |
|---|---|---|---|
| 2015-10-06 | 2015-11-11 13:30:00 | CEOI 0211 GSD1600000006 | 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:**

ZMM, Inc.
222 Lee Street, West
Charleston, WV 25302
304-342-0159

**FOR INFORMATION CONTACT THE BUYER**

Laura E Hooper
(304) 558-0468
laura.e.hooper@wv.gov

**Signature X** [signature] **FEIN #** 55-0676608 **DATE** 12-NOV-2015

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

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

# State of West Virginia
# Centralized Expression of Interest

—

**Proc Folder:** 101750

**Doc Description:** EOI Parking Garage Consulting Services

**Proc Type:** Central Contract - Fixed Amt

| Date Issued | Solicitation Closes | Solicitation No | Version |
|---|---|---|---|
| 2015-10-07 | 2015-11-12 13:30:00 | CEOI 0211 GSD1600000006 | 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:**

ZMM, Inc.
222 Lee Street, West
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304-342-0159

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Laura E Hooper
(304) 558-0468
laura.e.hooper@wv.gov

**Signature X** AL RK **FEIN #** 55.0676608 **DATE** 12-NOV-2015

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

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

**State of West Virginia**
**Centralized Expression of Interest**

—

**Proc Folder:** 101750

**Doc Description:** Addendum # 2 - EOI Parking Garage Consulting Services

**Proc Type:** Central Contract - Fixed Amt

| Date Issued | Solicitation Closes | Solicitation No | Version |
|---|---|---|---|
| 2015-10-27 | 2015-11-12 13:30:00 | CEOI 0211 GSD1600000006 | 3 |

**BID RECEIVING LOCATION**

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DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

**VENDOR**

**Vendor Name, Address and Telephone Number:**

ZMM, Inc.
222 Lee Street, West
Charleston, WV 25302
304-342-0159

**FOR INFORMATION CONTACT THE BUYER**

Laura E Hooper
(304) 558-0468
laura.e.hooper@wv.gov

**Signature X** [signature] **FEIN #** 55-0676608 **DATE** 12-NOV-15

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

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

**State of West Virginia**
**Centralized Expression of Interest**

—

**Proc Folder:** 101750

**Doc Description:** Addendum # 3 - EOI Parking Garage Consulting Services

**Proc Type:** Central Contract - Fixed Amt

| Date Issued | Solicitation Closes | Solicitation No | Version |
|---|---|---|---|
| 2015-10-27 | 2015-11-12 13:30:00 | CEOI 0211 GSD1600000006 | 4 |

**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:**

ZMM, Inc.
222 Lee Street, West
Charleston, WV 25302
304-342-0159

**FOR INFORMATION CONTACT THE BUYER**

Laura E Hooper
(304) 558-0468
laura.e.hooper@wv.gov

**Signature X** [signature] **FEIN #** 55-0676608 **DATE** 12-NOV-2015

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

RFQ No. GSD160000000006

STATE OF WEST VIRGINIA
Purchasing Division

# PURCHASING AFFIDAVIT

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

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

**DEFINITIONS:**

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

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

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

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

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: ZMM, Inc

Authorized Signature: R.K Date: 12-NOV-2015

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 12 day of November, 2015

My Commission expires April 16, 2023

**AFFIX SEAL HERE**

Official Seal
Notary Public, State of West Virginia
Jessica Wolfe
4465 Walnut Gap Rd
Huntington WV 25701
My Commission Expires April 16, 2023

**NOTARY PUBLIC** Jessica Wolfe

**ADDENDUM ACKNOWLEDGEMENT FORM**
**SOLICITATION NO.:** GSD1600000006

**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)

| | | | |
|---|---|---|---|
| [X] | Addendum No. 1 | [ ] | Addendum No. 6 |
| [X] | Addendum No. 2 | [ ] | Addendum No. 7 |
| [X] | Addendum No. 3 | [ ] | Addendum No. 8 |
| [ ] | Addendum No. 4 | [ ] | Addendum No. 9 |
| [ ] | Addendum No. 5 | [ ] | 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 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.

EMH, Inc.
Company

Authorized Signature

12-NOV-2015
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

## CERTIFICATIONAND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid, 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)

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

304.342.0159 ; 304.345.8144 ; 12 · NOV · 2015
(Phone Number) (Fax Number) (Date)

ZMM
ARCHITECTS & ENGINEERS

November 12, 2015

Ms. Laura Hooper, Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, West Virginia 25305-0130

**Subject: Expression of Interest – Parking Garage Consulting Services**
**GSD1600000006**

Dear Ms. Hooper:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and qualifications to provide architectural and engineering design services for the four-story (ground floor plus three supported levels) parking structure on the Capitol Campus, which contains approximately 250,000 SF of space and 765 parking spaces. It is our understanding that the building was constructed as a design-build project which began in late 1998 and was completed in 2000. Between 2000 and 2006 there was significant deterioration due to water leakage and salt damage, and in 2007, the building was inspected for required repairs, which were undertaken between July of 2008 and June 2009.

Established in 1959, ZMM is a Charleston based, full service A/E firm, and is noted for design excellence and client focus. Our integrated design approach makes ZMM unique among design firms in southern West Virginia. ZMM's proposed team for the Garage Consulting Services project was developed to include trusted local resources with previous experience assisting the General Services Division combined with leading professionals in planning, designing, and rehabilitating parking structures. Our team includes DESMAN, is a professional corporation with more than 100 professional and technical personnel. The firm is a leading national specialist in transportation improvements and the planning, design and construction administration of functionally efficient, attractive and cost effective parking facilities. Since the firm's inception in 1973, DESMAN has served public, private and institutional Clients and Owners throughout the U.S. and abroad and has provided planning, design, and restoration services for over 1,500 parking projects.

DESMAN's experience includes work on multiple parking structures in West Virginia, including criteria development services for the recent 4 level, 695 car garage at Yeager Airport, as well as the 250 car garage at Yeager for rental car storage. DESMAN also worked on a long-term rehabilitation plan for the 5 level 472 car Kanawha County parking structure at the corner of Court Street and Quarrier Street in Charleston. DESMAN's most recent experience in Charleston was a collaboration with ZMM on improvement to the parking garage adjacent to the West Virginia Lottery Headquarters, which are currently under construction.

Teamwork is the key to the planning, design, and construction process, and a commitment to quality links ZMM and DESMAN. ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with fourteen design awards in the last ten

222 Lee Street, West • Charleston, West Virginia 25302
304.342.0159 office • 304.345.8144 fax
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years – an achievement unrivaled in West Virginia - while DESMAN embraces diversity and is committed to provide excellence in the design of parking facilities, rehabilitation programs for existing structures and innovative parking studies for all market sectors.

Thank you for taking the time to review the attached expression of interest that has been formatted to address the specific needs of your project. Additionally, please visit our websites at www.zmm.com and www.desman.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 assignment, and look forward to continuing our work with the General Services Division.

Respectfully submitted,
**ZMM Architects and Engineers**

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

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

# Table of Contents

General Services Division – Parking Garage Consulting Service

# Project History and Understanding

General Services Division - Parking Garage Consulting Service

**Project Background**

The four-story (ground floor plus three supported levels) parking structure contains approximately 250,000 square feet of space and 765 parking spaces. The building was constructed under a design-build project which began in late 1998 and was completed in 2000. Between 2000 and 2006 there was significant deterioration due to water leakage and salt damage. In 2007, the building was inspected for required repairs, which were undertaken between July of 2008 and June 2009.

**Site Visit Observations**

Upon conclusion of the pre-bid meeting on October 19, 2015, a tour of the parking garage structure was conducted which provided visual insight into the general repair and maintenance items that pertain to the project scope of work. There was evidence of horizontal sealant joint failure at the double tee connections and vertical sealant joint failure at the interior and exterior support members. The waterproofing membrane on the surface of the double tee members was also deteriorating and failing in several locations. There were several cracks and locations of spalled concrete on the surface of the vertical members and in the vicinity of the associated steel connections. Previous repairs of the double tee flange and stem connections were visible and appeared to be functioning properly. Additional concrete cracking and deterioration at the double tee support locations due to ongoing sealant failure and salt damage was also visible.

**SCOPE OF SERVICES**

The ZMM/Desman team proposes the following program of services to the General Services Division of West Virginia ("Agency") for proper evaluation of the parking garage for the purpose of developing a prioritized list of cost-effective repair/preventive maintenance program options:

**PHASE I TASKS – Condition Survey & Repair Recommendations**

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# Project History and Understanding

General Services Division - Parking Garage Consulting Service

**A.** Review available existing documents, i.e., drawings, specifications, concrete test reports, former condition survey reports, etc., in order to acquaint ourselves with the parking garage, prior to conducting an on-site survey of the facility. The Agency shall provide ZMM/DESMAN with the existing structural drawings of the garage in electronic file. Prints of these drawings will be used to record deficiencies within the facility during our field condition survey (*PHASE I, TASK B*).

**B.** Conduct an on-site observation survey of the garage at an appropriate time when the facility is least occupied; typically during evening and/or weekend hours. The objective is to quantify and gain further information on the configuration and degree of deterioration of the structural materials, as outlined below. This will enable us to develop recommendations for a cost-effective approach to the repairs and degree of preventive maintenance appropriate for the facility.

During the on-site survey, ZMM/DESMAN staff will observe and record the physical condition and photographically document deficiencies of the following:

1. *General composition and condition of the structural system elements, including*: accessible concrete columns, post-tensioned beams and slabs, curbs, walls, etc., of the structurally supported and on-grade level of the parking garage. The following structural deficiencies, if observed, will be recorded:



   a. Cracks and concrete slab settlement (base slabs); structural and/or nonstructural in nature. ZMM/DESMAN survey personnel will note those cracks which exhibit evidence of moisture leakage.

   b. Surface condition of concrete floors including scaling and spalls, indicating deteriorated concrete or structural deficiencies that may require more immediate action. Floor areas with evidence of ponding water will be noted, since those areas may be improperly sloped and could require additional floor drains, pending further analysis.

   c. To aid in our visual observation for the discovery of delaminated concrete, survey personnel will conduct a limited mechanical sounding evaluation (chain drag) on the top surface of the floor slabs, in order to record locations of delaminated concrete. A similar sounding evaluation will be performed at selected areas of the floor slab soffits, as well as columns, beams, and foundation walls, etc.

2. *Waterproofing materials, such as:* waterproofing membranes and joint sealants. Special attention will be focused on moisture leakage through sealed cracks, if applicable.

3. *Architectural materials, such as:* doors, handrails, stairways, façade panels and connections, stair/ elevator enclosures, bollards, parking striping, etc., as applicable.

4. *Plumbing, such as:* storm water floor drains and piping and dry stand pipes.

C. Conduct a concrete testing program during the on-site observation survey (Phase I Task B) of the parking garage. A testing program will be established in accordance with ASTM C823 recommendations as well as our experience in factors that affect durability and expected life cycles of the parking structure materials. A number of test methods are available to determine different properties of concrete, whether original construction or materials used for previous repairs. Concrete testing is intended to assist DESMAN personnel in determining appropriate repairs and maintenance programs, in order to most effectively extend the useful life of the structure. Testing that may be recommended include the following:

1. **Petrographic Examination (ASTM C856)** to determine general properties of the original concrete and concrete materials used for subsequent repairs.

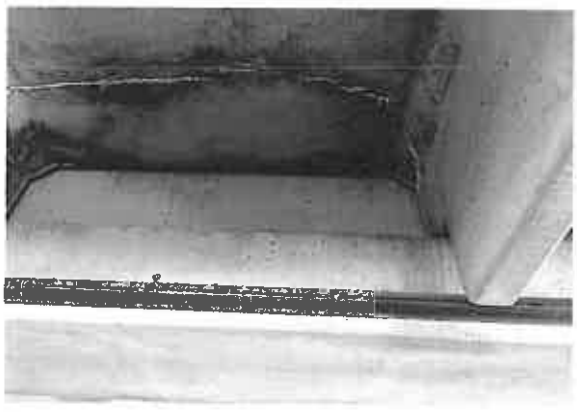
2. **Acid Soluble chloride-Ion Content Analysis (AASHTO T260)** of concrete powder derived from powder samples taken directly from the slabs of concrete cores to determine current chloride levels. This will enable us to understand the current as well as base (prior to exposure to the elements) chloride levels in order to qualify both current and future levels of corrosion of underlying reinforcing metals.

3. **Compressive Strength Analysis (ASTM C42-04)** to determine concrete strength.

4. **Adhesion Testing of Membrane Coatings (ASTM D 4541)** is a standard test using a portable adhesion tester to determine the pull-off strength of the floor coatings and potential suitability for the coating to remain and be recoated in the future.

At this time, ZMM/DESMAN does not recommend any material testing. Based on our findings during our on-site survey, future material testing may be recommended. However, all costs associated with testing will be presented to EMC and require authorization prior to initiating.

D. Review, analyze and evaluate data recorded during *PHASE I, TASK B*. ZMM/DESMAN will then prepare a Condition Survey Report for the parking facility. The report will include:



ZMM
ARCHITECTS & ENGINEERS

1. Evaluations and descriptions of existing conditions within the parking garage, as well as a discussion and summary of the recorded field survey data;
2. Photographic documentation of existing conditions within the parking garage;
3. Descriptions of the types, locations and extent of deterioration and deficiencies of the structural element (as listed under *PHASE I, TASK B)* that comprise the parking garage;
4. Recommended alternative repair programs prioritized in order of severity. If necessary, ZMM/ DESMAN will suggest ways for conducting repairs in different phases to minimize the impact on existing operations or budgetary constraints.
5. Preliminary estimates of probable construction costs for the recommended alternative repair programs identified within the report. Recommended repair items and probable construction costs will be for urgent-term (0 to 3 months), near-term (after 1 to 3 years) and long-term (after 3 to 5 years) prioritized repair and preventive maintenance programs.

ZMM/DESMAN's deliverable products to the Agency will include 'Draft' Condition Survey Report in electronic PDF format containing the items listed above.

E. Schedule a meeting with the Agency to discuss the Condition Survey Report and incorporate any comments or revisions into the 'Draft' Condition Survey Report.

**PHASE II TASKS – Preparation of Construction and Bidding Documents, Bidding Phase**
Based upon the results of the Phase I investigation, and the scope that is mutually developed with the General Services Division, the ZMM/DESMAN team will prepare construction and bidding documents for the required repairs. The team will update the project scope and budget at the conclusion of each design phase. The team will also provide required services through the bidding phase, including attendance at the pre-bid meeting, and preparation of any required addenda.

**PHASE III TASKS – Construction Phase Services**
The ZMM/DESMAN team will provide standard construction phase services, including periodic inspections, to ensure that the repairs are being implemented as designed. The team will also review submittals and shop drawings, respond to RFI's, verify Payment Applications, and attend bi-weekly progress meetings. The location of ZMM's office in Charleston will help ensure regular access to the project – and the quality of the repairs.

ZMM
ARCHITECTS & ENGINEERS

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.

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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

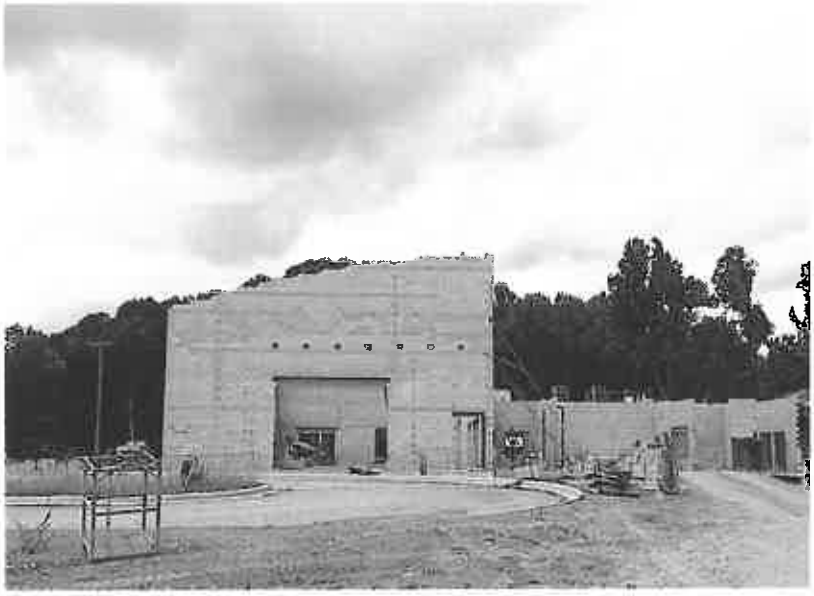
Educational Facility Planning
Programming
Space Planning
Feasibility Studies
Existing Building Evaluation
Site Evaluation and Analysis
Master Planning
Construction Cost Estimating

### 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

ZMM
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## 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

ZMM
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**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

DESMAN
Design Management

LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
Fax 304.345.8144
www.zmm.com

## History of DESMAN

DESMAN, is a leading national specialist in the restoration, planning and design of parking facilities and building exteriors. Since 1973, DESMAN has served public, private and institutional Clients and Owners throughout the U.S. and abroad. DESMAN is a Minority-owned Business Enterprise (MBE), employing a total staff of over 100 people, operating from one of the following principal office locations:

***Denver*** ***Cleveland*** ***Boston*** ***New York*** ***Chicago*** ***Hartford***
***Washington*** ***Pittsburgh*** ***Ft. Lauderdale***

## Parking Garage Restoration

DESMAN is one of the nation's premier parking consulting firms, offering planning, design, structural engineering and restoration services of parking structures. DESMAN has designed over 3,000 new garages and repaired over 2,500 garages, featuring all types of structural framing systems.

Success in the design of durable new facilities has provided the firm with the depth of experience necessary to accurately evaluate and manage the repair of deteriorated older structures. The firm's parking restoration practice has an established reputation for accurately assessing the condition of a garage and providing the most cost effective means of repair and maintenance.

As structural engineers, DESMAN has designed parking facilities utilizing all forms of framing systems and materials. DESMAN understands the advantages and disadvantages of each type of garage and how best to maintain and/or restore the structure. DESMAN is also sensitive to the needs of the user and is skilled at developing repair schemes that cause minimal disruption to the operation of the parking facility.

DESMAN Principals are active members of numerous parking and construction-related industry organizations that make it their business to increase the base of knowledge on structural durability criteria for garages. These include such organizations as the National Parking Association (NPA), International Parking Institute (IPI), American Concrete Institute (ACI), etc. We understand the applicability, construction market and long-term durability advantages/disadvantages for each type of structural system given the project location.

As parking consultants, DESMAN also offers garage owners and management companies operations consulting and revenue control consulting, to improve garage efficiencies and returns.

The proper maintenance and repair of garages and buildings not only enhances the aesthetic quality of the structures, but also prevents unforeseen construction costs and loss of property use and income. To assist owners in the protection of their investment, DESMAN provides many clients with annual facility inspections and maintenance and repair programs.

For structures that have fallen into a state of disrepair or deterioration, DESMAN offers a full range of restorative services. From detecting sources of material failure or water infiltration to reversing the devastating effects of time and weather, DESMAN can develop cost-effective solutions to revitalize your facility.

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

ZMM ARCHITECTS & ENGINEERS

**Role**
Architect, Principal

**Professional Registrations**
Registered Architect (WV, OH, KY, VA)
LEED Accredited Professional
NCARB (55,984)
Construction Specifications Institute (CSI)
Construction Documents Technician (CDT)

Mr. Krason has served in the capacity of Architect and Project Manager for a variety of projects at ZMM. This experience includes Military, Educational (K-12 and Higher Education), Office, Justice (Courthouses, Correctional, Justice Centers), and Multi-Unit Residential projects. Mr. Krason's responsibilities include programming, design, documentation, coordination of the architectural and engineering team, as well as construction administration. Mr. Krason began his career in 1998, working on a variety of educational, commercial office, and correctional projects throughout Ohio, West Virginia, and North Carolina.

Mr. Krason has been an advocate of sustainable design in West Virginia, participating in a variety of sustainable design seminars throughout the State, and serving on the West Virginia School Building Authority Green Schools Sub-Committee. Recently, Mr. Krason helped coordinate the "Making the Business Case for Sustainability" conference at the University of Charleston that included speakers from Armstrong Industries, American Electric Power, CB Richard Ellis, and Interface Raise. Mr. Krason also assisted Habitat for Humanity Kanawha and Putnam County develop a commercial recycling program to fill a void in the sustainable design infrastructure in West Virginia. Mr. Krason has noted that, "I became a LEED Accredited Professional because I believe that good design has value, and the ability to impact our daily lives. Sustainable design showcases the value of design through demonstrated improvements in the performance of the students and employees who occupy our buildings." In addition to his design and project management responsibilities, Mr. Krason serves on the Board of Directors and is responsible for business development at ZMM.

**Project Experience**
**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.

**Kanawha County Public Library, Charleston, WV**
Mr. Krason is the Project Manager for design and managing the project team for the new 118,000 SF main branch in downtown Charleston. Once completed, the new library will nearly triple the size of the existing facility allowing for collection expansion and other growth opportunities. The project features a day-lit atrium that will serve as a greeting, gathering and display space that provides access to all areas of the library. Other features include meeting space, a café and a roof-top reading garden.

**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. The project received LEED Gold Certification.

**Girl Scouts of Black Diamond Council, Charleston, WV** Mr. Krason is the Project Manager on the new Volunteer Resource Center and Girl Zone/Urban Camp in Charleston, WV. The 18,000 SF project will completely renovate 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 will bring all the operations of the Girl Scouts of the Black Diamond Council under one roof.

**Construction and Facilities Management Office Expansion (WVARNG), Charleston, WV**
Mr. Krason was responsible for the programming, architectural design, and project management of the office expansion. The project included the renovation and addition to an existing pre-engineered metal building. The design, which was honored with a 2009 AIA Merit Award, focused the client's resources on a new entry and corridor that separated the existing office space from the addition.

**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.

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

**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

# Matthew W. Repasky, PE

DESMAN
Design Management

**Role**
Senior Associate / Structural Engineer

**Professional Registrations**
Professional Engineer (OH, PA)

Mr. Repasky has twenty two years experience in the field of structural engineering. Throughout this time, he has been involved in the engineering and management of a variety of structural engineering projects. His duties have also included extensive report writing, computerized structural analysis design, and the generation of project plans and specifications. He has been responsible for all aspects of project management and project cost estimating, as well as budget tracking and financial planning of capital projects for both the public and private sectors.

Mr. Repasky has been involved in the structural design and/or analysis of new and existing structures constructed of masonry, reinforced concrete, wood and steel. Mr. Repasky was involved in façade renovations to buildings in the downtown Cleveland area, repairs and renovations to numerous concrete structures in the Ohio (Cleveland, Columbus, Akron, and Cincinnati areas) and Pennsylvania (Pittsburgh, Erie, and Altoona). At any one time Mr. Repasky could be managing and overseeing as many as ten to twelve projects. Some of the projects Mr. Repasky has worked on involved close relations with contractors and local and state permit departments. Mr. Repasky has become familiar with various types of structural configurations utilized to construct various types of structurally supported facilities. Structural configurations have included precast concrete, cast-in-place conventionally reinforced structures, post-tension cast-in-place structures, steel frame structures, and a mix of two or three of the above mentioned configurations.

**Project Experience**

- Presby Parking Garage, UPMC, Pittsburgh, PA
- Towerview Parking Garage, UPMC, Pittsburgh, PA
- Smithfield-Liberty Parking Garage, Pittsburgh, PA
- Fort-Duquesne & Sixth Parking Garage, Pittsburgh, PA
- East Campus Parking Garage, Carnegie Mellon University, Pittsburgh, PA
- Third Avenue Parking Garage, Pittsburgh, PA
- Ninth & Penn Parking Garage, Pittsburgh, PA
- Grant Transportation Center Parking Garage, Pittsburgh, PA
- First Avenue Parking Garage, Pittsburgh, PA
- Oliver Parking Garage, Pittsburgh, PA
- Mellon Square Parking Garage, Pittsburgh, PA
- Wood-Allies Parking Garage, Pittsburgh, PA
- Forbes-Semple Parking Garage, Pittsburgh, PA
- Shadyside Parking Garage, Pittsburgh, PA

**Education**
Youngstown State University, Youngstown, OH

**Employment History**
2000 - Present, Senior Associate, DESMAN

**Civic Affiliations**
- 1997 – Present, AISE Member

- Stanwix Parking Garage, Pittsburgh, PA
- Boulevard of the Allies, Parking Garage, Pittsburgh, PA
- Forbes Parking Garage, Pittsburgh, PA
- Liberty Center Parking Garage, Pittsburgh, PA
- Chatham Center Parking Garage, Pittsburgh, PA
- Westmoreland Mall, Greensburg, PA
- Ramp M1, UPMC Hamot Hospital, Erie, PA
- Ramp B, Erie, PA
- Ramp D, Erie, PA
- Ramp D1, Erie PA
- Ramp Q, Erie, PA
- Ramp K1, St. Vincent's Hospital, Erie, PA
- Ramp K2, St. Vincent's Hospital, Erie, PA
- Logan Valley Mall Parking Garage, Altoona, PA
- Exton Square Mall, Exton, PA
- Stroud Mall, Stroudsburg, PA
- Exchange Street Parking Garage, University of Akron, Akron, OH
- ASB Parking Garage, University of Akron, Akron, OH
- 340 Town Street Parking Garage, Grant Hospital – Columbus, OH
- South 6th Street Parking Garage, Grant Hospital – Columbus, OH
- 393 Town Street Parking Garage, Grant Hospital – Columbus, OH
- Green Garage, Grant Hospital/Riverside – Columbus, OH
- Red Garage, Grant Hospital/Riverside – Columbus, OH
- Purple Garage, Grant Hospital/Riverside – Columbus, OH
- P1, P2, P3, & P4 Parking Garages, Mount Carmel Hospital West, Columbus, OH
- P1 & P2 Parking Garages, Mount Carmel Hospital – East, Columbus, OH
- Main Classroom Parking Garage, Cleveland State University, Cleveland, OH
- Meridia Huron Hospital Parking Garage, Cleveland, OH
- Three Village Condo Parking Garage, Lyndhurst, OH
- Waterford Condominium Parking Garage, Lakewood, OH
- Orangewood Place Parking Garage, Beachwood, OH
- North Garage, SummaHealth, Akron, OH
- South Garage, SummaHealth, Akron, OH
- St. Thomas Hospital Parking Garage, SummaHealth, Akron, OH
- West Campus Parking Garage , University of Akron, Akron, OH
- Schrank Hall Parking Garage and Plaza, University of Akron, Akron, OH
- North Parking Garage, MetroHealth, Cleveland, OH
- OBC Parking Garage, MetroHealth, Cleveland, OH
- South Parking Garage, MetroHealth, Cleveland, OH
- Federal Reserve Bank Parking Garage, Cleveland, OH
- Tower City Parking Garage, Cleveland, OH
- Halle Building Parking Garage, Cleveland, OH
- Rockwell Parking Garage, Cleveland, OH
- Lincoln Building Parking Garage, Cleveland, OH
- Great Lakes Science Center Parking Garage, Cleveland, OH
- Union Club Parking Garage, Cleveland, OH

# Robert Doeffinger, PE

ZMM ARCHITECTS & ENGINEERS

**Role**
Mechanical Engineering Principal

**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, Bridgemont 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.

**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. This project achieved LEED Gold Certification.

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

**West Virginia 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.

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

**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.

**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.

**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.

**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.

# Jerome J. Swantner, PE

DESMAN
Design Management

**Role**
Vice President / Structural Engineer

**Professional Registrations**
Professional Engineer (WV, VA, RI, KY, GA, MD, DC, DE, VT, PA, SC, NC, AR, NE, KS, WI, MS, IN, MO, MN, TN )

Mr. Swantner has been with DESMAN since 1991 and is the Vice President in charge of the Mid-Atlantic Regional Office in McLean, Virginia. As Vice President, Mr. Swantner acts as Director of Operations for the office ensuring that the office is properly staffed and that project managers have adequate resources to complete projects within the expectations of the client.

Mr. Swantner is structural engineer of record of multiple projects and performs design review and final Quality Assurance checks of those projects completed by the project managers under his supervision.

**Project Experience**

- Robert Byrd Intermodal Transportation Center, Wheeling, WV
- Intermodal Transit Facility, Parkersburg, WV
- Fairmont State College Parking Facility, Fairmont, WV
- Yeager Airport Parking Garage, Charleston, WV
- Prince George Street Garage, Williamsburg, VA
- Virginia Tech Parking Structure, Blacksburg VA
- George Mason University Deck #3, Fairfax, VA
- Convocation Center Parking Structure South, Old Dominion University, Norfolk, VA
- Camp Allen Parking Deck, Norfolk, VA
- INOVA Fairfax Hospital Parking Garages #4 & #5 Falls Church, VA
- J. Sargent Reynolds Community College Downtown Parking Deck, Richmond, VA
- Richmond International Airport North Deck Expansion Richmond, VA
- WMATA Vienna Station Garage #2, Vienna, VA
- Riverside Regional Medical Center Deck, Newport News, VA
- Adair Hall Parking Facility, College of William & Mary, Williamsburg, VA
- 14th & Main Street Parking Deck, Virginia DGS, Richmond, VA
- Henrico County Government Center Parking Deck, Richmond, VA
- Washington Nationals Ballpark, Washington, DC
- United States Institute of Peace Headquarters, Washington, DC
- National Harbor Building P, Oxon Hill, MD
- Salisbury University Parking Deck, Salisbury, MD

**Education**
B.S. Architectural Engineering, Pennsylvania State University, University Park, PA

**Employment History**
1992 - Present, Vice President / Structural Engineer, DESMAN

**Civic Affiliations**

- Community Associations Institute
- American Concrete Institute
- Washington Parking Association
- Baltimore Parking Association
- Mid - Atlantic Parking Association
- International Parking Institute

- Christiana Care Health Services Parking Deck 2, Wilmington, DE
- Obermyer Street (NC A&T U) Parking Deck, Greensboro, NC
- Dunbar Street Parking Garage, City of Spartanburg, SC
- City Place Parking Garages, West Palm Beach, FL
- VA Outpatient Clinic & Parking Deck, Harlingen, TX
- Union Plaza Terminal Parking Facility, El Paso, TX

# Rodney Pauley, AIA

ZMM ARCHITECTS & ENGINEERS

**Role**
Project Manager

**Professional Registrations**
Registered Architect (WV)

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

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

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

## Project Experience

**WV Lottery Headquarters, Charleston, WV**
Mr. Pauley is the project manager for a design team that is currently preparing construction documents for renovations to the existing WV Lottery Headquarters complex in Charleston, WV. Renovations to the existing 12-story office building include the demolition and reconstruction of three floors of tenant space and demolition and replacement of the existing roof along with various minor renovations throughout the office tower. The existing 7-story parking deck will undergo an extensive structural renovation, includes: replacing bearing pads, patch & repair of concrete members and the addition of waterproofing protection. The existing warehouse under the parking deck is being enlarged to provide additional storage space.

**Education**
Bachelor of Architecture, University of Tennessee, 1992

Associate of Science, West Virginia Institute of Technology, 1986

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

**Civic Affiliations**
- American Institute of Architects, Member

**Charleston Civic Center, Charleston, WV**
Mr. Pauley is serving as project manager on 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. The design commenced in the spring of 2015, and construction is scheduled for completion in 2018.

**Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV** Mr. Pauley is the project manager for a design team that is currently preparing construction documents for the renovation to an existing 7-story, 77,000 SF educational building. The project scope includes remedying several engineering and life safety deficiencies, as well as architectural improvements to the building envelope.

**Bridgemont Community and Technical College - Master Plan, Montgomery, WV**
As part of an effort to provide 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.

**WVU Institute of Technology, Montgomery, WV**
Mr. Pauley was the project manager responsible for owner coordination and construction document production for renovations to the Engineering Classroom Building at the WVU Institute of Technology campus in Montgomery, WV. The main project scope included various minor interior renovations to the existing 44,000SF building in support of the Owner's replacement of the building's two elevators. Coordination was critical between ZMM, WVU, the owner's elevator supplier & installer and the WV Division of Labor.

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

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

**One Federal Place, Birmingham, AL** – This is a 12-story, 466,600 SF speculative office building with attached 5-story, 520-car parking deck. *

**Printpack, Inc., Marietta, GA (CC)** – This is a 6-story, 150,000 SF office building with detached 5-story, 400-car parking deck. *

**Marriott Hotel and Conference Center, Atlanta, GA** – This is an 8-story, 282-key, 205,000 SF hotel and conference center with detached 5-story, 332-car parking deck. *

# Brian T. Hengle, PE

DESMAN
Design Management

**Role**
Structural Engineer

**Professional Registrations**
Professional Engineer (OH, PA)

Mr. Hengle has fifteen years of experience in the field of structural engineering. He has been involved in structural design and project management related to new design and restoration of various types of facilities including municipal, retail, industrial, office, religious, medical and educational. Through his involvement in these projects his duties have included structural design and analysis; technical writing, including reports and specifications; preparation of bid documents; and construction cost estimating. His skills include a proficiency in computer aided drafting along with structural design/analysis utilizing manual techniques and computer software.

Mr. Hengle's structural engineering projects have utilized various construction materials including: masonry, concrete, steel, wood and light-gauge metal. He has worked on projects including parking structures throughout Pennsylvania and Ohio.

**Project Experience**

- Liberty Center Parking Garage, Pittsburgh, PA
- Chatham Center Parking Garage, Pittsburgh, PA
- Forbes Semple Parking Garage, Pittsburgh, PA
- Wood Allies Parking Garage, Pittsburgh, PA
- Boulevard of the Allies Parking Garage, Pittsburgh, PA
- Forbes Avenue Parking Garage, Pittsburgh, PA
- Stanwix Street Parking Garage, Pittsburgh, PA
- Ramp B, Erie, PA
- Ramp K1, Erie, PA
- Stroud Mall Parking Garage, Stroudsburg, PA
- Westmoreland Mall Parking Garage, Greensburg, PA
- Market Square Parking Garage, Meadville, PA
- Trinity East Hospital Parking Garage, Steubenville, Ohio
- 11th Avenue Parking Garage, Ohio State University, Columbus, OH
- Northwest Parking Garage, Ohio State University, Columbus, OH
- West Lane Parking Garage, Ohio State University, Columbus, OH
- Martha Morehouse Parking Garage, Ohio State University, Columbus, OH
- 98-102 N Front Street Parking Garage, Columbus, OH

**Education**
Youngstown State University, Youngstown, OH

**Employment History**
2001 - Present, Structural Engineer, DESMAN

**Civic Affiliations**

- ASCE, Professional Member
- SEAoO, Member
- SEI, Member

# Stephen Hedrick, PE

ZMM ARCHITECTS & ENGINEERS

**Role**
Structural Engineer

**Professional Registrations**
Professional Engineer (WV)

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

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

# Michael Sipe, PE

ZMM ARCHITECTS & ENGINEERS

**Role**
Structural Engineer

**Professional Registrations**
Professional Engineer (WV)

Mr. Sipe is responsible for the design of the structural systems, ensuring that they 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. Sipe began his career in structural engineering by designing commercial, educational, residential, and medical structures in Morgantown WV. He has a broad range of experience in masonry, concrete, steel and timber design. In 2012, Mr. Sipe moved back to Charleston, WV, to take a structural engineering position with ZMM.

**Project Experience**

- Ceredo-Kenova Elementary School, Kenova, WV
- Dunbar Surplus Property, Dunbar, WV
- Kanawha Valley Bank Cooling Tower, Charleston, WV
- Mason Cty Moose Lodge Renovation, Point Pleasant, WV
- CAMC ICU Addition, Hurricane, WV
- Cabell County Bus Garage Facility, Huntington, WV
- Houston Company Store Restoration, Kimball, WV
- Sherman Junior/Senior High Renovations, Seth, WV
- WV Lottery Building Structural Evaluation, Charleston, WV
- Jeld-Wen Pipe Rack Structures, Craigsville, WV
- Culloden Elementary Addition, Culloden, WV
- Southern West Virginia Community & Technical College, Structural Evaluations, Southern Region, WV

**Education**
Bachelor of Mechanical Engineering with Minor in Mathematics, West Virginia Institute of Technology, 2005

**Employment History**
2012 - Present, Structural Engineer, ZMM
2006 - 2012, Structural Engineer, Allegheny Design Services

**Civic Affiliations**

- American Institute of Steel Construction, Member

# Scot Casdorph, PE

ZMM ARCHITECTS & ENGINEERS

**Role**
Electrical Engineer

**Professional Registrations**
Professional Engineer (WV)

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

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

**Project Experience**

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

**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

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

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

**Fort Gay PK-8 School, Fort Gay, WV**
Mr. Casdorph was the electrical engineer and was responsible for the electrical power distribution and design. The New Fort Gay PK-8 School replaces the existing facility that has been in disrepair and lacking the spaces and technology delivery system required for 21st century learning skills. The total enrollment for the school is 603 Students. The new grade configuration separates the Elementary students from the Middle School students, but still allows use of the common spaces within the building. They share the Dining Room, Gymnasium, Media Center and a Stage.

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

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

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

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

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

Oak Hill Elementary, Fayetteville, WV
Valley High School, Smithers, WV
Divide Elementary School, Lookout, WV

# Glenn Savage, CSI-CDT

ZMM ARCHITECTS & ENGINEERS

**Role**
Construction Contract Administrator

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

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

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

**Project Experience**

- Southern West Virginia Community & Technical College, Williamson, WV
- CAMC Teays Valley ICU, Teays Valley, WV
- Highland Hospital, Charleston, WV
- Beech Fork Lodge, Wayne, WV
- The Retreat at Glade Springs, Daniels, WV
- WV State Police Office, South Charleston, WV
- WV State Office Building #5, 10th Floor, Charleston, WV
- Wood County Justice Center, Parkersburg, WV
- Cacapon State Park, Berkeley Springs, WV
- Blackwater Falls State Park, Davis, WV
- West Virginia State Police Office, So. Charleston, WV
- Edgewood Elementary School, Charleston, WV
- Divide Elementary School, Charleston, WV
- Craigsville Elementary School, Craigsville, WV
- Oak Hill Elementary, Oak Hill, WV
- BridgeValley Community & Technical College – Davis Hall Renovations
- Mountaineer Middle School, Clarksburg, WV
- Nicholas County High School, Summersville, WV
- East Greenbrier High School, Lewisburg, WV
- West Virginia Western Regional Jails
- Alderson Federal Prison Camp, Alderson, WV
- Jean Dean Safety Building, Huntington, WV
- Summersville Hospital Medical Building, Summersville, WV

**Education**
Bachelor of Science, University of Charleston, 1997

Associate of Science, West Virginia State University, 1992

**Employment History**
1998 - Present, Construction Contract Administrator, ZMM
1997-1998, Geotech
1992 -1997, Battle Ridge Construction
1981-1992, H. C. Nutting Geotechnical Testing Engineers

**Civic Affiliations**

- Member CSI
- Kanawha Valley Leadership Course Graduate
- Maintained all certifications for WVDOT testing materials

# Parking Garage Experience

**West Virginia Lottery Parking Garage, Charleston WV** This is a seven story parking deck

**Municipal Parking Garage (Un-built), Charleston WV** Designed as part of a design-build proposal for the City of Charleston, this 676 car garage also contained approximately 14,000 square feet of retail space on the ground level. The six level pre-cast concrete structure planned for the heart of downtown was designed with details and materials to blend with the older surrounding buildings.

**Parking Garage for the Mardi Gras Racetrack and Gaming Center (Un-built), Charleston, WV** Designed as part of a design-build effort to provide additional parking for the expansion of a local race track and casino, this 3000 car, 6 level pre-cast concrete garage was designed to merge with the sloping site, connect to the casino and have the appearance of multiple small, storefront-like building facades.

**Parking Garage for Marshall University (Proposed Design – Not Selected), Huntington, WV**

**One Federal Place, Birmingham, AL** – This is a 12-story, 466,600 SF speculative office building with attached 5-story, 520-car parking deck. *

**Printpack, Inc., Marietta, GA (CC)** – This is a 6-story, 150,000 SF office building with detached 5-story, 400-car parking deck. *

**Marriott Hotel and Conference Center, Atlanta, GA** – This is an 8-story, 282-key, 205,000 SF hotel and conference center with detached 5-story, 332-car parking deck. *

* These Projects were by Rodney Pauley while with a previous employer.

*Design Build*

**Huntington Banks Parking Garage, Huntington, WV** This parking structure was an in-fill project on a very small site in downtown Charleston. The constraints of the small site along with requirements to protect other neighboring buildings as well as to connect the garage to several floors of the existing adjacent office tower became an integral part of the design. The pre-cast concrete structure will hold 455 cars and consists of eight levels, one below grade and seven above grade. The street level façade was designed to integrate into the base of the existing office tower to merge the two buildings together.

**Parking Garage for the King of Prussia Shopping Center** – PA - 750,000 sf., 1993. Mechanical and Storm Water Design.

**Parking Garage for the King of Prussia Shopping Center** – PA - 750,000 sf., 1994. Mechanical and Storm Water Design.

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# Representative List of Regional Projects

| | |
|---|---|
| Yeager Airport Garage | Charleston, WV |
| Fairmont State College | Fairmont, WV |
| Mountaineer Transportation Center | Morgantown, WV |
| Parkersburg Intermodal Parking Facility | Parkersburg, WV |
| Robert C Byrd Intermodal Transportation Center | Wheeling, WV |
| Call Chronicle Parking Facility | Allentown, PA |
| Parking Facility for the City of Altoona | Altoona, PA |
| Downtown Carlisle Parking Study | Carlisle, PA |
| Glenside Station Feasibility Study | Cheltenham, PA |
| California University Vulcan Garage | California, PA |
| Pomfrest Street Parking Garage | Carlisle, PA |
| Third and Ferry St. Parking Structure | Easton, PA |
| Easton Intermodal | Easton, PA |
| Comprehensive Review and Analysis of the Easton Parking System | Easton, PA |
| Downtown Easton Parking Study | Easton, PA |
| Bayfront Parking Garage Feasibility Study | Erie, PA |
| Hamot Parking Ramp Study, Erie Parking Authority | Erie, PA |
| Peach Street Parking Ramp Feasibility Study | Erie, PA |
| St. Vincent Medical Center Garage Parking Feasibility Study | Erie, PA |
| City of Erie Downtown Parking Study | Erie, PA |
| Hamot Medical Center Garage Parking Facility Study | Erie, PA |
| Erie Parking Authority Dobbins Landing Parking Feasibility Study | Erie, PA |
| Erie VA Medical Center | Erie, PA |
| Ramp Q | Erie, PA |
| Ramp D | Erie, PA |
| Downtown Harrisburg Parking Study | Harrisburg, PA |
| Farm Show Parking Planning | Harrisburg, PA |
| Jenkintown Station Upgrade and Parking Feasibility Study | Jenkintown, PA |
| The Court Shopping Mall | King of Prussia, PA |
| Ardmore Regional Rail Station | Lower Merion Township, PA |
| Meadville Downtown Parking Study | Meadville, PA |
| Market Square Parking Garage | Meadville, PA |
| Ralston Purina Warehouse Addition | Mechanicsburg, PA |
| Southside Works Parking Garage | Pittsburgh, PA |
| Carnegie Mellon University East Campus Garage | Pittsburgh, PA |
| Carnegie Mellon Univ Tepper School of Business Underground Parking | Pittsburgh, PA |
| Financial Analysis of Parking Assets & Market Assessment, PPA | Pittsburgh. PA |
| Pittsburgh Parking Meter System Automation Plan | Pittsburgh, PA |
| Olive & Smithfield Downtown Development Feasibility Study | Pittsburgh, PA |
| Fourth Avenue Downtown Pkg Garage Development Feasibility Study | Pittsburgh, PA |
| Lankenau Hospital Parking Structure | Philadelphia, PA |
| Chatham Center Parking Garage | Pittsburgh, PA |
| 625 Stanwix Parking Garage | Pittsburgh, PA |
| Boulevard of the Allies Parking Garage | Pittsburgh, PA |
| Forbes Avenue Parking Garage | Pittsburgh, PA |
| Liberty Center Parking Garage | Pittsburgh, PA |
| Wood-Allies Parking Garage | Pittsburgh, PA |
| Center Square Plaza Garage | Philadelphia, PA |
| ASB Parking Garage | Akron, OH |
| East Campus Parking Deck | Akron, OH |
| O'Neil's Building Parking Garage | Akron, OH |
| Opportunity Park | Akron, OH |
| SUMMA Health System North Parking Deck | Akron, OH |
| SUMMA Health System South Parking Deck | Akron, OH |
| SUMMA Health System St. Thomas Parking Garage | Akron, OH |
| SUMMA Health System West Parking Deck | Akron, OH |

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# Representative List of Regional Projects

| | |
|---|---|
| University of Akron Comprehensive Condition Assessment of Garages | Akron, OH |
| University of Akron Exchange Street Parking Garage | Akron, OH |
| University of Akron Polsky Parking Deck Repair and Renovation | Akron, OH |
| University of Akron Schrank Hall Plaza & Parking Garage Restoration | Akron, OH |
| Canton Downtown Parking Garages Lease/Purchase Analysis | Canton, OH |
| Canton Parking Needs Assessment and On-Street Operational Analysis | Canton, OH |
| Cultural Center Garage Restoration | Canton, OH |
| City of Canton Parking Needs Assessment | Canton, OH |
| Chagrin Falls Downtown Parking Assessment/System Mgmt Study | Chagrin Falls, OH |
| 580 Walnut | Cincinnati, OH |
| Children's Hospital Garage Expansion | Cincinnati, OH |
| Drexel Parking Facility | Cincinnati, OH |
| Deaconess Hospital Garage Expansion | Cincinnati, OH |
| Downtown Cincinnati Master Plan (Parking Report) | Cincinnati, OH |
| Federated Garage | Cincinnati, OH |
| Hamilton County Sycamore Street Pkg Garage Feas Study | Cincinnati, OH |
| Hamilton County Garage Economic Feasibility Study | Cincinnati, OH |
| June Street Pkg Structure at Bethesda Oak Hospital | Cincinnati, OH |
| Kenwood Towne Place | Cincinnati, OH |
| Northgate Mall Parking Structure | Cincinnati, OH |
| Rookwood Commons Office/Parking Garage | Cincinnati, OH |
| Tri-County Mall Parking Structure | Cincinnati, OH |
| University of Cincinnati Medical Center Parking Structure | Cincinnati, OH |
| University Village – Block A, E and H | Cincinnati, OH |
| Winslow Street Parking Garage at Bethesda Oak Hospital | Cincinnati, OH |
| West 9th Street Condominium Parking Garage | Cleveland, OH |
| 515 Euclid Avenue Mixed Use Tower | Cleveland, OH |
| 55 Public Square Garage Condition Survey | Cleveland, OH |
| 740 Euclid Avenue Garage Condition Survey | Cleveland, OH |
| 801 Rockwell Garage Condition Survey | Cleveland, OH |
| Abington Road Parking Facility | Cleveland, OH |
| Ameritrust Parking Garage Due Diligence Review & Evaluation | Cleveland, OH |
| Anthony J. Celebrezze Building Plaza Restoration | Cleveland, OH |
| Atrium Building Basement Level Conversion Into Parking | Cleveland, OH |
| Atrium Building Parking Structure Condition Assessment | Cleveland, OH |
| Buckeye Woodhill Rapid Transit Station | Cleveland, OH |
| Case Western Reserve Univ. Health Sciences Center Plaza/Garage Repair | Cleveland, OH |
| Case Western Reserve University Adelbert Road Parking Garage | Cleveland, OH |
| Case Western Reserve University Health Sciences Center Garage | Cleveland, OH |
| Case Western Reserve University West Parking Garage | Cleveland, OH |
| Circle Drive Parking Facility | Cleveland, OH |
| City of Cleveland Municipal Parking Tax Study | Cleveland, OH |
| City of Cleveland Parking Master Plan | Cleveland, OH |
| City of Cleveland Willard Parking Garage – Value Engineering Consulting | Cleveland, OH |
| Cleveland Clinic Foundation Wilbur Street Garage | Cleveland, OH |
| Cleveland Clinic Foundation 89th & 93rd Street Traffic Impact Analysis | Cleveland, OH |
| Cleveland Heights Parking Study & Analysis of Three Business Districts | Cleveland, OH |
| Cleveland Hopkins Airport Garage No. 2 | Cleveland, OH |
| Cleveland Museum of Art | Cleveland, OH |
| Cleveland Municipal Stadium Parking Facility Development | Cleveland, OH |

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# Representative List of Regional Projects

| | |
|---|---|
| Cleveland Hopkins Airport Flyover Bridge | Cleveland, OH |
| Cleveland State University Comprehensive Master Plan Parking Study | Cleveland, OH |
| Cleveland State University, 17th & 18th Block Project | Cleveland, OH |
| Cleveland State Univ. Parking Garage Structural Concrete Rehabilitation | Cleveland, OH |
| Cleveland State Univ. Lot Z Parking Garage Design & Feasibility Study | Cleveland, OH |
| Cleveland-Cuyahoga County Port Authority Ferry Terminal Access/Parking Study | Cleveland, OH |
| Courthouse Plaza Parking Garage Feasibility Study | Cleveland, OH |
| Cuyahoga Community College Expansion Joint Replacement | Cleveland, OH |
| Cuyahoga Community College Parking Facilities Master Plan | Cleveland, OH |
| Cuyahoga Community College Plaza Level Guardrail Renovations | Cleveland, OH |
| Cuyahoga County Ameritrust Garage Condition Assessment | Cleveland, OH |
| Cuyahoga County Juvenile Detention Center Parking Assessment | Cleveland, OH |
| Downtown Cleveland Parking Market Study | Cleveland, OH |
| Deaconess Hospital Parking Garage | Cleveland, OH |
| Flats East Bank Neighborhood Development Parking Study | Cleveland, OH |
| Gateway Adjacent (On-Site) Parking Garage | Cleveland, OH |
| Gateway Development Parking Study | Cleveland, OH |
| Gateway North Façade Panels Condition Assessment | Cleveland, OH |
| Gordon Square Arts District Parking Needs Assessment | Cleveland, OH |
| Harvard Yard Vehicle Service Center | Cleveland, OH |
| Historic Warehouse District Parking Study | Cleveland, OH |
| IMG Center Parking Garage Restoration | Cleveland, OH |
| Jewish Community Federation of Cleveland Parking Study | Cleveland, OH |
| John Carroll University Parking & Traffic Study | Cleveland, OH |
| Lakeside Garage Expansion | Cleveland, OH |
| Lee-Meadowbrook Development Parking Consulting Services | Cleveland, OH |
| Louis Stokes Cleveland VA Hospital | Cleveland, OH |
| Meridia Hillcrest Hospital Garage Expansion | Cleveland, OH |
| Meridia Huron Hospital Parking Garage Repairs | Cleveland, OH |
| MetroHealth Medical Center Critical Care Pavilion Parking Study | Cleveland, OH |
| MetroHealth Medical Center Employee Parking Lot Design Services | Cleveland, OH |
| MetroHealth Medical Center Valentine Parking Garage | Cleveland, OH |
| North Coast Harbor Parking Study | Cleveland, OH |
| Playhouse Square Center Parking | Cleveland, OH |
| Rainbow Babies Garage at University Hospitals | Cleveland, OH |
| Reserve Square Restoration | Cleveland, OH |
| Severance Hall Underground Garage | Cleveland, OH |
| Terminal Tower Condition Survey | Cleveland, OH |
| Terminal Tower Parking Garage New Ramp Access Design | Cleveland, OH |
| The Carlyle Condominium | Cleveland, OH |
| Tower City Center Circulation Analysis | Cleveland, OH |
| University Circle Inc. Maintenance Inspection | Cleveland, OH |
| University Circle Parking Supply and Demand Study | Cleveland, OH |
| University Circle Parking System Management Assessment | Cleveland, OH |
| University Circle Wade Oval Parking Garage Feasibility Study | Cleveland, OH |
| University Hospitals Abington Road Garage | Cleveland, OH |
| University Hospitals Circle Drive Parking Garage | Cleveland, OH |
| University Hospitals Patient Parking Garage | Cleveland, OH |
| University Circle Wade Oval Parking Garage Feasibility Study | Cleveland, OH |

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# Representative List of Regional Projects

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|---|---|
| University Hospitals of Cleveland Traffic and Parking Study | Cleveland, OH |
| Coventry Parking Garage | Cleveland Hts, OH |
| Lennox-Surrey Parking Garage | Cleveland Hts, OH |
| 340 Town Street Garage & 6th Street Garage | Columbus, OH |
| Arena Grand Parking Facility at Nationwide Arena District | Columbus, OH |
| American Electric Power (AEP) Parking Facility | Columbus, OH |
| Brewery District Office Garage | Columbus, OH |
| Bureau of Workman's Compensation (BWC) Parking Garage | Columbus, OH |
| Crate & Barrel at Easton Parking Terrace | Columbus, OH |
| Easton Town Center A & B Deck | Columbus, OH |
| Field Harbor Garage Assessment | Columbus, OH |
| Galleria Parking Garage Restoration | Columbus, OH |
| Garage for the Joseph | Columbus, OH |
| Grant Medical Center & Doctors Hospital Parking Study | Columbus, OH |
| Hilton at Easton Parking Garage | Columbus, OH |
| Huntington National Bank Corp Office Pkg Garage Resto | Columbus, OH |
| Marconi Ave (Nationwide Cinema) Garage | Columbus, OH |
| Mount Carmel Medical Center Parking Garage | Columbus, OH |
| Nationwide Insurance Co. - Front Street Garage Expansion | Columbus, OH |
| Nationwide Insurance Co.-Multiplex Cinema Parking Garage | Columbus, OH |
| Nationwide Insurance Co.-Arena District Parking Master Plan | Columbus, OH |
| NRI Development - East Campus Parking Master Plan | Columbus, OH |
| Ohio Exp Center Restoration | Columbus, OH |
| Ohio State University - Camera Ctr Pkg Needs Assessment | Columbus, OH |
| Ohio State University - Privatization Study | Columbus, OH |
| Ohio State University - Heart Hospital Parking Garage | Columbus, OH |
| Ohio State University - Lane Avenue Parking Garage | Columbus, OH |
| Ohio State University - NW Garage Expansion Prelim Design | Columbus, OH |
| Ohio State University - (Campus Partners) Redevelop Proj | Columbus, OH |
| Port of Columbus Airport Parking Garage Parking Study | Columbus, OH |
| South Campus Gateway Parking Structure | Columbus, OH |
| Ohio Public Employees Retirement System (OPERS) Garage | Columbus, OH |
| Statehouse Underground Garage Restoration | Columbus, OH |
| 123 Third Street Parking Garage | Dayton, OH |
| Calvary Water Reservoir Restoration | Dayton, OH |
| City of Dayton First & Main Parking Garage Preliminary Design | Dayton, OH |
| City of Dayton Downtown Parking Study and Future Facilities Plan | Dayton, OH |
| City of Dayton Downtown Parking System Management Study | Dayton, OH |
| Government Center Parking Facility | Dayton, OH |
| Montgomery County Parking Garage | Dayton, OH |
| Erie Shores Apartment Building Balcony Support Design | Elyria, OH |
| Lorain County Parking Garage Repair & Renovation | Elyria, OH |
| Lumberyard Redevelopment Project Parking Impact Study | Grove City, OH |
| City of Hudson Parking Terrace | Hudson, OH |
| Kent State University Traffic & Parking Studies | Kent, OH |
| Envoy Condominiums Parking Garage Restoration | Lakewood, OH |
| Fairfield Medical Center Garage | Lancaster, OH |
| Market Street Parking Facility | Lima, OH |
| Meridia Hillcrest Hospital Garage Expansion | Mayfield Hts, OH |
| Southwest General Hospital Parking Garage | Middleburg Hts, OH |
| Rookwood Commons Underground Parking Facility | Norwood, OH |
| Tower East Parking Garage Repair & Renovation | Shaker Hts, OH |
| Crown Water Filtration Plan Reservoir Expansion & Rehab | Westlake, OH |
| City of Wooster Parking Study | Wooster, OH |
| St. Elizabeth Hospital Park Avenue Garage | Youngstown, OH |
| Alexandria Knolls West Parking Deck | Alexandria, VA |

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## Representative List of Regional Projects

| | |
|---|---|
| Courthouse Garage | Alexandria, VA |
| Highpoint Co-Op Parking Deck | Alexandria, VA |
| Huntington Gateway Plaza | Alexandria, VA |
| Market Square Garage and Plaza | Alexandria, VA |
| Park Place Condominium Garage | Alexandria, VA |
| The Greenhouse Condominium Plaza and Garage | Alexandria, VA |
| Watergate at Landmark Garage | Alexandria, VA |
| Watergate of Alexandria Garage and Plaza | Alexandria, VA |
| 1600 Wilson Boulevard Garage | Arlington, VA |
| Ballston Public Parking Garage | Arlington, VA |
| Courthouse Place Garage | Arlington, VA |
| Jefferson Plaza Holiday Inn Pool Terrace | Arlington, VA |
| Tower Villas Condominium Plaza | Arlington, VA |
| 2700 Prosperity Avenue Garage | Fairfax, VA |
| 3701 Pender Drive Parking Deck | Fairfax, VA |
| One Monument Place Garage | Fairfax, VA |
| Willow Oaks Parking Structure No. 1 | Fairfax, VA |
| Lord & Taylor Fair Oaks Mall Garage | Fairfax, VA |
| Lake Sequoia Condominium | Falls Church, VA |
| Woodlake Towers Plaza and Garage | Falls Church, VA |
| 1505 Farm Credit Drive Parking Garage | McLean, VA |
| Tysons Corner Center Parking Decks A,B,C, & D | McLean, VA |
| River Park Towers Garage | Newport News, VA |
| Bute Street Parking Garage | Norfolk, VA |
| Freemason Street Parking Garage | Norfolk, VA |
| 7th and Marshall Streets Garage | Richmond, VA |
| Supreme Court Building Garage | Richmond, VA |
| 1900 Gallows Road Garage | Vienna, VA |
| Bellevue Corporate Center Parking Garage | Bellevue, WA |

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## Representative List of Regional Projects

# West Virginia Lottery Headquarters

*Office Building and Parking Garage*

ZMM
ARCHITECTS & ENGINEERS

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.

# West Virginia Lottery

*Parking Garage*

DESMAN
Design Management

LOCATION:
Charleston, WV

SIZE:
217,000 SF

COMPLETION:
2014

COST:
Est. $952,169

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

The WV Lottery Commission Garage is located at 900 Pennsylvania Avenue on the western edge of the Charlestown Central Business District. The structure was constructed in 1980.

DESMAN initially visited the site property to provide an analysis and recommendation for garage repairs to support ZMM's ongoing engineering evaluation of the property. ZMM then requested assistance from DESMAN in the identification of priorities, cost estimating of repairs and review guidance of ZMM's construction documents. Additional services were later implemented whereby DESMAN provided the necessary construction detail drawings and associated technical specifications. Although the work was initially prioritized over two year, the Owner accepted doing the majority of the work in a single construction period.

# West Virginia University - Mountaineer Station

DESMAN
Design Management

LOCATION:
Morgantown, WV

COST:
$13.9M

COMPLETION:
October 2009

OWNER:
West Virginia University

In October 2009, the University formally opened its 500-space parking structure located at the northeast corner of its health sciences campus. Sited for easy access to the University's Personal Rapid Transit system in addition to the major perimeter roadway network, the garage has been designed for an expansion to an eventual capacity of 1,500 spaces. This project was delivered using the design/build method.

DESMAN participated in the programming phase developing parking plans that met the needs of the varying project stakeholders such as Athletics, the local bus transportation system, and the local steam utility. The resulting facility included sustainable features to qualify it for LEED designation. Following acceptance of the project program, DESMAN assisted in the preparation in the design build RFP, authoring the structural and parking requirements. Following contractor selection, DESMAN participated in the design review and construction review phase on behalf of the University.

**Features:**
Design/build intermodal center consisting of a 500-space parking structure, 4-bay intra-city bus area, and new parking & transportation department offices.

# Kanawha County Parking Garage 13

DESMAN
Design Management

LOCATION:
Charleston, WV

COST:
$1.3M

COMPLETION:
2007

The Kanawha County Parking Garage #13 is located in Charleston, West Virginia. The garage is bound between Virginia Street, Goshorn Street, Court Street and Quarrier Street. The structure was constructed in 1996.

DESMAN conducted a condition assessment of the above referenced parking garage to determine the present physical condition of the facility and recommend a near term restoration program and also on- going maintenance for a period of 10 years. Per Owner request, due to budget constraints DESMAN provided a repair program that was phased over a three year period. On-going maintenance costs were developed over the seven year period out of the ten year repair/maintenance program. The total budget for the year repair/maintenance plan was estimated at $1,300,000.

**Features:**
472- Cars free standing parking garage consists of five levels; four supported levels and one slab-on-grade level. The slab-on-grade level is an occupied space with no parking areas.

# Yeager Airport RAC Garage

DESMAN
Design Management

LOCATION:
Charleston, WV

COST:
$6.5M

COMPLETION:
September 2008

OWNER:
WV Airport Authority

The consolidated rental car parking facility is located on the immediate north flank of the Yeager Airport's John D. Rockefeller IV Terminal building. Immediate connection to the terminal baggage claim area and the rental agencies service counter is provided in concert with the vertical pedestrian elements. Enhanced rental car patron comfort is provided by a roof structure and enhanced lighting.

While serving the owner's agent as parking consultant and structural engineer, DESMAN's role included three phases: criteria document preparation and bidding, design phase monitoring, construction phase monitoring. Within these phases, DESMAN first gained the input of the on-airport rental car agencies and visited other consolidated rental car facilities to understand the high level of desired customer service and means to respond to that level of service. Secondly, DESMAN developed structural durability criteria for the garage designed for the climate of Charleston and provided structural and parking criteria provided as part of the design-build Request for Proposals. DESMAN also assisted in the review of proposals, design-builder selection, review of design, and review of construction.

**Features:**
Two-level, 250-car free-standing consolidated rental car storage parking facility.

# Yeager Airport Garage II

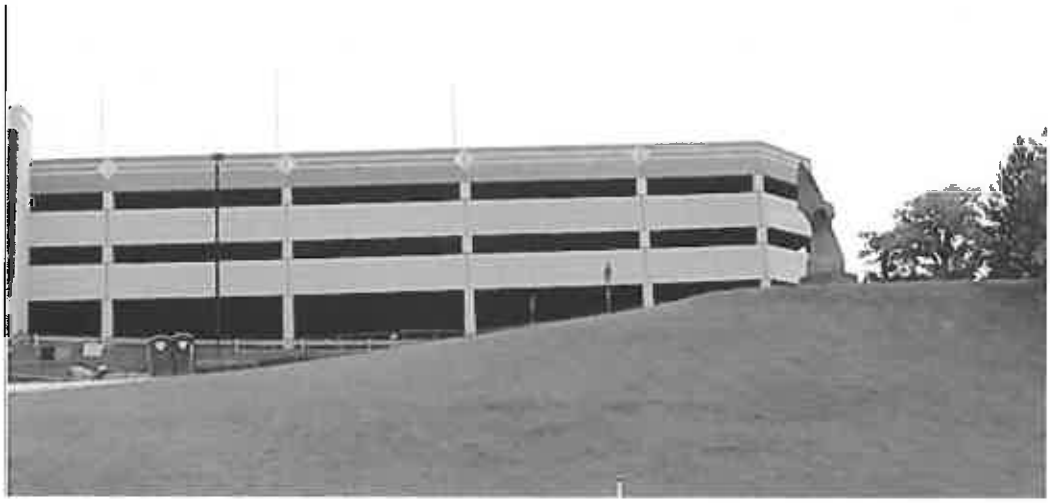
DESMAN
Design Management

LOCATION:
Charleston, WV

COST:
$6.5M

COMPLETION:
June 2005

OWNER:
WV Airport Authority



The Yeager Airport Parking Facility located in Charleston, West Virginia is a 695-space, four-level open horizontal expansion to the existing airport garage.

While serving the owner's agent as parking consultant and structural engineer, DESMAN's role included three phases: criteria document preparation and bidding, design phase monitoring, construction phase monitoring. Within these phases, DESMAN first studied the existing traffic patterns and the functional design of the existing garage and used this to establish the extension's ramping and functional design. Secondly, DESMAN developed structural durability criteria for the garage designed for the climate of Charleston. DESMAN administered the garage's integration into the overall airport master plan and provided structural and parking criteria. DESMAN also reviewed all proposals, design, and reviewed all construction of the garage.

**Features:**
Four-level, 695-car free-standing horizontal expansion of the existing parking garage system.

# Ramp D Parking Garage

DESMAN
Design Management

LOCATION:
Erie, PA

COST:
$2.5M

COMPLETION:
May 2007

OWNER:
Erie Parking Authority
Ray Massing
Executive Director
814.456.7588

DESMAN provided structural and waterproofing restoration services on this 570 car, four-level, partially underground parking structure. The structure consists of a conventionally reinforced pan-joist deck supported by conventionally reinforced beams and columns. The scope of the repairs consisted of a full and partial depth concrete repairs to structurally supported floor slabs, floor joists, main support beams, and columns throughout the garage.

The work also included installation of expansion joint seals and the installation of a traffic-bearing waterproofing membrane. Construction Inspection and Contract Administration Services were also provided by DESMAN.

# On-Street and Off-Street Parking System

DESMAN
Design Management

LOCATION:
Pittsburgh, PA

COMPLETION:
Jan 2010 - Aug 2010

OWNER:
Public Parking Authority of Pittsburgh
David Onorato
Executive Director
232 Boulevard of the Allies
Pittsburgh, PA 15222
412.560.2511

DESMAN Associates was retained by the Public Parking Authority of Pittsburgh (PPAP) to perform an operational review of the City of Pittsburgh Parking System. This included an analysis of the City's 6,759 metered on-street spaces, 33 metered parking lots and 12 parking garages for a total of 8,877 garage spaces and 8,535 metered spaces. Extensive field surveys were performed across the City to investigate various operational aspects of both the on-street and off-street systems. DESMAN conducted parking inventory and occupancy counts of the PPAP off-street metered lots and parking garages. To determine the PPAP's market share and level of market competitiveness, DESMAN conducted surveys of competing off-street public parking facilities within a designated area around each PPAP garage.

These surveys documented: parking inventory, occupancy, hours of operation and parking rates. DESMAN also analyzed the PARCS and staffing in each of the PPAP's garages to identify inefficiencies and propose solutions. DESMAN also conducted surveys of the on-street parking meters throughout the City to determine occupancy and also to determine the percentage of broken or inoperable meters. DESMAN also analyzed the effects that new meter technology and additional operating hours could have on overall revenues and customer service. Potential areas throughout the City that may benefit from new metered spaces were identified and the revenue generating potential of those meters calculated.

DESMAN analyzed the revenue enhancements of converting the single space meters to pay-and-display units based on each meter's current occupancy levels. We determined a revenue enhancement range from 3% - 5% due to the reduction in piggybacking, 0% - 7% from the elimination of broken meters and 0% - 9% due to improved geometry. From the market surveys of each PPAP off-street facility, DESMAN determined the PPAP's market share and competitiveness. Based on these surveys, DESMAN developed a parking rate structure and new operating hours that would maximize overall revenues. DESMAN also developed operating and maintenance standards for the off-street facilities, lots and on-street metered spaces. These operating and maintenance standards provide the PPAP a methodology for enhancing the overall operations, efficiencies and maintenance of the System. The goal of the operating and maintenance standards is to increase revenues and customer satisfaction, while decreasing expenses due to improper maintenance of the System.

# Charleston Civic Center

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
283,000 SF

COMPLETION:
Est. 2017

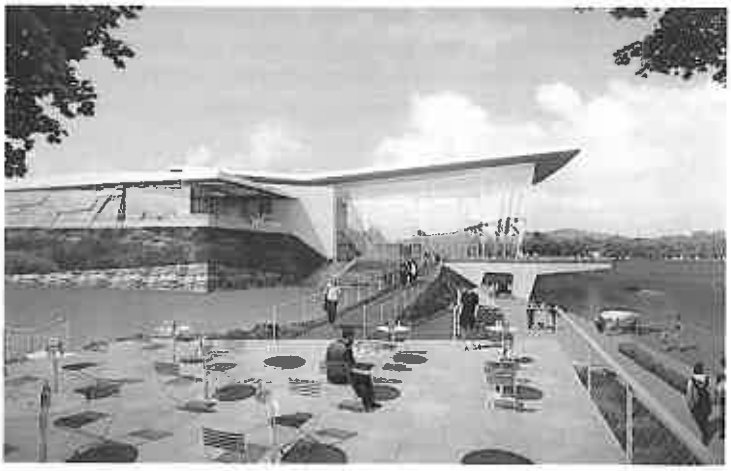
COST:
$75M

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


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.

# State Office Buildings 5,6, & 7

ZMM
ARCHITECTS & ENGINEERS

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 membrance, and rigid insulation were also salvaged as part of the roof replacement project. Several unused mechanical penthouses, antenas, 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.

# Goodwill Prosperity Center

*Historic Renovation*

ZMM
ARCHITECTS & ENGINEERS

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.

# Construction & Facilities Management Office

*WVARNG*

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
19,935 SF

COST:
$3.5M

COMPLETION:
2008

CONTACT:
COL Joseph Stephens
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.

# Charleston EDGE Complex

ZMM
ARCHITECTS & ENGINEERS


LOCATION:
Charleston, WV

SIZE:
41,250 SF

COMPLETION:
TBD

COST:
$10M

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

How does West Virginia attract and retain young talent? How do we keep our children and grandchildren in the State when the opportunities for them seem to be so much brighter in other areas? How do we stop the brain drain as our best and our brightest young professionals relocate to DC, Charlotte, and other urban areas? These questions have plagued West Virginians for years, and the proposed Charleston EDGE Complex will be one piece of the solution.

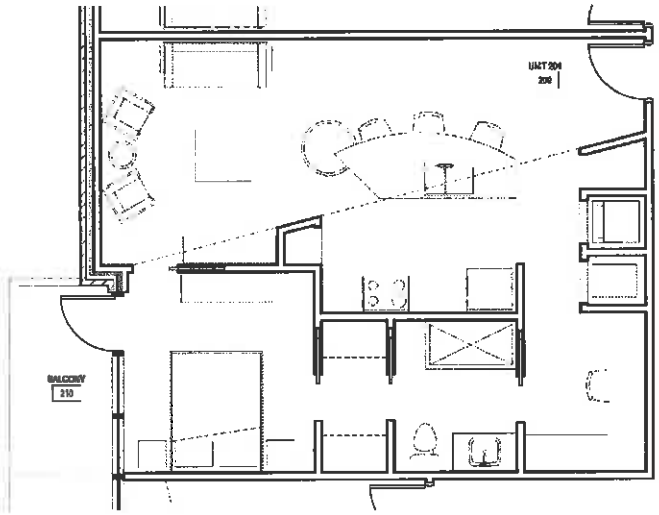
The proposed Charleston EDGE mixed use facility is unlike a traditional mixed-use development. While the facility may contain 30-40 residential units, with program space, and retail on the first level, the real purpose of EDGE is to provide a facility that will serve to provide housing and activity space for an innovative program that aims to attract and retain young talent to the Charleston community. EDGE will help to cultivate the young talent that participates in the program, and will serve as a sustainable economic development tool in our urban village district.

ZMM Architects and Engineers in association with Cooper Carry is currently assisting in the design and development of the Charleston EDGE Complex. The ZMM-Cooper Carry team conducted a visioning and design session where the design team obtained input from various community leaders and young professionals to investigate scenarios to optimize the potential development.

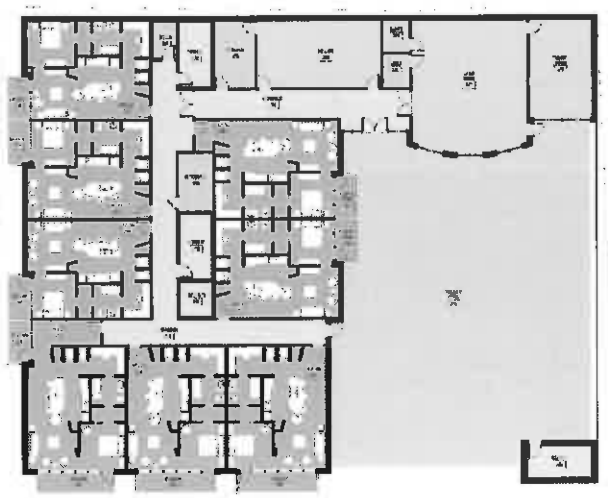
# Charleston EDGE Complex

Following these meetings, ZMM has been developing several of the strategies to facilitate decision making by the project stakeholders. The current design solutions include a retail, lobby, and surface parking pedestal, with a variety of unit types occupying the upper levels.

The pedestal creates the opportunity for a raised amenity deck, with an adjacent club room and activity spaces. The advancements that Charleston has made to develop a vibrant downtown, create an active arts community, and engage young talent through organizations like Leadership Kanawha Valley and Generation Charleston have paid dividends for the business community – and Charleston EDGE is the next step in facilitating a bright future for the Charleston area.



Typical Unit Plan



Second Floor Plan

Color Legend

- 1 BEDROOM UNIT
- AMENITIES
- CIRCULATION
- SERVICE

# West Virginia State Police

*Information Services Center*

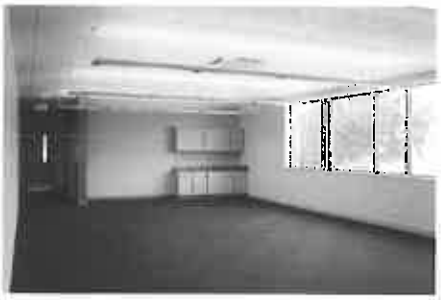
ZMM
ARCHITECTS & ENGINEERS

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

# Wood County Justice Center

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Parkersburg, WV

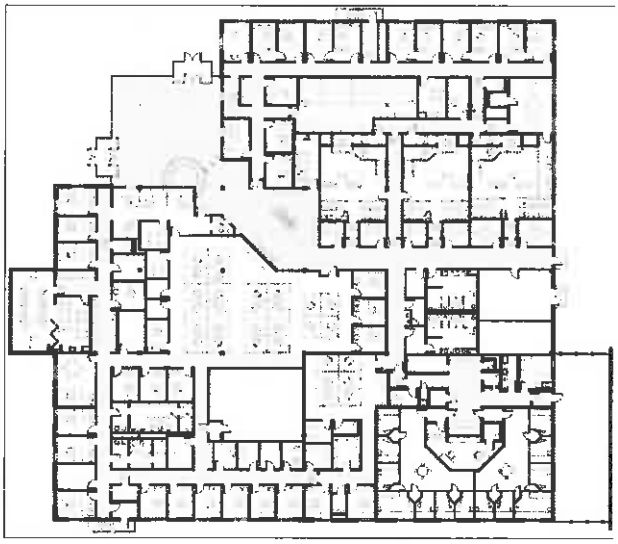
SIZE:
32,000 SF

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.

# Tucker County Courthouse Annex Renovation

ZMM
ARCHITECTS & ENGINEERS

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.

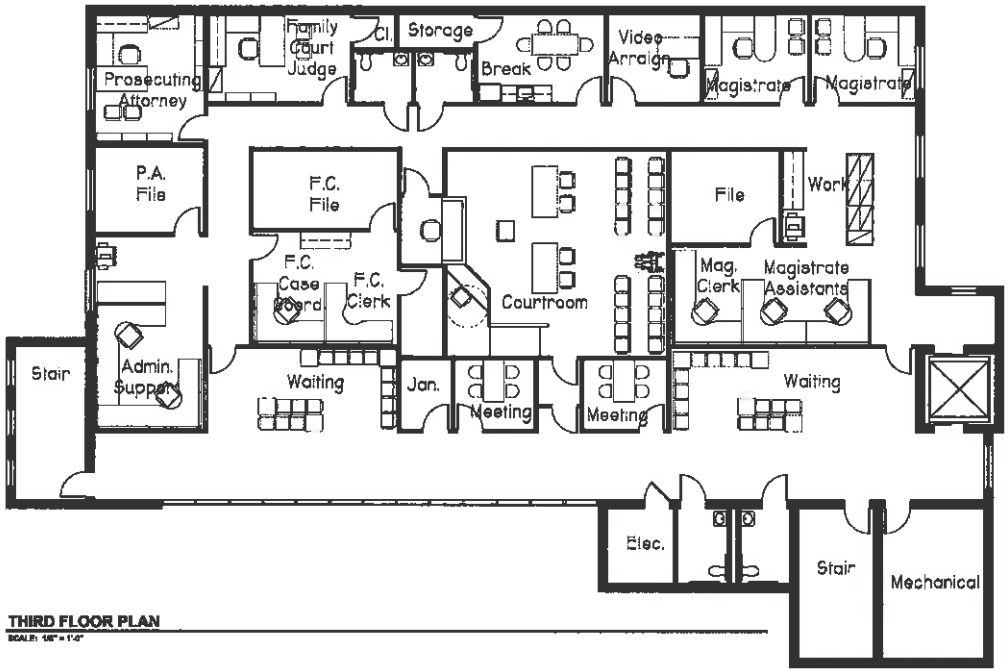
The problem with this approach was that the jailor's residence appeared like a building stuck within a larger complex, as well as the cost of the connector structure. ZMM also explored the option of relocating the jailor's residence, an approach that proved not feasible as the location of the facility justifies it's 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.




THIRD FLOOR PLAN

# WV State Police and WV Parkway Authority

*Maintenance Building*

ZMM
ARCHITECTS & ENGINEERS

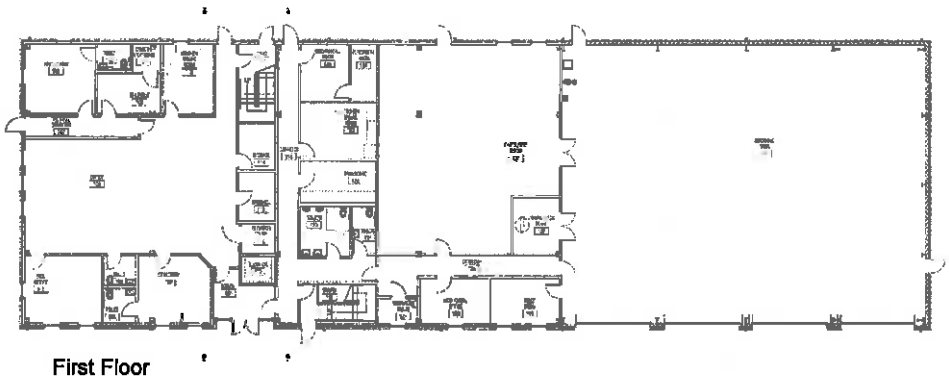
LOCATION:
Beckley, WV

SIZE:
19,400 SF

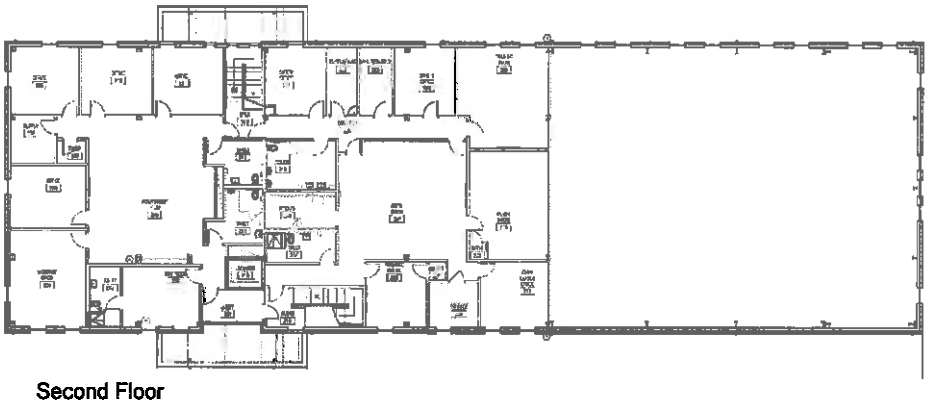
CONTACT:
Cheryl Porterfield
Facilities Administrator
West Virginia Parkways
374 George Street
Beckley, WV 25801
304.256.6685

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

# Girl Scouts of Black Diamond Council

*Volunteer Resource Center and Girl Zone/Urban Camp*

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
27,928 SF

COST:
$5M

COMPLETION:
Fall 2013

CONTACT:
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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!"

# Joint Interagency Training & Education Center

*WVARNG*

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Kingwood, WV

SIZE:
285,000 SF

COMPLETION:
2013

COST:
$78.4M

OWNER:
COL Joseph Stephens
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

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

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

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

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

# Joint Interagency Training & Education Center

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

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

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

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

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

# Client References

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