

The following documentation is an electronicallysubmitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

VECome, Lu Anne Cottrill	Jump to: FORMS 💁 Go 🏀 Home 🌮 Personalize 🚱 Accessibility 💽 App Help 🏷 About 👔 Procurement Budgeting Accounts Receivable Accounts Payable
Solicitation Response(SR) Dept: 0603 ID: ESR0601150000004100 Ver.: 1 Function: New	
Header	
	📃 List View
General Information Contact Default Values Discount Document Information	
Procurement Folder: 102615	SO Doc Code: CEOI
Procurement Type: Central Purchase Order	SO Dept: 0603
Vendor ID: 000000209060	SO Doc ID: ADJ150000009
Legal Name: OMNI ASSOCIATES ARCHITECTS INC	Published Date: 5/4/15
Alias/DBA:	Close Date: 6/2/15
Total Bid: \$0.00	Close Time: 13:30
Response Date: 06/01/2015	Status: Closed
Response Time: 8:52	Solicitation Description: Marshall County Readiness Center CI Design Services
	Total of Header Attachments: 0
	Total of All Attachments: 0



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

### State of West Virginia **Solicitation Response**

Proc Folder : 102615 Solicitation Description : Marshall County Readiness Center EOI Design Services Proc Type : Central Purchase Order				
Date issued	Solicitation Closes	Solicitation No	Version	
	2015-06-02 13:30:00	SR 0603 ESR06011500000004100	1	

### VENDOR

00000209060

OMNI ASSOCIATES ARCHITECTS INC

FOR INFORMATION CONTACT THE BUYER		
Tara Lyle		
(304) 558-2544 tara.l.lyle@wv.gov		
Signature X	FEIN #	DATE

Line	Comm Ln I	Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Marshall County Readiness Center EOI-Design Engineering					
Comm Code	Ма	nufacturer	Specification		Model #	
81101508						
soliciting expression of inte		rests for profess	ional design	services to archited	vision of Engineering and Facilities, is ctural and engineering design services to lectrical as needed at the Marshall County	



2 June 2015

COL Paul Stephens Division of Engineering and Facilities Armory Board Section 1703 Coonskin Drive Charleston, WV 25311-1099

RE: Solicitation No. ADJ150000009 WVARNG Marshall County Readiness Center Renovation

Dear COL Stephens:

I am very pleased to submit **Omni Associates – Architects'** expression of interest for the interior design and mechanical, HVAC, and electrical renovation of the Marshall County Readiness Center. Our proven team includes **Omni Associates and Tower Engineering**. Our firms are proud of our long and successful history of project collaboration. Together we possess the dedication, knowledge, and technical expertise to ensure the success of your project, and we are uniquely qualified to offer the WVARNG the following advantages:

- Innovative cost saving design approach to minimize building costs; and
- Energy efficient building systems to minimize operational costs.

Omni Associates will serve as the lead firm and coordinator of architectural and engineering services. Our approach to design has allowed us to avoid the confines of specialization and afforded us the opportunity to create a diverse body of work that includes these WVARNG projects:

- Eleanor Maintenance Facility
- Eleanor Readiness Center
- Fairmont Armed Forces Reserve Center
- Buckhannon Readiness Center

As Omni's Principal-in-Charge, I will guide this team through the design process and serve as the point-ofcontact to the West Virginia Army National Guard throughout the duration. As you are aware, I have specific **military experience** and expertise that in past has proven very valuable. My experience over the past 35 years, both on active duty and active Reserves, allows me to be an **extension of your staff with no learning curve** when it comes to your needs and requirements.

As a **West Virginia firm** located in Fairmont, Omni Associates - Architects understands that our success is based on our commitment to being responsive. We provide clients with the results they value most: innovative designs consistent with the building program, cost effective designs that **meet the budget**, and efficient management to provide **on-time** deliverables and completion. These are qualities that draw our clients back and result in lasting relationships. That's why we enjoy a **repeat client rate of more than 90%**, a source of considerable pride.

Thank you for allowing us to present our credentials. We look forward to the opportunity to work with the WVARNG again.

Sincerely, OMNI ASSOCIATES – ARCHITECTS, INC.

Richard T. Forren, AIA, NCARB Principal

### 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: Omni Associates - Architects, J	ITC.)
Authorized Signature:	Date: 06/01/2015
State of West Virginia	
County of Marion / , to-wit:	
Taken, subscribed, and sworn to before me this 1 day	y of 20
My Commission expires	, <sub>20</sub> <u>21</u> .
AFFIX SEAL HERE	NOTARY PUBLIC Sugelas Maumund
	Purchasing Affidavit (Revised 07/01/2012)
OFFICIAL SEAL NOTARY PUBLIC	
ANGELA HAMMOND	
TINZ BOX 331 B Fairmont last bees a	
ANGELA HAMMOND RR2 Box 331 8 Fairmont, WV 26554 My Commission Expires February 9, 2021	



# West Virginia Army National Guard (WVARNG) Marshall County Readiness Center Renovations

### Statement of Qualifications

Omni Associates – Architects, Inc. 1543 Fairmont Avenue, Suite 201 Fairmont, West Virginia 26554

Voice.304.367.1417 Facsimile.304.367.1418 Email: info@omniassociates.com www.omniassociates.com



### **Table of Contents**

General Qualifications Management and Staffing Capabilities Proposed Staffing Plan Technical Expertise References Related Past Projects pages 2-3 page 4 pages 5-9 pages 10-13 page 14 following







OMNI ASSOCIATES - ARCHITECTS is an award-winning architectural firm located in Fairmont, West Virginia. Our excellent reputation and superior work product are a direct result of mutual respect and effective communication with our clients and consultants, which enables our staff to provide outstanding architectural and engineering design services for our clients.

Since our inception in 1980, OMNI has earned recognition in the programming, planning, and design of a variety of facility types, including K-12 schools, higher education facilities, office buildings, recreational facilities, religious facilities, health care, military, and multipurpose facilities.

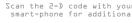
Our approach to design has allowed us to avoid the confines of specialization and afforded us the opportunity to create a diverse body of work. Each project is a unique undertaking that begins with analyzing the needs and desires of the client and interpreting them into a distinctive design that meets specific needs and exceeds expectations.

Omni has a successful history of designing intimately with each client and working out collaborative solutions that meet the goals of the project, resulting in an impressive record of customer satisfaction. We are a proven team that listens, provides professionalism and attention to detail, and produces a quality product. These are qualities that draw our clients back, resulting in lasting relationships. That's why we enjoy a repeat client rate of more than 90% - a source of considerable pride.

Omni Associates – Architects' design team has developed designs for numerous projects which must comply with State and Federal regulations. Such projects include working with the following Agencies: Federal General Services Administration (GSA); WV General Services Administration; Corps of Engineers; National Guard Bureau; Federal Aviation Administration; Department of the Navy, Federal EDA; WV EDA; HUD, and the WV School Building Authority (SBA).

Our work has involved a variety of funding sources including the WV Development Office – Small Cities Block Grants, State Revolving Fund Loan, Rural Economic and Community Development Administration (Farmers Home Administration), WV Division of Environmental Protection – Construction Grants Branch, US Department of Commerce-Economic Development Administration, Water Development Authority, West Virginia Infrastructure and Jobs Development Council, and Appalachian Regional Commission, either individually or in combination.

Omni Associates provides clients with the results they value most: innovative designs consistent with the building program, cost effective designs which meet the budget, and efficient project management to provide on-time deliverables. We're confident in our expertise, and our clients are confident in our reputation for superior services.







Omni Associates—Architects, Inc. 1543 Fairmont Avenue Suite 201 Fairmont, WV 26554 304.367.1417 (voice) 304.367.1418 (fax) info@omniassociates.com www.omniassociates.com

> **OWNERSHIP** Professional Corporation

> > HISTORY Established in 1980

#### SENIOR PERSONNEL

Stephen A. Barnum AIA, NCARB Senior Principal

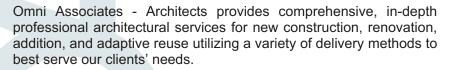
Richard T. Forren AIA, NCARB Principal

John R. Sausen AIA, NCARB, LEED AP Principal

> David A. Stephenson Principal

Edward A. Luthy AIA, NCARB Principal www.omniassociates.com





#### Design-Bid-Build Delivery Method

Omni has performed private and public projects of every building type using this traditional method of project delivery. We organize your entire project in advance of bidding and work extensively with you to achieve alternates to program goals. Construction documents are prepared and bid to multiple general contractors to achieve competitive pricing. Omni has successfully negotiated with contractors to maintain changes and costs to a minimum and still achieve the initial time schedule.

Omni has also worked on "fast-track" and "multiple-prime" contract projects to achieve an accelerated building construction time schedule. As a variation of the traditional design-bid-build delivery, the negotiated select team approach allows for selection of a contractor early in the design process. We prepare construction drawings in stages and bid these "parts" of the total building program so construction can be ongoing as the next phase is programmed and designed. We have worked with General Contractors, Construction Managers and multiple prime subcontractors to successfully complete this type of project delivery.

#### **Design-Build Delivery Method**

More and more owners and developers are seeking a simpler delivery style with a single point of responsibility for both design and construction. Under design-build, a consolidated entity provides both design and construction services to the owner. A single contract is established between the owner and the architect–contractor or design-builder. Omni has experience with both scenarios and has contracted with owners and with general contractors to achieve this streamlined method of project delivery for two West Virginia schools as well as numerous private Owners. Additionally, Principal Architect Richard T. Forren was recently appointed to the West Virginia Design Build Board.

#### **Construction Administration**

Omni has worked on projects for only the construction phase of the total building life. This would include projects designed by another firm who needs local supervision or a "pre-designed" project from a national restaurant or store, which requires local implementation. Omni has also performed bank or financing inspections to determine the completion status of the project for periodic applications for payment.





Program Development

Renderings

Cost Estimation

Schematic Design

Design Development

**Construction Document Development** 

Bidding & Negotiating

Construction Administration

Post-Contract Services

Facility Management Services

Feasibility Studies

Legal Consultation

Historical Restoration







# Management and Staffing Capabilities

Omni Associates - Architects firmly believes that the best gauge in determining our performance and abilities is the quality of the personnel of which we are comprised. Omni's greatest resource is our professional staff of dedicated, experienced, and creative individuals.

Our skilled team includes **7 registered architects**, intern architects, computer-aided design specialists, an interior designer, and knowledgeable administrative support staff. Their quality, expertise, and dedication integrate to produce the solid foundation upon which Omni has built its reputation.

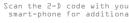
OMNI organizes its staff into several teams or "studios." A specific project team is established for each commission. Studio resources are combined for larger projects. Younger staff members bring a fresh perspective and gain valuable knowledge under the guidance of more experienced staff. Utilizing this approach, we are able provide the human resources required for all types of projects, including large and complex projects.

The project team, including the principal-in-charge, actively participates in the project from start to finish. The same professionals who develop an understanding of your needs in programming generate design alternatives, oversee the production of construction documents, and implement the concepts during construction. The consistency afforded by this approach is a benefit to OMNI and you.

In reality, the OMNI project team goes beyond our in-house staff. It includes consultants, client representatives, owners, and a construction manager, as required. It is the mutual respect of each team member's skills and perspectives that enables the design process to conclude with a successful project of which we all can be proud.

Throughout our years of experience, we have worked with a variety of consultants specializing in structural engineering, civil engineering, mechanical and electrical engineering, and other disciplines as each project dictated. You can be assured that the consultants we select for your project are selected for their particular and relevant expertise as well as their superior work ethic. In short, we carefully staff the design team, including in-house professionals and outside consultants, with the type of personnel we would want working for us to work for you

Your "Request for Proposal" could not have come at a more opportune time. The majority of our design work is coming to fruition as several major projects have commenced construction. Observing the materialization of a design is immensely satisfying, but our team is eager to begin a new project and would be especially excited to assist the WVARNG with interior and exterior renovation of the FMS#9 Maintenance Facility in Moundsville.







**Omni Associates -Architects, Inc.** 

Omni Associates has successful project experience throughout the East Coast of the United States. Our architects are licensed in the following states:

Florida Kentucky Maryland New Jersey New York North Carolina Ohio Pennsylvania South Carolina Virginia West Virginia

Firm Memberships:

American Institute of Architects				
U.S. Green Building Council				
West	Virginia	Ĥigh	Techno	ology
Consortium				
Marion	County	/ C	hamber	of
Commerce				





### Proposed Staffing Plan

Omni Associates – Architects carefully selects project teams based on each member's ability to add directly-related experience, ensuring our ability to meet the specific challenges and goals of each client. Our dedicated and experienced staff brings a unique level of ingenuity to every project.

Omni has assembled a team of professionals who provide outstanding services for the specific needs of this project. Our proposed project team consists of **Omni Associates - Architects and Tower Engineering**. Together, we have established a history of successful project collaboration that includes the new West Virginia State Office Complex in Fairmont.



#### Omni Associates – Architects, Inc.

Omni Associates will serve as the lead firm and coordinator of architectural and engineering services. We believe that our approach to design combined with the variety of our work, which includes additions and renovations as well as new facilities, sets us apart as the best qualified architectural firm for your project.

Omni will provide the link to all communications with regard to interdisciplinary reviews, sub-consultant and contractor coordination, and state agency review and inspections, and will act as the control point to ensure that the Owner's goals and requirements are met. This is critical as project goals are typically not fixed but evolve throughout the design and construction process as new information is gained. It further ensures that operation and maintenance issues are incorporated into the design documents.

In order to guarantee a constant level of dedication and commitment, it is Omni's philosophy and practice that a principal remains with the project from commencement to closeout. It is essential that a single individual be intimately involved in every aspect of the process to ensure the client's needs are being met in a timely and cost effect manner *and* that the Contract Documents reflect the intent as well as the content of the design.

**Richard T. Forren will serve as Principal-in-Charge** for your project. As a Principal-in-Charge and Project Architect, Mr. Forren's primary responsibility is to develop the overall concept of design by performing technical tasks which include: Project space programming; Schematic layout of functional spaces; Aesthetic design and development; Concept and coordination of building systems such as mechanical, electrical, plumbing and fire protection; Preparation of bidding documents and material specifications; Project management and Construction administration. These tasks are performed for a wide range of commercial projects that include master planning, land development, building construction and tenant build-out.

> Scan the 2-D code with you smart-phone for additiona





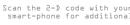
Mr. Forren has been Project Architect in charge of design and construction for Omni Associates – Architects since 1984. He serves as a Colonel in the United States Army Reserves and is currently assigned to the Fifth United States Army as the Army's Emergency Preparedness Liaison Officer (EPLO) for West Virginia. This involves working with FEMA, The Office of Emergency Management and the Department of Homeland Security to assist in providing Department of Defense support in the event of a regional or national emergency. Throughout his career in the Army Reserves, while serving with the Corps of Engineers, he has been directly involved with the design & construction of a wide variety of military humanitarian projects in Korea, Germany, El Salvador, and Panama.

Mr. Forren's public client list includes: West Virginia University, Fairmont State College, West Virginia High Technology Consortium Foundation, United States General Services Administration, West Virginia General Services Administration, City of Fairmont, City of Morgantown, City of Bridgeport and several county Boards of Education. Most recently, Mr. Forren has served as Principal-in-Charge and Project Architect for four major WVARNG projects:

- Eleanor Maintenance Facility
- Eleanor Readiness Center
- Fairmont Armed Forces Reserve Center
- Buckhannon Readiness Center

Jason M. Miller will serve as Project Manager. Mr. Miller is a skilled and knowledgeable Architect and Project Manager who has been involved in many large-scale projects. His work as a project manager includes a Federal GSA building in Charleston, West Virginia and two projects at West Virginia University in Morgantown: the new Child Development Center and a fitout at the Blanchette Rockefeller Neurosciences Institute.

Mr. Miller's served as Architect and Project Manager for a new WVARNG Readiness Center in Buckhannon, West Virginia. This \$13 Million, 37,000 sf dual-use facility houses three units of the WVARNG as well as a multi-purpose conference center that serves the Guard as well as the public sector of Upshur County. The project was funded by a combination of Federal, State, and local money. Mr. Miller's duties included architectural design, the production and coordination of drawings, as well as the review of shop drawings, pay-application processing, requests for information, proposal requests, and writing non-compliance reports. With this project, Mr. Miller established a solid working relationship with the West Virginia Army National Guard construction administration personnel.





omni

ass







#### Tower Engineering MEP Engineering

Tower has been providing innovative mechanical and electrical engineering solutions and unparalleled client service since 1931. Through past experience, we have learned the importance of designing to allow adaptability for future growth and change.

Our knowledge and design of special ventilation systems, code requirements, piping and hazardous materials handling are essential to our clients. The health and safety of the occupants of any facility depend upon the proper design of the mechanical and environmental control systems serving it.

Tower Engineering's highly-trained staff of project managers, designers, and technical support personnel utilizes state-of-the-art computer software programs for the design of lighting, electrical power and mechanical systems.

A comprehensive assessment of a building's existing mechanical and electrical systems is one of the most important aspects of any renovation or expansion project. These operation systems have a direct impact on how well the renovated space will fulfill the building performance objectives and how much the project will cost.

Tower Engineering's engineers have decades of experience in providing professional assessments of building systems. A large portion of our work is associated with the renovation and expansion of existing facilities. Through comprehensive assessment of existing facilities, our engineering staff is constantly assessing what works, what doesn't work, and how improving or adjusting the systems will impact building performance. We can conduct energy modeling that illustrates how integrated systems affect change and demonstrate how system improvements or upgrades will affect both equipment and energy utilization costs. This approach is beneficial for new construction projects as well.

Our assessment reports include descriptions of the present facility systems, and evaluation of existing conditions and defects, and recommendations, and an estimates of budget/cost implications is provided to assist in the decision-making process. The life expectancy of major components or high-priority items such as boilers or chillers, is estimated along with the costs of remedial measures. All recommendations are prioritized to assist the client with interpreting the evaluation's findings.

Tower's work with the WVARNG includes the Fairmont AFRC and the Buckhannon Readiness Center.





More information about our consultants, including resumes and project examples, can be found in the tabbed sections following this proposal.

Scan the 2-D code with you smart-phone for additiona







## Staff Qualifications and Experience

# Richard T. Forren AIA, NCARB

#### **PROJECT ASSIGNMENT**

Principal-in-Charge Project Architect

#### EDUCATION

Master of Architecture Virginia Polytechnic Institute, 1983

BS, Civil Engineering Technology Fairmont State College, 1980

#### REGISTRATION

American Institute of Architects, Member American Institute of Architects—West Virginia, Member NCARB: National Council of Architectural Registration Boards U.S. Green Building Council, Firm Membership Associated Builders and Contractors Inc., Firm Membership International Association of Emergency Managers, Member Registered in West Virginia, Pennsylvania, Ohio, Kentucky, Florida, and New Jersey

#### **GENERAL EXPERIENCE**

- Project Architect in charge of design and construction for Omni Associates Architects since 1984.
- Responsible for coordinating and designing all aspects of a project from programming through construction administration and project close-out.
- Previously employed by Robert J. Bennett AIA & Associates, Morgantown, West Virginia 1983 to 1984.

#### **RELATED EXPERIENCE**

- West Virginia Board of Architects
- West Virginia Design-Build Board
- Colonel in the United States Army Reserves currently assigned to the Fifth United States Army as the Army's Emergency Preparedness Liaison Officer (EPLO) for West Virginia.
- Bridgeport City Planning Commission
- City of Bridgeport Emergency Services Council
- Member of the Faculty Advisory Committee for Civil Engineering Technology and Architectural Engineering Technology, Fairmont State College, Fairmont, West Virginia

irginia Cana: Davis



### Select Project Experience

#### West Virginia Army National Guard Buckhannon, WV Armed Forces Readiness Center

Armed Forces Readiness Center Eleanor, WV Maintenance Facility Armed Forces Readiness Center Access Road & Guard House

Mon Power Regional Headquarters Fairmont, WV

West Virginia High Technology Consortium, Fairmont, WV

5000 NASA Boulevard Allan B. Mollohan Innovation & Incubator Center

City of Fairmont, West Virginia Municipal Building Public Safety Building

General Services Administration **State of West Virginia New Office Building**  *Fairmont, WV*  **Federal Building Renovations**  *Wheeling, WV Martinsburg, WV Huntington, WV Beckley, WV* 

Harrison County Schools, WV Simpson Elementary School Renovations Lincoln Middle School Lumberport Elementary School

Pendleton County Schools, WV Franklin Elementary School

Marion County Schools, WV West Fairmont Middle School Fairmont Sr. High School Cafeteria

#### Fairmont State University

Fairmont, WV Wallman Hall Renovations Engineering Tech Addition and Renovations Library Addition & Renovation Feaster Center Addition & Renovation Colebank Hall Renovation Inner Campus Renovation New Education and Health Sciences Bldg Robert C. Byrd Aerospace Center

Canaan Valley Institute Headquarters Davis, WV



Scan the 2-D code with your smart-phone for additional





### Jason M. Miller AIA, NCARB

### **PROJECT ASSIGNMENT**

Project Architect Project Manager

### EDUCATION

Master of Architecture Virginia Polytechnic Institute, 2004

### **REGISTRATION / PROFESSIONAL AFFILIATIONS**

American Institute of Architects, Member American Institute of Architects—West Virginia, Member National Council Architectural Registration Board U.S. Green Building Council, Firm Membership Associated Builders and Contractors Inc., Firm Membership

#### EXPERIENCE

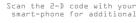
- Joined Omni Associates in 2007.
- Became a Principal Architect in 2015
- Seven years experience as an intern architect with comprehensive knowledge of project management from programming through construction administration.
- Architectural practice has included diverse project types including educational facilities, government and military facilities, office buildings, health care facilities, commercial design, multifamily and single-family housing, and custom fabrication.

#### **RELATED EXPERIENCE**

- Leadership Marion XXX (2011—2012)
- Adjunct Professor at Fairmont State University teaching Advanced Architectural CAD as well as Design classes.
- Board of Directors of Monongalia Arts Center
- Worked with Habitat for Humanity of Morgantown to develop potential low income housing strategies.
- Awarded Outstanding Thesis Award of 2004 from Virginia Tech faculty.

#### Select Project Experience

- West Virginia Army National Guard Armed Forces Readiness Center Buckhannon, WV
- Charleston Professional Building Federal GSA Building Charleston, WV
- West Virginia University Blanchette Rockefeller Neurosciences Institute *Morgantown, WV*
- West Virginia University Child Development Center *Morgantown, WV*
- Morgantown Utility Board Renovations *Morgantown, WV*
- West Virginia High Technology Consortium NASA and National White Collar Crime Fit Outs at 5000 NASA Boulevard Fairmont, WV
- University Health Associates
   MRI Addition
   Morgantown, WV
- Sundale Palliative Care Center Addition Morgantown, WV









#### **BIM: Building Information Modeling**

Omni is committed to continually upgrading existing technology and driving the evolution of design tools. This commitment springs from the firm belief that the responsible use of technology facilitates innovative design, results in economic benefits for our clients, and assists in efficient communication with clients and consultants.

In 2006, Omni Associates began the transition from traditional CAD software to Autodesk® Revit® Building Information Modeling (BIM). We immediately recognized the basic benefits to both designers and owners: more efficient, cost-effective project delivery and an accurate building model that can later assist in energy analysis and building management.

Omni implemented the use of BIM as our primary software platform for all projects in 2006. In utilizing BIM, we discovered the real depth of its value:

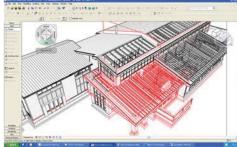
- With a virtual model of the building, clients can clearly see the design intent as the project progresses and design options can be explored with greater ease than ever before.
- Sharing the model among all disciplines as the design progresses allows early input from all of the design professionals involved, resulting in efficient designs.
- Creating a building in the virtual world before constructing it in the "real" world allows the design team to anticipate conflicts and objections before they arise, eliminating many issues which could result in project change orders or Requests For Information from the contractor.

Omni is proud to show that we don't just use Revit software, but we are adept at using it and can provide skilled support as needed. Omni staff member Reuben Losh is now an Autodesk Revit Architecture 2011 Certified Associate. Mr. Losh plans to test soon for the next level of certification, Autodesk Revit Architecture 2011 Certified Professional.

Obviously, using the latest computer software does not guarantee good design. Good design is built upon having a complete understanding of the client's needs and the knowledge & experience to create a space which addresses those needs in an elegant and practical manner. We see BIM as an advanced tool in making that goal a reality for each project that we undertake.











Scan the 2-D code with your smart-phone for additional





#### **Electronic Submission of Project Documents**

Since 2007, Omni has utilized a web-based solution for secure file storage and project team collaboration. The site employs a simple and intuitive interface, similar to social networking sites, that is much easier to navigate than an FTP site. This encourages communication among team members while leveraging the security of data encryption and controlled access.

This tool supports building information modeling (BIM) workflows and can be used throughout all phases of a project for such tasks as file storage, RFI and Shop Drawing management, and project milestone tracking. Since these processes are electronic, the time it would take to mail or fax documents is eliminated and project information is centralized. Project information is hosted on secure third-party servers, which means that it is available to team members from wherever they have internet access. The Owner and Architect work together to determine to whom and to what extent site access is given.



#### **Case Study**

Prior to its merger with First Energy, Allegheny Energy selected Omni Associates – Architects via a competitive selection process to provide all Architectural and Engineering services for its new transmission operations headquarters in Fairmont, West Virginia. Close communication was a critical part of this fast-track project with an aggressive design and construction schedule. Midway through the design process, the design team learned that the specialized technology for the building had advanced, prompting quick redesign work. The necessary changes could have greatly slowed progress, but because the design team was already utilizing collaborative tools such as building information modeling (BIM), electronic submission of project documents, and virtual meetings, impact on the project timeline was minimal.

#### Time and Budget

Omni has always provided timely performance on many aggressive schedules as well as funding constraints. We have successfully negotiated with contractors to keep change orders and costs at a minimum and achieve the initial time schedule.

All of our clients, whether public or private, are constrained by tight, fixed budgets, vulnerable to escalating construction costs and restricted by challenging schedules. Successful value engineering does not occur at the end of the project, but is integrated throughout the design phases. We avoid change orders during construction by value engineering from the inception of the project to make sure that our client's expectations are met and that budget, program and design are all reconciled with one another. Our team will employ flexible cost management techniques that include five essential components:

- Continuous value engineering in each stage of design and beginning with the earliest phases of planning.
- Preparation of formal independent construction cost estimates prepared by a professional estimator and/or by a construction manager.
- Reconciliation of design, program and budget based on the estimates before proceeding to the next project phase.
- Quality control and coordination of architecture with engineering and other disciplines to reduce the amount of changes required during construction.
- Application of appropriate contingences and allowances during design to facilitate design evolution with each phase and in construction to cover inevitable unforeseen circumstances.





#### **Cost Estimating**

We take pride in our approach to solving our client's aesthetic goals while meeting budgetary constraints. Omni utilizes several methods of cost estimating to provide reliable cost of construction estimates for various construction types.

- Historical data from previous projects
- Construction-estimating periodicals such as *Means Square Foot Costs*
- Consultation with leading construction firms in the project region
- Professional cost estimators who evaluate a set of specifications and/or progress prints provided by our firm to determine estimated construction costs based on the project's specific location. For this project, cost estimation will be performed by **Blundall Associates**, a construction cost consulting firm with whom we've established a very successful working relationship over the past few years.

The combination of these resources provides reliable costs of construction for various building types.

	Å
-	1

<u>Project</u> WV Army National Guard Armed Forces Readiness Center Fairmont, WV	<u>Budget</u> \$23,210,000.00	<u>Bid</u> \$22,800,000.00
Lumberport Elementary School Harrison County, WV	\$10,000,000.00	\$8,600,000.00
Mon Power Regional Headquarters Fairmont, WV	\$35,000,000.00	\$33,000,000.00
Canaan Valley Institute Headquarters Davis, WV	\$5,900,000.00	\$5,154,000.00
WVU Child Learning Center Morgantown, WV	\$5,700,000.00	\$5,485,000.00
WV High Technology Consortium 5000 NASA Boulevard Fairmont, WV	\$18,339,281.00	\$16,331,589.91
WVU Hospitals North and Northeast Towers Morgantown, WV	\$36,000,000.00	\$35,000,000.00

#### **Occupancy, Commissioning, Permits and Plan Approvals**

West Virginia codes have a major influence on the design of any building. A good working relationship with local and state building agencies is critical for a successful project. Omni has extensive experience with code compliance and we have enjoyed an exceptionally compatible working relationship with The West Virginia State Fire Marshal's office for over 30 years. Omni has made it a practice to have face-to-face reviews with the WVSFM, which provide valuable feedback and result in many hours saved during design and production.









### LEED<sup>™</sup> (Leadership in Energy and Environmental Design)

The LEED Green Building Rating System provides standards for environmentally sustainable construction. LEED Accredited Professionals demonstrate a thorough understanding of green building practices and principles and familiarity with LEED requirements, resources, and processes. Omni Associates currently has three LEED Accredited Professionals and one LEED Green Associate on staff.

A new headquarters for Canaan Valley Institute (CVI) in Davis, West Virginia completed construction in 2010. In accordance with CVI's mission, the Omni design team planned a "green" building that demonstrates environmentally friendly systems to visitors. The team utilized a number of "green" technologies and achieved its goal of LEED Silver certification.

Omni was also the Architect for the Mon Power Regional Headquarters in Fairmont, West Virginia. Completed in 2011, this project also incorporated LEED design features and is LEED Certified. Recently Certified:

 Charleston Professional Building— LEED Silver

Current LEED Projects:

- WVARNG Fairmont Armed Forces Readiness Center—Following LEED standards but will "selfcertify".
- GSA Fairmont Office Complex— Seeking Certification under LEEDv3
- WVARNG Buckhannon Armed Forces Readiness Center— Seeking Silver certification under LEEDv3



Scan the 2-D code with you smart-phone for additiona



13



# References

Omni Associates realizes that our relationships with our clients are a vital component in the success of realizing their goals and needs. We encourage you to contact any of the following references in assisting you with your selection of a professional architectural firm.

#### WVARNG

1705 Coonskin Drive Charleston, WV 25311-1085

**City of Fairmont** 200 Jackson Street Fairmont, WV 26554

West Virginia HighTechnology Consortium Foundation 1000 Technology Drive, Suite 1000 Fairmont, WV 26554

**First Energy** Toledo Edison 6099 Angola Road Holland, OH 43528

**First Energy** Mon Power Regional Headquarters 5001 NASA Boulevard Fairmont, WV 26554

Braxton Co. Development AuthorityMs.P.O. Box 1925ExerCharleston, WV 25314304.

Harrison County Schools 408 E.B. Saunders Way Clarksburg, WV 26554 LTC David P. Shafer Former CFMO 304-541-6539

Mr. Jay Rogers City Manager 304.366.6211

**Mr. Brad Calandrelli** Facility and Property Program Mgr 304.366.2577 ext. 233

Ms. Linda Moss President 800-447-3333

**Mr. Bob Hellman** Supervisor, Facilities Management 304-534-7955

**Ms. Terrell Ellis** Executive Director 304.342.6972

Mr. Neil Quinn Clerk of the Works 304.326.7305 "...this (West Virginia High Technology Consortium) is indeed an important economic development project for West Virginia, and I wish to thank Omni Associates for the predominant role that they played in making this endeavor, as well as many other significant projects across the state, a reality..."

#### Robert C. Byrd United States Senate

"Omni has been an integral part of this entire process. The architects worked quickly to assess our needs and develop the frame work for this building and worked closely with us to ensure the final product would be efficient as well as beautiful. The team environment encouraged a collaborative effort to meet our specific needs."

> Linda Moss Director, Ops Support and Project Manager First Energy

"In appreciation of all of your hard work, dedication, and technical support to the Eleanor Maintenance Complex, West Virginia Army National Guard. Your expertise has helped create one of the finest Maintenance Shops in the United States."

Robert D. Davis, CPT, OD, WVARNG CSMS Superintendent Warren T. Huxley, LTC, EN, WVARNG, Surface Maintenance Manager

"You have been an excellent team player, and we surely appreciate the quality of the building (Fairmont State University Education and Health Careers Building) you helped develop."

> Robert J. Dillman President Fairmont State University

Scan the 2-D code with you smart-phone for additiona





West Virginia Army National Guard (WVARNG) Eleanor Maintenance Facility







Eleanor Maintenance Facility West Virginia Army National Guard Eleanor, West Virginia 132,000 Square Feet

"In appreciation of all of your hard work, dedication, and technical support to the Eleanor Maintenance Complex, West Virginia Army National Guard. Your expertise has helped create one of the finest Maintenance Shops in the United States."

Robert D. Davis, CPT, OD, WVARNG CSMS Superintendent

Warren T. Huxley, LTC, EN, WVARNG Surface Maintenance Manager

The Eleanor Maintenance Complex in Eleanor, WV is a 132,000 square foot state-of-the-art repair and maintenance facility for the West Virginia Army National Guard (WVARNG). This specially designed Army "Combined Logistic Support Facility" houses the Combined Support Maintenance Shop (CSMS), an Organizational Maintenance Shop (OMS) and United States Property and Fiscal Office (USPFO) parts storage warehouse.

The design of the facility is based upon the functional concept of a straightforward flow in and around the facility. This focuses on a logical and efficient flow of work for the maintenance and repair of vehicles as well as the progression of components parts from delivery to installation. This flow also required controlling the movement of vehicles themselves as all vehicles arriving and leaving the complex are required to undergo pre and post inspections.



### West Virginia Army National Guard (WVARNG) Eleanor Maintenance Facility



Eleanor Readiness Center 🔍

The facility provides a full range of maintenance support for all WVARNG military vehicles throughout the state. It includes 28 maintenance work bays with overhead bridge cranes, an engine rebuild shop, a body shop with blast and paint booths, a carpentry shop, a machine shop, a canvas shop, a small arms repair shop and an electrical / communications repair shop. The facility also has specialized testing capabilities in the form of an engine and transmission dynamometer.

These capabilities truly make the Eleanor Maintenance Complex a state-of-the-art facility for the West Virginia Army National Guard.











West Virginia Army National Guard (WVARNG) Eleanor Readiness Center







The new Armory facility in Eleanor, West Virginia is a singlestory, brick masonry and steel structure enclosing approximately 88,200 Net square feet. The building is located adja-

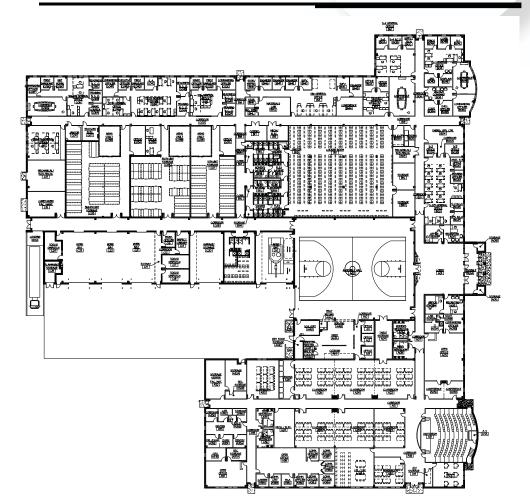
cent to the new Maintenance Facility on the site, with the main entrance facing east toward the main access to the site. The orientation of the building takes advantage of views of the wetland area and the Kanawha River. The Armory houses units of the state Army National Guard and one unit of the Navy.

The aesthetics of the new structure will have a similar character and appearance as the Maintenance Facility, incorporating banding of a contrasting color, barrel-vaulted roofing, and similar doors and windows.

The plan configuration is a result of meetings with each of the units and commanders, and consolidates areas under the responsibility of individual units to minimize travel. The separation of public versus unit specific spaces is dictated by the need for logical and efficient circulation as well as the direct relationship of spaces within those areas. Eleanor Readiness Center West Virginia Army National Guard Eleanor, West Virginia 83,900 Square Feet



### West Virginia Army National Guard (WVARNG) Eleanor Readiness Center



S RESERVE CENTER



The relationship of the unit office areas to the unit storage areas is critical to the efficient workflow of the individual units. The unit storage areas are located adjacent to the loading dock at the rear of the building in order to provide access to military vehicles.

The Maintenance Work Bays and AFIST bay are located at the rear of the building for accessibility of military vehicles, as well as shielding the function of the areas from the entrance and the public. The AFIST bay is located adjacent to the Assembly Hall for the purpose of large group instruction within the hall and individual instruction within the bay area.

The location of the Assembly Hall is central to all spaces and adjacent to the main entrance due to its use for public and military functions. The hall is utilized by the military for drill training and dining, and by the public for gatherings such as banquets and dances. The Kitchen is located adjacent to the Assembly Hall to expedite meals to both civilians and the military.

A single story structure of this size requires a lot of area dedicated to circulation. However, when possible, large open areas such as the Assembly Hall were utilized for circulation.





West Virginia Army National Guard (WVARNG) Fairmont Readiness Center



The specially designed AFRC is permanent masonry type construction with standing seam roof, concrete floors, and mechanical and electrical equipments with emergency power generator backup. This 150 member training facility includes administrative, educational, assembly, library, learning center, vault, weapons simulator and physical fitness areas for one



each WVARNG and USAR units. The maintenance shop will provide work bays and maintenance administrative support. The project will also provide adequate parking space for all military and privately owned vehicles.

This project has been coordinated with the installation physical security plan, and all physical security measures are included. All required antiterrorism protection measures are included. Sustainable principles will be integrated into the design, development, and construction of the project in accordance with Executive Order 13123.

Supporting facilities will include weapons cleaning, maintenance, issue, turn-in sheds, access roads, security fencing and dark motor pool lighting, vehicle wash system and pump house, fuel storage and dispensing systems, loading ramp, flammable materials storage building, controlled waste handling facility, and sidewalks. Extension of gas, electric, sewer, water and communication utilities to the building site is included. Physical security measures include maximum feasible standoff distance from roads, parking areas, and vehicle unloading areas, beams, heavy landscaping and bollards to prevent access when standoff distance cannot be maintained. Cost effective energy conserving features are incorporated into design.

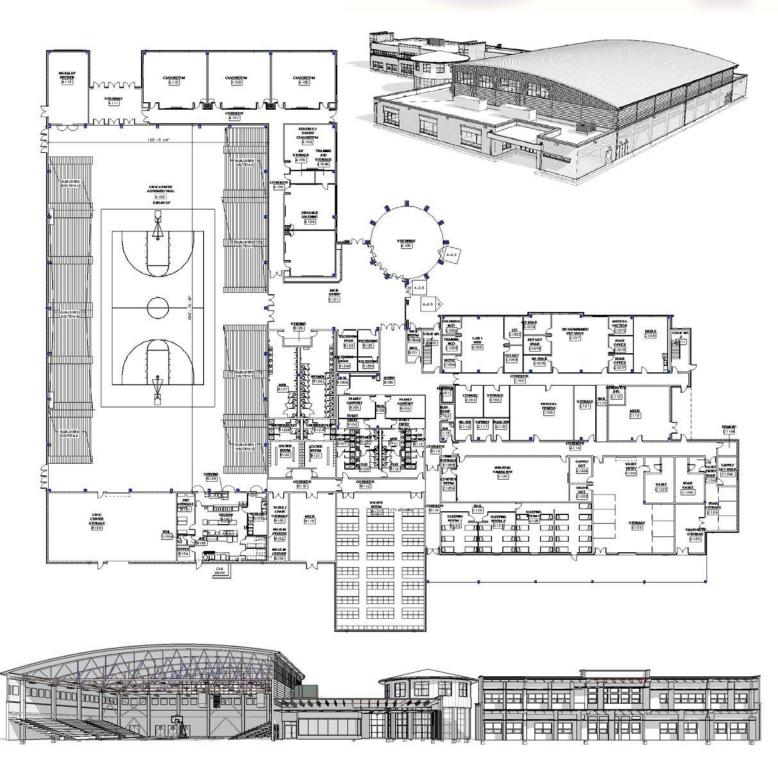
Fairmont Readiness Center West Virginia Army National Guard Fairmont, West Virginia

> \$ 25 Million 91,500 sf

Contact: COL David Shaffer, CFMO 1707 Coonskin Drive Charleston, WV 25311 304-541-6539



# West Virginia Army National Guard (WVARNG) Fairmont Readiness Center





### West Virginia Army National Guard (WVARNG) Buckhannon Readiness Center



The Buckhannon Army National Guard Readiness Center is a dual-use building funded by a combination of Federal, State, and local money. The 37,000 sf facility will house three units of the West Virginia Army National Guard (WVARNG) as well as serve the public sector of Upshur County with a multi-purpose conference center. These dual purposes are reflected in the basic design.



The two functional areas are located in separate wings spanning east and west from the main lobby entrance with clear distinctions between public and private spaces. The west wing is a public conference center, which, through the use of operable partitions, can be configured any number of ways to allow for educational, business, community, and private events. The two-story east wing houses the WVARNG units: 601st Horizontal Engineer Company, 1935th Contingency Contracting Team and the 229th Engineer Survey and Design Team. It includes office space, a classroom, storage, sleeping rooms, fitness room, and locker rooms.

The building structure shall be steel with the exterior consisting mainly of brick veneer with some upper story metal panels and storefront glazing. A 3,200 sf unheated pre-manufactured metal storage building shall be erected adjacent to the main building. Outside supporting facilities include military and privately-owned vehicle parking, fencing, sidewalks, exterior fire protection, outside lighting, access roads, detached facility sign, wash platforms, fuel storage and dispensing systems and flagpoles. Physical security measurements include maximum feasible standoff distance from roads, parking areas, and vehicle unloading areas, berms, heavy landscaping, and bollards to prevent access when standoff distance cannot be maintained. This project is designed and shall be constructed to achieve LEED® Silver certification. Cost effective energy conserving features include energy management control systems and high efficiency motors, lighting, and HVAC systems.



info@omniassociates.com

# West Virginia State Office Complex



Omni Associates—Architects was selected by the West Virginia General Services Division to provide all architectural and engineering services for a new state office building located in downtown Fairmont.

It is important that the new building fit within the context of the downtown area's historical buildings while reflecting an era of progress and new growth. To that end, the building's exterior features traditional brick and cast stone masonry integrated with insulated formed metal panels and an aluminum curtainwall.

The building will be occupied by eight state agencies and include offices for the Secretary of State. Programming services included interviews of the individual agencies to determine the specific requirements of each. Interior fitouts include a variety of user-specific spaces including training rooms, interview rooms, waiting areas, individual offices, large open offices, break rooms, and kitchenettes.

Omni also provided all necessary surveying of the site, and all existing infrastructure systems and material to determine appropriateness for construction. Pre-construction services also included the verification, coordination, and documentation of extensions, tie-ins, and relocations of all utilities as well as an extensive demolition package released prior to the new construction package.

In addition to compliance with all applicable local, State, and Federal regulations as well as ADA requirements, the Owner requested that the building be designed with the goal of achieving LEED<sup>™</sup> Silver certification. Current calculations suggest the project could achieve LEED Gold.

#### West Virginia State Office Complex Fairmont, West Virginia

#### Contact:

Mr. Robert P. Krause, PE, AIA West Virginia General Services Division 1900 Kanawha Blvd. East Building 1 Room MB-60 Charleston, WV 25305 304-558-9018







### **Charleston Professional Building**



The 19,427 SF two story building is located in the central business district of Charleston, West Virginia. The project was completed utilizing design/build delivery.

The facility was designed to house FBI offices, including service bays to modify surveillance vehicles, forensic evidence labs, and investigators' work and technology spaces. The one acre site has a security perimeter fencing system and the exterior of the building is designed to resist high pressure intrusion as well as radio frequency shielding.

The basic shell of the building is a pre-engineered structure with a mixture of metal panels and masonry veneer materials that create an image of a standard office structure to fit into the business environment.

The project was designed as a LEED Silver rated project with much of the landscape around the building being restored to natural plantings that retain the storm water, energy efficient mechanical and electrical systems, and close proximities to city services.



Charleston Professional Building Charleston, West Virginia

19,427 square feet \$6 Million

Client: Glenmark Holding Contact: Nick Colasante 304-599-3369

Completed in 2012





### CDC / NIOSH National Institute for Occupational Safety and Health



CDC / NIOSH National Institute for Occupational Safety and Health

Morgantown, West Virginia Pittsburgh, Pennsylvania

(2) 5-year Open-ended Project 2005-2010 2011-2015

Omni Associates - Architects was selected from among many national firms for an open-ended agreement to design laboratory additions and renovations for the Morgantown, WV and Pittsburgh, PA CDC/NIOSH facilities. This was part of the Federal "Set-Aside" procurement process for Small Business Concerns. Omni worked jointly with Karlsberger and H.F. Lenz to provide comprehensive laboratory and Mechanical / Electrical / Plumbing Engineering. Omni Associates was required to perform a minimum of 50 percent of the work as a part of the contract agreement.

The 5 year agreement was implemented through individual work scope assignments that entailed on-site evaluations, program feasibility, construction documents, and construction administration. Omni Associates' close proximity to both sites made the implementation of design criteria easier to coordinate with the CDC/NIOSH personnel.



Mon Power Regional Headquarters



The "LEED® Certification Mark" is a registered trademark owned by the U.S. Green Building Council and is used with permission.

Prior to its merger with First Energy, Allegheny Energy selected Omni Associates - Architects via a competitive selection process to provide all Architectural and Engineering services for its new transmission operations headquarters in Fairmont, West Virginia. Now the Mon Power Regional Headquarters, the environmentally friendly facility is located on a 9-acre parcel of land in the I-79 Technology Park.

Completed in September 2010, the state-of-the-art facility serves as the center for multi-state energy transmission functions, including around-the-clock management of the electric grid. The building houses the Transmission Operations Control Center, a Data Center, Class A commercial office space, and all associated electrical, mechanical, and support facilities. The Transmission Operations Control Center and Data Center was constructed to meet a site infrastructure performance rating of Tier III. The new construction project is LEED® (Leadership in Energy and Environmental Design) Certified.

Services provided by Omni include site selection assistance and development services, architectural design services, civil, structural, mechanical, and electrical engineering services, bid document development, construction contract administration services, and post contract administrative services. According to Allegheny Energy's Linda Moss, Director, Ops Support and Project Manager for the building, "Omni has been an integral part of this entire process. The architects worked quickly to assess our needs and develop the frame work for this building and worked closely with us to ensure the final product would be efficient as well as beautiful. The team environment encouraged a collaborative effort to meet our specific needs."



Mon Power Regional Headquarters Fairmont, West Virginia

Construction Cost: If required, construction cost can be obtained by contacting owner's representative as listed below. Delivery Method: Design-Build

- 148,000 Square Feet
- Transmission Operations Control Center
- Data Center
- Class A commercial office space

#### Contacts:

Ms. Linda L. Moss, Project Manager Current President of Toledo Edison 6099 Angola Road Holland, OH43528 800-447-3333

Mr. Bob Hellman Supervisor, Facilities Management Mon Power Regional Headquarters 5001 NASA Boulevard Fairmont, WV 26554 304-534-7955



### The West Virginia High Technology Consortium Foundation 5000 NASA Boulevard



5000 NASA Boulevard stands as the newest addition to the West Virginia High Technology Consortium's I-79 Technology Park located in Fairmont. The mission of the Consortium is to "foster growth and instill sustainability" in this new technology sector.

The architect was tasked to design two multi-tenant structures to fit within the context of the Technology Park; however, a long narrow site led the architect to consolidate the separate structures so they both could be prominently displayed. This response established two distinctive facades. The front façade displays the building's visual images, prominent features, and materials, including multi-story glass-encased semicircular tower elements and east facing outdoor balconies that take advantage of outstanding scenic views and provide outdoor opportunities for tenant spaces at every floor. The rear façade features more utilitarian elements with main entrances and adjacency to the building's parking.









# West Virginia High Technology Consortium







West Virginia High Technology Consortium Fairmont, West Virginia 110,000 Square Feet



"...the flagship of the Mountain State's Flourishing technology sector and is the backbone for further infrastructure..." www.wvhtf.org

The West Virginia High Technology Consortium Foundation's 110,000 square foot center for high technology innovation is prepared to respond to the exponential growth of technology-oriented industry in West Virginia. The WVHTC Innovation Center is located in the Marion County Business and Technology Park, Fairmont, WV. The facility, situated on approximately 10 acres of a 26-acre parcel within the park, is adjacent to NASA's IV & V facility and is highly visible from Interstate 79.

The WVHTC Innovation Center facility houses the administration offices of the West Virginia High Technology Consortium, a non-profit corporation and world class high-technology incubator center providing assistance to high-technology member companies throughout the Mountain State and beyond. The center also facilitates major anchor tenants, headquarters for additional member companies and space to accommodate additional consortium firms as well as successful enterprises which have "graduated" from the incubator center.







www.omniassociates.com

# West Virginia High Technology Consortium



The Innovation Center's objective is to allow emerging high technology companies to benefit significantly from the facility's close proximity to NASA and the two major aerospace companies located in the immediate vicinity as well as other federal agencies maintaining a presence in the region and their prime contractors.

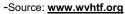
The economic landscape of north central West Virginia is experiencing a fast changing contour. Through this economic evolution, traditional mineral-extraction and manufacturing companies, once the mainstay of the area's economy, no longer sustain the employment base of past years. Supporting these industries are emerging companies whose mission is focused on product and service technologies for the federal government, commercial, and global markets.

Local federal agencies include sophisticated technology based organizations like the Federal Bureau of Investigation, NASA, NIOSH, the Department of Defense, and the Department of Energy. The market needs for new technologies to serve these organizations are wide-ranging and include technology systems to serve the criminal justice information industry, software technologies to serve the experimental aircraft and space industries, energy and environmental technologies to serve the nation's power generation systems, and other specialized technology based services.

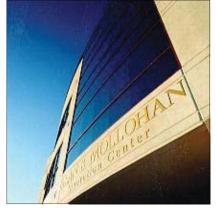
Congressman Alan B. Mollohan was the early advocate for businesses wishing to operate in this new high technology environment. In 1990, Congressman Mollohan created the West Virginia High Technology Consortium (WVHTC). The Consortium originally had six member companies, and has grown to an affiliate membership of over 150. The Consortium offers its member companies educational, promotional, and technical assistance.

As the Consortium grew and became more diverse, the WVHTC Foundation was formed in 1993. The organization is dedicated to leading the development of high technology industries and research facilities in West Virginia through advanced technology based research, development, and educational initiatives.

In order for this technology transformation to succeed, the Foundation is coordinating the combined efforts of government agencies, local businesses, and academia. From Silicon Valley to Huntsville, from Austin to Boston - all communities where technology sectors have emerged - academic institutions, government agencies, and businesses working together have generated the most productive economic regions. This model provides the basis for WVHTC Foundation operations.













### City of Fairmont, West Virginia Public Safety Building



After nearly a decade of effort trying to modernize its 100-year-old public safety buildings, The City of Fairmont selected Omni Associates - Architects to help realize its goals.

Design services performed by Omni included the development of a building program and a site analysis study to determine the feasibility of utilizing an existing structure versus constructing a new structure on various sites recommended by Omni. Ultimately, the design team, including the Owner, decided to utilize an exisiting structure located at 500 Quincy Street in Downtown Fairmont. The building originally housed a department store, but had long since been vacant.

Development of the Building Program involved in-depth functional and spatial studies of all component spaces This required extensive discussion with the Police Chief, Fire Chief, and department heads as well as various police officers and firefighters. Many considerations were investigated and prioritized including design flexibility, public image, impact on downtown, maneuverability of fire apparatus, public zones, secure zones, and the image and morale of the officers and firemen. These considerations along with budget cost controls, construction materials and schedule combined to complete the total building design.

The 38,700 square foot renovated facility appropriately stands on a hill overlooking the entire Downtown Fairmont area. It houses the Fire Administration and Central Station of the Fairmont Fire Department, the entire Fairmont Police Department, and the Municipal Court as well as several administrative offices.

Fairmont Public Safety Building City of Fairmont Fairmont, West Virginia

Renovation and Adaptive Reuse 38,700 Square Feet Construction Cost: \$2,900,000.00

Main Street West Virginia 2007 Best Exterior Renovation Project





### Kanawha Valley Community and Technical College & West Virginia Higher Education Policy Commission



One goal of recent higher education reform is to create a stronger community and technical college system able to provide specialized industry training as well as general college level education curriculum. In order to better facilitate that vision, Kanawha Valley Community and Technical College needed a new Headquarter Building to serve as its flagship structure and provide state-of-the-art space for administration, student services, current program offerings and future program expansion.

Phase I of the project was an in-depth evaluation of the existing 196,800 sf Dow Chemical Building to determine its suitability for continued use as a community and technical college with office space for an existing tenant. The initial evaluation included building codes compliance, ADA accessibility, building envelope analysis, MEP analysis, an existing conditions report, and conceptual energy calculations. Phase II was the development of retrofit alternatives for the existing building to house KVCTC utilizing a revised 85,925 square feet program. Services provided included the development of base plans of the existing facility, schematic design alternatives, assisting the owner with selecting a preferred scheme, determining the scope of work, preparation of a preliminary construction cost estimate as well as a design and construction schedule.

Kanawha Valley Community and Technical College & West Virginia Higher Education Policy Commission Headquarters Institute, West Virginia

KVCTC Renovation: 70,953 sf KVCTC Addition: 14,174 sf HEPC Renovation: 124,692 sf

KVCTC: \$11,350,000.00 HEPC: \$13,830,000.00 Total Budget: **\$25,180,000.00** 

Under construction

One challenge with this project, which is currently under construction, is that the project funding is coming from two different sources requiring separate Schedules of Value and Applications for Payment. Additionally, the project is being constructed in three phases in order to rotate three separate tenants while space is being renovated. KVCTC is scheduled to occupy the new space by January 2012. Project completion is scheduled for September 2012.





# Tower Engineering Overview and Services

**Tower Engineering** has been providing innovative mechanical, electrical, plumbing, and fire protection solutions since 1931. While Tower is a generalist firm, it primarily serves the K-12 and higher education, healthcare, senior living, hospitality and recreation sectors in both renovations and new construction.

Tower Engineering's highly-trained staff of project managers, designers, and technical support personnel is capable of providing consulting services for every type of project – from a small, single-family residence to a high tech research facility incorporating redundant mechanical and electrical systems, DDC energy management and thermal storage.

Our engineers utilize state-of-the-art software programs for the design of lighting, electrical power and mechanical systems. Lighting analysis includes point-by-point calculations, ESI analysis, exterior lighting analysis, and life cycle cost comparisons. Electrical power analysis includes fault current and load flow analysis.

Mechanical design and analysis services include energy economy analysis, thermal storage analysis, heating and cooling load calculations, refrigerant piping design, water system designs, along with BIM modeling. Our professional staff utilizes computer selection of air handling units, coils, pumps, terminal devices, fans, cooling towers, chillers, heat exchangers, kitchen hoods, hydronic and steam specialties, humidification equipment and heat recovery equipment.

Sustainability principles are considered at every design point, and firm principals personally lead every project. The firm has 26 employees, including 14 Registered Professional Engineers and eight LEED Approved Professionals

# Specific Engineering Services

### HVAC

- Heating and cooling system design
- Ventilation system design
- Building automation systems
- Control systems and energy monitoring
- Geothermal heat pumps
- Heat recovery systems
- Kitchen and laboratory exhaust systems
- Smoke evacuation systems
- Computer room environmental control systems
- Building commissioning services

### ELECTRICAL

- Interior and exterior lighting design and studies
- Lighting controls
- Primary and secondary voltage power distribution systems
- Fire detection and alarm systems
- Computer data and power systems
- Uninterruptible power supply systems
- Reinforced and masking sound systems
- Lightning protection systems
- Fault current studies
- System over-current protection coordination

### **T**ELECOMMUNICATIONS

- Voice communication systems
- Data network systems

### PLUMBING

- Water resource efficiency analysis
- Sanitary drainage systems
- Storm water management
- Domestic water systems
- Waste water treatment systems
- Hospital and laboratory piping systems
- Fuel oil piping systems
- Irrigation systems

### FIRE PROTECTION

- Standpipe and sprinkler systems
- Fire protection systems







## BUILDING SYSTEMS ANALYSIS

A comprehensive assessment of a building's existing mechanical and electrical systems is one of the most important aspects of any renovation or expansion project. These operation systems have a direct impact on how well the renovated space will fulfill the building performance objectives and how much the project will cost.

Tower Engineering's engineers have decades of experience in providing professional assessments of building systems. A large portion of our work is associated with the renovation and expansion of existing facilities. Through comprehensive assessment of existing facilities our engineering staff is constantly assessing what works, what doesn't work and how improving or adjusting the systems will impact building performance. We can conduct energy modeling that illustrates how integrated systems affect change, and demonstrate how system improvements or upgrades will affect both equipment and energy utilization costs. This approach is beneficial for new construction projects as well.

Our assessment report include descriptions of the present facility systems, an evaluation of existing conditions and defects, and recommendations and an estimate of budget/cost implications is provided to assist in the decision-making process. The life expectancy of major components or high-priority items such as boilers or chillers, is estimated along with the costs of remedial measures. All recommendations are prioritized to assist the client with interpreting the evaluation's findings. A few recent clients include:

Asbury Heights Ascension Lutheran Church **Bayer Corporation** Beaver County, PA **Bethlen Home** Borough of Bellvue, PA Callery Chemical Company Carnegie Mellon University Clarion University of PA **Commerce Court Conneaut School District Dollar Bank Double Tree Hotel** Elizabethtown College Fairmont State College **Felician Sisters** Fox Chapel Presbyterian Church Gannon University Hampton Township School District Hankison International Marian Hall Home Marshall County Board of Education Mine Safety Appliances Mineral County Board of Education

North East School District North Pittsburgh Telephone Co. Northland Library Pennsylvania DER The Pennsylvania State University Pittsburgh Board of Education Pittsburgh Zoo City of Pittsburgh 911 Center PNC Bank, N.A. **Reform Presbyterian Home Riverview School District** Roadway Services, Inc. Ross Township, PA Sewickley Academy Shaler Area School District Siemens Westinghouse Slippery Rock Area School District Union City School District **US Postal Service** University of Pittsburgh West Liberty State University West Virginia University Westminster College



# LEED RATED DESIGN

Working together with our clients, Tower Engineering takes great pride in implementing environmentally conscious solutions to building issues. To sustain our environment, we design building systems that use material, energy and water resources efficiently, minimize site impacts and address health issues relating to the indoor environment.

Over the last decade, various groups have worked to develop strategies to promote and facilitate the design of sustainable, high performance buildings. One such organization, The **U.S. Green Building Council**, has created a nationally recognized certification process for evaluating sustainable and high performance buildings, a program called "**Leadership in Energy and Environmental Design**," commonly known by its acronym "**LEED**". In addition to being a member of the U.S. Green Building Council (USGBC), Tower Engineering's staff includes LEED accredited professionals.

The LEED certification process rates the levels of sustainability achieved in a building:

LEED Certified, LEED Silver, LEED Gold, and the highest rating, LEED platinum. Awards are based upon achieving "sustainability points" in the areas of Site, Water, Energy&Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation&Design Process.









#### Felician Sisters Motherhouse, Coraopolis, PA (LEED Gold)

- Super-high efficiency modular boilers to maintain 60 degrees F low-end water temperature.
- Carefully sized individual heat pumps to provide adequate compressor runtimes to ensure summer dehumidification and cooling without short cycling.
- Specification of premium efficient motors for pumps and larger RTU fans.
- Specification of Ventilation Heat Pump Rooftop Units with factory-installed energy recovery sections.
- Utilization of carbon dioxide sensors to reduce outside air quantities in multi-use spaces when not fully occupied.
- Specification of fully automated temperature controls system to provide computerized monitoring and control of mechanical
- equipment for maximum energy savings and systems optimization.
- Engineered lighting levels to exceed ASHRAE 90.1-1999 using the most efficient lamp and fixture combinations.

#### **Regional Learning Alliance (LEED Silver)**

Tower Engineering provided mechanical and electrical consulting engineering services for the Regional Learning Alliance, an innovative educational and workforce development facility just north of Pittsburgh. This \$18 million, "educational mall" is a highly-adaptive, full-service training facility, combining 12 institutes of higher learning under one roof. In addition to high-tech classrooms, the facility houses specialty-manufacturing training centers, flexible meeting rooms to accommodate groups of up to 400, and a tiered seminar room with wireless, touch-panel audio-visual controls. The facility also contains a cafeteria, computer labs, wireless Internet and a workout center that offers wellness planning.



# LEED RATED DESIGN CONTINUED





#### Pittsburgh Children's Museum (LEED Silver)

Tower Engineering recently provided mechanical and electrical engineering services for the 80,000 square foot renovation/expansion of the Children's Museum of Pittsburgh. This project included the construction of a facility to link a 1897 Post Office building with a 1939 Art Deco Planetarium.

It was the goal of the Museum, as well as the design team to make this facility the first LEED Silver children's museum in the country, along with the priority of preserving two important historic buildings.

Green features incorporated into the design of this project include:

- · Occupancy light sensors
- Duel Flush Toilets
- "Fuzzy Logic" controlled low flow urinals
- Motion sensor faucets
- Heat recovery wheels
- Heat exchangers
- 3 Kwh photovoltaic system
- Carbon dioxide sensors
- Two week fresh air flush out prior to occupancy
- Humidity control
  - DDC Controls

### Additional LEED-certified Project Experience Includes:

- Three Rivers Rowing Association Boat Storage & Maintenance Building (LEED Certified)
- Carnegie Mellon University Henderson House (LEED Silver)
- Carnegie Mellon University Posner Conference Center Rare Books Room (LEED Certified)
- West Virginia Army National Guard Buckhannon Readiness Center (LEED Certified)
- Carnegie Science Center (LEED Certified)
- Monongalia County BOE New Primary School (LEED Silver)
- Berkeley County Board of Education New Spring Mills Primary School (LEED Gold)
- Canaan Valley Institute New Headquarters/Education Building (LEED Certified)
- Department of Energy Morgantown Record Storage (LEED Gold)
- Fairmont State Office Building (LEED Silver)
- Allegheny College Carr Hall (LEED Silver)
- Allegheny Energy Operations Center (LEED Certified)
- Kaufman Program Center (LEED Certified)

### PROJECTS DESIGNED IN ACCORDANCE WITH LEED RATING, BUT DID NOT PURSUE LEED CERTIFICATION:

- Millcreek School District J.S. Wilson Middle
- Corry School District New Elementary School
- Holy Sepulcher Parish Church
- National Guard Stryker Center
- North Hills McIntyre & Highcliff Elementary Schools
- Pine Richland Upper Elementary School
- West Virginia Army National Guard Fairmont Readiness Center
- Pine Township Recreation Center
- Pittsburgh Children's Home
- Sisters of St. Joseph New Office Building
- Southwest Butler County YMCA (Cranberry)
- Upper St. Clair Community Center
- Watson Institute, Craig Academy



# SUSTAINABLE BUILDING DESIGN

# U.S. Buildings use about 1/3 of all U.S. energy for heating, cooling, lighting an operation. In addition they produce more than 35% of all green-house gases.

A sustainable building, also referred to as a green building, is a structure that is designed, built, renovated, operated, or reused in an ecological and resource-efficient manner. Green buildings are designed to meet certain objectives such as protecting occupant health and wellness; reducing energy consumption, improving employee productivity and reducing a building or project's impact on the environment.

As technologies and systems have improved dramatically over the past decade, the upfront costs to sustainable design have been reduced significantly. And, smart design saves through lower operating costs over the life of the building. The sustainable building approach applies a project life cycle cost analysis for determining the appropriate up-front expenditure. This method calculates costs over the useful life of the asset.

From a business perspective, the biggest cost silo is salary and benefits. By creating healthier work environments with the inclusion of low/no VOC paints, no carpet adhesives, better air circulation, natural light and indirect lighting, ergonomic furniture and visually engaging work and breakout areas, employees are more productive and stay. So, green is really GREEN.



At Tower Engineering we believe it is our responsibility to offer architects and owners sustainable design alternatives in addition to conventional choices, and to help our clients make the most informed decisions.

### ENGINEERING EXPERTISE

Our engineers carefully consider preservation of site features, indoor air quality, natural lighting, energy efficiency and strategies to provide the best quality systems for project requirements. Focusing on whole systems, not isolated components, our engineers work holistically to help determine whether system upgrades or system replacements would be the best solution. We have been involved with the design of numerous buildings which have implemented Green Building and Sustainable Design features...

#### **Engineering Evaluation Services**

- HVAC Systems Assessments & Audits
- Electrical Systems Assessments & Audits
- Mechanical and Electrical Systems Monitoring
- Building Commissioning
- Retro Commissioning
- Technology Systems Assessments

#### Equipment

- Director-Fired Double-Effect Absorption Chiller/Heater
- Desiccant Dehumidification Units
- Heat Recovery Wheel
- Geothermal Heat Pumps
- Underfloor Air Distribution Systems
- Building Automation Systems

### GREEN BUILDING DESIGN STRATEGIES - A FEW EXAMPLES

- Install high-efficiency heating and cooling equipment. , sealed-combustion appliances, well-designed systems including high-efficiency furnaces, boilers, and air conditioners; variable speed pumping; and premium motors. These systems not only save the building owners money, but also produce less pollution during operation.
- Install high-efficiency lighting systems with advanced lighting controls. Include motion sensors tied to dimmable lighting controls.
- Install water-efficient equipment. Water conserving toilets, shower heads,site stormwater management, and faucet aerators not only reduce water use, but also reduce demand on septic systems or sewage treatment plants.
- Green roofs & solar panels
- Mechanical ventilation is usually required to ensure safe, healthy indoor air. Heat recovery ventilators should be considered ior less expensive exhaust only systems are sometimes indicated.



### STRYKER BRIGADE COMBAT TEAM READINESS CENTER&OMS Army National Guard - Cambridge Springs, PA

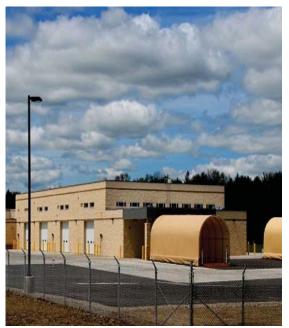
YEAR COMPLETED: 2008 SQUARE FOOTAGE 89,700 TOTAL CONSTRUCTION COST \$19,6 million



Tower Engineering provided engineering services for the design/ build of a new 69,900 s.f. Readiness Center and 19,800 s.f. Organizational Maintenance Shop (OMS) for the Stryker Brigade Combat Team. These facilities provide spaces for training and housing of troops, as well as storage and maintenance of military vehicles and equipment. The center was constructed to replace outdated armories in Erie, Corry and Meadville.

Sustainable design features were included in the design and construction of these facilities, with a goal of a SPiRiT rating of Gold. Design requirements included Anti-Terrorism/Force Protection(AT/FP).







# Pennsylvania National Guard Readiness Center

YEAR COMPLETED: 2005 SQUARE FOOTAGE 23,017

TOTAL CONSTRUCTION COST \$4.1 million / MEP \$1.1 million



Tower Engineering provided mechanical/electrical engineering services for construction of a new 23,017 square foot armory at the Pennsylvania National Guard Readiness Center in Connellsville, Pennsylvania. This specially designed facility of permanent masonry type construction is constructed of brick and concrete block units with concrete floors, and a metal standing seamroof, including a one-story structure with mechanical and electrical equipment. The building contains offices, drill hall, classrooms, locker rooms, kitchen, toilets, storage, arms vault, Abrams Full-Crew Interactive Simulation Training ALIST Simulation Room, and maintenance training work-bays. Cost effective energy conserving features were incorporated into the design, including energy management control systems and high efficiency motors, lighting, and HVAC systems.





CONNELLSVILLE, PA

### WVARNG FAIRMONT ARMED FORCES RESERVE CENTER FAIRMONT, WV

YEAR COMPLETED 2013 SQUARE FOOTAGE 91,500 TOTAL CONSTRUCTION COST \$25 million



Tower Engineering provided mechanical and electrical engineering services for the new WVARNG Fairmont Armed Forces Reserve Center in Fairmont, West Virginia.

The building's Mechanical, Electrical and Fire Proofing Systems include many high efficiency features/systems as follows:

- Variable Air Volume HVAC System
- · High Efficiency Heating Plant
- Variable Speed Pumping
- Carbon Dioxide Sensors for monitoring and control of ventilation air
- · Heat Recovery for free preheat/precool of ventilation air
- Daylight Harvesting







### US ARMY RESERVE CENTERS Jane Lew, West Virginia Clarksburg, West Virginia

YEAR COMPLETED: 2008 SQUARE FOOTAGE 33,688 TOTAL CONSTRUCTION COST \$ million



Tower Engineering provided engineering services for the U.S. Army Reserve Training Center in Jane Lew,West Virginia. The Center provides a suitable facility for weekend and other intermittent training exercises of the Army Reserve.

At 7,400 SF, the facility includes offices, a large Assembly area, a full service Kitchen, Arms Storage, and supporting storage and mechanical areas.

A separate Organizational Maintenance Shop Building (OMS) provides an enclosed garage area for maintenance operations on the various vehicles, an office, and tools and parts storage.

Tower Engineering also provided mechanical and electrical consulting engineering services for the construction of an 16,120 SF Training Building and 10,168 SF Organizational Maintenance Shop at the U.S. Army Reserve Center in Clarksburg, West Virginia.

These facilities, as well as the buildings at Jane Lew,West Virginia, were designed in accordance with the U.S. Army Corps of Engineers' "Architectural and Engineering Instructions,Design Criteria."







# GOVERNMENT OWNED FACILITIES

Tower Engineering has provided mechanical and electrical consulting engineering services for numerous government-owned facilities. With eight decades of experience, our firm knows the importance of meeting the client's needs without exceeding the project's budget. Thoroughly familiar with current government and military standards, our firm has provided engineering services for the following government-owned facilities:







#### **F**EDERAL **G**OVERNMENT

- William S. Moorhead Federal Office Building, PA
- Department of Labor Job Corps Center, PA
- Butler VA Hospital, PA
- Department of Labor Job CorpsMedical Center, PA.
- Army Corps of Engineers Lab, PA
- Army Corps of Engineers Neville Island, PA
- National Guard Readiness Center Connellsville, PA
- National Guard Stryker Center Cambridge Springs, PA
- National Guard Fairmont Readiness Center, WV
- Army Reserve Center Jane Lew, WV
- Army Reserve Center Clarksburg, WV
- IRS Liberty Center Tenant Fitup, PA
- INS Application Support Center, PA
- VA Medical Center Pittsburgh, PA (multiple)
- Department of Energy Records Storage, WV
- Department of Agriculture Lab, PA
- National Geospace Agency St. Louis, MO

#### STATE GOVERNMENT

- State Police Building, PA
- Capitol Building Welcome Center, PA
- Tygart Lake State Park Lodge Addition, WV
- Twin Falls Resort State Park Addition, WV
- DER Regional Offices, PA
- DER Lab Renovation, PA
- Ebensburg Center HVAC Renovation, PA
- Buckingman Protection Custody Facility, PA
- HRS Computer Room, PA
- Capitol Science & Cultural Center,WV
- Scotland School for Veterans Children, PA

#### **UNITED STATES POSTAL SERVICE**

- McKnight Road, Pittsburgh, PA
- Clairton, PA
- Monongahela, PA
- Northside, Pittsburgh, PA
- Grant Street, Pittsburgh, PA
- Rochester, PA
- Bulk Mail Handling Facility, Pittsburgh, PA
- Open Ended Services Agreement, PA and WV



# GOVERNMENT OWNED FACILITIES CONTINUED









#### LOCAL GOVERNMENT

- Allegheny County Housing Authority, PA
- Beaver County Courthouse & Annex, PA
- Beaver County Ice Arena Renovations, PA
- Bellevue Borough Building Study, PA
- Bethel Park Community Center, PA
- Cambridge Springs Library, PA
- Cambridge Water Treatment Plant, OH
- City County Building Pittsburgh, PA
- City Hall Pittsburgh PA
- City of Pittsburgh Swimming Pools, PA
- City of Pittsburgh EOC 911, PA
- City of Pittsburgh Warehouse, PA
- Public Auditorium Authority Civic Arena, PA
- Cranberry Township Municipal Complex, PA
- Dormont Pool Complex Feasibility Study, PA
- Eighth Avenue Streetscape Phase IV, PA
- Erie Senior Citizen's Center, PA
- Erie Veteran's Stadium Renovation, PA
- Fairmont Parking Garage, WV
- Fairmont Public Safety Building,WV
- Field Avenue Recreation Park, PA
- Franklin Park Municipal Building, PA
- Franklin Township Sanitation Authority, PA
- Freeport Borough Building, PA
- Greater Pittsburgh International Airport, PA
- Green Tree Municipal Building, PA
- Greensburg County Building, PA
- Hampton Township Master Planning, PA
- Housing Authority of the City of Pittsburgh, PA
- Kennedy Township Park, PA
- Louis J. Tullio Convention Center Erie, PA
- McCandless Municipal Building, PA
- Monroeville Municipal Building, PA
- Moon Township Water Authority, PA
- Mt. Lebanon Parking Garage, PA
- New Stanton Water Treatment, PA
- Penn Hills Recreation Center, PA
- Penn Township Civic Center, PA
- Penn Township Municipal Complex, PA
- Pittsburgh Parking Authority, PA
- Ross Township Municipal Complex, PA
- South Park Municipal Buildings, PA
- South Strabane Township Municipal Building, PA
- Stowe Senior Citizens' Center, PA
- Three Rivers Stadium Renovations, PA
- Vanport Municipal Authority, PA
- Western Ave. Streetscape Improvements, PA
- Westmoreland County Housing Authority, PA





#### EDUCATION

Bachelor Architectural Engineering Penn State University 1989

#### REGISTRATION

PE, Pennsylvania PE-

PE, West Virginia

PE, New York PE, Maryland

NCEES Registered

LEED Accredited Professional 2009

#### AFFILIATION

American Society of Heating, Refrigeration & Air Conditioning Engineers (ASHRAE)





## JAMES N. KOSINSKI, P.E., LEED AP

### Principal, Vice President Senior Project manager, Mechanical Engineering

Mr. Kosinski is primarily responsible for the design of HVAC systems and their components for Tower Engineering projects. He has experience with the design of numerous types of HVAC systems, including constant and variable air volume air handling, geothermal heat pump and exhaust systems; chilled water and hot water; electric/electronic, pneumatic and DDC control systems. Jim's design responsibilities include load calculations, equipment selection, system layout, project specifications, cost estimates, direction of project drafting efforts, coordination with other engineering disciplines, and construction administration.

Additional responsibilities include system analysis and energy studies, client contact, and project management and scheduling. He has performed energy conservation analyses, evaluated HVAC system performance, and justified the installation of DDC control systems and other energy saving measures. As a Mechanical Engineering Group Leader, Mr. Kosinski coordinates the efforts of a team of staff engineers, designers and CAD operators.

#### REPRESENTATIVE EXPERIENCE

Allegheny Energy, Fairmont, West Virginia New Transmissions Operations Center (LEED)

#### Stryker Readiness Center and OMS - Cambridge Springs, PA

These facilities provide spaces for training and housing of troops, as well as storage and maintenance of military vehicles and equipment. The center was constructed to replace outdated armories in Erie, Corry and Meadville.

#### Pennsylvania National Guard Readiness Center - Connellsville, PA

a one-story structure with mechanical and electrical equipment. The building contains offices, drill hall, classrooms, locker rooms, kitchen, toilets, storage, arms vault, Abrams Full-Crew Interactive Simulation Training ALIST Simula-tion Room, and maintenance training work-bays. (LEED)

#### West Virginia Army Reserve Center - Jane Lew, West Virginia

At 7,400 SF, the facility includes offices, a large Assembly area, a full service Kitchen, Arms Storage, and supporting storage and mechanical areas.

Department of Energy - Morgantown, WV New Record Storage Facility (LEED)





#### EDUCATION

BS Mechanical Engineering Penn State University 1982

#### REGISTRATION

PE, Pennsylvania

PE-

PE-1

PE, West Virginia

PE, New York

NCEES Registration

LEED Accredited Professional 2009

#### AFFILIATION

American Society of Heating, Refrigeration & Air Conditioning Engineers (ASHRAE) Pittsburgh Chapter;Past President



# THOMAS J. GORSKI, P.E., LEED AP

### Principal, President Mechanical Engineering Department Head

Mr. Gorski's primary responsibilities are the design of HVAC systems and their components for schools, universities, commercial and light industrial office buildings, laboratory buildings, health care facilities, and military facilities. He has designed HVAC systems including constant and variable air volume, air handling and exhaust systems; chilled water and hot water systems and steam distribution systems; electric/electronic control, pneumatic control and DDC systems.

Tom's design responsibilities include load calculations, equipment selection and system layout, project specifications, cost estimates, direction of the project drafting effort, coordination with architectural and other engineering disciplines, and construction administration. He also performs system analysis and energy studies, maintains client contact, and supervises the engineering effort of the Mechanical Engineering groups.

#### REPRESENTATIVE EXPERIENCE

Allegheny Energy Headquarters - Fairmont, West Virginia New Transmissions Operations Center (LEED)

#### Stryker Readiness Center and OMS - Cambridge Springs, PA

These facilities provide spaces for training and housing of troops, as well as storage and maintenance of military vehicles and equipment. The center was constructed to replace outdated armories in Erie, Corry and Meadville.

#### United States Army Reserve Center - Jane Lew, West Virginia Readiness Center and Organizational Maintenance Shop Building

West Virginia University - Morgantown, West Virginia Current Term Contract WVU Tech - Interior and Exterior Renovations New Intermodal Transportation Center New Student Recreation Center Student Recreation Center Building Commissioning Caperton Center for Applied Technology Parkersburg Applied Technology Center (Parkersburg, WV Campus)

Fairmont State University - Fairmont, West Virginia Engineering Technology Building





EDUCATION BS, Architectural Engineering Penn State University 1994

REGISTRATION

PE, Pennsylvania

#### PE-

#### AFFILIATION

Illuminating Engineering Society of North America (IES): Past President Pittsburgh Section

#### AWARD

IES Design Award of Merit 2003, Ross Twp. Municipal Complex Pittsburgh, Pennsylvania

### JOHN C. WEST JR., P.E.

### Associate, Senior Project Manager Electrical Engineering department head

Mr. West provides electrical engineering and lighting design services for the design of office buildings, educational facilities, municipal buildings, community/recreational buildings, health care, and commercial facilities. His primary responsibility is for the preparation of electrical opinions of cost, technical specifications, engineering drawings, field observation, and coordination with architectural and other engineering disciplines.

John's design responsibilities include lighting layout and fixture selection, including calculations and system coordination studies and calculations; computer rooms and associated support facilities; fire alarm and detection systems; emergency power, public address, nurse call, audio-visual, security and closed circuit television systems. Additional responsibilities include client contact, field observation, and project management.

#### REPRESENTATIVE EXPERIENCE

Allegheny Energy Headquarters - Fairmont, West Virginia New Transmissions Operations Center (LEED)

#### West Virginia University - Morgantown, West Virginia

Current Term Contract WVU Tech - Interior and Exterior Renovations New Intermodal Transportation Center New Student Recreation Center Student Recreation Center Building Commissioning Caperton Center for Applied Technology Parkersburg Applied Technology Center (Parkersburg, WV Campus)

Fairmont State University - Fairmont, West Virginia Engineering Technology Building





EDUCATION BS, Mechanical Engineering Penn State University 1997

REGISTRATION Professional Engineer, PA PE-

Certified in Plumbing Engineering (CIPE), 1998

LEED Accredited Professional 2009



# MICHAEL S. PLUMMER, P.E., C.I.P.E., LEED AP

### Associate, Senior Project Manager Plumbing & Fire Protection Engineering Department Head

Mr. Plummer is primarily responsible for the design of plumbing and fire protection systems and their components for Tower Engineering projects. His plumbing and fire protection design responsibilities include performing calculations for hydraulically designed sprinkler systems; designing water supply and pumping systems including fire mains and sizing of fire pumps; design/testing of fire protection and alarm systems; and design of plumbing sewage, gas and water systems.

Mike is an experienced HVAC system designer, and performs load calculations, equipment selection and systems layout. His duties include preparation of project specifications, cost estimates, project management, and coordination with architectural and other engineering disciplines. He also performs construction administration duties including review of submittals, preparation of punch lists, and field problem solving, as well as supervising the engineering efforts of the Plumbing and Fire Protection Department.

#### REPRESENTATIVE EXPERIENCE

#### Pennsylvania National Guard Readiness Center - Connellsville, PA

a one-story structure with mechanical and electrical equipment. The building contains offices, drill hall, classrooms, locker rooms, kitchen, toilets, storage, arms vault, Abrams Full-Crew Interactive Simulation Training ALIST Simula-tion Room, and maintenance training work-bays. (LEED)

#### Stryker Readiness Center and OMS - Cambridge Springs, PA

These facilities provide spaces for training and housing of troops, as well as storage and maintenance of military vehicles and equipment. The center was constructed to replace outdated armories in Erie, Corry and Meadville.

West Virginia Army National Guard - Buckhannon, West Virginia New Reserve Center

West Virginia Army National Guard - Fairmont, West Virginia New Reserve Center

City of Fairmont - Fairmont, West Virginia Public Safety Building

