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## Header 1

     
**Procurement Folder:** 949847

**Procurement Type:** Central Purchase Order

**Vendor ID:**  
**Legal Name:** ZDS LIMITED LIABILITY COMPANY

**Alias/DBA:**
**Total Bid:** \$0.00

**Response Date:**  
**Response Time:** 
**Responded By User ID:**  
**First Name:** 
**Last Name:** 
**Email:** 
**Phone:** 
**SO Doc Code:** CEOI

**SO Dept:** 0506

**SO Doc ID:** CME2200000002

**Published Date:** 12/22/21

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**Close Time:** 13:30

**Status:** Closed

**Solicitation Description:**  
**Total of Header Attachments:** 1

**Total of All Attachments:** 1



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

**State of West Virginia  
 Solicitation Response**

**Proc Folder:** 949847  
**Solicitation Description:** ENGINEERING SERVICES LODOX EXERO-DR EXPANSION  
**Proc Type:** Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2022-01-11 13:30	SR 0506 ESR01102200000004079	1

**VENDOR**  
 000000208495  
 ZDS LIMITED LIABILITY COMPANY

**Solicitation Number:** CEOI 0506 CME2200000002  
**Total Bid:** 0  
**Response Date:** 2022-01-10  
**Response Time:** 09:25:55  
**Comments:**

**FOR INFORMATION CONTACT THE BUYER**  
 Crystal G Husted  
 (304) 558-2402  
 crystal.g.husted@wv.gov

**Vendor Signature X** **FEIN#** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Engineering Services for Lodox eXero-DR Expansion				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

**Commodity Line Comments:** Contract amount determined once contract awarded

**Extended Description:**

Engineering Services-Lodox eXero-DR full body, high-speed, high digital radiology system expansion



## **Expression of Interest to Provide Professional Engineering Services**

# **Office of the Chief Medical Examiner Lodox Exero-Dr Expansion**

**January 11, 2022  
CEOI 0506 CME2200000002**



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Project Goals & Objectives

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State of WV Centralized Expression of Interest

State of WV Purchasing Affidavit

Addendum Acknowledgement Form



# SECTION I.

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**Executive Summary Letter  
Project Goals & Objectives**





**Design/Consulting Services**

135 Corporate Center Drive / Suite 532 / Scott Depot, WV 25560  
(304) 755-0075 / www.ZDSDesign.com

MECHANICAL ● ELECTRICAL ● INDOOR AIR QUALITY ● ENERGY ● COMMISSIONING ● FORENSIC



January 11, 2022

WV Department of Administration  
Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305-0130

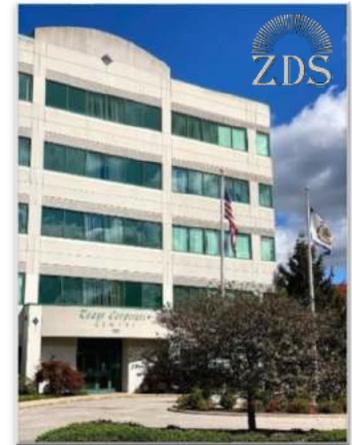
Please accept our Expression of Interest to provide Professional Architectural/Engineering Design Services for the **Lodox eXero-DR radiology system expansion** at the Office of the Chief Medical Examiner, 619 Virginia St. West, Charleston, WV 25302.

**ZDS Design/Consulting Services** was founded in 1994 and is in Scott Depot, WV only minutes from the project. The project will be assigned to **ZDS'** principal-in-charge of planning/design who will follow the project from inception through Construction Administration and has full authority to execute a binding contract on behalf of **ZDS**:

**Todd A. Zachwieja, PE, CEM, LEED AP – Principal, CEO**

**ZDS Design/Consulting Services**

135 Corporate Center Drive, Suite 532, Scott Depot, WV 25560  
Office: 304-755-0075; Mobile: 304-545-4550  
Todd.Zachwieja@ZDSDesign.com; www.ZDSDesign.com



The **ZDS** Team will provide comprehensive professional engineering and architectural services for the proposed renovations. Our firms have had many successful projects including numerous WV DHHR facilities, State of West Virginia, WVA<sup>NG</sup>, WVU, Ohio University, Marshall University, cities, and towns throughout the state and regionally. Each member of our Team brings unique strengths to the Project and realizing the similarity of mission and the desire to serve West Virginia clients, we will be honored to work with you.

Our Team has designed and coordinated upgrades for many projects of all types and sizes. We have successfully phased construction activities and know we can successfully coordinate the phasing of the proposed work. We will communicate closely with the client's personnel, so their needs are addressed.

## Project Goals, Objectives & Approach

Our Team met onsite with the Medical Examiner's staff on November 4, 2020, to review the site and discuss the preliminary approach to meeting the goals and objectives. The proposed CT Scan room currently is being used as office space and intended to be converted to a CT scan room using the CT supplier's (Lodox) drawings as the basis for the design. Our understanding of some of the needs for the CT Scan room include the following:

- a. The CT Scanner (Lodox) has already been purchased and is in storage waiting for installation. The purchase includes installation of the CT Scanner, training, and commissioning of that equipment by the CT Scanner supplier.
- b. The Team scope will include a code review, ADA review, and assessing the weight loads with the existing concrete slab to support the new CT scanner.
- c. The architectural scope will include a floor plan, reflected ceiling plan, door, and door hardware specs for the lead-lined doors with card control access and provide the specifications for the lead-lined drywall, floor, ceiling, paint, doors, and frames.
- d. The existing electric service for the building is 208V/3 Phase and the CT Scanner requires both 480V/3 Phase and 208V/3 Phase power which will need addressed as part of the design services.
- e. The existing HVAC equipment that serves the proposed CT scan location likely will not meet the needs of the CT scanner room and needs evaluated as part of the design services.
- f. Wintertime humidification will need to be included in the design due to CT Equipment requirements to maintain a minimum of 30% relative humidity due to static electricity concerns.
- g. Coordination with the CT Scanner Supplier will be part of the design services to meet the equipment utility requirements including HVAC needs.
- h. It is our understanding that the State's physicist is Tera Patton, e-mail [tera.e.patton@wv.gov](mailto:tera.e.patton@wv.gov) who would assist in review and acceptance of the shielding plan for the space. The design plan will include lead shielding that will likely consist of the 15'-4" wall closest to the CT scanner and perpendicular wall subject to approval by the physicist.
- i. Prepare submission of plans to the WV State Fire Marshal (WVSFM). Our understanding through discussions with PJ Cooper is this project would not require review by the Office of Health Facility Licensure and Certification (OHFLAC). All agency review fees are assumed to be paid directly by the Owner unless reimbursed in accordance with **ZDS'** standard reimbursement rates when requested to be paid by **ZDS**.

We have reviewed the eleven available "Lodox" drawings furnished by the CT scanner suppliers dated 8/5/2019 and had conversations with their engineering department. Based on those conversations, we determined that those drawings contain errors that will need resolved as part of the design.

We also reviewed the 11/15/2004 original construction drawings prepared by Associated Architects and their consultants prior to our site visit and found the facility does not match those drawings when reviewing the HVAC portion. We ideally work from "as-built drawings", but these reflect the current best information available.

We will use consultants as deemed necessary to meet the needs of the project which currently includes WYK Associates, Inc, 205 Washington Avenue, Clarksburg, WV 26301 with James B. Swiger, AIA, NCARB, LEED BD+C, President, and his staff as our architectural consultant. James Swiger and Stephen Kelley were with us during our November 2020 site meeting. A structural engineering consultant may also be needed but that is to be determined as the proposed renovations design progresses and the details are determined.



Our Team has an excellent track record of completing projects on time and within budget guidelines. We are ready and willing to start immediately on your project and are confident that our specialties will provide you with the best expertise to provide economical solutions for your facility. We look forward to discussing our qualifications. If there are any questions, please do not hesitate to call.

Sincerely,



Todd A. Zachwieja, P.E., CEM, LEED AP  
Principal, Chief Executive Officer

# SECTION II.

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## Firm Overviews



# Company Overview

## ABOUT **ZDS** DESIGN/CONSULTING SERVICES

In 1983, Todd A. Zachwieja founded ZECO Consultants. In 1994 **ZDS** Limited Liability Company was incorporated in West Virginia using dba **ZDS** Design/Consulting Services, and was founded to provide design and consulting services.

Each new project is assigned to a principal in charge who will follow the project from inception through commissioning. **ZDS** assigns the production staff according to the nature of the project and the work force necessary to meet the schedule. The principal in charge of that project determines if consultants are needed and coordinates all areas. After bidding, a principal of **ZDS** coordinates visits to the job site regularly, all the way through the post-warranty inspection. **ZDS** believes in the team approach when providing engineering design and consulting services. We start with our client as the number one member on our team. We listen to the needs and concerns of our client and that becomes the basis for our design.

### COMPANY LEGAL NAME

**ZDS** Limited Liability

Company dba **ZDS** Design/Consulting Services

### LOCATION OF INCORPORATION

West Virginia

### FOUNDERS

Todd A. Zachwieja, P.E., C.E.O.

Lori L. Zachwieja, C.P.A., C.F.O.

Daniel H. Kim, Ph.D.

### OFFICE

135 Corporate Centre Drive, Suite 532  
Scott Depot, WV 25560

### EMPLOYEES

**ZDS** currently employs design professionals covering all aspects of our services.



## CLIENTS & EXPERIENCE

- **Bluefield Regional Medical Center**
- **Cabell Huntington Hospital**
- **Charleston Area Medical Center (CAMC)**
  - General Division
  - Memorial Division
  - Teays Valley Hospital
  - Women & Children's Hospital
- **Concord University**
  - Campus High-Voltage Upgrades
  - Nick J. Rahall Technology Center
- **Harvard University**
  - Arnold Arboretum
  - Weld Hill Research & Administration Building
- **Marshall University**
  - Smith Hall and Harris Hall
- **Montgomery General Hospital**
- **Ohio University - Athens**
  - Chiller Water Master Plan
  - Campus-Wide Performance Contracting
- **Ohio University - Chillicothe**
  - Stevenson Library/Bennett Hall ME
  - Renovations/Performance Contracting
- **Roane General Hospital**
- **Saint Joseph's Hospital - Parkersburg**
- **Saint Mary's Medical Center - Huntington**
- **Stonerise Healthcare - Charleston**
- **Summersville Regional Medical Center**
- **University of California Davis Veterinary Medicine**
- **United Hospital Center**
- **Veterans Affairs (VA) Hospital Administration**
  - Clarksburg, WV
  - Huntington, WV
- **Washington & Lee University**
- **Webster County Memorial Hospital**
- **WV Department of Health & Human Resources**
  - Hopemont State Hospital
  - Jackie Withrow Hospital
  - John Manchin, Sr. Health Care Center
  - Lakin Health Care Center Retrofit
  - Mildred Mitchell-Bateman Hospital
  - Welch Community Hospital Retrofit
  - William R. Sharpe, Jr. Hospital Addition
  - William R. Sharpe, Jr. Hospital Retrofit
- **WVU NASA Emergency Generator Upgrades**
- **West Virginia University**

**ZDS** provides comprehensive design services. We have experience and specialties in indoor air quality, energy management and commissioning, along with traditional mechanical and electrical design experience dating back as far as 1958. We offer a complete package. **ZDS** works with all levels of the client's staff: the building owner, budget supervisor, operating and maintenance staff and others impacted by the project. We recognize that the maintenance and operating staff live with the design long after the project's completion. We listen to and work with those who will continue to operate and maintain the equipment. We find that proper communication benefits the client throughout the design process and beyond.

The **ZDS** design team provides a total system evaluation for cost-effective selection, installation, and ease of maintenance for both new systems and retrofit of in-place systems. Design begins with our client. Our staff meets with our client to review their concerns, budgets and schedules. The **ZDS** design team reviews the entire picture, and ends with "A Total Design."

The **ZDS** staff has the expertise with codes and standards. We have extensive experience in conducting engineering code surveys of existing facilities. Our staff has excellent working relationships with the West Virginia Fire Marshal's Office, West Virginia Department of Education and the West Virginia School Building Authority. In addition to comprehensive Engineering services from an experienced design team, another major consideration in the selection of your engineer and design staff should be their track record.

**ZDS'** organization has an unbeatable, long running, and well-known track record for meeting our clients' needs, on time and within budget, with outstanding quality. **ZDS** views these characteristics as the foundation of Quality. We look forward to the opportunity to discuss our ideas with you and assist you by providing solutions for your needs with a full range of services from Planning to Commissioning.

## INDOOR AIR QUALITY SERVICES

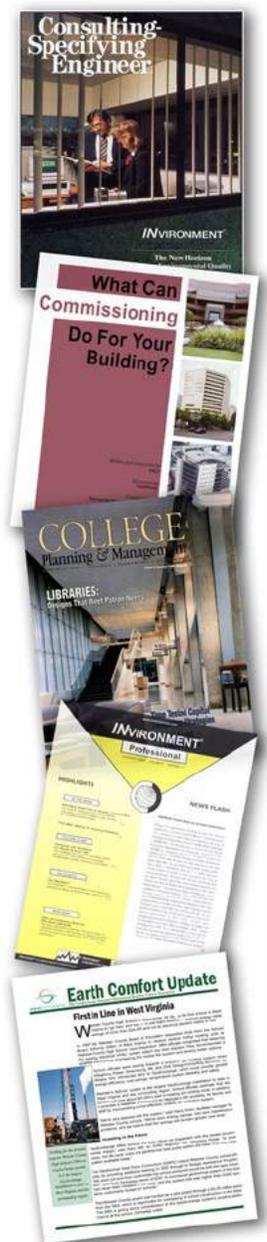
**ZDS** provides consulting engineering services for the indoor air quality (IAQ) environment. These services include: strategic planning for renovation and new construction projects; technical research and writing; specialized applications software development; corporate and professional training programs; publications support and fulfillment; and site-specific engineering and scientific consultation. Todd Zachwieja, **ZDS** Principal, is contributing editor for the following IAQ publications:

- Technical Review Panel for the publication of the *INvironment™ Handbook of Building Management and Indoor Air Quality*, by Chelsea Group and published for Powers Educational Services
- Technical Review Panel for the quarterly publication of the *INvironment™ Newsletter*, by Chelsea Group for Powers Educational Services
- *Ventilation for a Quality Dining Experience: A Technical Bulletin for Restaurant Owners and Managers*, released in January 1993
- *The New Horizon: Indoor Environmental Quality*, published as a supplement to an issue of *Consulting-Specifying Engineer* magazine, a trade magazine distributed to roughly 50,000 engineers
- Editorial Advisory Board member reviewing the articles of the monthly publication *INvironment™ Professional*
- Editorial Advisory Board member of *POWER PRESCRIPTIONS™ Indoor Air Quality Publication* by Electric Power Research Institute

**ZDS** provides Indoor Air Quality (IAQ) services for major corporations, government organizations and property owners to resolve their specific facility problems:

- Resolve “sick building syndrome”
- Identify solutions to building-related illnesses due to extensive biological contamination
- Develop solutions for HVAC systems, temperature controls, equipment, operating and maintenance practices for indoor air quality
- Commission new and renovated facilities to minimize or eliminate IAQ issues before problems arise
- Develop and establish master plans as well as conduct training seminars for IAQ of schools and commercial buildings

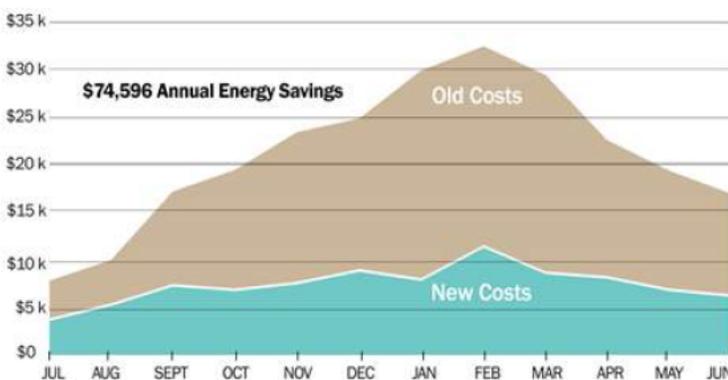
As one of the nation’s leaders in Indoor Air Quality (IAQ), **ZDS** provides sophisticated technical expertise that enables our client to be proactive in solving and preventing indoor environmental problems.



At **ZDS**, our engineering staff integrates energy efficiency into each project design to provide you, our client, with the added value that you expect and deserve. The **ZDS** team approach represents a tremendous amount of experience in designing energy efficient facilities. **ZDS** offers a comprehensive range of energy management services including:

- Providing detailed analysis of facilities
- Recommending sound and proven energy saving solutions
- Implementing energy management improvements
- Determining, quantifying and assisting in securing available Utility and Government grants

The **ZDS** team members take pride in the quality of their projects and have been responsible for designing and implementing numerous energy management programs. These programs are providing significant energy improvements and include optimizing, central utility plant equipment, control systems, air handling systems, lighting systems, and other energy consuming equipment.



**ABOVE:** ZDS designed and implemented the region’s first and largest commercial geothermal system saving Webster County High School over **over 50% reduction** in energy and operating savings for the HVAC systems.

## Recent projects include:

- Design of High Performance Buildings
- Interconnecting boilers and chiller plant systems
- Designing Geothermal HVAC systems
- Optimizing HVAC equipment and operating sequences, including upgrades to variable speed operation
- Installing Direct Digital Control (DDC) Energy Management Systems
- Replacing inefficient lighting equipment with energy efficient systems
- Modifying air handling equipment from 100% outside air to return air operation
- Implementing heat recovery units into HVAC equipment
- Improving laundry, kitchen and other process application efficiencies



In addition to the energy management projects outlined above, the **ZDS** team members have extensive experience in identifying and implementing energy efficient operating and maintenance measures. These are typically low cost or no cost measures that include:

- Inspecting, calibrating temperature controls and adjusting outdoor air dampers
- Commissioning economizer cycle operation
- Testing steam traps and pressure relief equipment operation
- Enabling heating and cooling equipment only when required

The **ZDS** team is trained and experienced in advising you of program options to incorporate energy efficiency and operational savings features into the design of your new construction and renovation projects. At **ZDS**, we view our role as helping you to define your own energy efficiency needs and goals through identifying energy savings options and providing supporting financial information. We then help you fit your energy efficiency needs and goals into a workable budget and schedule, and then design a program to fill those needs.

Sustainable “Green Building” design, including LEED certification, recognizes the importance of commissioning. The design and construction industry have had start-up problems when a facility is occupied and construction deficiencies were not discovered until the contractor’s traditional one-year warranty period expired. The mechanical and electrical systems have continued to become more complex with sophisticated control systems and equipment, and a mountainous amount of changing technology. If not properly addressed, building owners could face numerous operational problems from “Sick Building Syndrome,” excessive energy costs, and uncomfortable indoor environments.

Commissioning is the missing link between design and implementation. Prior to joining **ZDS**, Todd Zachwieja established commissioning services for one of the nation’s largest energy service companies. He is also a LEED Accredited Professional. Many utility companies and building owners now require commissioning for new or renovated facilities in order to maximize the use of their investments in their facilities and to obtain LEED certification.

**ZDS** offers commissioning services for their clients, including meeting LEED enhanced commissioning requirements. These services include strategic planning and operations assistance for renovation and new construction projects. Commissioning services consist of construction document review, equipment performance testing, documentation of design criteria, value engineering, operational fine tuning, coordination of professional operations training programs and site-specific engineering consultation. Our project team has the unique experience of in-depth design knowledge and hands-on operations knowledge that fills in the gap between traditional design services and the building owner’s operational needs.

The commissioning process offers the following benefits:

- Improved comfort, serviceability and owner understanding of systems and design intent
- Added technical support for the owner and being proactive in preventing new problems
- Reduced maintenance and decreased expenses related to operating deficiencies
- Early identification and resolution of system discrepancies while designers and contractors are still under contract and on the job
- Verification of system performance while meeting financial restraints

The National Conference on Building Commissioning invited Todd Zachwieja to speak and he jointly presented a paper with the Director of Maintenance of Charleston Area Medical Center’s Memorial Division. The Tampa, Florida Conference involved experts nationwide.

Since 1958, the **ZDS** design staff has provided millions of dollars of engineering design services on a variety of project types. The **ZDS** design team will provide comprehensive services utilizing experienced staff through planning, cost estimating, engineering, coordination of bidding, regular site visitation during construction and specifications for equipment.



You, our client, will greatly benefit from a single point of responsibility for every need your project may have.

# Company Overview



**WYK ASSOCIATES, INC.**  
ARCHITECTURE • PLANNING

## Company Information

Identity · Project Philosophy · Project Management

[www.wykarchitects.com](http://www.wykarchitects.com)



## Our Identity

### Who we are

WYK Associates, Inc. is a full service architectural and planning firm serving a wide variety of commercial, religious, educational, civic and industrial clientele.

WYK Associates, Inc. was established in 1900 by Edward J. Wood. Our archives are filled with a century's worth of historic work. From this, many predecessors who have carried the torch of the firm through the last century.

Wood's grandfather's firm had roots in North Central West Virginia dating back to the early twentieth century. William Yoke, Jr. and Howard Kelley partnered with Mr. Wood in 1974 to form WYK Associates, Inc.

Mr. James Swiger joined the firm in 2005 and became a principal and vice president in 2008. In 2010, Mr. James Swiger assumed sole owner of WYK Associates, Inc.

## Project Philosophy

### Our process at work

COMMUNICATION & TEAMWORK are our guide words for each project. Our client's requirements for quality, service and value are the driving force behind each decision.

Through collaboration with engineering consultants we address the needs and schedule requirements of each client.

We provide thorough planning in all areas of each project to fit the individual requirements for a positive impact on both the natural and built environments. Energy conservation and product safety are very important concerns.

## Project Management

### How we create excellence

We carefully evaluate the client's program, design concerns, budget, funding sources, and other available data to assure a clear understanding of each project.

We incorporate input from our client and consultants to establish the budget and schedule. These facets are updated during each stage of project development to ensure our client's parameters are met.

WYK's principals engage and manage the entire project team, from concept through occupancy. WYK Associates, Inc. has an outstanding reputation for providing construction administration services along with maintaining an excellent rapport with contractors.

“ Our building stands as a tribute to you and your firm for a job well done. ”

-Charles A. Feathers, Chief Bridgeport Fire Department, Retired

# Company Overview



**WYK ASSOCIATES, INC.**  
ARCHITECTURE • PLANNING

## Company Information

Identity · Project Philosophy · Project Management

## Architecture

### Contact Information

WYK Associates, Inc.  
205 Washington Avenue  
Clarksburg, WV 26301

304-624-6326

304-677-3373 Cell

304-623-9858 Fax

[www.wykarchitects.com](http://www.wykarchitects.com)

### Summary

Established as a full service architecture firm in 1900, then named Edward J. Wood Architect, WYK Associates, Inc. has been located in Clarksburg for 119 years. Through innovative and thoughtful responses to the unique issues of each project, our goal is to create places that fit the needs and desires of those who use them.

Our team approach integrates the collaborative strengths of each member to produce a solution of balance between design quality, schedule and budget. We have always considered sustainability, the built environment, and quality of life long before the public began to focus on its benefits. We take seriously the responsibility of designs and solutions to be cost effective and operate efficiently throughout the building's lifecycle.

### Relevant Project Experience:

West Virginia Folklife Center,  
Fairmont State University  
Central Fire Station, Clarksburg, WV  
Circleville School,  
Pendleton County, West Virginia  
Pocahontas County Courthouse,  
Marlinton, WV  
Barbour County Courthouse,  
Philippi, WV  
Gassaway Depot,  
Gassaway, WV  
Immaculate Conception Parish  
Center, Clarksburg, WV  
Jackson Square, Clarksburg, WV  
Robinson Grand Performing Arts  
Center, Clarksburg, WV



Robinson Grand Performing Arts Center



West Virginia Folklife Center



Central Fire Station

### Memberships



# Company Overview



**WYK ASSOCIATES, INC.**  
ARCHITECTURE • PLANNING

## Company Information

Identity · Project Philosophy · Project Management

## 3D Laser Scanning / 3D Modeling / 3D Printing

WYK Associates, Inc. welcomed the New Year by taking a leap of progress in architectural design. By acquiring a color 3D printer, the Clarksburg architectural-planning firm puts themselves on the map as an industry leader in the region.

3D printing technology is just now becoming available, commercially. A color 3D printer creates a physical, three-dimensional gypsum-based model of any project from a digital prototype in nearly three million colors, allowing for exact detailing in every model.

“Our refined modeling process allows our clients to see and touch a new building at scale, but with its actual features. It enables our clients to make educated choices with less variance between their expectation and the actual outcome,” states James B. Swiger, President of WYK Associates, Inc.

The decision to purchase a color 3D printer was not made lightly. Evaluating different brands, methods

and technologies in 2013 and visiting maker labs and distributors in- and out-of-state, WYK opted for a solution tailored to the architectural environment and the company’s clients, by choice the “greenest”, most environmentally friendly model available to date.

To unleash the full potential of the 3D printer, WYK partners with ZDS Design/Consulting Services on 3D laser scanning. In the process of 3D laser scanning, laser beam signals that collect survey data points are used to capture images, make drawings and record measurements of a structure.

Combining the two technologies, existing buildings are scanned to the accuracy of one millimeter and then recreated as scale models on the 3D printer. An exciting combination - another first for the region - producing results greater than the sum of its parts.

“The possibilities are endless, and we have only just begun,” says Swiger enthusiastically.



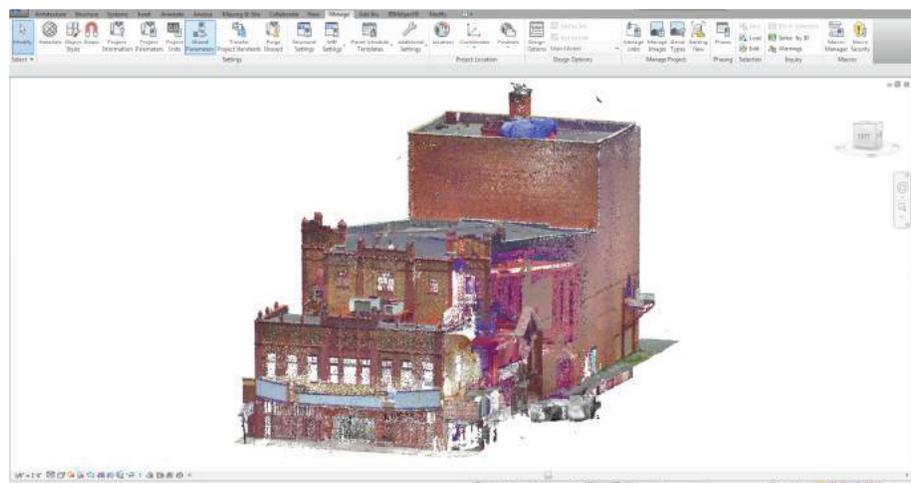
Shinnston Community Center Physical Model



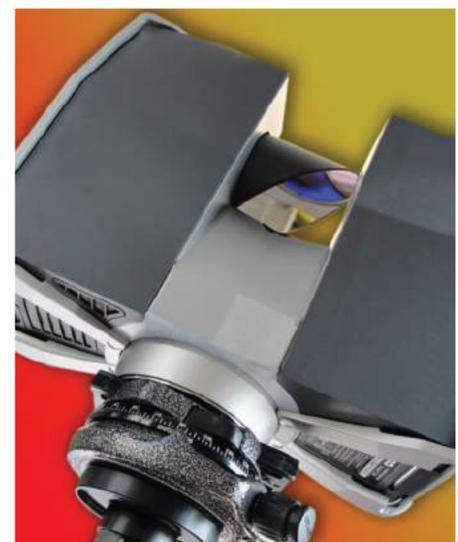
Photo of Building Interior



3D Scan of Building Interior



3D Modeling of Robinson Grand Theater



3D Laser Scanning

# SECTION III.

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## Description of Project Experience

Additional Project Experience Brochures



ZDS's staff prior to joining ZDS, while employed by others, as well as after joining ZDS have worked on numerous Healthcare Facilities and projects which include the following:



Charleston Area  
Medical Center

### **Charleston Area Medical Center, Charleston, WV**

#### **Memorial Division, 3200 MacCorkle Avenue**

- Cath Lab III Renovations
- 750 kW Emergency Generator & Underground Fuel System
- Two-Four West Nursing Wing
- Main Electrical Service Upgrade
- Emergency Room Renovations
- 600 Ton Central Chiller Plant and Variable Water Pumping
- 700 Ton Chiller Replacement and Variable Water Pumping
- Surgical Intensive Care Retrofit
- Two/Three East Patient Room Renovations
- Four-North HVAC Renovations
- Nuclear Medicine Renovations
- Laboratory Fume Ventilation Problem

#### **General Division, Washington & Broad Street**

- Special Care Facility Contract Administration
- Allied Health, Physical Therapy & Hydrotherapy
- Three-Six Floor Patient Room South
- Emergency Generator Retrofit Design
- Heliport and pilot's quarters
- Wound Center

#### **Women and Children's Hospital, 800 Pennsylvania Avenue**



- Pediatric Intensive Care Unit
- Newborn Intensive Care Unit
- Central Electric Metering Design
- CT Scan Addition
- LDRP/Gynecology
- Surgery Addition
- Operating and Recovery Room HVAC System

#### **Teays Valley, Hospital, 1400 Hospital Drive**

- ADA Patient Room Renovations

#### **Cabell Huntington Hospital, Huntington, WV**

- Numerous mechanical and electrical renovations projects including master planning for renovations to chiller plant

#### **Charleston Surgical Center, Charleston, WV**

- Design for numerous mechanical and electrical renovations projects

#### **Hopemont State Hospital, Terra Alta, WV**

- Master Plan for Engineering upgrades
- Campus Addressable Fire Alarm System Design
- Steam System Upgrades
- Facility Lighting Upgrades

#### **Jackie Withrow Hospital, Beckley, WV**

- Master Plan for Engineering upgrades
- Central Plant HVAC/Steam System Upgrades
- New natural gas service to campus including emergency systems

#### **John Manchin, Sr. Health Care Center, Fairmont, WV**

- Master Plan for Engineering upgrades
- Facility Lighting Upgrades



**Cabell**  
Huntington  
Hospital





**Kings Daughters Medical Center, Ashland, KY**

Cardiac Care Center  
Medical Office Building

**Lakin State Hospital, West Columbia, WV**

Master Plan for Engineering upgrades  
Facility Lighting and Window Upgrades

**Lewistown Outpatient Surgery Facility, Lewistown, PA**

New Outpatient Surgery Facility

**Mildred Mitchell-Bateman Hospital, Huntington, WV**

Master Plan for Engineering upgrades  
Facility Lighting Upgrades  
Structural evaluation of multiple buildings  
Emergency Generator upgrades, extensions



**Montgomery General Hospital, Montgomery, WV**

Isolation Rooms Ventilation Design  
Domestic Hot Water System Design



**Roane General Hospital, Spencer, WV**

Ambulatory Care Addition, Renovations Commissioning

**St. Joseph hospital, Parkersburg, WV**

Endoscopy Suite Renovations



**Saint Mary's Medical Center, Huntington, WV**

Cancer Center Renovations  
Isolation Room Renovations

**Stonerise Healthcare, Charleston, WV**

Master Plan for Engineering upgrades and addition  
to Eastbrook Nursing Home



**Summersville Regional Medical Center, Summersville, WV**

Numerous Mechanical and Electrical Renovations.

**Surgi-Care Center, Huntington, WV**

Retrofit existing commercial building into Outpatient Care facility



**Thomas Memorial Hospital, South Charleston, WV**

Design for numerous mechanical and electrical renovations projects

**United Hospital Center, Clarksburg, WV**

Emergency Room Addition M/E Design  
Emergency Generator & Fire Alarm Design  
Boiler Plant Renovations Design  
Comprehensive Energy Conservation Program Development  
Complete facility Building Automation System and HVAC Renovations  
Skilled Nursing Unit  
Med-Brook Office Building  
Wound Center  
Walkway Entry Renovations



Health Care Project Experience



**VA Medical Center, Huntington, WV**

Underground Steam Piping System Replacement entire campus  
Domestic Water Piping Upgrades  
CT Scan  
New Mental Health Transitional Living Facility renovation and Additions  
Central Heating Plant Renovations



**VA Medical Center, Clarksburg, WV**

Medical Office Building Renovation

**Veterans Administration, Brooklyn, NY**

Cypress Hills National Cemetery Record Documentation

**Webster Memorial Hospital, Webster Spring, WV**

Numerous Mechanical and Electrical Design renovations design and master planning for a replacement hospital



**WELCH**  
EMERGENCY  
HOSPITAL

**Welch (Emergency) Community Hospital, Welch, WV**

New Hospital Mechanical and Electrical Design constructed in two phases  
Facility Lighting Upgrades  
Master Plan for Engineering upgrades

**William R. Sharpe, Jr. Hospital, Weston, WV**

Master Plan for Engineering upgrades  
Facility Lighting Upgrades  
Comprehensive HVAC, electrical, and new central heating and cooling plant  
Natatorium HVAC upgrades  
Kitchen plumbing and HVAC upgrades  
New emergency power plant, distribution system and fuel storage/delivery  
50 Bed Addition for Forensic Patients with Sally Port entrance  
Airborne Infectious Isolation Patient Room Renovations  
Comprehensive Commissioning for Hospital Renovations



# Charleston Area Medical Center (CAMC)

Charleston, WV



## **CAMC General Division**

CAMC is one of the largest health care providers in West Virginia and consists of several separate hospital campuses and facilities encompassing nearly 10 million square feet. Prior to forming **ZDS**, their principals and personnel's work at the General Division included the following: Special Care Facility, Physical Therapy, Emergency Room Retrofit, 3-4-5-6 South Patient Retrofit, District Chiller Plan Replacement and Interconnect, boiler plant and emergency generator systems.



## **CAMC Memorial Division**

Prior to forming **ZDS**, their principals and personnel were involved at CAMC with review of the design and commissioning of a \$40 million surgery addition to the Memorial Division campus. This work paid for itself in less than two years from the savings generated and addressed maintenance reliability and future expandability issues. Their involvement at this location included Emergency Room Renovations, Patient Room Renovations, Chiller Replacement/Interconnect, boiler systems, Radiology/Nuclear Medicine Renovations, Cath Lab, SICU, MICU Renovations and CT Scan, emergency generator, Fuel Oil Storage, Surgery Addition Commissioning, and Laundry Facility Renovations.



## **CAMC Women & Children's Hospital**

**ZDS'** principals and personnel have worked with CAMC since 1982 while at **ZDS** and through previous employers on many design, energy conservation and commissioning projects involving sophisticated mechanical and electrical systems while meeting stringent health care requirements and safety of the patients for. Some of their involvement at CAMC's Women & Children's Hospital included LDRP Additions/Renovations, NICU & PICU Renovations, Emergency Room Renovations and Patient Room Renovations.



Health Care Project Experience

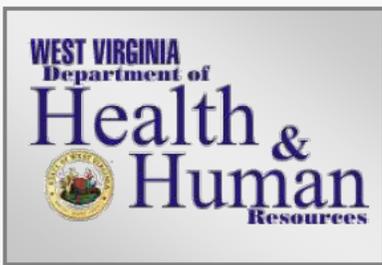


## **Hopemont Hospital, Terra Alta, WV Boiler Plant Renovations**

**ZDS'** initial work addressed their fire alarm needs in 2003. ZDS was contacted again in 2010 to provide master planning, boiler system upgrades and ARRA funded lighting upgrades. The boiler plant optimization initial phase involved replacing underground piping between the central plant and hospital, along with comprehensive steam trap upgrades. This required engineering planning, design, supervision, preparation of construction documents, specifications, and construction administration of the boiler systems including lighting upgrades with replacement of T-12 lighting fixtures and incandescent lights with energy efficient T-8/T-5 and LED lighting, reducing lighting energy usage by over 30%.



**Project Cost:**  
ARRA Renovation \$760,000;  
Fire Alarm \$175,000;  
**Hospital Size:** 124,800 ft<sup>2</sup>



## **Jackie Withrow Hospital, Beckley, WV Boiler Plant Renovations**

**ZDS** was the Prime for this project. Renovations included creating a central plant at one end of the large facility which included three 3,000 MBH, 125 psi steam boilers with upgrades to the condensate return system and comprehensive steam trap upgrades, providing a new gas service to the new boiler plant. The existing boiler plant in the opposite end of the large facility was upgraded to lengthen the life of it including a 2,500 MBH steam boiler. Several old or poor condition boilers were removed or isolated from providing heat to the system. The natural gas service upgrades were coordinated through the State Fire Marshal for approval to meet emergency backup fuel needs required by current code for both heating and emergency power.



**Heating Project Cost:** \$1,907,000  
**Hospital Size:** 408,820 ft<sup>2</sup>

# William R. Sharpe, Jr. Hospital

Weston, WV



Size: 219,754 ft<sup>2</sup> plus 33,000 ft<sup>2</sup> Addition

Date Complete: 2017

219,754 ft<sup>2</sup> Renovation plus 33,000 ft<sup>2</sup> New Construction

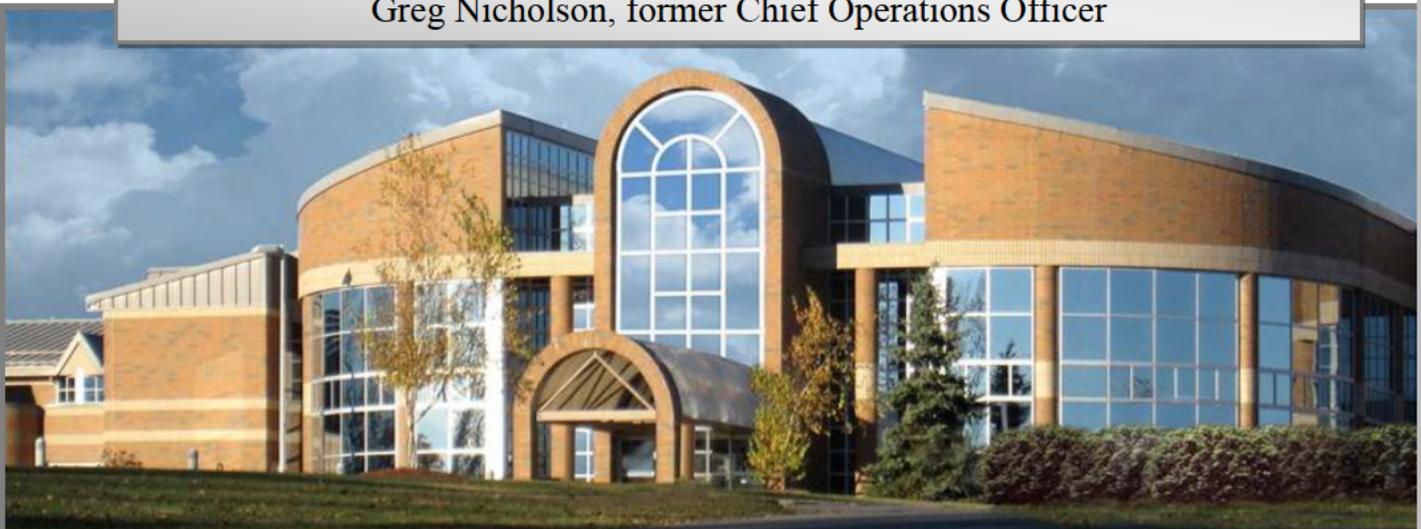
Prime for Engineering Master Planning, HVAC Renovations, Lighting Upgrades, Emergency Generator, Fire Protection, Electrical Renovations, Roof Replacement, Commissioning, 3D Scanning.

Consultant for all MEP engineering through IKM, Inc. for the addition.

MEP Engineering design and Commissioning services for both the HVAC/lighting/roof Renovation project retrofitting Hospital and the patient wing addition. Comprehensive MEP engineering and commissioning services for a central domestic hot water services, central boiler/chiller plant and 1.8 MW bi-fuel emergency generator system. VVW Pumping for heating, cooling and domestic hot water. Integrated DDC controls for central monitoring, troubleshooting and control including demand control ventilation and outside air measuring/monitoring. The HVAC system is also an integral part of the smoke control system. Lighting systems upgraded to LED and controlled to minimize energy. IAQ enhancements were incorporated into the high performance HVAC systems. Careful phasing, and the need to disrupt only small portions of the Hospital at a time, resulted in an extended construction period.

*“The **ZDS** staff are great planners and designers! They help us make the best decisions for the long term. We would recommend them to anyone!”*

Greg Nicholson, former Chief Operations Officer



**Renovations resulted in a 48% reduction in lighting and 28.8% reduction in energy for HVAC renovations over ASHRAE 90.1-2001 standards qualifying the project for EPCAct.**

<b>Construction Costs:</b>	Phase I HVAC Cost	\$ 1,403,000	Completed in 2011
	ARRA Funded Lighting Upgrade Costs	\$ 618,700	Completed in 2011
	Comprehensive Renovation Cost	\$30,000,000	Completed in 2017
	Addition Project Cost	\$13,500,000	Completed in 2014

Health Care Project Experience

# State of West Virginia Capitol Complex

Charleston, WV



## State of West Virginia Capitol Complex Charleston, WV

**Project Cost:** \$20,000,000 ,

**Size:** 1,900,000 ft<sup>2</sup> covering 9 buildings

**Date Complete:** On-going

**HVAC Renovations, Fire Protection,  
Electrical Renovations, Consultant for Performance Contracting**

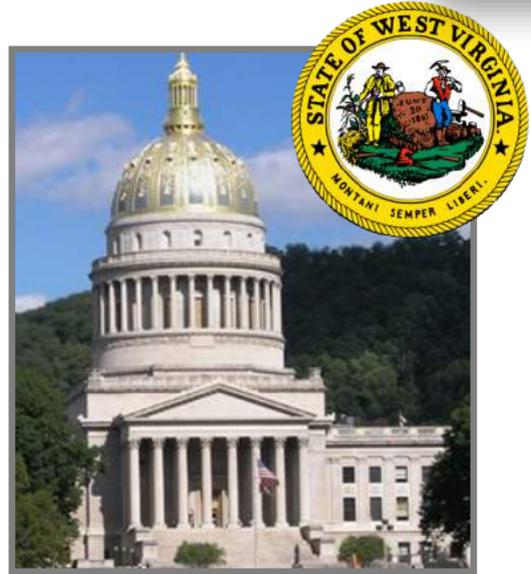
**Client Reference:**

Mark Lynch, Mgr. Facility Operations; mark.w.lynch@wv.gov

Raymond Jordan, Project Manager; (304) 957-7141

**Builder Reference:** Constellation Energy; Chuck Moeller  
(previously with Johnson Controls; (724) 584-3331

DSO Mechanical LLC, Jeff Kelly, Operation Mgr. (304) 744-8491



Numerous design and renovation projects for the WV State Capitol Complex including engineering planning, design, supervision, preparation of construction documents, specifications, construction administration, and commissioning of HVAC systems, sprinkler systems, plumbing systems, electrical power, lighting, fire alarm, security, technology and communications for many facilities on the WV Capitol Complex: **WV Division of Protective Services:** Engineering master planning & design for specific life safety issues involving homeland security, fire alarm, sprinklers, emergency power, CCTV, intercom, mass notification and “giant voice” system for all State facilities on the Capitol Complex under a 10-year open-end contract. **WV Division of Culture and History Library** renovations addressing long-term HVAC and IAQ problems including fire alarm and fire protection upgrades completed in 2011. Renovations conserved energy without sacrificing comfort or indoor air quality. **District Heating System:** As a consultant to Johnson Controls under a Performance Contracting program to provide master planning and design for the district heating system for the **WV Capitol Complex**. The project included the Master Planning, IAQ evaluation, energy analysis, code analysis and Mechanical design involving more than 1,900,000 ft<sup>2</sup> of facilities including the Capitol Building, Building’s #3, #4, #5, #6, #7, Holley Grove, Governor’s Mansion and the Cultural Center.

Master planning & design for central heating plant, DDC controls, Air Handling Unit replacements and retrofits, operating and maintenance, training, heat recovery, fuel conversion, VFD’s, variable water volume pumping, steam/heating hot water & chiller optimization.



***The Capitol Complex renovations are estimated to save nearly \$2,000,000 annually over the costs of operating the old systems.***

**Project Experience**

# Robinson Grand Performing Arts Center

Clarksburg, WV



**Project Cost:** \$17,000,000, **Size:** 45,000 ft<sup>2</sup> **Date Complete:** 2018

**Study/Evaluation, HVAC Renovations, Fire Protection, Electrical Renovations, Emergency Generator, Lighting Upgrades, 3D Scanning**

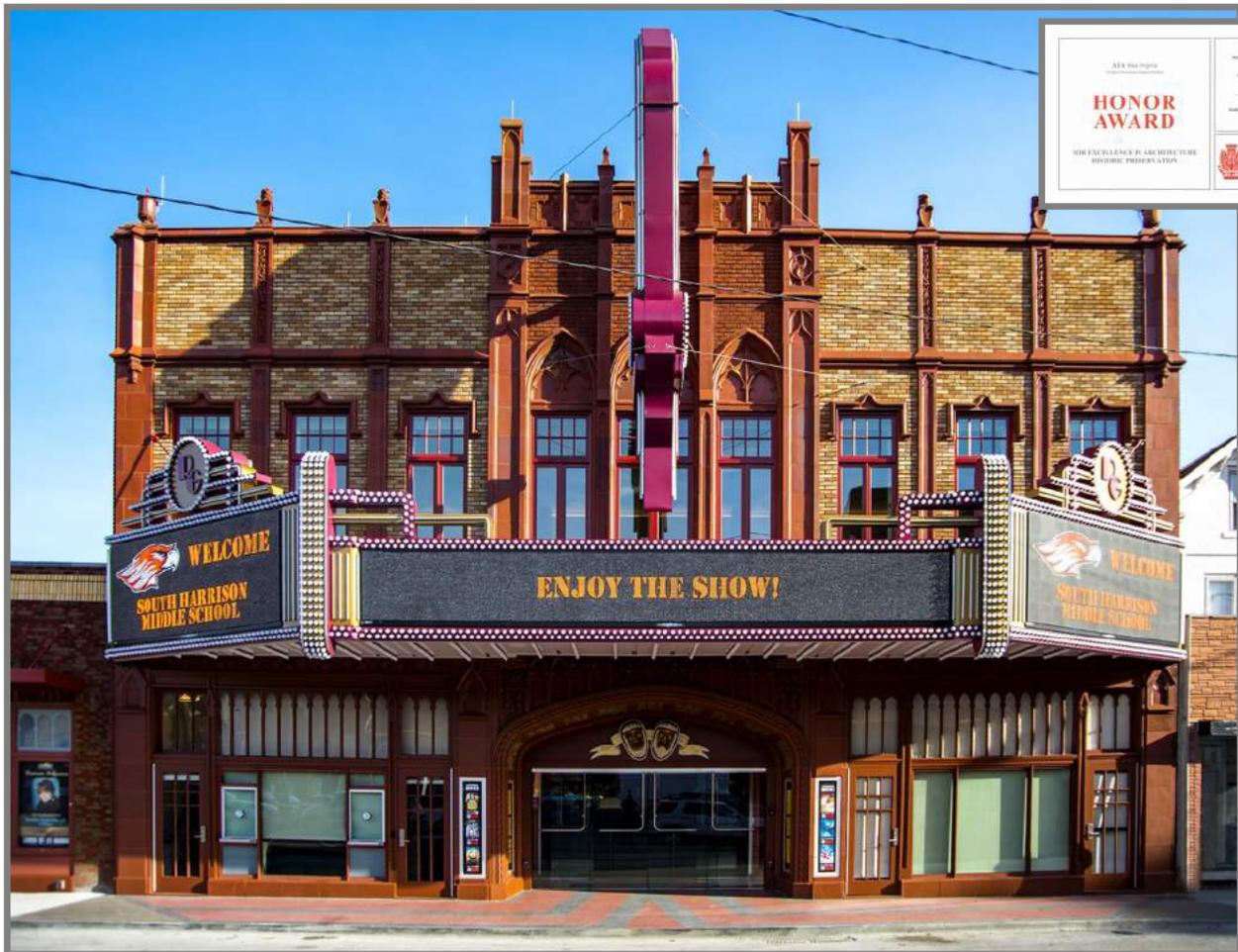
**Client Reference:**

Ryan Tolley, Executive Director, Robinson Grand Performing Arts Center, (304) 624-1500, ext. 6

WYK Associates, James Swiger, President; (304) 624-6326, james@wykassociates.com

High performance sustainable HVAC/Electrical/Plumbing/FP upgrades. Quiet HVAC system meeting stringent acoustical performance requirements for Performing Art. 3D-Scan-to-BIM of the existing facility was invaluable to develop the comprehensive existing conditions. Built in 1913, this beautiful award winning historic theatre!

*Renovations resulted in a **50.8% reduction in energy** over ASHRAE 90.1-2007 standards qualifying the project for EPA Act.*



Project Experience

**Project Cost:** \$17,000,000, **Size:** 117,500 ft<sup>2</sup>, **Date Complete:** 2017

**Study/Evaluation, HVAC Renovations, Lighting Upgrades, Fire Protection, Electrical Renovations, 3D Scanning**

**Client Reference:** Gary Boyd, Director of Facilities; (304) 357-4871

The facility consists of classrooms, offices, flexible meeting areas and a large two-story Innovation Center space. Mechanical and Electrical work includes new chiller and boiler plants with pumps and accessories, HVAC air handling units, DDC Controls, new domestic and fire protection water services, new gas service, domestic water heating equipment, extensive plumbing fixtures/showers/lockers, new electrical service from the campus 12.5 kv distribution loop, switchgear, distribution and branch panel boards, and new state-of-the-art energy efficient LED lighting systems.

*Renovations resulted in over a 50% reduction in energy over ASHRAE 90.1-2007 standards.*



# Engineering for State & Local Government Facilities

ZDS engineering project experience includes facilities registered as official Historic Buildings



Jackie Withrow State Hospital



WVDHHR hired ZDS to engineer the upgrades for three historic hospital facilities in three separate locations. ZDS successfully completed the projects while meeting the requirements of the State Historic Preservation Office (SHPO).



Hopemont State Hospital



Mildred Mitchell-Bateman State Hospital

Renovations included HVAC, fire safety, energy efficient lighting, plumbing, indoor air quality and electrical power engineering.



Design/Consulting Services

# Engineering for State & Local Government Facilities



**Governor's Mansion**

Engineering planning and design for central heating plant, DDC controls, Air Handling Unit replacements and retrofits, operating and maintenance, training, heat recovery, fuel conversion, VFD's, variable water volume pumping, steam/heating hot water and chiller optimization.

Renovations included HVAC, fire safety, lighting, plumbing, indoor air quality and electrical power engineering.



**Building #3**



**State Capitol**



**LEED Certified Candidate**



**Design/Consulting Services**

# Engineering for State & Local Government Facilities

Welcome Center and Rest Area



ZDS engineered the prototype for several Welcome Centers and Rest Areas.

ZDS provided engineering planning, design, bidding and construction admin services for M/E, Plumbing and Fire Protection.

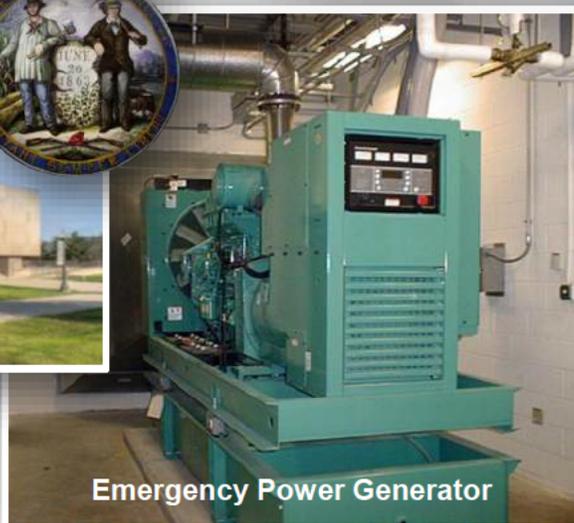
ZDS also evaluated the existing courthouse's potential power needs and incorporated those in the new Judicial Annex's electrical systems while providing emergency power.

Mercer County Annex



Division of Culture and History

A 228,500 ft<sup>2</sup> Facility



Emergency Power Generator

Renovations save the Museum nearly \$153,000 in annual energy costs while preserving the State's priceless collection with proper HVAC, humidification, lighting, electrical and power generator systems.



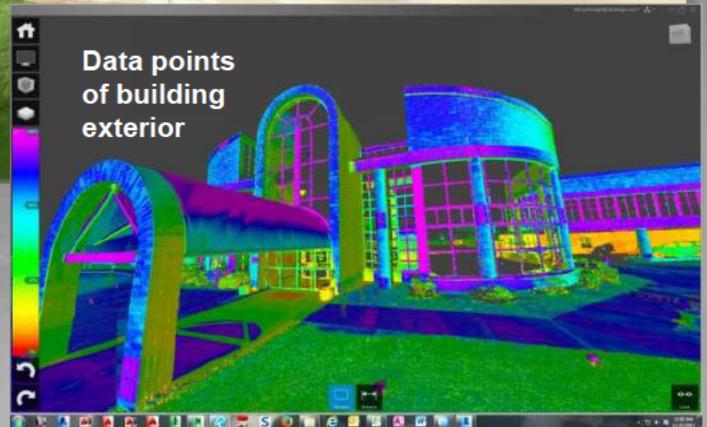
Design/Consulting Services

# BIM - 3D Digital Imaging

**Our 3D Laser Scanning Services helped William R. Sharpe, Jr. Hospital document existing conditions and integrate their 50-bed addition.**



**3D Laser Scanning**



## **Why 3D Laser Scanning is better:**

3D laser scans reveal significant differences between existing conditions and the original drawings.

3D laser scans also provide superior details by capturing data that is more comprehensive and precise than conventional methods.

**“With the 3D laser scanning service, ZDS saved us countless hours communicating to all project team members, even to those who work or live far away.**

**Also, we now have an accurate record of the existing conditions that DHHR can easily access now and into the future.”**

*former Chief Operations Officer*



## **Web Share:**

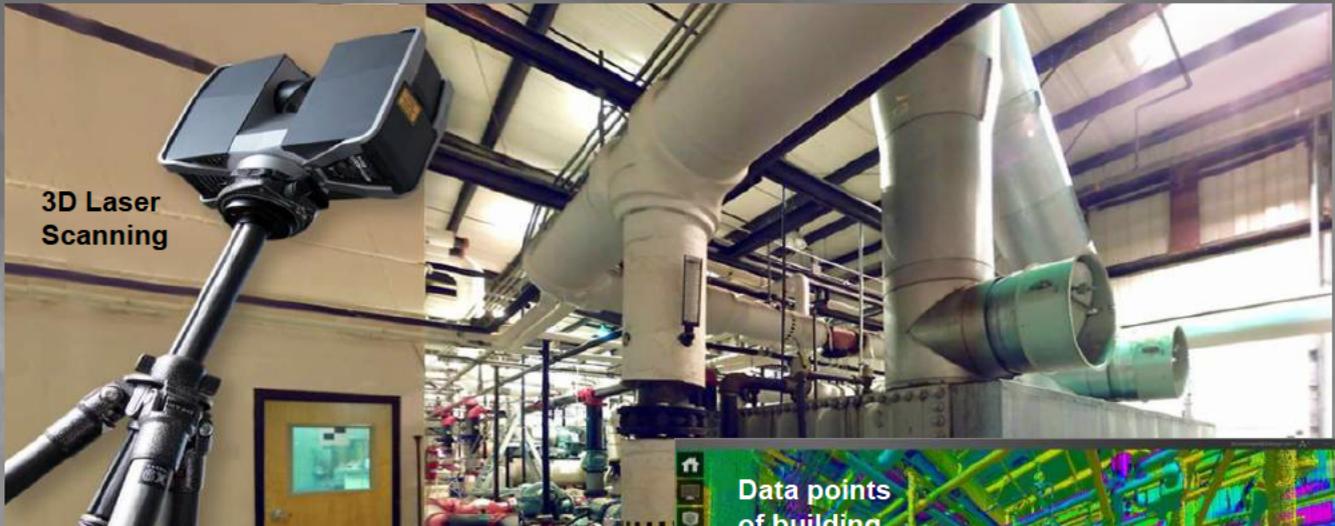
3D laser Scanning allows facility owners to view and measure areas with others on their planning and construction team.



# BIM - 3D Digital Imaging

**“The 3D laser imaging improves quality, saves time and money while providing a valuable resource now and into the future.”**

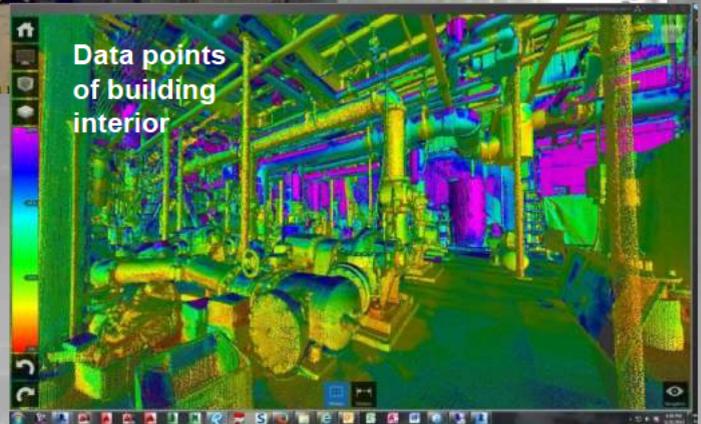
*DHHR*



**“The 3D laser scans safely document hard-to-reach interior areas — this greatly reduces our risk for liability.**

**Also, the excellent details of the laser scans convert to accurate construction drawings, both architectural and engineering.”**

*DHHR Director of Construction & Project Management*



**3D Engineering Drawing:**  
Sample of 3D mechanical drawing converted from 3D laser scan data points.

**Web Share:** Helps construction team members integrate existing conditions into BIM models.





**WYK ASSOCIATES, INC.**  
ARCHITECTURE • PLANNING

## Frank & Jane Gabor WV Folklife Center

Fairmont State University, Fairmont, West Virginia

Education > Fairmont State University > Frank & Jane Gabor Folklife Center

### The Folklife Center - A Success Story

#### Living history carefully updated

Originally a barn, this historic building is at Fairmont State University's new main campus entrance. This charming stone building was previously used as apartments and storage.

It is now the home of Fairmont State University's West Virginia Folklife Program and also serves the school as a Visitor's Center.

By removing the third floor and gutting the second floor plan, WYK designed a two story day lit gallery space on the existing second floor. Remedial structural repairs were needed to brace the existing roof structure once the third floor was removed.

The first floor houses offices, classrooms and informal gathering spaces. An elevator, replacement of 72 windows and doors, natural and specialized lighting, sprinkler system and HVAC systems have all been integrated into this structure.

By marrying the historic character of the building with upscale contemporary features and educational elements, the Folklife Center welcomes alumni, students, faculty and the general public to share many public functions.





**WYK ASSOCIATES, INC.**  
ARCHITECTURE • PLANNING

## Gore Building Build-Out

Clarksburg, West Virginia



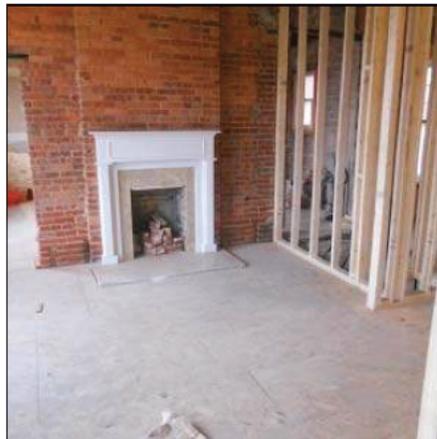
### Historic building to provide upscale living in Clarksburg !

The Gore Hotel, located on West Pike and South Second Streets in downtown Clarksburg, served originally as a prestigist hotel in the 1920's It was built in 1913 by Truman E. Gore and Howard M. Gore, Governor of West Virginia and U.S. Secretary of Agriculture, respectively.

The 3rd, 4th, and 5th floors are being rehabilitated from multiple small hotel type rooms into seven separete luxury apartments per floor with one and two bedroom options.

The inside of the exterior walls have been stripped of their original plaster and will be cleaned and sealed to leave a unique texture and feel to the apartments. The living areas will have laminate flooring while the bathrooms will have ceramic tile.

A new, large elevator and shaft is being installed to accomodate all levels of the building. Each floor will have a common area for residents to mix and socialize.



#### Project Facts

Size: 40,000 sq ft

Completed: Spring 2016

[www.wykarchitects.com](http://www.wykarchitects.com)

# SECTION IV.

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## **Proposed Team Staffing Plan**

**Team Certifications  
Team Resumes**



# Team Staffing Plan



## ZDS Management Team



**Ted Zachwieja III, PE, CEM**  
CTO/BIM Manager  
MEP Engineer



**Todd Zachwieja**  
**PE, CEM, LEED AP**  
Principal-in-Charge



**Jim Watters**  
Associate, MEP Design  
Cost Estimating/Construction Admin



**Mark Estep, PE**  
MEP Engineer



**Paul O'Dell, PE**  
MEP Engineer



**Vineel Busa, MSME, EI**  
MEP Designer



**Meher Meka, MSEE, EI**  
MEP Designer



**Billy Smith, BSME**  
MEP Designer



**James Swiger, AIA, NCARB**  
President/Architect

**Stephen Kelley, AIA**  
Architect

**Canon Fancher, Associate AIA**  
LEED Green Associate



## Principal-in-Charge

**Ted (Todd) A. Zachwieja, P.E., CEM,** LEED AP, ZDS founder with over 40 years of experience in MEP design, energy management, IAQ, Performance Contracting and commissioning. Nationally recognized for expertise in IAQ, LEED and Certified Energy Manager. Received "Legend in Energy" by AEE in 2007/2008. Founding partner of ZDS.



## MEP Designer

**Vineel Busa, MSME, EI,** has a Masters in Mechanical Engineering and is working on his PhD in Project Management. He has nearly 5 years experience in HVAC & Refrigeration.



## Chief Technical Officer MEP Engineer/Commissioning

**Ted A. Zachwieja III, P.E., CEM** and 2012 Legend-in-Energy Award, specializes in MEP design, energy management, IAQ and commissioning. Forerunner in adaption of 3D scanning for buildings for use in MEP design for renovations. Extensive experience in IT systems administration with over 16 years of experience at ZDS. Co-authored BIM Training for Autodesk University presented in Las Vegas 2015, receiving national recognition. One of four selected internationally for the 2015 ASHRAE Leadership University and youngest Legend-in-Energy Recipient awarded by AEE.



## MEP Designer

**Meher Meka, BSEE, EI,** has a Masters Degree in Electrical Engineering and is experienced in Power Distribution & Protection, Lighting design, Lightning protection, Fire Alarm, Communications and Schematics.



## MEP Engineer

**Mark Estep, P.E.,** has over 18 years of experience designing mechanical and electrical projects. He designs solutions that incorporate essential and functional needs.



## MEP Designer

**Billy Smith, BSME,** provides design, bidding, construction administration and commissioning support for Mechanical, Electrical, Plumbing and Fire Protection systems.



## MEP Engineer

**Paul O'Dell, P.E.,** has 30 years of engineering experience involving the analysis, design, project management, specifications' writing and construction management on many projects



## Construction Administration

**Jim Watters,** with over 40 years of design/construction experience in mechanical, electrical and plumbing, commissioning and Construction Administration. Extensive construction experience, including cost estimating, contractor coordination and scheduling for various projects.

Todd has over 40 years of experience involving the analysis, design, construction management and specifications for mechanical engineering, heating, ventilating, air conditioning, plumbing, fire protection, electrical and lighting, as well as indoor environmental quality analysis, building system commissioning and forensic engineering for educational, governmental, military, commercial, industrial and health care clients. He is also recognized as a campus master planner for utility infrastructure providing master planning at many Universities, hospitals and the State of WV Capitol Complex.

Prior to starting a consulting engineering firm, Todd Zachwieja coordinated comprehensive energy conservation programs resulting in annual energy savings of millions of dollars. He has managed a profitable regional office for one of the country's largest energy companies that service the southeastern United States. Todd also developed computer modeling programs for building energy analysis and monitoring. He has been invited as an industry leader to present technical papers and speak at professional conferences both regionally and nationally.

Todd selected and designed the pilot project for one of the largest geothermal heat pump applications in the Eastern US including designing custom geothermal rooftop AHU's. He has retro-commissioned HVAC systems for millions of square-feet for facilities located in 10 states. He has been involved with many commercial structures including high-rise commercial building renovations. Todd designed renovations to many existing facilities which received **Energy Star Certifications** placing them in the nation's top 25% of energy efficiency schools. *The College Planning and Management Magazine* featured Todd and his work with a major University for the performance contracting programs that save millions of dollars in energy and operating costs. Most projects also qualified for EPA's Act which requires buildings use over 50% less energy than buildings designed using ASHRAE 90.1.



## PROFESSIONAL REGISTRATIONS

Professional Engineer:

- Florida
- Georgia
- Kentucky
- Maryland
- North Carolina
- Ohio
- Pennsylvania
- South Carolina
- Virginia
- West Virginia

Fire Investigation Certification under the direction of Peter Vallas, Sr.

**CEM**<sup>®</sup> Certified Energy Manager  
(C.E.M.) National  
Certification No. [REDACTED]

**LEED AP** LEED Accredited Professional,  
National Certification through

## EDUCATION

- Masters of Science in Engineering Management from West Virginia University College of Graduate Studies.
- Bachelor of Science in Mechanical Engineering from West Virginia Institute of Technology.

## HEALTH CARE EXPERIENCE

- Bluefield Regional Medical Center
- Cabell Huntington Hospital
- Charleston Area Medical Center Memorial Division (millions in renovation and new construction design, including commissioning of CAMC Surgery Center)
- Charleston Area Medical Center General Division (millions in renovations)
- Charleston Area Medical Center Women & Children's Hospital (millions in renovations)
- Charleston Surgical Center
- Family Practice Center
- Jackie Withrow Hospital
- John Manchin Sr. Health Care Center
- Hometown Healthcare Center
- Hopemont Hospital
- Lakin Hospital
- Lewistown Outpatient Surgical Facility, PA
- Mercy Medical Center
- Mildred Mitchell-Bateman Hospital
- Monongalia General Hospital
- Montgomery General Hospital
- St. Joseph's Hospital
- St. Mary's Hospital
- Summersville Regional Medical Center
- Surgicare Center
- Thomas Memorial Hospital
- United Hospital Center
- VA Hospital - Clarksburg
- VA Hospital - Huntington
- Wayne Memorial Hospital
- Webster Memorial Hospital
- Welch Community Hospital
- William R. Sharpe, Jr. Hospital Additions and Renovations

# Todd Zachwieja, PE, CEM, LEED AP

## PROFESSIONAL AND COMMUNITY AFFILIATIONS

**Past President 2013-14, current Governor** - WV ASHRAE Chapter, Served as ASHRAE's Energy and Technical Affairs Chairman for six years. Recognized by ASHRAE Region VII in 2014 with the David Levine Award of Excellence, Presidential Award of Excellence,

Recognized by the International Who's Who of Professionals

Recognized nationally as West Virginia's Business Man of the Year

Recognized by AEE nationally in 2007 as a Legend in Energy

Recognized by AEE nationally in 2008 as a Charter Legend in Energy

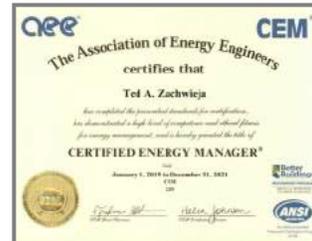
Charter Life Member of the Association of Energy Engineers

Professional Affiliate Member of the American Institute of Architecture

Associate Member West Virginia Society for Healthcare Engineering

Member of the International Code Council

Member of the National Society of Professional Engineers



## OTHER RECOGNITIONS

Selected by WVU and the WV Division of Energy to train Code officials and the design community on ASHRAE 90.1 State Energy Code

Presented at regional and national conferences including the annual National System Commissioning Conference

Contributing editor and served on the Editorial Review Panel for *"The Handbook of Building Management and Indoor Air Quality"*

Contributing editor *"Ventilation for a Quality Dining Experience"*

Contributing editor and served on the Editorial Review Panel for *INvironment Professional, Power Prescriptions* and other publications and articles featuring Indoor Air Quality (IAQ) and MEP engineering systems

Energy Star Certified for facilities in the nation's top 25% of energy efficiency

1<sup>st</sup> Place 2014 ASHRAE Technology Award, Region VII

LEED Silver Certified WVANG Fuel Cell/Maintenance Hangar, Charleston, WV

LEED Gold Certified Harvard Arboretum, Boston, MA

First ASHRAE bEQ certified building in West Virginia, 2015



# Ted Zachwieja III, PE, CEM

Ted has over 16 years of experience in building construction design industry. His strategic thinking and development of technical resources at ZDS has helped streamline design processes and improve quality of work office wide. Ted is an innovative problem solver in engineering design, communication methods and management of BIM models between stakeholders during a design project. As a pioneer and a believer in technological processes Ted has championed Integrated Design Practices that has become the fabric of ZDS's day to day operations.

Ted developed ZDS's 3D Scanning services which have assisted in collecting key existing conditions for renovation projects, forensic engineering, historical preservation, and high definition reality capture. Ted has in depth experience on collection, registration, and scan to BIM processes. He has provided training and developed materials for best practices when using 3D scan data. Ted's 3D scanning experience includes governmental, educational, health care, industrial, and commercial facilities. He also has experience in speaking on how 3D laser scanning impacts our industry today.

Ted develops, designs and manages the IT systems. The experience encompasses development and deployment of central server systems to networked client computer systems, strategic development for ZDS' Integrated Design Processes, and research and development into new technologies to continue staying on the cutting edge for ZDS and others.

Ted's project experience includes design and commissioning for heating, ventilating, air conditioning, plumbing, fire protection, electrical and lighting systems for educational, health care, industrial and commercial facilities. His experience encompasses working both on new construction and renovation projects. He also is experienced in historical facilities including theatrical.

Ted maintains an active membership to the ASHRAE professional society and also has a lifetime membership to the Association of Energy Engineers. He maintains an active continuing education towards today's standards and codes as well as participates in ASHRAE at both a local and society level. He was recently appointed to the Electronic Communications Standing Committee with ASHRAE. Ted has designed renovations to existing K-12 schools which received **Energy Star Certifications** placing them in the nation's top 25% of energy efficiency schools.

## HEALTH CARE EXPERIENCE

- CAMC Patient Room Renovations
- Jackie Withrow Hospital, Beckley: Master Planning Study, new central steam plant and renovations to heating system and lighting renovations.
- Hopemont State Hospital, Terra Alta: Master Planning Study, renovations to heating system and lighting systems.
- John Manchin, Sr. Health Care Center, Fairmont: Master Planning Study, renovations to lighting systems.
- Lakin State Hospital, West Columbia: Master Planning Study and exterior envelop renovations and lighting renovations.
- Mildred Mitchell-Bateman Hospital, Huntington: Master Planning Study and lighting renovations.
- Roane General Hospital, Spencer, WV
- United Hospital Center Renovations, Clarksburg, WV
- VA Hospital Clarksburg and VA Hospital Huntington, WV including new Fisher House
- Welch Community Hospital, Welch: Master Planning Study and lighting renovations.
- William R. Sharpe, Jr. Hospital, Weston: fifty bed forensic addition and renovations to entire existing hospital while building remains in use including new central heating/cooling plant, 1,800 KW emergency power station and comprehensive HVAC and electrical renovations throughout the facility.



## PROFESSIONAL REGISTRATIONS

Professional Engineer:

Florida [REDACTED]

West Virginia [REDACTED]

Certified Energy Manager (C.E.M.)

National Certificate

No. [REDACTED]



## EDUCATION

Bachelor of Science in Mechanical Engineering from Rochester Institute of Technology, Rochester, NY

## AWARDS AND RECOGNITIONS

Awarded 2012 Legend in Energy by the Association of Energy Engineers

Awarded acceptance into ASHRAE's 2015 Leadership University

ASHRAE Blue Ribbon Award of Excellence  
Co-Author at Autodesk University



Energy Star Certified for facilities in the Nation's top 25% of energy efficiency

Mark has over 18 years of experience and is responsible for the design of commercial, institutional, and industrial mechanical and electric projects. He works with architects, civil and structural engineers to coordinate design and construction documents. He is responsible for project specifications and submittal review. Mark holds Degrees in Engineering and Architectural Technology which provide more than engineered solutions. He designs solutions that incorporate essential and functional needs, as well as aesthetic, life-safety, and constructability considerations.

Before joining ZDS, Mark was the President and Principal Engineer of another firm where he provided mechanical and electrical engineering design and analysis for commercial construction projects and was responsible for acquiring new projects.

## PERSONAL HEALTHCARE PROJECT EXPERIENCE

- Valley Health Medical Center; New one-story medical office building.
- HIMG Region Medical Center; Design-build, 150,000 sf renovation of a former Wal-Mart building into a multi-tenant medical mall.
- Summersville Hospital; Air Handler.
- Cancer Treatment Centers; Approximately 7,000 sf each, the treatment centers provided a CT scan and radiation treatment. The facilities also provided exam rooms, waiting areas, and administrative offices.
- St. Mary's Medical Center; 510 car, four elevated-levels. Parking facility also has a pedestrian connection bridge to the main hospital facility.
- King's Daughters Hospital Parking; 530 cars on five levels. The garage is design to add three additional elevated levels in
- New River Health Association; New Medical Office Building.
- Pretera Center; Elevator Implementation.
- WV Department of Health and Human Resources; Completed several WVDHHR projects throughout the State.



## PROFESSIONAL REGISTRATIONS

Professional Engineer:

West Virginia   
Maryland   
Virginia   
Kentucky   
Ohio 

## EDUCATION

Bachelor of Science  
Mechanical Engineering  
WV Institute of Technology

Bachelor of Science  
Architectural Engineering Technology  
Associates of Science  
Mechanical Engineering Technology  
Fairmont State College



Paul has 30 years of engineering experience involving the analysis, design, project management, specifications' writing and construction management on many projects throughout the region. This experience includes heating, ventilation, air conditioning (HVAC), plumbing, electrical systems and lighting for governmental, commercial, educational, healthcare, industrial and military facilities. He also has knowledge and experience with indoor environmental quality assessment, recommended remedial work and design of the necessary modifications in various types of buildings.

Paul assisted in the design and implementation of the pilot project for one of the largest geothermal heat pump systems in the mid-Atlantic region. He has also been involved in the design of facilities that have received the Energy Star Certification placing them in the nation's top 25% in energy savings for similar buildings and systems as well as his contribution as part of a large team effort performing mechanical systems' retro-commissioning at numerous automotive manufacturing facilities in North America.

His project experience is wide-ranging and includes the development of scope, design criteria and budget conscious designs. Working with other design professionals and through rapport with the clients he has conducted design peer reviews, construction budget and project schedule overview, Construction Administration and closeout of projects.



## PROFESSIONAL REGISTRATIONS

Professional Engineer:  
West Virginia [REDACTED]

## EDUCATION

Bachelor of Science in Mechanical Engineering from WV Institute of Technology, Montgomery, WV  
(Graduated Cum Laude)

## GOVERNMENT/HISTORIC/COMMERCIAL PROJECT EXPERIENCE

- WVARNG Armory/Annex
- Bruceton Bank
- Bank One
- Culture Center, WV State Capitol Complex
- Cuissets Residence
- Camp Dawson barrack/mess hall
- DOT Huntington District II Headquarters Renovations
- Yeager Airport Terminal Expansion/Renovation
- DOH Testing Lab
- GMC Lordstown Assembly Plant
- GMC Janesville Assembly Plant
- GMC Pontiac East Assembly Plant
- GMC Bowling green Assembly Plant
- GMC Arlington Assembly Plant
- Harrison County Bank
- IMC Office Bldg.
- Kanawha County Commission, Judicial Annex
- WV Capitol Complex Central Boiler Plant
- Appalachian Tire
- Laidley Towers
- Robinson Grand Performing Arts Theatre
- USDA Forestry Building
- University of Charleston Innovation Center Additions/Renovations
- World Trade Center, MD
- William R. Sharpe, Jr. Hospital Additions/Renovations, WVDHHR
- Numerous K-12 School Renovations

## PROFESSIONAL AFFILIATIONS

Member American Society of Mechanical Engineers

Member ASHRAE

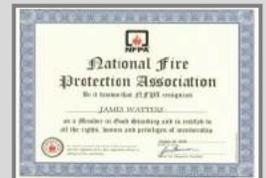
Jim has over 40 years' experience in design and implementation of lighting, HVAC, plumbing and electrical systems including nine years in the construction industry. He has a comprehensive knowledge of construction documents, contracts, and development of cost estimates, budgets and schedules. Jim's strengths reside in his ability to manage projects and people in an organized and cost-effective manner. Jim has been involved with the design and production of mechanical and electrical drawings including HVAC, plumbing, fire protection, lighting, electrical power, fire alarm and specialized systems. He has worked with and managed engineers in projects for health care, educational and commercial buildings in the states of West Virginia, Florida, Maryland, Pennsylvania, Ohio, Kentucky, Virginia, Georgia, New York, Arizona, Illinois and Massachusetts.

Jim has extensive experience in energy savings' programs for lighting, HVAC, plumbing and electrical systems in hospitals, state and government office buildings, school systems, and manufacturing facilities, as well as managing performance contracts for a large facility's campus totaling \$10,000,000 in construction costs on various projects, including the conception, design and construction administration for the installation of a 1.5 Megawatt emergency generator. The propane-fired generator and associated switchgear in conjunction with 60,000 gallons of propane fuel storage served to provide peak shaving/load shedding to save on the campus utility costs as well as emergency power functions. Through the years, Jim has researched and implemented into practice International Building Codes, NFPA Codes, National Electrical Codes, Life Safety Codes, IES standards, AIA Guidelines for Design and Construction, and ADA guidelines. His involvement in construction through the years has been mainly from the design side of the industry with a 9 year stint working for a contracting firm at the turn of this century. His experience includes coordinating with Architects, Owners and Agencies including an excellent relationship with the office of State Fire Marshal.



## PROFESSIONAL AFFILIATIONS

Member of the National  
Fire Protection Association (NFPA)



Member of the Health  
Care Section of the NFPA

Past Member of the Illuminating  
Engineering Society (IES)

Past member of the American Society  
of Plumbing Engineers (ASPE)

Past member of the Institute of  
Electrical Engineers (IEE)

## OTHER RECOGNITIONS

Energy Star Certified  
for facilities in the Nation's top 25% of  
energy efficiency



## HEALTH CARE EXPERIENCE

- Cabell Huntington Hospital
- Charleston Area Medical Center (CAMC) (prior to joining ZDS)  
Lab III Renovations; 750 kW Emergency Generator/Underground Fuel System; Two -Four West Nursing Wing; Main Electrical Service Upgrade; Emergency Room Renovations; Surgical Intensive Care Retrofit' Two/Three East Patient Room Renovations; Four-North HVAC Renovations; Nuclear Medicine Renovations; Special Care Facility Contract Administration; Allied Health, Physical Therapy & Hydrotherapy; Three-Six Floor Patient Room South; Emergency Generator Retrofit Design; Heliport and pilots quarters; Wound Center; Pediatric Intensive Care & Newborn Intensive Care Unit; Central Electric Metering Design; CT Scan Addition; LDRP/Gynecology; Surgery Addition; Operating and Recovery Room HVAC System; Medical Office Building – General Division
- Kings Daughters Medical Center, Ashland (prior to joining ZDS)  
Projects included: Cardiac Care Center; Medical Office Building
- Thomas Memorial Hospital
- St. Mary's Medical Center, Huntington
- United Hospital Center
- VA Hospital, Huntington –steam distribution system to serve six additional facilities on campus, main hospital domestic water line replacement and CT Scan renovations
- Jackie Withrow Hospital, Beckley: new central steam plant and renovations to heating system and lighting renovations.
- Hopemont State Hospital, Terra Alta: renovations to heating system and lighting systems.
- John Manchin, Sr. Health Care Center, Fairmont: renovations to lighting systems.
- Lakin State Hospital, West Columbia: lighting renovations.
- Mildred Mitchell-Bateman Hospital, Huntington: lighting renovations.
- Welch Community Hospital, Welch: lighting renovations.
- William R. Sharpe, Jr. Hospital, Weston: fifty bed forensic addition and renovations to entire existing hospital, 1,800 KW emergency power station.

Vineel is a graduate Mechanical Engineer with a Masters Degree in Mechanical Engineering and nearly 5 years experience in HVAC & Refrigeration. Technically sophisticated engineering professional with solid history of effective integration, qualification and deployment of HVAC systems. Significant experience in designing, commissioning and implementing efficient HVAC systems for various commercial, healthcare and educational facilities.

Vineel is knowledgeable on HVAC systems, Heat Transfer, Refrigeration and Thermodynamic specializing in HVAC heating and cooling load calculations, Psychrometric and hydronic analyses and Energy modeling. He has applied that foundation in the manufacturing industry and the commercial industry. Vineel has a comprehensive knowledge of mechanical principles and drafting techniques.

He is experienced hands-on in designing Variable Refrigerant Flow systems, Steam Systems, hydronic systems, Geothermal systems and Building Automation System. He is also proficient in Revit, AutoCAD, IESVE, Navisworks, and Autodesk Recap. Vineel is experienced in utilizing point clouds in the development of Scan to Building Information Modeling (BIM) and performing 3D scanning. Vineel is well-versed in technical specification writings and development of construction drawings. He has hands-on experience in performing Functional Performance Testing in leading Commissioning projects.



## PROJECT EXPERIENCE

- St. Marys High School
- New Bluefield Elementary School Commissioning
- Clay County High School Commissioning
- North Fork Elementary School HVAC/Roof Renovations, 3D Scanning, Scan-to-BIM and Commissioning
- Pendleton County Middle/High School HVAC/Roof Renovations, 3D Scanning, Scan-to-BIM and Commissioning
- New 911 Center high performance “Net Zero” facility and Commissioning
- Tyler County Courthouse Additions/Renovations and Commissioning
- Riverside High School HVAC/Lighting Renovations
- Roane General Hospital Commissioning
- Kanawha County Judicial Building Renovations & Commissioning
- New Clendenin Elementary School Commissioning
- Marshall University—Jomie Jazz HVAC Renovations
- Veteran Administration Clarksburg Hospital Mechanical BIM
- Veteran Administration Huntington Hospital Mechanical-Electrical BIM
- WV Capitol Complex Campus Heating System Renovations Buildings #1, #3, #4, #5 and #7 over multiple phases

## PROFESSIONAL REGISTRATIONS

Engineer Intern:  
Indiana [REDACTED]

## EDUCATION

VIT University  
Bachelor of Science  
in Mechanical Engineering

Southern Illinois University Edwardsville  
Master of Science  
in Mechanical Engineering

University of Cumberland  
Working on PhD in Project Management

## AWARDS AND RECOGNITIONS

Certified by ASHRAE in  
HVAC Design Essentials & Applications

Certified Engineer in Training (E.I.T)  
Fundamentals of Engineering (F.E)

Meher is a graduate Electrical Engineer with a Masters Degree in Electrical Engineering and nearly 5 years of experience in Power Distribution & Protection, Lighting design, Lightning protection, Fire Alarm, Communications and Schematics. He also is experienced in plumbing design for educational, commercial and governmental facilities.

He leads solar power applications including WV's first net zero 911 Center involving aggregate net metering where the additional solar power generated at a new 911 Center is credited towards the County's Courthouse. Knowledgeable in High performance building design.



## PROJECT EXPERIENCE

- St. Marys High School
- CEA office
- Blennerhassett Island Dock Study
- Coney Island Hot Dogs Central Kitchen
- C.R. Hipp Industrial Warehouse
- Eucalyptus Wellness Company
- Ed Harleys Private Garage
- High Wire Distillery
- Kanawha County Judicial Bldg.
- Jones Trading Upfit office space
- Kimley Horne Charleston Buildout
- HSGS Solar Office Space
- IX Artistry Salon
- JW Aluminum upfit office space
- J McLaughlin Upfit Retail Outlet
- Maple Street Office Building
- North Fork Elementary Retrofit
- Northwood Middle School
- River Oaks Storage
- Riverside High School Renovations
- Orange Theory Fitness, Acworth
- Orange Theory Fitness, Milton GA
- Pack Rat Storage Bees Ferry road
- Pendleton County Middle/High School Renovations
- Sherwin Williams
- South State Bank Renovations
- Steel City Pizza Cranes
- Stella Nova Cigar Factory
- Trimnal Mayers Law office
- Tyler County 911 Center
- Tyler County Courthouse Retrofit
- VA Hospital - Clarksburg
- VA Hospital - Huntington
- WV Capitol Complex Renovations Bldg. #1, #3, #4, #5 and #7
- Airforce Base Clinic
- Canadian Consulate office
- JBL Harman office space

## PROFESSIONAL REGISTRATIONS

Engineer in Training (E.I.T)  
Fundamentals of Engineering (F.E)

## EDUCATION

Bachelor of Technology, Electrical and  
Electronics Engineering

UNC Charlotte  
Master of Science  
Electrical & Computer Engineering

Billy provides design, bidding, construction administration and Commissioning support for mechanical, plumbing, fire protection and electrical systems. His experience encompasses a broad range of Projects including, but not limited to Commercial, Government, Healthcare, Educational and Industrial facilities. Billy also has experience designing multiple building HVAC systems intended to meet high performance criteria, including one that will achieve net zero energy consumption. Knowledgeable with ASHRAE codes and Standards.

Experience includes 3D Scanning, high definition reality capture and Scan-to-BIM which is invaluable for renovation projects and to assist in the development of "Built" conditions in 3D space for Revit. Proficient in Revit, HVAC load programs and air side HVAC equipment selection. Experience in steam heating and distribution systems, hydronic piping/pumping, geothermal, commissioning, custom air handling unit design and HVAC equipment selection and specifications.

Billy is an active ASHRAE professional society member, serving on committee chairs for the WV ASHRAE Chapter. He regularly participates in chapter activities and works to maintain an active continuing education towards today's standards, codes, and technology.



## **EDUCATION**

West Virginia University  
Bachelor of Science  
in Mechanical Engineering

## **PROJECT EXPERIENCE**

- St. Marys High School
- North Fork Elementary HVAC/Roof Renovations, Commissioning and 3D Scan-to-BIM
- Pendleton County Middle/High School HVAC/Roof Renovations, Commissioning and 3D Scan-to-BIM
- Historical Tyler County Courthouse Additions/Renovations
- New Tyler County 911 Center, projected Net Zero high performance facility
- WV Capitol Complex Campus Heating System Renovations for Buildings #1, #3, #4, #5 and #7 over multiple phases
- Marshall University, Jomie Jazz Center HVAC Renovations and 3D Scan-to-BIM
- Riverside High School HVAC Renovations including geothermal closed loop HVAC system designed to reduce HVAC Energy by 50% over previous system
- Kanawha County Judicial Building HVAC Renovations, Commissioning, 3D scanning
- Veteran Administration Clarksburg Hospital Mechanical-Electrical BIM

## **RECOGNITIONS**

WVU Valedictorian Scholarship  
Promise Scholarship  
WVU Honors Program  
Presidential Scholarship  
WV Engineering,  
Science & Tech. Scholarship  
WVU Deans list:  
Fall 2016, Fall 2017, Spring 2018



# Team Profiles

## James Swiger

www.wykarhitects.com > About WYK > Team



### **James B. Swiger** **AIA, NCARB,** **LEED AP BD+C**

**President/Principal-In-Charge**

WYK Associates, Inc.  
205 Washington Avenue  
Clarksburg, WV 26301

304-624-6326

304-677-3373 Cell

304-623-9858 Fax

www.wykarhitects.com

james@wykarhitects.com

### Memberships

WV AIA Board of Directors  
2007 - 2009



He is a Harrison County native involved with several community and professional organizations.

James has gained broad experience in both the private and public sectors of the construction / design industry. His completed work reflects a variety of projects with values ranging from thousands of dollars to over \$22 million.

#### Education

5-Year Bachelor of Architecture, 1996  
University of Tennessee, Knoxville, TN  
NAAB Accredited University

#### Architectural Registration

West Virginia (# [redacted])  
Ohio (# [redacted])  
Pennsylvania (# [redacted])  
Virginia (# [redacted])  
Maryland (# [redacted])  
National Council of Architects (# [redacted])

#### Honors and Awards

2015 Clarksburg Uptown Business Member of the Year

2015 Campaign Chair - United Way of Harrison County, Inc.

2015 Harrison County Chamber of Commerce Education Committee Chair

2015 "Young Gun" WV Executive Magazine

2013 AIA-WV Merit Award for Achievement in Architecture Design - Unbuilt: Shinnston Community Center, Shinnston, WV

2013 AIA-WV Merit Award for Achievement in Architecture Design; Fairmont State University- Frank and Jane Gabor Folklife Center, Fairmont, WV - Interior and Exterior

Energy Star Certification, Elkins Middle School, Elkins, WV

2010-11 Cambridge Who's Who Honored Member

2009 West Virginia Kiwanis District Governor's Award for "Promoting Membership Growth"

2008 Volunteer of the Year - Harrison County Chamber of Commerce

2008 Selected "Generation Next: 40 Under 40" by the West Virginia State Journal

2008 Strathmore's Who's Who Worldwide Recipient

2008 AIA-WV Merit Award for Achievement in Architecture

West Pike Street Parking Facility in Clarksburg, WV (Co-Design Architect)

#### Professional Affiliations

American Institute of Architects

AIA - West Virginia

National Council of Architectural Registration Boards

Accredited Professional  
U.S. Green Building Council  
Building Design + Construction

USGBC-WV Chapter

League of Historic American Theatres

National Trust for Historic Preservation

NFPA – National Fire Protection Agency

WVSHE – Associate Member of West Virginia Society for Healthcare Engineering

Affiliate Member of Builders Supply Association of West Virginia

#### Civic Affiliations

Health Access - Board of Directors

Clarksburg Uptown - Vice President / Board of Directors

Salem International University- Advisory Committee to the School of Business

Harrison County Chamber of Commerce – Board of Directors (2013-15)

United Way of Harrison County, Inc.; Board of Directors (2009-2016) - Executive Committee "Stonewall Leadership Contributor"; 2015 Campaign Chair

Kiwanis Club of Clarksburg 2008/2009 President

Kiwanis Division 3  
2009/2010 Lieutenant Governor

Kiwanis Club of Clarksburg 2018 - Present Volunteer and Service Committee Chair

Salem International University - Auxiliary

V.W. Stonewall Leadership Contributor

Salem Area Chamber of Commerce - Past Board Member

West Virginia Kiwanis District – District 3 – Past Lieutenant Governor

Harrison County Chamber of Commerce – Post Education Committee Chair

Salem Elementary School Nature/Fitness Trail – Project Manager

Bi-County Nutrition, Inc. - Board Member



**WYK ASSOCIATES, INC.**  
ARCHITECTURE • PLANNING

## Team Profiles

Stephen Kelley

[www.wykarhitects.com](http://www.wykarhitects.com) > About WYK > Team



### **Stephen M. Kelley** **Associate AIA**

**Senior Project Manager**

WYK Associates, Inc.  
205 Washington Avenue  
Clarksburg, WV 26301

304-624-6326

304-623-9858 Fax

[www.wykarhitects.com](http://www.wykarhitects.com)

[stephen@wykarhitects.com](mailto:stephen@wykarhitects.com)

While in college, Stephen worked two years for a construction company that focused mainly on roofing and masonry work of historic homes and buildings in the Philadelphia area. After graduation he took that experience and applied it to several projects at another local architecture firm, all the while completing his profession's required Intern Development Program. He is currently pursuing his professional license.

Stephen has gained broad experience in both the private and public sectors of the construction/design industry. He has been either the Project Designer or Project Manager in a range of projects totaling over \$22 million in value.

#### Education

5-Year Bachelor of Architecture, 2000  
Philadelphia University  
NAAB Accredited University

#### Professional Affiliations

American Institute of Architects (AIA),  
National Chapter, Associate Member

American Institute of Architects (AIA),  
West Virginia Chapter, Associate  
Member

#### Civic Affiliations

Salem Area Chamber of Commerce -  
Past Board Member

Harrison County Development  
Authority - Past Board Member

Fort New Salem Foundation -  
Current Board Member

Sperry-Davis VFW Post 9151  
Quartermaster 2008 - Present

Dept. of WV - District 3  
Quartermaster (2015/2016)

Sigma Mu Fraternity Alumni,  
Mu Pi Chapter

United Way of Harrison County, Inc.,  
Stonewall Leadership Contributor

### Associated Memberships





**WYK ASSOCIATES, INC.**  
ARCHITECTURE • PLANNING

## Team Profiles

### Canon Fancher

[www.wykarchitects.com](http://www.wykarchitects.com) > About WYK > Team



### **Canon T. Fancher** **Associate AIA** **LEED Green Associate** Designer / BIM Coordinator

WYK Associates, Inc.  
205 Washington Avenue  
Clarksburg, WV 26301

304-624-6326

304-623-9858 Fax

[www.wykarchitects.com](http://www.wykarchitects.com)

[canon@wykarchitects.com](mailto:canon@wykarchitects.com)

### Associate Memberships



Canon began his career at WYK Associates, Inc. in 2016. His background includes a Bachelor's of Science in Architecture with a minor in general business from Fairmont State University. He is currently pursuing a Masters in Architecture from Fairmont State, and is equipped to aid in all areas of a project, from design through completion, including client relations, schematic design, project visualization, design development, construction documents and specifications, bidding phases and construction administration.

Having grown up in Fairmont, WV, Canon understands the needs and desires of small communities, and has a desire to infuse modern, contextually sensitive, and sustainable designs into the projects he takes on. Knowing the importance of communication and coordination throughout a project, Canon always aims to develop positive client and consultant relationships in order to create a cohesive project environment. In all phases of a project, whether it be conceptual and schematic design, inquiries and exploration of design possibilities, conceptual visualization, drafting and Building Information Modeling utilization, 3D modeling, creation of specifications, construction administration or project support for other staff, Canon will work to create a high standard of production quality.

#### Education

Bachelor of Science  
in Architecture with a  
Minor in General Business, 2016  
Fairmont State University

Masters of Architecture  
(2017 - Present)  
Fairmont State University

#### Professional Affiliations

American Institute of Architects (AIA), National Chapter, Associate Member

American Institute of Architects (AIA), West Virginia Chapter, Associate Member

National Council of Architectural Registration Boards (NCARB)

USGBC - LEED Green Associate

#### Volunteer Experience & Affiliations

United Way "Day of Action" - Annual Volunteer

# SECTION V.

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## References

### Client Testimonial Letters



**ZDS** has worked on hundreds of projects in West Virginia including many with Governmental agencies.

We encourage you to call the references listed below:

**Chuck Smith**, Executive Director, Kanawha County Schools: (304) 348-6148, or (304) 395-9352; for projects with Kanawha County Schools.

**Gary Boyd**, Director of Facility Services, University of Charleston & WVU: (304) 357-4871, garyboyd@ucwv.edu; worked on projects at both WVU and University of Charleston involving MEP systems since 1990's.

**Amanda Washington**, Director of Facility Management, Monongalia County Schools: (304) 291-9210, amanda.washington@k12.wv.us; for projects with Kanawha County Schools.

**Amanda Kimble**, Director of Facilities, Tyler County Schools: (304) 758-2145, akimble@k12.wv.us; for renovations to Tyler Consolidated Middle/High School.

**Dale Freeman**, Director of Facilities, Roane General Hospital: (304) 927-6345, dafreeman@rghwv.org; for renovations to Roane General Hospital.



# Tyler County Schools

P.O. Box 25  
Middlebourne, WV 26149  
(304) 758-2145  
Fax (304) 758-4566

A. Shane Highley, Superintendent

Linda Hoover, President  
Katrina Byers, Vice-President  
Dave Roberts, Member  
Larry Thomas, Member  
P.J. Wells, Member

February 4, 2020

To Whom It May Concern:

This letter is to recognize the outstanding performance of ZDS Design/Consulting Services regarding their team and services rendered to Tyler County Schools. ZDS worked with Tyler County Schools on the Tyler Consolidated Middle/High School HVAC Equipment Replacement Project.

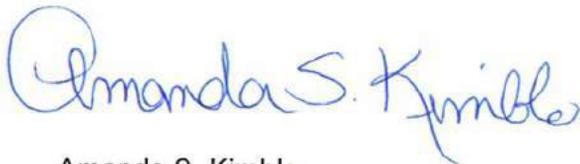
ZDS Design/Consulting Services are to be commended for their patience, diligence, and HVAC engineering expertise with our recent project. The project was complicated with funding and scheduling issues, and ZDS was able to overcome these hurdles and deliver a construction project that had very little issues. Their knowledge of the building systems and project construction administration were key.

From initial project planning, design development, bidding, construction administration, and closeout, ZDS was beside Tyler County Schools to provide any necessary support needed to make this project successful. Their professional team worked closely with our staff to ensure the design accommodated all of the needs for our students and staff.

It has been a pleasure working with the staff at ZDS. I wholeheartedly recommend ZDS Design/Consulting Services for projects similar to the scope of this one.

Please feel free to contact me if you may have any questions or comments.

Sincerely,



Amanda S. Kimble  
Director of Support Services and Facilities  
Email - [akimble@k12.wv.us](mailto:akimble@k12.wv.us) Office - # 304-758-2145



Michael Pickens

**RE: ZDS Design/Consulting Services**

I have had the privilege to work with ZDS Design/Consulting Services' principals and many of their staff since working at the School Building Authority in the 1990's in my roles at the School Building Authority to my current role as Executive Director of the Office of School Facilities at the West Virginia Department of Education.

When an emergency issue arose, they would immediately make themselves available to help. ZDS's principal, Todd Zachwieja, did not hesitate to board a helicopter during a weekend to help assess the damage to the State's school facilities when damaging floods occurred. Helicopters were the only way to reach many of the facilities because the roads had been washed away or were impassible. Anytime a challenging issue has arisen that no one knew how to resolve, ZDS has stepped up to solve the challenges. Their extensive engineering knowledge of energy efficient systems, HVAC, controls, lighting, power and plumbing systems has always been at the leading edge in the industry, providing innovative solutions that also minimize energy and operating costs. I have always considered their approach in engineering design and commissioning for buildings to be the best and would highly recommend them to anyone.

Their ability to work with the State Fire Marshal and other agencies – while guiding everyone to a practical design approach – always provided each project with the best value. They are much more than excellent design engineers; they also understand the importance of operating and maintaining equipment and have hands-on knowledge to troubleshoot and also commission to ensure our projects were a great success. Their combined engineering design and commission skills prove to be invaluable.

ZDS Design/Consulting Services was also selected to help the WV Department of Education and the School Building Authority in writing new codes and standards to raise the bar for the entire State. They were chosen because their projects were a success while we were having challenges with others. Todd Zachwieja was also asked to teach school facility staff members, and his reference books continue to be used today. I would always think of ZDS first whenever a challenge would occur, knowing I would get the best results possible.

I trust ZDS's staff in their technical expertise and their approach in solving challenging engineering issues and believe that anyone who uses them will be as satisfied as I have been. They are worth it!

Sincerely,

Michael E. Pickens



**ELSWICK & ASSOCIATES, LLC**

To Whom It May Concern:

I am distinctly honored to provide this letter of recommendation for ZDS Design/Consulting Services to your organization. I have known ZDS's principals and many of their staff since working with Ted and Todd Zachwieja at West Virginia Institute of Technology located in Montgomery, WV, from the 1970's, while I was the Physical Plant Director there. That relationship continues through today. Their knowledge of energy efficient systems related to Heating, Ventilating, and Air-Conditioning (HVAC), Building Automation Systems (BAS), lighting, power distribution, and plumbing systems has always been at the cutting edge of the industry. They have routinely provided innovative solutions to complex design challenges while minimizing energy and operating costs and enhancing maintenance efficiency. I have always considered their approach to engineering design and commissioning systems first for higher education, hospitals and schools to be superior and I would recommend them to anyone.

Throughout my career I have continued my working relationship with Ted and Todd Zachwieja and Jim Watters while I was Director of Facilities Management at Charleston Area Medical Center (CAMC), General Division, located in Charleston, WV. During that time, they provided mechanical, electrical, and plumbing (MEP), engineering, and construction administration services for all areas of CAMC's facilities. Their knowledge of health care code and practical design approach always provided the uniqueness required for the scope of the work. They understood the importance of operating and maintaining equipment and used their hands-on knowledge to ensure all our projects were on schedule and within budget. As a matter of fact, Todd led the first energy services performance contract in West Virginia. Through Todd's leadership, CAMC saved in excess of \$800,000.00 annually in energy costs and those savings were used for mechanical, electrical, and infrastructure upgrades at all three CAMC divisions. Ted, Todd, and Jim also assisted in many other projects at all CAMC divisions, including commissioning the work implemented as part of the energy savings program. Their combined engineering design and commissioning skills proved to be invaluable.

I also worked with ZDS Design/Consulting Services while I was Director of Facilities, Planning and Management at Washington & Lee University in the 1990's. They designed, acted as the construction project manager and commissioned the campus chilled water plant and distribution system to address the needs of the growing campus while fast tracking the project from start to finish in just nine months. I would always think of ZDS first whenever I was faced with a challenge, knowing that I would get the best technical expertise available.

513 Havana Dr.  
Charleston, WV 25311  
304.542.8877

Likewise, ZDS helped establish one of the first performance contracting programs in the State of Ohio's higher education system for Ohio University, saving the Athens campus millions annually while the savings were used for the mechanical, electrical and building automation improvements to generate the savings.

I have the utmost confidence in the technical expertise, the collaborative approach and ethical standards of ZDS Design/Consulting Services. Furthermore, these individuals are truly honorable professionals. In this regard, if you have questions or need additional information, please don't hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bill Elswick", with a stylized flourish extending to the right.

Bill Elswick, MBA, CEO

# Boyd, Gary MA, CFP

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2300 MacCorkle Ave. SE | 304 357-4871 | garyboyd@ucwv.edu

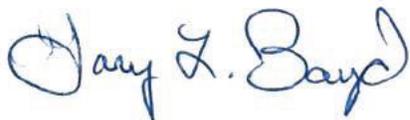
To Whom It May Concern

With well earned respect I would like to recommend ZDS as a high quality MEP design firm.

I have had multiple opportunities to work on highly technical projects with Todd Zachwieja and his team of skilled engineers. The first project that I had the opportunity to work with ZDS was a WVU project that connected several older chillers to develop a chilled water loop on the downtown campus. The project included piping through congested areas, load calculations, differential pressure and pump control, and load balancing. This project was designed to become a phased approach to a central chiller plant which is now in operation. The project was efficiently managed and the performance exceeded expectations. As the system changed and older chillers were removed from the loop, Todd always responded to questions and concerns to insure a positive outcome for the overall objective.

At present I am working with ZDS on a University of Charleston project constructing a new Innovation Center and Athletic Complex. ZDS has accommodated many twist and changes to this project. We are on track to open the new facility in December of this year. I have found Todd and his team to be highly responsive and professional.

Sincerely,

A handwritten signature in blue ink that reads "Gary L. Boyd". The signature is written in a cursive style with a large initial "G".

**Boyd, Gary MA, CFP**  
**Director of Facilities**  
**University of Charleston**



OFFICE OF  
CITY MANAGER

## CITY OF CLARKSBURG

WEST VIRGINIA

James Swiger, President and Principal-In-Charge  
WYK Associates, Inc.  
205 Washington Ave.  
Clarksburg, WV 26301

Re: Letter of Appreciation

Dear James:

It is with great pleasure that I am writing this letter of recommendation and appreciation for James Swiger and the entire team at WYK Associates, Inc. I have thoroughly enjoyed working with Mr. Swiger and his staff. James and his team are courteous and professional and have been dedicated to even the smallest of details for each project they have completed for the City of Clarksburg. Additionally, they have ensured the projects were always on time.

Over the years, James and the staff at WYK Associates, Inc. have completed multiple projects for the City of Clarksburg including a Police Sub-Station in Laurel Lanes, three (3) Fire Stations in Clarksburg which include the Central Fire Station in downtown, and two (2) sub-stations; the East End and North View Stations, as well as designing the Jackson Square Parking Facility. Jackson Square is used for downtown parking with an outdoor venue utilized for outside events. Everything from farmers' markets, wedding receptions, holiday events and festivals like the West Virginia Italian Heritage Festival's Pasta Cook-Off. I am proud to share that WYK was awarded the AIA West Virginia Merit Award for Achievement in Architecture for this project.

I personally look forward to working with WYK Associates, Inc. again and would highly recommend them to other local governments for use on their projects.

Sincerely,

  
Martin Howe, ICMA-CM  
City Manager

# SECTION VI.

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## Attachments

State of WV Centralized  
Expression of Interest

State of WV Purchasing Affidavit  
Addendum Acknowledgment Form





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

State of West Virginia  
 Centralized Expression of Interest  
 Architect/Engr

<b>Proc Folder:</b> 949847			<b>Reason for Modification:</b>
<b>Doc Description:</b> ENGINEERING SERVICES LODOX EXERO-DR EXPANSION			
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2021-11-24	2022-01-11 13:30	CEOI 0506 CME2200000002	1

**BID RECEIVING LOCATION**

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

**VENDOR**

**Vendor Customer Code:** 000000208495

**Vendor Name :**



**Address :**

**Street :** 135 Corporate Center Drive, Suite 532

**City :** Scott Depot

**State :** West Virginia

**Country :** USA

**Zip :** 25560

**Principal Contact :** Todd A. Zachwieja

**Vendor Contact Phone:** 304-755-0075

**Extension:** 1001

**FOR INFORMATION CONTACT THE BUYER**

Crystal G Husted  
 (304) 558-2402  
 crystal.g.husted@wv.gov

**Vendor Signature X**

**FEIN#** 550735995

**DATE** 01/11/2022

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

**ADDITIONAL INFORMATION****EXPRESSION OF INTEREST**

THE WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES, OFFICE OF THE CHIEF MEDICAL EXAMINER, IS SOLICITING EXPRESSIONS OF INTEREST FROM QUALIFIED FIRMS TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR SITE MODIFICATION FOR THE INSTALLATION OF A LODOX EXERO-DR FULL-BODY, HIGH-SPEED DIGITAL RADIOLOGY SYSTEM PER THE ATTACHED DOCUMENTATION.

\*\*\*QUESTIONS REGARDING THE SOLICITATION MUST BE SUBMITTED IN WRITING TO CRYSTAL.G.HUSTEAD@WV.GOV PRIOR TO THE QUESTION PERIOD DEADLINE CONTAINED IN THE INSTRUCTIONS TO VENDORS SUBMITTING BIDS\*\*\*

INVOICE TO	SHIP TO
HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH OFFICE CHIEF MEDICAL EXAMINER 619 VIRGINIA ST WEST CHARLESTON WV 25302 US	HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH OFFICE CHIEF MEDICAL EXAMINER 619 VIRGINIA ST W CHARLESTON WV 25302 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Engineering Services for Lodox eXero-DR Expansion		

Comm Code	Manufacturer	Specification	Model #
81100000			

**Extended Description:**

Engineering Services-Lodox eXero-DR full body, high-speed, high digital radiology system expansion

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	VENDOR QUESTION DEADLINE	2021-12-08

	Document Phase	Document Description	Page
CME220000002	Final	ENGINEERING SERVICES LODOX EXERO-DR EXPANSION	3

**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions

STATE OF WEST VIRGINIA  
Purchasing Division

# PURCHASING AFFIDAVIT

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

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

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

**DEFINITIONS:**

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

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

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

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, 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: ZDS Design/Consulting Services

Authorized Signature: *Todd A. Zochiraja* Date: 01/11/2022

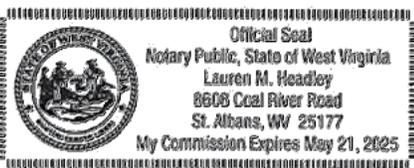
State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 11<sup>th</sup> day of January, 2022.

My Commission expires May 21, 2025.

**AFFIX SEAL HERE**



**NOTARY PUBLIC**

*Lauren M. Headley*

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

ZDS Design/Consulting Services

(Name, Title)

Todd Zachwieja, CEO, Principal

(Printed Name and Title)

135 Corporate Center Drive, Suite 532, Scott Depot, WV 25560

(Address)

304-755-0075, 304-755-0076

(Phone Number) / (Fax Number)

todd.zachwieja@zdsdesign.com

(email address)

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

*By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.*

ZDS Design/Consulting Services

(Company)



(Authorized Signature) (Representative Name, Title)

Todd Zachwieja, CEO, Principal

(Printed Name and Title of Authorized Representative)

01/11/2022

(Date)

304-755-0075, 304-755-0076

(Phone Number) (Fax Number)

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CEOI CME2200000002**

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

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

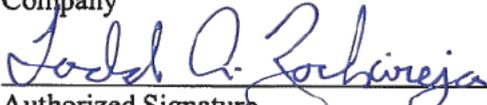
Addendum Numbers Received:  
*(Check the box next to each addendum received)*

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

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

ZDS Design/Consulting Services

Company



Authorized Signature

01/11/2022

Date

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