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WV PURCHASING DIVISION

# West Virginia Army National Guard



**CEOI 0603 ADJ2100000007**

**MCA South Facility Upgrades Design**

 **McKINLEY**  
ARCHITECTURE + ENGINEERING

*in association with:*

**STAHL SHEAFFER**  
**ENGINEERING**



9 March 2021

David H. Pauline  
Bid Clerk  
Department of Administration  
Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

Dear Mr. Pauline and Members of the Selection Team,

McKinley Architecture and Engineering has teamed up with Stahl Sheaffer Engineering (McKinley Team) again, and are pleased to provide the West Virginia Army National Guard, Construction and Facilities Management Office with our Expression of Interest to provide professional engineering / architectural design services for Facility Upgrades at the MCA South Facility, located in, Montgomery, WV. McKinley has completed renovation work at both Maclin Hall and Conley Hall, we have drawings of the buildings, and believe we are the best fit to complete this project to meet your goals and objectives. As you review this submission, we emphasize the following strengths of the McKinley Team with respect to your project:

***McKinley Architecture and Engineering* (McKinley & Associates) is a full service Architectural / Engineering firm that has been providing design services since 1981. With offices in Wheeling and Charleston, WV and Pittsburgh, PA, we support a professional staff of Architects, Engineers, Construction Administrators, LEED Accredited Professionals specializing in Building Design and Construction, a Qualified Commissioning Process Provider, and more.**

McKinley Architecture and Engineering has made the **2020 Inc. 5000 list**, the **most prestigious ranking of the nation's fastest-growing private companies!** McKinley ranks on the 2020 Inc. 5000 List with 3-Year Revenue Growth of 62.86%! The Inc. 5000 represents nearly 40 years of exceptional American growth stories and represents a unique look at the most successful companies within the American economy's most dynamic segment—its independent small businesses. Companies are ranked according to the percentage growth of their annual revenue over a three-year period.

McKinley Architecture and Engineering has been **honored to be a partner with the West Virginia Army National Guard** for multiple projects, and we wish to continue our service with you on this project as well.

We have experience with all aspects of **boilers, restrooms/showers, security doors and surveillance cameras, and demolitions.** This has included new additions, renovations, new boilers and renovations, remodeling outdated restrooms, restroom build-outs, safety and security improvements, ADA compliance, plumbing infrastructure upgrades, aesthetic improvements, as well as upgrading with **energy efficient** cost-saving fixtures all of which will provide lower maintenance costs, lower water costs, and better hygiene among others.

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McKinley Architecture and Engineering is on the **forefront of innovative design**. We have designed LEED Certified and LEED Registered projects, projects listed on the U.S. Environmental Protection Agency's ENERGY STAR program, and more. Not only have we won multiple State awards for our designs, we have also won many National awards and recognitions. McKinley was recognized for our commitment to sustainability and high performance green buildings, and was presented with the **2019 Governor's Award for Leadership in Buildings Energy Efficiency**.

*Stahl Sheaffer Engineering, LLC* is a multi-discipline **civil/structural/geotechnical engineering** firm that has been providing engineering services since 2006. With a staff of 170, they specialize in building design, surveying, land development, transportation engineering, geotechnical testing and design, LEED design, and construction inspection. They operate from a total of 9 locations in 3 states, including Morgantown and **Charleston**, WV offices. Stahl Sheaffer was once again ranked in Engineering News-Record's (ENR) National Top 500 Design Firms list in 2019!

*In closing*, we love what we do, so we care about the results you get. We are ready to begin **immediately** and will **meet all your Project Goals and Objectives**. Thank you for reviewing our submission and considering the McKinley Team for your project.

Personal Regards,



Ernest Dellatorre

Director

McKinley Architecture and Engineering

(304) 340-4267 x115

EDellatorre@McKinleyDelivers.com

# Tim E. Mizer, PE, RA, QCxP

Architectural Engineer / Architect / Commissioning Provider

## Director of Engineering Services    **Project Manager / Point of Contact**

### EDUCATION:

Kansas State University  
B.S. Architectural Engineering - 1983

University of Cincinnati  
Architecture

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

#### Registered Engineering in:

West Virginia  
Ohio

#### Registered Architect in:

Ohio

#### Qualified Commissioning Process Provider

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Director of Engineering Services  
Architect / Engineer / Commissioning  
Wheeling, WV (1995 to present)

M.C.C. Engineering  
Director of Design  
Columbus, Ohio (1988-1995)

Schooley Caldwell and Associates  
Electrical & Mechanical Design  
Columbus, Ohio (1986-1988)

Mizer Design  
Free Lance Architectural Engineering Design  
Columbus, Ohio (1985-1986)

Envirotek, Inc.  
Drafting and Electrical & Mechanical Design  
Raleigh, NC (1984-1985)

### SUMMARY OF EXPERIENCE:

A very talented and unique professional who is registered both in **Engineering** and **Architecture**. In addition, he is also a **Qualified Commissioning Provider**. Mizer's background as both an Architect and Engineer has provided him with a total understanding of the engineering components and the process necessary for integrating architectural design and building systems. Furthermore, as a qualified commissioning process provider, he has been formally trained to fully understand how integrated HVAC systems function and how systems interface with others to run your building efficiently. As the **Director of Engineering Services**, Mr. Mizer's presence is a key to the design procedures required to coordinate the functionality of the engineering systems into the aesthetics of a building space. Mr. Mizer joined McKinley Architecture and Engineering in 1995, and has over 35 years of experience.

### NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - multiple projects

WVU IOT - Maclin Hall & Conley Hall renovations

West Virginia State Police - multiple projects

Chambers YMCA renovations

Steel Valley Regional Transit Authority renovations

Panhandle Cleaning & Restoration warehouse & office building

Cabela's Eastern Distribution Center

Carenbauer's Distribution Warehouse

United States Postal Service - multiple projects

Building 55: WV State Office Complex in Logan (LEED Certified)

Building 34: WV State Office Complex in Weirton

Mattern Tire Service Center

WVU State Fire Training Academy

Wheeling Island Fire Station

Raleigh County Emergency Services Authority

Nicholas Co. Division of Homeland Security & Emergency Management

The Towers Building renovations

Holiday Inn Express & Suites - multiple projects

Brooke County Schools - multiple projects

Grant County Schools - multiple projects

Hancock County Schools - multiple projects

Marshall County Schools - multiple projects, including LEED Certified

Ohio County Schools - multiple projects



# Kurt A. Scheer, PE, LEED AP

Senior Mechanical Engineer / LEED Accredited Professional

## EDUCATION:

Penn State University  
B.S. Architectural Engineering - 2001

## PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

**Registered Engineering in:**  
Pennsylvania  
West Virginia

**Member:**  
US Green Building Council

**ASHRAE**

**ASPE**

## PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Senior Mechanical Engineer  
Wexford, PA (2020 to present)

Allen & Shariff Corporation  
Senior Mechanical Engineer  
Pittsburgh, PA (2018-2020)

BDA Engineering, Inc.  
Senior Mechanical Engineer  
Homestead, PA (2006-2018)

Allen & Shariff Corporation  
Mechanical Engineer  
Pittsburgh, PA (2004-2006)

LLI Technologies, Inc.  
Mechanical Engineer  
Pittsburgh, PA (2001-2004)

## SUMMARY OF EXPERIENCE:

Mr. Scheer is a **Mechanical Engineer** with 20 years of experience in the Architectural Engineering industry with a focus on mechanical systems design. In addition, Kurt has overseen electrical, plumbing, and fire protection engineering for all his projects for 15 years. Market sectors such as hospitality, higher education, and commercial office are areas where he has significant experience. Additionally, Mr. Scheer has experience with **LEED Certified** projects and energy modeling.

## NOTABLE PROFESSIONAL EXPERIENCES:

Brooke County Judicial Courthouse renovations

City of Moundsville - Municipal/Public Safety Building

Tyler County Commission - Judicial Annex Building

Nicholas County Division of Homeland Security & Emergency  
Management - E911 and Emergency Operations Center

Light of Life Rescue Mission

Fayette County Schools - NEW Meadow Bridge School PK-12 School  
& School Based Health Clinic

Harrison County Schools - Gore Elementary School build-out  
renovation / addition

Harrison County Schools - NEW Lost Creek Elementary School

Ohio County Schools - Warwood School renovations

Ohio County Schools - Wheeling Park High School Athletic Complex

Ohio County Schools - Woodsdale Elementary School cafeteria  
addition & renovations

Fort Henry Building - Fourth Floor office build-out

City of Weirton - Park Drive / Three Springs Drive Development

YWCA Renovations

### **Allen & Shariff Corporation\***

Some notable projects are the historic Pittsburgh Athletic Association high rise renovation, the new Bakers Crossing apartments and retail spaces (Nashville, TN), City of Pittsburgh Building @ 412 Blvd of the Allies (LEED Commercial Interiors), several urban multifamily projects, and several retail projects and commercial projects ranging in size from 5,000 – 50,000 square feet.

*\*previous work experience with a firm other than McKinley Architecture and Engineering*

# Richard G. Berger

## Senior Mechanical Engineering Designer

### EDUCATION:

CCAC of Allegheny County  
Concentration: HVAC

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Pennsylvania Sheet Metal Journeyman License

Volunteer Fireman (retired)

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Senior Engineering Designer  
Wexford, PA (2020 to present)

CJL Engineering  
Lead HVAC Senior Mechanical Designer  
Moon Township, PA (2019-2020)

Lovorn Engineering  
Lead HVAC Senior Mechanical Designer  
Blawnox, PA (2013-2019)

Stantec Corporation (formerly Burt Hill)  
Lead HVAC Mechanical Designer  
Butler, PA (1997-2013)

Peter F. Loftus division of Eichleay Engineers  
Lead HVAC Mechanical Designer  
Pittsburgh, PA (1989-1997)

SSM Industries, Inc.  
Sheet Metal Professional Licensed Journeyman  
Pittsburgh, PA (1979-1989)

### SUMMARY OF EXPERIENCE:

Mr. Berger is a mechanical engineering professional with over 35 years of experience in HVAC design. His skills include Revit, AutoCadd, Microstation CADD, HVAC duct work and piping design, HVAC calculations, project management, and HVAC and piping field experience. Rich is a Professional Sheet Metal Journeyman license Sheet Metal Workers Local 12. Have designed for healthcare, K-12 schools, universities, high rise commercial, lab renovations and hotels.

### NOTABLE PROFESSIONAL EXPERIENCES:

#### McKinley Architecture and Engineering

Tyler County Commission - Judicial Annex Building

Fayette County Schools - NEW Meadow Bridge School PK-12 School & School Based Health Clinic

Harrison County Schools - Gore Elementary School build-out renovation / addition

#### CJL Engineering\*

Mr. Berger was the Lead HVAC Senior Mechanical Designer for Healthcare/Commercial/Restaurants. Projects have included Hospital related area design, PNC Bank Scranton multi-story office, Parkway West Tech Center, Erie Water Works, and more.

#### Lovorn Engineering\*

Mr. Berger was the Lead HVAC Senior Mechanical Designer for Healthcare/Commercial/Restaurants. Projects have included OR design, MRI design, Radiology department, Central Sterile, Higher education institutions, Restaurants, Hotels/Motels, and more.

#### Stantec Corporation (formerly Burt Hill)\*

Lead HVAC Mechanical Designer for the Healthcare Division. His projects have included but are not limited to OR design, MRI design, Radiology departmental, Central Sterile, lab design, Higher education institutions, Cornell University Sciences Building, Beachwood Ohio High School renovation, UPMC Biomedical science tower and Scaife Hall lab renovations.

#### Peter F. Loftus division of Eichleay Engineers\*

Lead HVAC designer for Healthcare and University projects. Projects included West Penn Hospital North Tower, Carnegie Mellon University Center, General Motors chiller replacement and UPMC facility upgrades and additions.

#### SSM Industries, Inc.\*

Projects worked on included Allegheny County Prison, PPG Place, West Penn Hospital, One Mellon Bank Center, Bristol Medical Center and UPMC Hospital facilities.

*\* previous work experience with a firm other than McKinley Architecture and Engineering*

# David A. Ullom

## Mechanical Engineering Designer

### EDUCATION:

Fairmont State University  
B.S. Mechanical Engineering Technology - 2011

Pierpont Community and Technical College  
Associates Degree in Applied Sciences:  
Drafting and Design - 2011

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Engineering Designer  
Wheeling, WV (2019 to present)

Kennametal Inc.  
Sales Engineer (2016-2019)  
Applications Engineer (2012-2016)  
Latrobe, PA

Marion County Assessors Office  
Map Developer  
Fairmont, WV (2010-2012)

### SUMMARY OF EXPERIENCE:

Mr. Ullom is a results-driven individual who prioritizes safety, cost-effective solutions, and exceeding customer expectations. He is proficient in Autocad, Inventor, and Revit software. David also has experience as a Sales Engineer, Applications Engineer, and Map Developer, which provides a unique understanding for problem solving.

### NOTABLE PROFESSIONAL EXPERIENCES:

Belmont County Divisional Courts renovations

Jefferson County Justice Center renovations

Trinity Health System - Crisis Rehabilitation Unit

Ft. Henry Building renovation

General Services Administration - Social Security Administration's  
Wheeling, WV Office

Jefferson County (Ohio) - Steubenville High commons and kitchen  
renovation

Fayette County Schools - New Meadow Bridge K-12 project

Harrison County Schools - Lost Creek Elementary addition and  
renovations

Harrison County Schools - Gore Elementary addition and  
renovations

Ohio County Schools - Bethlehem Elementary renovations

Ohio County Schools - Bridge Street Middle renovations

Ohio County Schools - Elm Grove Elementary renovations

Ohio County Schools - Madison Elementary renovations

Ohio County Schools - Middle Creek Elementary renovations

Ohio County Schools - Triadelphia Middle renovations and additions

Ohio County Schools - Warwood Elementary and Middle School  
renovations

Ohio County Schools - West Liberty Elementary renovations

Ohio County Schools - Wheeling Middle renovations

Ohio County Schools - Wheeling Park High renovations and  
additions

Ohio County Schools - Woodsdale Elementary renovations

Tyler County Schools - New Bus Maintenance Facility

Mid-Ohio Valley Technical Institute (MOVTI) renovations

# Scott D. Kain

## Plumbing & Electrical Engineering Designer

### EDUCATION:

Technology Education College /  
Ohio State University  
Associates in Mechanical Design - 1996

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Engineering Designer  
Wheeling, WV (2001 to present)

HAWA Inc.  
Mechanical Designer  
Columbus, OH (1998-2001)

Autotool Inc.  
Engineer  
Columbus, OH (1995-1998)

### SUMMARY OF EXPERIENCE:

Mr. Kain is an accomplished engineering designer who has performed in all the engineering trades we provide; specializing in plumbing, electrical, and fire protection. He has been utilized for various McKinley Architecture and Engineering' projects that needed additional mechanical, structural, and architectural manpower. In addition, Mr. Kain has also provided 3D renderings, to aid in business development, during his long tenure at McKinley Architecture and Engineering.

### NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - Multi-Purpose Building at Camp Dawson in Kingwood, WV

West Virginia Army National Guard - AASF#1 Maintenance Building & Hangar renovations

WVU IOT - Maclin Hall & Conley Hall renovations

YMCA Elm Grove renovation

Building 55: WV State Office Complex in Logan (LEED Certified)

Building 34: WV State Office Complex in Weirton

West Virginia Health & Human Resources Wheeling Office renovations

United States Postal Service - multiple projects / new & renovations

Panhandle Cleaning & Restoration warehouse/garage/office building

Cabela's Eastern Distribution Center

Carenbauer's Distribution Warehouse

Steel Valley Regional Transit Authority

West Virginia University - new State Fire Training Academy

Wheeling Island Fire Station renovations

West Virginia State Police - multiple projects / new & renovations

Brooke County Schools - multiple projects

Grant County Schools - multiple projects

Hancock County Schools - multiple projects

Marshall County Schools - multiple projects, including LEED Certified

Ohio County Schools - multiple projects

Tyler County Schools - multiple projects

Wetzel County Schools - multiple projects

Wood County Schools - multiple projects

Wheeling Island Hotel•Casino•Racetrack multiple projects

Orrick's Global Operations Center

Millennium Centre Technology Park



# Michael J. Clark Sr.

## Electrical Engineering Designer

### EDUCATION:

Eastern Gateway Community College  
A-ATS Electro-Mechanical Engineering - 2012

Jefferson Community College  
A-ATS Electrical Trade Technology - 2003

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Certified in SMAW Weld Process & Basic  
Welding and Applications 2002

West Virginia Journeyman License

Ohio Fire Alarm License

OSHA 30 Certified

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Electrical Engineering Designer  
Wheeling, WV (2012 to 2018, 2020 to present)

Arcelor Mittal  
Maintenance Technician Electrician  
Weirton, WV (2012)

M.J. Electric  
Journeyman Electrician  
Iron Mountain, MI (2010-2012)

Erb Electric Company  
Journeyman Electrician  
Bridgeport, OH (2009-2010)

Bechtel Group Inc.  
Journeyman Electrician  
Glendale, AZ (2009)

Cattrell Companies, Inc  
Journeyman Electrician  
Toronto, OH (1998-2009)

### SUMMARY OF EXPERIENCE:

Mr. Clark is an Electrical Engineering Designer and a Certified Journeyman Electrician with over 20 years of industrial, commercial and residential experience. He is knowledgeable in all areas of the national electrical code and excels in analyzing and solving problems with various electrical controls and systems. Mr. Clark brings a cross-trained background to our projects, being skilled in both the design and the construction ends which gives him a unique ability to understand all aspects of a project. He is also adept in performing electrical and mechanical installations, maintenance and repairs in plant facilities. Furthermore, he is seasoned as an Electrical Foreman and Superintendent on both commercial and industrial job sites. His key skills include Electrical Systems & Controls, Installations & Maintenance, Electromechanical Repairs, Blueprints & Schematics, Generators & Transformers, Switches & Circuit Breakers, Electrical Code, Safety & QA, Wiring Diagrams, Troubleshooting, Testing Instruments, Motors & Conduit, CAD-2D/3D, Welding, & Residential construction.

### NOTABLE PROFESSIONAL EXPERIENCES:

Building 55: WV State Office Complex in Logan (LEED Certified)  
Holiday Inn Express Hotels - on-call contract / multiple projects  
City of Steubenville - 5 Parks Lighting and Security project  
Franciscan University OP#1 Multi-tenant Retail Building  
Franciscan University OP#2 Office / Retail Building  
West Liberty University - West Family Stadium / Russek Field lighting & new Soccer & Track Stadium / West Family Athletic Complex  
Brooke County Schools - NEW Brooke Middle School  
Grant County Schools - Maysville Elementary renovations & Union Educational complex addition/renovations  
Hampshire County Schools - NEW Animal Vet Science Center  
Hancock County Schools - A.T. Allison Elementary addition/renovations, New Manchester Elementary addition/renovations, Oak Glen High School renovations, Senator John D. Rockefeller IV Career Center HVAC renovations, Weir High renovations, Weir Middle renovations, & NEW Weirton Elementary  
Harrison County Schools - NEW Johnson Elementary  
The Linsly School - Banes Hall addition/renovations  
Wheeling Island Hotel•Casino•Racetrack - multiple projects  
WVDRS Wheeling District's new office space fit-out  
Carenbauer Wholesale Corporation warehouse addition/renovations  
Bennett Square office build-out  
Ft. Henry Building - multiple tenants fit-outs

# Thomas R. Worledge, AIA, LEED AP BD+C, REFP

## Architect / Specialized LEED Accredited Professional



### EDUCATION:

Virginia Polytechnic Institute & State University  
Master of Architecture - 1992

Fairmont State College, School of Technology  
B.S. Architectural Eng. Tech. - 1983

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

#### Registered Architect in:

West Virginia  
Ohio  
Pennsylvania  
Tennessee  
Virginia

#### National Board Certification:

NCARB

#### President:

West Virginia Society of Architects

#### Member:

The American Institute of Architects  
US Green Building Council  
Sustainable Building Industries Council  
Recognized Educational Facility Professional  
(REFP)

#### Former voting member:

ASHRAE 90.1 International Energy Code  
Committee

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Manager, Charleston Office  
Charleston, WV (2005 to present)

Proactive Architecture Inc.  
President  
Charleston, WV (1999-2005)

Silling Associates Inc.  
Vice President  
Charleston, WV (1992-1999)

TAG Architects  
Charleston, WV (1985-1990)

Alpha Associates Inc.  
Morgantown, WV (1983-1985)

### SUMMARY OF EXPERIENCE:

Mr. Worledge is a skilled **Architect** with over 30 years of experience, who has been the former President of the WV chapter of AIA, has received State and National design awards, and placed in National and Global design competitions. Unlike many architects who are new to green building and alternate energy, Thom started his career designing and building alternate energy systems, and was the first LEED Accredited Professional in West Virginia! He believe energy efficient design is simply good design practice. As a **LEED Accredited Professional specializing in Building Design & Construction (LEED AP BD+C)** and a **recognized sustainable design expert**, he has **2 LEED Certified** projects, **multiple LEED Registered** projects, several other energy-efficient projects, has articles published in State and National trade publications, was a featured speaker at multiple State and National conferences, served on the committee that set the ASHRAE 90.1 Standards for the International Energy Code, professionally teaches and trains other professionals in the art of High Performance Design, is a Founder & Chairman of the Board for the US Green Building Council's West Virginia Chapter, and much more.

### NOTABLE PROFESSIONAL ACHIEVEMENTS:

WVU Institute of Technology - Maclin Hall Dormitory in Montgomery  
West Virginia Department of Health & Human Resources' Ohio County Office Building fit-out / renovations  
Building 55: WV State Office Complex in Logan (**LEED Certified**)  
Veterans Affairs Medical Centers - multiple VAMCs around WV and PA  
United States Postal Service - multiple projects throughout WV  
West Virginia State Police - new Logan Detachment / Back-Up Data Center for the WVSP Headquarters  
West Virginia State Police Academy - Renovations to Buildings A, B, and C, including exterior walls; New Buildings D and Multi-Purpose Building  
Nicholas County Division of Homeland Security & Emergency Management - E-911 and Emergency Operations Center studies  
Fairmont State University - College Apartments Complex  
West Virginia University - University Police Building  
Charleston Enterprise Center renovation (WV AIA Design Award)  
Williamson SMART Office (LEED Registered / Placemaker Award)  
Natural Energy Design (NĒD) Building (Placemaker Award)  
Bellann in Oakhill, WV (LEED Registered)  
Big Sandy Arena & Convention Center  
Marshall County Schools - Hilltop Elementary School (**LEED Certified**) - won multiple WV and National Awards & Recognitions)  
Wood County Schools - Parkersburg High renovation (\$23 million) & Williamstown High renovation (\$13.5 million)

# Patrick J. Rymer, AIA, ALEP (CEFP), NCARB

Architect

## Director of Architectural Services

### EDUCATION:

University of Tennessee  
Bachelor of Architecture - 1999

Memphis Center for Design - 1998

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

**Registered Architect in:**  
West Virginia

#### Member:

The American Institute of Architects (AIA)  
Accredited Learning Environment Planner (ALEP)  
- [formerly known as Certified Educational  
Facility Professional (CEFP)]

### NCARB

### IDP

### ArchNet

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Wheeling, WV (2005 to present)

Capitol Engineering  
Charleston, WV (2003-2005)

United Brotherhood of Carpenters & Joiners  
(2000-2003)

### SUMMARY OF EXPERIENCE:

Mr. Rymer, our **Director of Architectural Services**, brings 20 years of experience in the building design and construction industry, which includes being the **Architect** on multiple governmental projects. His recent relevant experience includes the project management of several projects, as well as the lead design and construction administration of various Federal, State, County Government and private projects. Bringing a diverse background from the hands on experience of an apprenticeship in the construction trades to project management of multi-million dollar facilities, Mr. Rymer has an intimate understanding of building and design on a holistic level. Patrick was just named the "**Architect of the Year**" at Project BEST's 2019 Excellence in Construction Awards Gala!

### NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - Multiple Projects, State-Wide: Camp Dawson/Fueling Canopies\*, Parkersburg Army Aviation Support Facility / Taxiway Repair\*, Glen Jean WVANG-AFRC-MEPS Facility\*, Parkersburg AASF Apron Rehabilitation\*, Williamson Armory, WVANG Wash Pad & Military Parking\*, Summersville Readiness Center\*, & Lewisburg Readiness Center\*

West Virginia State Police - Open End A/E Contract / multiple projects, including Jackson County Detachment, Kanawha County Troop 4 Headquarters, & Berkeley County Detachment

Regional Economic Development Office, Wheeling - Site Improvements for Orrick's Global Operations Center, & Adaptive Reuse Warehouse Study

Ohio County Commission - Cabela's Phase II Expansion

Wellsburg City Hall Building

Braxton County Senior Citizen Center / 14,000 SF Addition and Renovation / includes 3,685 SF Community Room - Auditorium

Site Improvements for St. Joseph's Cathedral / Wheeling Central Catholic High School / Diocese of Wheeling-Charleston

Brooke County Schools - NEW Brooke Middle School

Hancock County Schools - Open End Contract / multiple projects, including School Access Safety / Security upgrades

Marshall County Schools / multiple projects including NEW Cameron Middle/High School (LEED Registered)

Tyler County Schools - Open End Contract / multiple projects, including School Access Safety / Security upgrades

Wetzel County Schools - Open End Contract / multiple projects, including School Access Safety / Security upgrades

*\* previous work experience with a firm other than McKinley Architecture and Engineering*



# Robert E. "Bob" Smith

## Construction Administrator

### EDUCATION:

University of Pittsburgh  
M.S. Industrial Engineering - 1989

United States Air Force Academy  
B.S. Behavioral Science /  
Human Factors Engineering - 1983

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

#### Board Member:

Indian Creek School District (elected in 2009)

#### Instructor:

Mechanical Engineering, Eastern Gateway  
Community College

#### President:

Mingo Business Association (2007 to present)

#### Commander:

American Legion Post 351 (2008 to present)

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
*Construction Administrator*  
Wheeling, WV (2009 to present)

Jefferson County Regional Planning Commission  
*Regional Planner*  
Steubenville, OH (2008-2009)

Edison Local School District  
*Director of Operations* (1999-2008)  
*Transportation Supervisor* (1998-1999)  
Hammondsville, OH

### MILITARY SERVICE:

Wright Patterson Air Force Base - Dayton, OH  
*Chief B-2, Block 20 Field Retrofit, \$300 million*  
B-2 Systems Program Office (1994-1996)  
*Team Leader, Process Improvement Technology*  
Armstrong Laboratory (1989-1994)

Randolph Air Force Base - San Antonio, TX  
*Chief, Test Construction Section*  
Occupational Measurement Center (1987-1988)  
*Quality Control Psychologist*  
Occupational Measurement Center (1985-1987)  
*Supervisor of Test Construction Team*  
Occupational Measurement Center (1983-1985)

### SUMMARY OF EXPERIENCE:

Mr. Smith has been a **Construction Administrator** at McKinley Architecture and Engineering for 10 years. Bob is a self confident, articulate and highly motivated individual with superior interpersonal and teamwork skills. He has a plethora of experience in mid to upper level personnel management, advanced information systems integration, training, acquisition, contract management, transportation and maintenance, and quality control. He has 23 years of direct supervisory experience, as well as 13 years of documented success as an Air Force Officer. He is currently a member of the Board of Education for the Indian Creek School District in Jefferson County, Ohio. He is also an Adjunct Professor at Eastern Gateway Community College in Steubenville, Ohio, where he is teaching Mechanical Engineering.

### NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - AASF#1 HVAC renovations  
Steel Valley Regional Transit Authority renovations  
United States Postal Service - 2 Open-End IDIQ contracts / multiple projects  
The Towers Building renovations, multiple phases including roof  
Cabela's Eastern Distribution Center  
City of Steubenville - multiple projects  
Fairmont State University's new 3 building "University Terrace" Student Housing Apartment Complex  
Brooke County Schools - District-Wide Construction Program (\$36 million), including new buildings, and renovations  
Grant Co. Schools - multiple projects, including Maysville renovations, & Union Educational Complex addition/renovations  
Hancock Co. Schools - District-Wide Construction Program (\$56 million), including new buildings, renovations, and additions  
Marshall Co. Schools - District-Wide Construction Program (\$38 million), including new buildings, renovations, and additions. Also includes Hilltop Elementary (LEED Certified)  
Marshall Co. Schools - Cameron High (LEED Registered)  
Ohio Co. Schools - multiple projects  
Tyler Co. Schools - multiple projects  
The Linsly School - Banes Hall addition/renovations and Stifel Field House / Behrens Memorial Gymnasium renovation  
Harrison County Courthouse renovations  
Jefferson County Courthouse renovations & Annex demo  
Cameron American Legion Exterior Renovations  
Lincoln National Bank Building renovations



## Mark Haefner, P.E., Senior Project Manager, Land Development – Land Development Lead



### EDUCATION

Bachelor of Science, Civil Engineering, West Virginia University (1995)

### PROFESSIONAL EXPERIENCE

Mr. Haefner supervises, manages, and implements Stahl Sheaffer's land development projects. He has 25 years of experience, with extensive expertise in site evaluation and layout, utility design, erosion and sedimentation control plans, permitting, feasibility studies, stormwater management design, and drainage design. Mr. Haefner is also responsible for coordinating projects through government and planning commission review processes, conducting QA/QC reviews, project administration, review and approval of shop drawings, and peer review. Additionally, he has 15 years of experience serving as a municipal engineer, performing duties such as the review of subdivision and land development plans, providing consultation, and preparing reports for municipal projects. Relevant projects include:

- **Penn Highlands Healthcare Medical Office Building, Brookville, PA** – Project Manager for a new 2-story, 15,400 SF medical office adjacent to the Brookville Hospital. The new MOB is located north of the hospital, within the existing parking lot and adjacent to the existing MOB. Site related engineering services included layout and grading, coordination of new sanitary sewer, water, electrical and gas service to the building, regulatory permitting and municipal coordination/approvals.
- **Pine Hall Development, Centre County, PA** – Responsibilities included master planning for a 160-acre traditional town development, including residential, commercial, and office components. Master planning efforts have included survey, stormwater management assessment, roadway design, sanitary sewer design, utility coordination, and municipal coordination.
- **Imbt Industrial Park, Centre County, PA** – Project included roadway, parking, utility coordination, and stormwater management. Drainage improvements required inlets and piped conveyance to a “regional” stormwater management facility in the park. Also, responsible for site design associated with the park's first two tenants.
- **Lerch RV Expansion, Mifflin County, PA** – Managed site engineering for new 17,200 SF maintenance garage addition, including additional RV storage and display area, access drives, employee parking, and stormwater management improvements. Engineering services included, site layout, grading, stormwater management design, roadway design, utility coordination, regulatory permitting, and municipal coordination.
- **Lebanon VA Medical Center, Lebanon County, PA** – Civil Engineer for site and civil engineering for design and permitting of new 16,000 SF behavioral health and primary care building. Site survey has been completed, and this project is currently in progress.
- **Penn State Beaver Stadium Elevator / Lobby Addition, University Park, PA** – Project Engineer for site design, municipal coordination, and permitting for an elevator / lobby addition to Beaver stadium and new EMS parking lot. Project included site layout and grading, design of stormwater collection and conveyance facilities, erosion control plans, and construction administration. This project has not yet gone to construction as client put the project on hold.

## Jason Reed, Environmental Manager – Environmental Lead



### EDUCATION

Bachelor of Science, Environmental Resource Management,  
The Pennsylvania State University

### PROFESSIONAL EXPERIENCE

Mr. Reed brings over 24 years of natural resource planning and environmental consulting experience with 22 years in the consulting engineering industry. His experience spans a wide array of project types including aviation, roadway, bridge, utilities, stream enhancement, oil and gas development, commercial land development, surface mine permitting, pollution treatment systems, and recreational facilities. His expertise areas are streams and wetlands, environmental assessments, environmental permitting and erosion and sedimentation control. Relevant projects include:

- **Clearly Ahead Development, Makin Metals New Facility Permit Coordination, Fireman's Commerce Park, Lawrence Township, Clearfield County, PA** – Environmental Manager coordinating pre-application meetings for permitting a new facility. The existing NPDES permit, which was under a consent order and agreement, had expired. Due to past permitting and design work at the site, Mr. Reed was able to speak directly to the assistant regional director and program manager at PADEP to arrive at an agreeable permitting approach, which was most beneficial for the tenant.
- **Clearfield Soccer Association Soccer Facility Improvements, Lawrence Township, Clearfield County, PA** – Project Manager and Environmental Scientist for project management and design items such as preparing an NPDES permit for construction and wetland investigation. Involved improvement to a 2,000-LF driveway, drainage design, soccer field expansion, installation of electric service, installation of on-lot septic system, installation of a new garage and addition to the existing concession building. [Funded with DCNR C2P2 grants](#). Additional responsibilities included coordination with DCNR and creating bid documents per funding agency requirements.
- **Clearly Ahead Development, Rivers Landing Mixed-Use Building, Clearfield, Clearfield County, PA** – Project Manager for site civil engineering and environmental permitting including submittal QA. Included design and development of a new two-story office and retail building with parking and stormwater management. The site is adjacent to the west branch of the Susquehanna River. A GP-4 outfall permit was secured through PA DEP for an outfall into the river and FEMA delineated floodway. The site was previously a contaminated site, requiring soil sampling throughout the proposed depth of planned excavation. A site soils characterization was completed and coordinated with the PA DEP's waste management section. Additional sampling was conducted to refine areas of concern and develop suitable handling procedures for excavated waste soil.
- **South Parcel Access Road, Fireman's Commerce Park, Lawrence Township, Clearfield County, PA** – Environmental Scientist for completing a minor modification to existing NPDES permit for additional development. Involved roadway widening and drainage improvements to existing Industrial Park Road and construction of 700 LF of new roadway. Responsibilities included completing a revised E&S pollution control plan.
- **New Asphalt Plant, Fireman's Commerce Park, Lawrence Township, Clearfield County, PA** – Environmental Scientist for completing a minor modification to existing NPDES permit for development. Involved construction of a new asphalt plant in the existing Fireman's Commerce Park. Responsibilities included the completion of a revised E&S pollution control plan that complied with conditions of the contaminated site CO&A

- **The Clearfield Foundation, Wetland Mitigation Remedial Design, Benazette Township, Elk County, PA** – Environmental Scientist responsible for designing and assisting in design of remedial activities for 1.40 acres of a wetland mitigation site. This remedial project affected 1.40 acres of a 14-acre wetland mitigation site in order to remedy areas of the site that were not meeting performance criteria to be considered created wetlands. Responsible for, and assisted in, site grading design, on-site soil investigation, soil amendments specifications, seeding specifications, outlet repair specification, remedial plans preparation, bidding schedules, scope of work, contracts facilitation, arrangement of agency meetings, and coordination with the client.
- **Proformance Site Expansion, Lawrence Township Clearfield County, PA** – Project Manager and Environmental Scientist for preparing a National Pollutant Discharge Elimination System (NPDES) permit for stormwater associated with construction activities. Responsibilities for the NPDES construction permit included on-site wetland delineation, infiltration testing, preparation of an E&S pollution control plan, and completion of the NPDES permit application. The NPDES permit was approved through the Clearfield County Conservation District with no comments.
- **Penn Commons Redevelopment, Lewisburg, Union County, PA** – Environmental Scientist for Phase I Environmental Site Assessment due diligence review for existing or past hazardous material concerns. Site was proposed as a redevelopment of existing abandoned lots that which included a vacant house and past uses that supported manufacturing of furniture at the manufacturing facility located north of the study site.
- **SR 453 & SR 2023 Structure Replacements, Clearfield County, PA** – Environmental Scientist responsible for wetland and water identification and delineation as well as preparation of the waterway obstruction and encroachment permit for replacement of stream conveyance structures under two-lane public roadways. Assisted design staff in avoidance and minimization of wetland impact and coordinated with designers in gathering the necessary figures for completion of the waterway permits. Structures included a culvert and a bridge. Also responsible for supervising other staff in completing field work and compiling the necessary permit package components
- **Sandy Lick Creek Phase I Rehabilitation, City of DuBois, PA** – Project Manager and Environmental Scientist for wetland investigation, existing channel assessment, Wollman pebble count, assisting with ground survey, and coordination with PADEP and Army Corps of Engineers (ACOE). Additional responsibilities included design and plans preparation of instream cross vanes, j-hooks, muddills, and bank repair. Completed all required items for GP-11 and GP-1 to authorize the channel improvements and installation of the habitat features including design and preparation of an E&S plan.

## Pete Brumberg, P.E., Director – Building Structures



### EDUCATION

Bachelor of Architectural Engineering—Structural Emphasis, The Pennsylvania State University

### PROFESSIONAL EXPERIENCE

Mr. Brumberg is responsible for directing Stahl Sheaffer's Building Structures Group. He is an integral member of the design team, bringing 21 years of expertise across a broad spectrum of facility types, building uses, and material types. He has experience in new construction and renovations, as well as structural forensics and serving as an expert witness. Mr. Brumberg has performed structural design for parking structures, multi-story university classrooms, retail buildings, residence halls, and hotels. His experience as a multi-discipline team leader for a full-service A/E firm provides a heightened understanding of the importance of clear and timely communication, flexible design concepts, interactive multi-discipline coordination, and the implementation of non-traditional solutions as a dynamic design team member. Mr. Brumberg is an experienced BIM user and advocates using technology to improve the design and coordination processes. Stahl Sheaffer's building structures staff uses Revit exclusively on all projects. Relevant projects include:

- **Altoona Blair Redevelopment Corporation Penn Building Renovation, Altoona, PA** – Project Manager for the renovation of a 93-year-old building with a concrete frame structure and two-way span concrete floors utilizing drop panels at the support columns. The project entailed floor plan renovations with new penetrations for mechanical and plumbing systems renovations, relocation of existing walls, new openings in masonry walls, ADA ramps within the building, repair of concrete and steel framing damaged by water infiltration, and the addition of a steel dunnage frame to support new mechanical air handling and energy recovery units on the roof.
- **The Pennsylvania State University, East Campus Steam Plant (ECSP) Repiping, University Park, PA** – Project Manager for 3D scanning and modeling of Penn State's East Campus Steam Plant consisting of facility interior, exterior, and the roof. Stahl Sheaffer collected a 3D point cloud and 360-degree imagery of the exterior of the site, and the areas of the interior utilizing a FARO Focus 330X HDR phase-based laser scanner. The individual point clouds were compiled into one-point cloud and imagery dataset and used to create 3D Building Information models for use in Autodesk Revit, with the intent of providing geometry of existing features within the plant that may cause obstructions to the design process for new construction.
- **The Pennsylvania State University, Morgan Center Academic Center Upfit, University Park, PA** – Managed structural engineering services for demolition and renovation to the ground and first floors of Greenberg Sports Complex to house the Morgan Academic Center. The northwest corner of the building was selectively demolished and rebuilt with curtainwall. Stahl Sheaffer assisted with details of new assembly and review of building stability, and with detailing a new ornamental stair within a two-story atrium space, and considerations for modifying the existing lateral force resisting system for the new intended use of the space. Prepared contract drawings to be sealed for submittal as part of permit application to L&I.
- **Sharon Lutheran Church, Selinsgrove, PA** – Performed a visual, non-destructive evaluation of the existing roof trusses over the church sanctuary to assess safety concerns regarding displacement of the roof truss chords.
- **Selinsgrove Area School District, Harold Bolig Stadium Pressbox, Selinsgrove, PA** – Project manager for structural design services for the addition of a new press box on the 50-yard-line behind the home bleachers at Harold Bolig Stadium. The wood-framed pressbox is supported by steel framing coordinated with the



existing bleacher framing. New column locations were coordinated around field-level utilities and access requirements. An interior stairway provides roof access from within the pressbox for filming purposes, with the roof area being protected by railing. Stahl Sheaffer also provided construction administration services.

- **The Pennsylvania State University, Beaver Stadium Comprehensive Maintenance Evaluation & Design, University Park, PA** – Led top-to-bottom evaluation of Beaver Stadium and developed a custom interactive asset management tool to be used for tracking, planning, and estimating the repair of identified structural deficiencies. Based on this evaluation, Stahl Sheaffer is now contracted for the engineering design of ongoing maintenance and safety upgrades and enhancements. Stahl Sheaffer customizes the asset tool for each project to include line items for designated repair or replacement and associated costs, and anticipated year of repair.
- **The Pennsylvania State University, Panzer Lacrosse Stadium, University Park, PA** – Project Manager for the schematic design phase for the new Panzer Lacrosse stadium including pressbox, seating, and other stadium amenities. Building features include two-way cantilevers, long-span deck, a living “green” roof, and structural elements designed as architectural features.
- **The Pennsylvania State University, Pollock Halls Façade Rehabilitation, University Park, PA** – Project Manager for the assessment of the facades of nine residence halls in the Pollock Halls complex to identify and implement repairs needed to stabilize and preserve the integrity of the building envelopes until renovation. The buildings were assessed using high lift equipment and including roof-level and ground-level features. Stahl Sheaffer developed a list of deficiencies and assigned a rating to each and prepared a cost estimate based on unit cost and quantities recorded during the assessment.
- **The Pennsylvania State University, Penn Building Renovation, Altoona, PA** – Project Manager for the renovation of a 93-year-old building with a concrete frame structure and two-way span concrete floors utilizing drop panels at the support columns. The project entailed floor plan renovations with new penetrations for mechanical and plumbing systems renovations, relocation of existing walls, new openings in masonry walls, ADA ramps within the building, repair of concrete and steel framing damaged by water infiltration, and the addition of a steel dunnage frame to support new mechanical air handling and energy recovery units on the roof.
- **The Pennsylvania State University, Stocker Dynamometer Feasibility Study, University Park, PA** – Structural Engineer for feasibility study for installation of a dynamometer in the basement level of Penn State’s Research Building East. Evaluated locations for proposed equipment, determined support requirements and viability of pit location, and provided input regarding options for placement of a cooling tower with appropriate reinforcements.
- **The Pennsylvania State University Applied Research Lab (ARL), Test Facility Addition Feasibility Study** – Structural Engineer for development of a feasibility study for an addition to the current ARL Test Lab Facility. The study investigated two options for workflow and construction costs: 1) a single facility addition, and 2) two smaller separate facility additions, to be structurally independent of the existing building. Mr. Brumberg provided structural recommendations for the concrete structure, foundations, retaining walls as required by exterior/interior grade differentials, and other pertinent structural items based on preliminary load takeoffs, preliminary building and element analysis and preliminary element design calculations.

## Michael R. Maxwell, P.E.- Project Manager



### EDUCATION

Bachelor of Science, Civil Engineering Technology – Structures Concentration, University of Pittsburgh at Johnstown (2004)

### PROFESSIONAL EXPERIENCE

Mr. Maxwell is a Project Manager within the Building Structures Department. He brings 16 years of experience to the team with expertise in structural design, analysis, and inspection of both bridge and building structures. He has provided engineering design for structures of various material types and building uses, including projects for public, education, and commercial clients. He is also well versed in structural inspections and assessments. Mr. Maxwell's current project involvement includes the design of multi-story wood framed housing units, renovation and fall protection design for buildings owned by Penn State, and construction administration for projects under construction. Representative projects include:

- **The New First Church of God, McMechen, WV** – Stahl Sheaffer performed structural engineering design and analysis of the lower basement level and elevated structural floor slab for the new First Church of God. The construction of the church consists of a pre-engineered metal building system above the first floor supported by structural steel columns and concrete piers which were integral with the exterior basement walls. Stahl Sheaffer designed the 14-foot-tall concrete basement walls to act as a retaining structure as well as concrete shear walls resisting the diaphragm loading of the first floor slab. Steel columns were designed to support the pre-engineered metal building columns above. The elevated structural first floor slab consisted of concrete topping over 2" composite metal floor deck.
- **Penn State Penn Building, Altoona, PA** – Structural engineering for the renovation of the former Penn Building, a 93-year-old concrete frame structure with two-way span concrete floors utilizing drop panels at support columns. The project entailed floor plan renovations with new penetrations for mechanical and plumbing systems renovations, relocation of existing walls, new openings in masonry walls, ADA ramps within the building, repair of concrete and steel framing damaged by water infiltration, and the addition of a steel dunnage frame to support new rooftop mechanical air handling and energy recovery units.
- **Penn State Greenberg Sports Complex, University Park, PA** – Engineering design for the conversion of the previous Penn State Ice Rink building to lab space, including the addition of a new composite steel framed second floor within the existing space, extending the mechanical room to add a second floor, and a new entry with lobby, elevator and grand staircase. Existing structure was reused to the greatest extent possible, and the new floor was laterally isolated from the existing structure with its own lateral force resisting system.
- **Fairfield Inn and Suites, Harrisburg International Airport, Middletown, PA** – Structural engineering services for the new hotel at the Harrisburg International Airport. The four-story structure has a base footprint of 17,400 square feet and is designed to have a total of 123 guest rooms. The structure consists of hollow core precast floor and roof planks supported on reinforced concrete masonry walls and structural steel framing. The radial profile of the main entry porte cochere was designed using pre-engineered wood to frame the canopy roof and a structural steel tube support structure.
- **Courtyard Marriott Hotel, Hershey, PA** – Code-based design of a new 80,000 square foot four-story hotel. The structure consists of 6" load bearing cold formed steel studs and steel framing supporting 8" precast hollow-core floor planks. The stacked steel stud walls also served as the lateral force resistance system.
- **Pennsylvania Turnpike Blue Mountain & Kittatinny Mountain Tunnels** – Visual and non-destructive testing and inspection of the Blue Mountain and Kittatinny Mountain Tunnels along the Turnpike mainline. Inspected underside of the overhead concrete plenum and tiled side walls. Identified areas of concrete

delamination and spalls and missing or damaged tile, and quantified deficiencies for inclusion in final inspection report.

- **Penn State Commonwealth Campus Fall Protection** – Engineering design and detail of fall protection systems throughout the University’s Commonwealth Campus System. Each project under this initiative includes field scoping and evaluation of existing conditions and the design of fall protection systems, including handrails, ladders, and platforms.
- **Penn State Indoor Tennis Center Scoreboard, University Park, PA** – Structural engineer for scoreboard feasibility study, determining the needs and desires of the users as it pertains to a new scoreboard for the indoor tennis center, and determining requirements to install including power distribution, structural support, functionality and aesthetics.
- **Penn State MultiSport Video Scoreboard, University Park, PA** – Structural engineer for a feasibility study investigating the installation of a new scoreboard at the PSU Multi-Sport Facility, replacing the existing LED Display with a new full color LED Video Display with scoring and timing features.
- **Juniata College Ellis Hall, Huntingdon, PA** – Structural engineer for a two-story steel framed addition with an elevator to the entry of Ellis Hall. This facility houses several cafés, dining hall, ballroom, bookstore, broadcasting center, police department, student organizations, and various other student centers and departments. The structural framing laterally braced the addition by tying into the existing steel framing of Ellis Hall as well as steel moment frames. The second project was a three-story steel framed addition with a new elevator and basement level. The addition consisted of composite metal floor deck and laterally braced frames to allow the addition to stand independent of the existing structure. The third structure is a two-story entry addition to the Brumbaugh Academic Center. The new steel framing and composite metal floor deck was constructed to match the existing curved radius of the existing building facade and incorporates new full height glass storefronts and a second level balcony and seating area.
- **Juniata College Good Hall, Huntingdon, PA** – Structural Engineer for the code-based design of three-story, steel framed entry addition for Good Hall, including below grade basement level and full height elevator. Good Hall contains more than 30 classrooms, two computer facilities (including a Mac lab), the business department’s case study room, the audio/visual department, and three instructional laboratories. It contains some of the college’s most advanced classrooms with computerized overhead displays, surround sound speaker systems, and videoconferencing technology. Foundations were designed and analyzed to address concerns with expansive soils identified at site. The addition included composite concrete deck over steel framing. Due to large window openings and limited clearance for traditional steel cross bracing, custom truss style lateral braces were designed to distribute and resist lateral loading. The existing structure was wood stud framed; the addition was designed as an independent structure.
- **Juniata College Brumbaugh Hall, Huntingdon, PA** – Structural engineer for the code-based design of a two-story entry addition to the Brumbaugh Academic Center. The new steel framing and composite metal floor deck was constructed to match the existing curved radius of the existing building facade and incorporates new full height glass storefronts and a second level balcony and seating area. The facility houses renovated classrooms, seminar rooms and Alumni Hall within the circular rotunda, a 400-seat auditorium used for small concerts, large lectures, film viewing, workshops and more.

## Greg Wilhelm, P.E. – Project Engineer



### EDUCATION

Bachelor of Science, Civil Engineering-Structural Emphasis, Ohio University (2011)

### PROFESSIONAL EXPERIENCE

Mr. Wilhelm has nine years of experience in structural engineering design and detailing across a broad spectrum of facility types, building uses, and material types. As a Project Engineer for Stahl Sheaffer, Mr. Wilhelm provides his expertise for the structural design of building structures in the municipal, education, commercial, recreational, and healthcare markets to various private and public clients. His experience with Revit 3D modeling is used as a vital tool for project coordination between all members of the design team including the owner, architect, and other engineering disciplines. Relevant projects include:

- **City of Pittsburgh Department of Public Works Fire Station Interior Remodel, Pittsburgh, PA** – Project Engineer and detailer in coordination with the Architect-of-Record as a subconsultant for the current interior remodeling of several fire stations in Pittsburgh, and an addition to Fire Station #19. Services include structural evaluations, review for new HVAC support and general details for ADA upgrades as needed, assistance for stair design implementation at project sites as required, and design and detailing for building additions.
- **Pennsylvania Turnpike New Maintenance Facility, Washington & Allegheny County, PA** – Structural engineer performing construction administration services involving shop drawing reviews, field investigations and structural observations during construction of the new maintenance building with a truck wash bay, maintenance bays with overhead crane, office space, and locker rooms. Facility also included the design of foundations for a pre-engineered metal building truck shelter, fuel island canopy, pumphouse and generator building, and storage shed.
- **Ronald McDonald House Additions and Renovations, Morgantown, WV** – Lead structural engineer for the engineering design and detailing of 4,000 square foot 2-story wood-framed addition with basement and egress stair, addition of a new internal elevator, and new entry experience to existing Ronald McDonald House in Morgantown, WV. Interior renovations along with the anticipated additional square footage will increase the number of guest rooms by 13, almost doubling their current capacity and allowing them to better serve the families impacted by childhood illness.
- **Penn State University Beaver Stadium VIP Suites Addition, State College, PA** – Lead structural engineer for the design and detailing for a new 145-foot-tall elevator tower and first floor lobby to serve the VIP suites of the existing football stadium. Responsibilities included design and detailing of structural layouts, gravity and lateral load resisting systems, foundations, as well as coordination with other disciplines. A 3D model of the existing stadium structure was developed to analyze the effect of connecting the new elevator tower to the existing lateral system and confirm the required capacity of the existing framing. The foundation design consisted of drilled micropiles concrete pile caps at the elevator tower columns to accommodate the geotechnical restrictions of the project site.
- **West Virginia University Fall Protection, Morgantown, WV** – Engineering design and detail of fall protection systems for eleven buildings. Each project under this initiative includes field scoping and evaluation of existing conditions and the design of fall protection systems, including handrails, ladders, and platforms.
- **\*Penn State University Intramural Building Addition and Renovation, State College, PA** – Performed structural design and detailing services for the three-phase addition to the existing recreation building inclusive of new fitness/cardio rooms, a 40,000 square foot gymnasium as well as a new indoor turf field. The new additions were designed to integrate with the existing building through the demolition of exterior



walls and extending the remodeling the running track to extend out into the new building spaces. Varying structural systems were used for each addition to integrate with the architectural layouts including masonry shear walls, tube steel braced frames, and steel moment frames with hollow tube columns that are exposed to view in the final structure.

- **\*American Electric Power – Transmission Group Headquarters, New Albany, OH** – Structural engineer for the 195,000 square foot office building for the headquarters of the AEP transmission group. At the heart of the building is a soaring, four-story atrium with bridges and a full height monumental stair that crisscross the space visually connecting the two separate wings of the office. The two wings were connected with the use of a post-installed pour strip to control differential lateral deflection in lieu of an expansion joint, reducing the overall cost and additional detailing/materials required to accommodate the separation of the buildings.
- **\*500 West Broad “Gravity” Mixed Use Retail/Residential Building, Columbus, OH** –Lead structural engineer for the analysis and detailing of the five-story wood framed residential portion of the building to be supported by a post-tensioned concrete podium below. The 272,000 square foot 240-unit residential portion includes two rooftop assembly spaces and a 5 story “living wall”.
- **\*Memorial Hospital Inpatient Pavilion, Marysville, OH** – Project Engineer and detailer in coordination with the Engineer-of-Record for the design of a new 4-story hospital addition that adds 36 new multi-purpose patient rooms. The layout of the new addition was integrated with the footprint of the existing building for a smooth visual transition. The foundations of the addition were carefully designed to avoid conflicting with the existing structure and underground utilities. Responsibilities included design and detailing of structural layouts, gravity and lateral load resisting systems, foundations, as well as coordination with other disciplines.

*(\*) indicates projects completed with a previous employer.*

## Jingan Wang, Ph.D., P.E. – Geotechnical Manager



### EDUCATION

Ph.D. in Civil Engineering, Washington State University (2013)  
Master of Civil Engineering, Beijing Jiaotong University (2009)  
Bachelor of Science, Environmental Engineering, China Agricultural University (2007)

### PROFESSIONAL EXPERIENCE

As a Geotechnical Project Manager, Dr. Wang's major responsibilities include mechanical analysis of the pavement distress, laboratory test conduction, pavement design and performance prediction, roadway design and detail drawing, cost estimation, contract bid preparation, review of Mechanistic-Empirical pavement design, Full Depth Reclamation (FDR) mix design, and Cold In-Place Recycling (CIR) mix design, report preparation for geotechnical analysis and pavement management plan, geotechnical lab management. He has completed engineering designs in pavement, well pad foundation, slope stability analysis, and pipeline buried depth. He has taken the lead on over 160 FDR mix designs and over 80 CIR mix designs. These clients include private owners, oil & gas industry, state and local agencies from PA, OH, WV, and DE.

As a researcher, he leads Stahl Sheaffer's geotechnical research work, including (1) Cold-Weather Full Depth Reclamation (FDR) with Cement Stabilization, (2) Pavement Design for Low-Volume Roads under Heavy Hauling Traffic, and (3) Bearing Capacity Analysis of Cement Stabilized Soil Foundation. He has presented his research findings at national conferences and co-authored peer-reviewed journal papers in geotechnical engineering. Dr. Wang also serves as a technical paper reviewer for several international journals, including the Transportation Research Board, Road Materials and Pavement Design, Geotechnical Testing Journal, International Journal of Geomechanics, Environmental Geotechnics, Engineering Sustainability, Environmental Geotechnics, Geotechnical Research, Ground Improvement, International Journal of Physical Modelling in Geotechnics, and Journal of Testing and Evaluation.

- **Slope Stability Analysis (Belmont TR 237 Shepards Hill Rd. & Belmont TR-126 Moore Run Rd., OH; Amsler Ridge Road, Beaver County, PA; CR 15, Jackson County, WV)** – Geotechnical manager responsible for setting up field exploration plan, field and lab data analysis, slope stability analysis, and geotechnical report preparation.
- **PA S.R. 53 Emergency Slide Repair (Design / Build) - PennDOT District 2-0** - Prepared geotechnical recommendations for an Emergency Design/Build Project for the Pennsylvania Department of Transportation (PennDOT), Engineering District 2-0. The project remediated 2 significant landslides (150 feet and 200 feet) on SR 0053 in Clearfield County, PA. Design and construction were performed in accordance with PennDOT Specifications. Reviewed the subsurface investigation data log, and recommended the geotechnical parameters for the analysis. Both walls were cantilever soldier pile walls, utilizing wide flanged, steel piles encased in concrete (caissons); Pile sizes ranged from W 24X102 to 40X215 and were socketed into approximately 10 feet of rock. The drilled soil and rock shafts ranged in diameter from 36-inches to 54-inches. Pile lengths were up to 35 feet with a maximum exposed wall height of 14 feet.
- **West Virginia Roadway Improvement Initiative, Confidential Energy Client, Various Counties** – Geotechnical Manager for 183-mile roadway improvement project in various WVDOH Districts including District 1, 2, 3, 4, and 6. Includes about 100 roadway rehabilitation projects, eight bridge replacement or rehabilitation projects, and numerous slide repairs. Assists in design and construction of these roadway improvement projects as part of project scope.
- **Tower Site Design, Erie County, PA** – Stahl Sheaffer was retained to provide geotechnical services for the NG Radio Tower Project in Erie County, PA. This project consisted of eight cell towers located in eight different municipalities. Dr. Wang was the Geotechnical Manager for subsurface investigation, laboratory testing, and geotechnical analysis and report. Based on the results of the subsurface investigation and laboratory testing,

Stahl Sheaffer estimated the parameters for the design of drilled shafts and a shallow pad foundation. The parameters estimated included soil strength, Skin Frictional Resistance of soil and rock, Ultimate Bearing Pressure, Strain E50, and Lateral Subgrade Modulus. All the findings were described in the geotechnical report.

- **Kinder Rd. (T-798) Bridge Replacement Project, North Bethlehem Township, Washington County, PA** – Geotechnical Manager for the Kinder Rd. Bridge Replacement Project, which included the existing load posted bridge replacement with a new reinforced concrete box culvert. Responsible for geotechnical/foundation reports.
- **Well Pad Design (Zorin in Monroe County, OH; BrightBill R and Heffelfinger D in Ashland County, OH; RHL-31 in Greene County, PA)** – Geotechnical manager. Set up field exploration plan, field and lab data analysis, slope stability analysis, bearing capacity analysis, settlement prediction, geotechnical report preparation, plan set preparation, and addressing comments from state agencies.
- **Solider Pile Wall Design (CR 29 Sunfish Creek Road and CR 11 Barnes Run Road, Monroe County, OH)** – Geotechnical manager. Set up field exploration plan, field and lab data analysis, slope stability analysis, pile analysis, geotechnical report preparation, plan set preparation, and addressing comments from state agencies.
- **Full Depth Reclamation (FDR) Mix Designs** – Led over 160 FDR mix designs, including Belmont CR 5 Clover Ridge Rd., OH; Washington T-786 Baker Rd., PA; and Marshall CR 25 Loudenville Road, WV. Responsibilities included QA-QC lab data, geotechnical analysis, report preparation, and addressing client comments.
- **Cold In-Place Recycling (CIR) Mix Designs, Various Locations, PA, DE, & MD** – Project Manager. Responsible for over 90 CIR mix designs, such as MD 38 in Garrett County, MD; Furnace Rd. in Lancaster County, PA; and Columbia Rd., DE. In CIR designs, his responsibilities were similar to FDR designs and included QA-QC lab data, geotechnical analysis, report preparation, and addressing client comments.
- **Access Road Maintenance Plan, Bell Point 6 Well Pad & Porter Well Pad, Westmoreland County, PA** – Senior geotechnical analyst responsible for field reconnaissance, field data analysis, pavement design and report, and plan set preparation.
- **Cold-Weather FDR with Cement Stabilization, Borough of State College, PA** – Lead researcher. Objective: to identify optimal techniques for Cold-Weather FDR construction, including (a) identify additives into FDR/cement to increase strength in cold weather and reduce freezing point, (b) evaluate freeze-thaw damage if curing temperature fluctuates around freezing point, and (c) establish correlations between additive dosage and strength/freezing point. Developed lit review, research plan, test methods, lab data analysis, model, academic papers, and conference presentation. This technique has been successfully applied on Roane CR 8.

## Matthew L. McCahan – Project Manager



### EDUCATION

Bachelor of Science in Mineral Economics/Geology, The Pennsylvania State University

### PROFESSIONAL EXPERIENCE

Mr. McCahan oversees the company's current and future geotechnical capabilities. He has 34 years of experience and is responsible for managing the geotechnical engineering efforts on all Stahl Sheaffer geotechnical projects for PennDOT, the Pennsylvania Turnpike, local municipalities, energy companies, and other private clients. Mr. McCahan is also responsible for Stahl Sheaffer's AASHTO re:source accredited materials testing laboratory. This includes managing lab personnel and prioritizing lab assignments for the testing of soils, aggregates, asphalt, cement, and concrete. He has extensive experience in all aspects of geotechnical design and construction; beginning with all preliminary design requirements and submissions through final PS&E, subsurface sampling and testing practices and procedures - including instrumentation, structure foundation design (both Load Factor and LRFD), slope stability and settlement analysis.

Prior to joining Stahl Sheaffer, Mr. McCahan was employed by the Pennsylvania Turnpike Commission (PTC) for over 25 years. Most of that time was spent as the assistant to the Geotechnical Engineering Manager. This position covered the entire Turnpike system - 552 miles of roadway. He was involved in all types and sizes of roadway, structure, and facility projects. The PTC Geotechnical Department was responsible for the geotechnical aspects of projects from the beginning of design through the conclusion of construction. This included the sampling and testing of materials, the design of roadways, structure foundations, retaining walls, cut slopes, and fill slopes. Mr. McCahan was responsible for consultation during construction, as well as being on-call 24 hours a day to respond to emergencies such as slope failures/landslides, rockfalls, and sinkholes. He was significantly involved in the development of the Commission's Design Consistency Guidelines, Design Operations Manual, along with several PTC Standard Drawings, Commission Specifications, special provisions, blasting and pile driving guidelines. During his time with the PTC, Mr. McCahan wrote or co-wrote four papers for publication in professional journals. Representative projects include:

- **West Virginia Roadway Improvement Initiative & WVDOH Roadway Repair Partnership / Mountaineer Express, Various Counties, WV** — Mr. McCahan served as geotechnical project manager for design, construction and QC/QA for 13 Pile and Lagging Walls for the West Virginia Roadway Improvement Initiative (WVRII). Following WVRII, Mr. McCahan performed the same duties for an additional nine (9) Pile and Lagging Walls and 18 Soil Nail Walls for the WVDOH Roadway Repair Partnership / Mountaineer Express. Responsibilities included oversight of geotechnical design, coordination with the West Virginia Department of Transportation, Division of Highways for individual project reviews, reviewing RFI requests from construction, providing direction to contractors, assignment of QC/QC personnel, and coordination and tracking of project schedules.
- **New Baltimore Slide Remediation Project, Pennsylvania Turnpike Commission** — Stahl Sheaffer Construction Project Manager (previously Geotechnical Representative for the Commission). One of the first assignments with the Commission was to develop a monitoring program for this area. For 25 years, Matt has been involved in the surveying, instrumentation and studies performed here; including surface monument surveying, inclinometers, piezometers, time domain reflectometry (TDR), and total station laser surveying. This earthwork project involved the removal and reconstruction of 2.2 million cubic yards of an active landslide along with the removal of an additional 1.7 million cubic yards of material from an adjacent area referred to as the Four Degree Curve. Mr. McCahan has presented this project to industry organizations including:
  - PA Turnpike Commission (PTC) Construction Management Conference - January 2016
  - American Society of Highway Engineers (ASHE) Williamsport - January 2016
  - Pennsylvania Mining Professionals (PMP) - June 2016



- Ohio Transportation Engineering Conference (OTEC) - October 2016
- Associated Pennsylvania Constructors (APC) - November 2016
- Pennsylvania Turnpike Commission’s Inspector Training Program West - February 2017
- Pennsylvania Turnpike Commission’s Inspector Training Program East - February 2017
- ACEC PA/PennDOT Training: Transportation Managers/Senior Inspector-in-Charge Training Workshops March 2017
- **Uniontown to Brownsville Project (Toll 43), Pennsylvania Turnpike Commission** — Geotechnical Representative for the Commission for both design and construction of this 17-mile, \$882M project. Produced design guidelines and was involved in all roadway and structure submissions. Worked with the Construction Managers and all section Contractors throughout the construction phase to completion; tested and approved structure foundations; including the 3200-foot, seven span, Monongahela River Bridge. Involved in temporary cut/fill and shoring conditions, identifying and solving stability issues, undercut areas, etc.
- **Mon/Fayette Expressway (Toll 43 - I-70 to SR 51) – Pennsylvania Turnpike Commission** –Geotechnical Representative for the Commission for both design and construction issues for nine of 14 design/construction sections. Responsible for preliminary design through the completion of construction; including the foundation design and construction of the Joe Montana Bridge (Toll 43 over SR 0088, Mingo Creek and the Wheeling & Lake Erie Railroad). This dual structure had a 200 (+) foot steepened embankment and was constructed over active mines (both room and pillar and longwall mining) and an existing slurry pond.
- **Beaver Valley Expressway (Toll 60) and Amos K. Hutchinson Bypass (Toll 66) – Pennsylvania Turnpike Commission** – Assisted in the geotechnical design for all six design / construction sections (Sections 40 – 45) of Toll 60, including the Mahoning River Bridge. In addition to assisting with geotechnical design, was the design liaison engineer for final design on two sections (43 and 44) – handling all aspects of design. Assisted in the geotechnical design for all eight design / construction sections (Sections 70A – 73B) of Toll 66. Was the design liaison for all aspects of design, not just geotechnical, for final design on two sections (43 and 44).
- **Total Reconstruction Projects – Pennsylvania Turnpike Commission.** Was the primary Geotechnical Representative for the Commission on the 1<sup>st</sup> Total Reconstruction Project, MP 94 to MP 99 (1996 – completed in 2000), of the Commission’s “Statewide Total Reconstruction Initiative.” Have been the primary geotechnical representative on ten additional Total Reconstruction Projects since. Responsible for preliminary design through the completion of construction; including the foundation design and construction of any associated structures.

# Corporate Information

## Firm History

Founded in 1981, McKinley Architecture and Engineering is a multi-discipline **full service A/E firm**, offering comprehensive **professional services in Architecture, Engineering, Interior Design, Energy Efficient and Sustainable (LEED) Design, Commissioning, Construction Administration, and more.** We have a broad range of skill and experience for projects involving **emergency response facilities, public safety, governmental, municipal, commercial, industrial, schools, and sports & recreation** to name a few. Over the years, our firm won multiple **State and National awards and recognitions** for our designs. **McKinley has made the 2020 Inc. 5000 list, the most prestigious ranking of the nation's fastest-growing private companies!**



## Firm Information

**Ernest Dellatorre**  
Director

**Tim Mizer, PE, RA, QCxP**  
Director of Engineering Services

**Patrick J. Rymer, AIA, ALEP**  
Director of Architectural Services

## Date of Incorporation

July 1, 1981  
Wheeling, West Virginia

## Professionals on Staff

Architects  
Engineers  
Arch./Eng. Designers  
LEED AP BD+Cs  
Historic Preservationist  
Construction Admins.  
HVAC Commissioning Provider  
ALEP (CEFP)  
REFP

## Locations

32 Twentieth Street  
Suite 100  
Wheeling, WV 26003  
P: 304-233-0140  
F: 304-233-4613

129 Summers Street  
Suite 201  
Charleston, WV 25301  
P: 304-340-4267

5000 Stonewood Drive  
Suite 200  
Wexford, PA 15090  
P: 724-719-6975

## Credentials

**McKinley Architecture and Engineering** is a member of the following **organizations:**

A4LE (formerly CEFPI), ACI International, AIA, ASCE, ASHRAE, ASPE, AWI, BOCA, NCARB, NFPA, WVEDC, and more

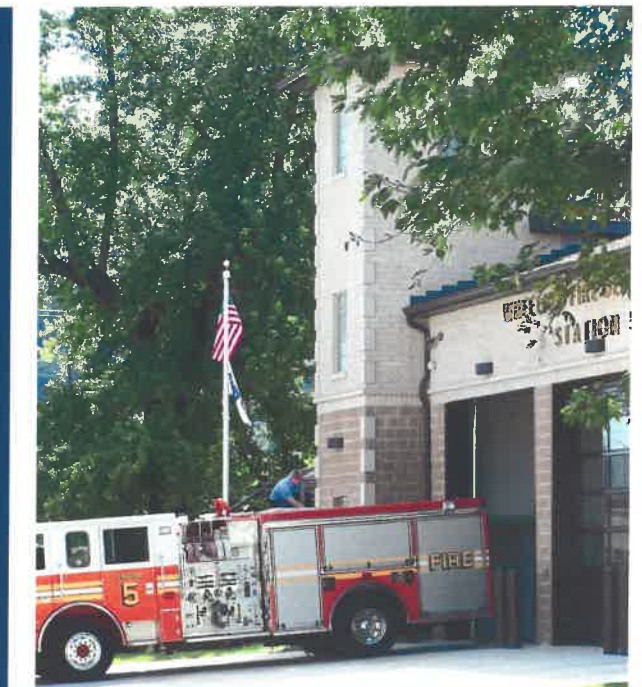
## Follow Us

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

[www.Facebook.com/McKinleyDelivers](https://www.Facebook.com/McKinleyDelivers)

[www.Linkedin.com/company/McKinleyDelivers](https://www.Linkedin.com/company/McKinleyDelivers)

Instagram: @McKinleyDelivers



**McKINLEY**  
ARCHITECTURE + ENGINEERING



# Project Approach

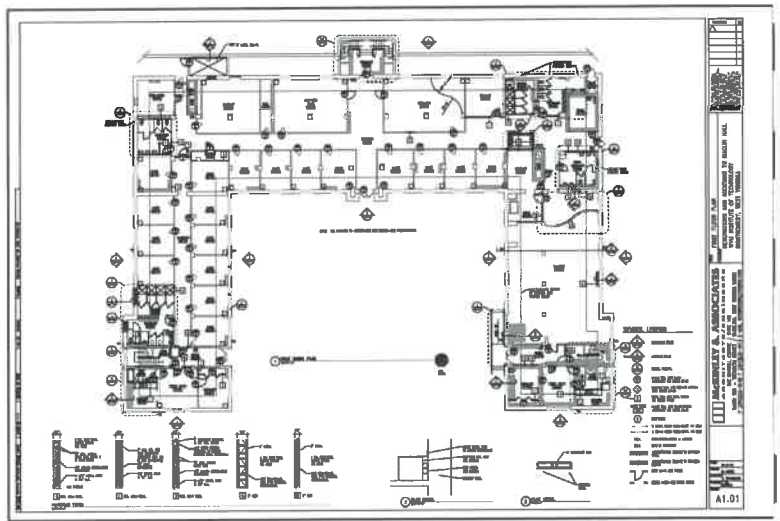
Over the years, McKinley Architecture and Engineering and Stahl Sheaffer Engineering have designed many relevant projects involving boilers, restrooms/showers, safety and security improvements, geotechnical, utilities, and more. **We will meet ALL of your Project Goals and Objectives** which you list in Section Three, Part 4. We know this Team possesses the required expertise to address all facets of your project.

**You will be involved and engaged throughout the design process.** The most important element of the entire process becomes **communication** from you to our designers. We use and welcome your input throughout the project. Initial meetings with the users and staff will incorporate reviewing the existing plans and conditions as well as the operation of the MCA South Facility, references to the codes and standard with the object goal of determining budget, design and logistical priorities for the project. Therefore, to start your project, a **kickoff meeting** will be held with all pertaining **West Virginia Army National Guard** and **MCA South Facility** representatives for Maclin Hall & Conley Hall building walkthroughs, with all the **McKinley Team design professionals**. **We will also bring our drawings we have of the current buildings for reference.** From this meeting the Owners Project Requirements will be defined and documented, to be used as a guideline through the design phase. We will use all this information to aid in the designs of the project to **meet all of your Goals and Objectives.**



In addition to architecture and engineering, our **3 LEED Accredited Professionals** can help choose **energy efficient** options, such as lighting fixtures which use less electricity, sink and toilet options which use less water, and quiet shower fans can be used for mechanical ventilation.

Furthermore, we can also provide **interior design** services to design any furnishings and fixtures for the restrooms/showers, such as color schemes, floors, walls, cabinetry, counters, aesthetically pleasing designs, and more.



# Quality Control

**Quality control** at McKinley Architecture and Engineering is a constant process which **begins with the initial project activity and continues through document submissions, bidding, construction and owner occupancy.** The longevity and size of the firm and our history of success completing complex and innovative projects is founded upon our commitment to this process.

**During the design phases,** all personnel become fully versed in the WVARNG's program, project requirements and design standards. The design team is responsible for identifying for you any potential conflicts between program criteria and design standards and resolving those conflicts to your satisfaction.

As the schematic/concept plans are developed, Tim E. Mizer, PE, RA, QCxP, your Project Manager, will present plans for review and comments to a plan group depending on the nature of the work; e.g. engineers commenting on the engineering and architects critiquing the architecture (*a peer review with Architects, along with a Construction Administrator, is seen below*). Once a consensus is reached, the plans advance in the process.

**Prior to the completion of each phase,** a set of project documents is issued to each discipline for coordination, cross-checking and review. The following items are checked at that time:

- Drawings and specifications for program compliance.
- Drawings and specifications for internal coordination.
- Cost effectiveness of the design.
- Drawing accuracy.
- Compliance with appropriate codes and client standards.

After coordination check corrections are completed, Tim will review the documents and compare the completed documents with check prints to verify that corrections have been made in accordance with the project design criteria. A review set will be sent to you, the Fire Marshal and other governing authorities for preliminary review.

During the subsequent phases of design, all items are checked by persons other than those performing the daily design work in order to provide fresh insight. Prior to the final release of the documents, revisions are once again checked by the Project Manager and appropriately referenced on the drawings. Copies of the final documents will be distributed to the WVARNG for final review and approval. A set is also sent to the Fire Marshal and other governing authorities for final review comments. Comments are incorporated into the documents prior to issuance for advertising, bidding and construction.

Bid documents are issued after a final check to verify that all bid packages have current revisions included and are appropriately identified. Bid sets are numbered and registered to bidders so that each bidder may be kept informed of clarifications and addenda. We will provide assistance in analyzing and evaluating bids for construction, and assist with awarding the construction contracts.

**During the construction,** the processing of shop drawings and submittals will be controlled and monitored by Mr. Mizer, and includes the receipt, logging, review and return of submittals. Urgent items can often be expedited to satisfy the construction schedule. In addition, Bob Smith, your Construction Administrator, will monitor the contractor's progress to ensure that they are following the Construction Documents, and verify that closeout documents are submitted in a timely manner upon Substantial Completion.





# Interior Design



**B**asic interior services begin with a strategy session designed to determine the owner's project requirements, timetable and budget. The interviews will include analyzing space requirements, operating procedures, communication relationships and future needs. Inventory of existing conditions are used to develop accurate drawings and plans.

Application of current ADA and building codes will be applied to the developed plans for way finding (signage, directories, fire escape plan), furnishings and finishes.



Attention to budget and maintenance is given in relationship to owner needs.

Construction documents required to detail the project include schedules, elevations, plans, presentation boards and specifications. To maintain coordination, the follow up contract administration consists of submittal review, post construction evaluation and coordination of FF&E contracts when applicable.



# Sustainable “Green” Design

**B**uildings designed today will need to meet the demands of the future; McKinley Architecture and Engineering identifies the changes necessary in the design of today and to meet these demands. This approach helps to retain the buildings’ long-term profitability and value, which achieves the buildings’ **sustainability**.

McKinley approaches ecological design from a business perspective, offering **proactive** solutions to complex problems such as **indoor air quality, energy efficiency, resource depletion, and water quality**. With **commercial and governmental office project experience**, the McKinley Team can work alongside local designers to provide sustainable design and construction guidance. We also offer full architectural design services and guided design workshops on sustainable design issues.

**Our Philosophy** is to provide our clients with experienced leadership as well as state-of-the-art and **innovative** design expertise to accomplish the goals of your projects. Function, economics and versatility, in addition to the development of **strong aesthetic appeal**, are crucial elements in our design process. We also believe that enhancement of the physical environment in which each individual lives and works should add significantly to the enjoyment of life. Our firm has dedicated our professional skills to attain these goals.

**For a few recent sustainable awards**, McKinley Architecture and Engineering was



presented with the **2019 Governor’s Award for Leadership in Buildings Energy Efficiency** at the 2019 Innovation & Entrepreneurship Day at the Capitol! We were recognized for our commitment to sustainability and energy efficiency in the design of office buildings, schools, multi-use facilities, and a wide variety of commercial, industrial, **government**, and historical structures.

Our designs have also won **West Virginia Department of Environmental Protection’s Clean Energy Environmental Award, 2 Black Bear Awards for the Highest Achievement** for the WV

Sustainable Schools program, **2 U.S. Department of Education Green Ribbon Schools**, and a **Gold Medal Green Building Award** by Building of America, among others!

We also have a project that is **Collaborative for High Performance School (CHPS) Registered**; the United States’ first green building rating program designed for schools.

Furthermore, we have designed 4 projects listed on the **U.S. Environmental Protection Agency’s ENERGY STAR** program: Building 55: West Virginia State Office Building in Logan, Hilltop Elementary School, Cameron Middle/High School, and Johnson Elementary School. To receive an ENERGY STAR, you need to perform in the top 25% of the most energy efficient projects in the program. **Building 55: West Virginia State Office Building** is one of the most energy efficient buildings in the State, and is in the **Top 5%** of all Energy Star rated buildings in the Country!





# Leadership in Energy and Environmental Design



**LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™** developed by the U.S. Green Building Council (USGBC) is the nationally accepted standard for the design, construction, and operation of high performance green buildings ([www.usgbc.org](http://www.usgbc.org)). In January 2001, our firm was the **first organization in West Virginia to join the USGBC**. No other WV firm joined until nearly 2 years later! We have **LEED Accredited Professionals** on staff, along with our skilled architectural/engineering team, who will efficiently and cost effectively achieve certification under this standard or we can guide you through the process in order to develop sustainability goals specific to your project.

We have **LEED® Accredited Professionals**, including 2 who are **specialized in Building Design & Construction**:

- Kurt A. Scheer, PE, LEED AP
- Christina Schessler, AIA, LEED AP BD+C
- Thomas R. Worlledge, AIA, LEED AP BD+C, REFP



Our **LEED Certified** Projects are (LEED Rating System in parentheses):

- Hilltop Elementary School** in Sherrard, WV (LEED for Schools 2.0)  
- **The First LEED Certified School in the State of West Virginia!**
- Building 55: West Virginia State Office Complex** in Logan, WV (LEED NC 2.2)

All of our current **LEED Registered** Projects are either under construction or in design with potential **LEED Platinum Certification** or potential **LEED Silver Certification**. Our LEED Registered Projects are (LEED Rating System in parentheses):

- Bellann in Oakhill, WV (LEED EB O&M)
- Cameron Middle/High School in Cameron, WV (LEED for Schools 2.0)
- SMART Office in Williamson, WV (LEED CI)

The LEED AP Specialty Logos signify advanced knowledge in green building practices and specialization in a particular field.



The LEED AP BD+C designation that both Thom and Christina have achieved represents specialization in commercial design and construction.



**Thomas R. Worlledge, AIA, LEED AP BD+C, REFP** has been a member of the USGBC since 2001; he was the first LEED Accredited Professional in the state of West Virginia! As a professional trainer for the Sustainable Building Industries Council, he teaches other design professionals in the art of High Performance School

design. He is also a Founder & Chairman of the Board for the US Green Building Council's West Virginia Chapter.



**Christina Schessler, AIA, LEED AP BD+C** has been a member of the USGBC since 2009. In 2012 she received her Masters in Historic Preservation, so not only can she incorporate LEED "Green" aspects into new buildings; she can even incorporate energy efficient design into renovation/preservation

projects. Twenty percent of a building's energy consumption is embodied in the existing physical structure itself!

The 'USGBC Member Logo' is a trademark owned by the U.S. Green Building Council and is used by permission.

**McKINLEY**  
ARCHITECTURE + ENGINEERING

# Construction Administration & On-Site Representation

**Construction Administrator Involved from the Beginning of the Design Phase**

**Observe the Construction Progress**

**Liaison between the Owner, Contractor, and Architects/Engineers**

**Responsible for All Construction Progress Meetings and Minutes**

**Monitor the Construction Schedule**

**Ensure that the Contractor is Following the Construction Documents**

**Verify Pay Application and Change Orders**

**Typically On-Site Once Every Two Weeks  
(Provide Additional On-Site Representation if Requested)**



Our **Construction Administrators** have an extra responsibility than what most firms' Construction Administrators have; our CAs are a part of the design process from **Day 1** (they are not thrown into the project only when construction starts; they are here from the beginning), so they know the ins-and-outs of the project. Our CAs have an important role as being the **liaison between the Owner, Contractor, and Architect**. The primary objective of the Construction Administration services is to ensure completion of work the way the client wants it - **as scheduled and as budgeted**. Our CAs evaluate the quality of the work to verify that it meets the level required by clients; in addition, they monitor the contractor's progress to ensure that they are following the Construction Documents. They observe the construction progress, are responsible for all construction meetings and minutes, and they verify pay application and change orders. The Construction Administrator is typically on-site once every two weeks, but we can provide additional on-site representation if requested.



# References

We feel that the best way to demonstrate our strengths and leadership is by referring to our clients. We have an ever-growing list of repeat clients. We are able to respond to their needs, and we are certain that we are able to respond to all of your needs as well. So that you don't only have to take our word for it; we encourage you to call our references:

## **HVAC Projects**

Mr. Joshua Smith, PE  
Buildings & Grounds Program Manager  
Maintenance Division  
WVDOT Division of Highways  
1900 Kanawha Boulevard, East  
Building 5, Room 350  
Charleston, WV 25305  
304 / 887-2325

## **Judicial Center & Courthouse\***

Mr. A.J. Thomas  
Commissioner  
Brooke County Commission  
201 Courthouse Square  
Wellsburg, WV 26070  
304 / 737-4024

## **Municipal / Public Safety Bldg\***

Mr. Rick Healy  
City Manager  
City of Moundsville  
800 6th Street  
Moundsville, WV 26041  
304 / 845-6300

## **WV State Office Building in Logan (LEED Certified)**

Mr. Gregory L. Melton  
Director  
State of West Virginia  
WV Department of Administration  
General Services Division  
1900 Kanawha Boulevard East  
Charleston, WV 25305  
304 / 558-1808

## **Several Projects, including Boilers, Renovations, Restrooms, etc.**

Mr. Thomas Gentile  
Commissioner  
Jefferson County Commissioners  
301 Market Street  
Steubenville, OH 43952  
740 / 283-8500

## **State Fire Training Academy**

Mr. Murrey Loflin  
West Virginia University  
Fire Extension Services  
2600 Old Mill Road  
Weston, WV 26452  
304 / 269-0872

*\*Teamed with Stahl Sheaffer Engineering*

# Corporate Profile

**Stahl Sheaffer Engineering** (Stahl Sheaffer) is a multi-discipline civil/structural engineering firm that has been providing structural and site engineering services since 2006. Stahl Sheaffer specializes in building design and rehabilitation, bridge design and NBIS inspection, surveying, land development, transportation engineering, geotechnical testing and design, construction inspection, and asset management. We are constantly updating our technologies to support our services, including a survey-grade LiDAR system and a mid-sized Matrice 200 Series drone. We provide engineering services for multiple markets including state agencies and municipalities, higher education, oil and gas, and private development including healthcare, hotel, recreational, residential, and senior living facilities. Stahl Sheaffer was ranked as a top design firm in the ENR Mid-Atlantic Top Design Firms list in 2018, 2019, and 2020.



## Personnel

Stahl Sheaffer has a staff of 115 individuals from which we can assign resources to meet timelines and design requirements, including civil and structural professional engineers (P.E.) and professionals licensed or certified as Autodesk Revit Structure Professionals, Certified Bridge Safety Inspectors (CBSI), Nationally Certified Tunnel Inspectors (NCTI), EIFS facade inspectors, construction inspectors, Professional Land Surveyors (PLS), Professional Geologist (PG), environmental scientists, GIS specialists, and sUAS pilots.

## Locations

We operate from a total of eight locations in three states, and our firm is licensed to operate in twenty-three states with engineers licensed in nearly every state in the US.

**State College, PA**

301 Science Park Rd, Ste 333  
 State College, PA 16803  
 (814) 689-1562

**Harrisburg, PA**

4431 N. Front Street, Ste 102  
 Harrisburg, PA 17110  
 (717) 510-7222

**Clearfield, PA**

800 Leonard Street, Ste 200  
 Clearfield, PA 16830  
 (814) 205-4012

**Selinsgrove, PA**

106 N High Street  
 Selinsgrove, PA 17870  
 (570) 374-4813

**Southpointe, PA**

6000 Town Center Blvd  
 Ste 215, Canonsburg, PA 15317 |  
 (724) 960-1111

**Soils & Materials Lab, PA**

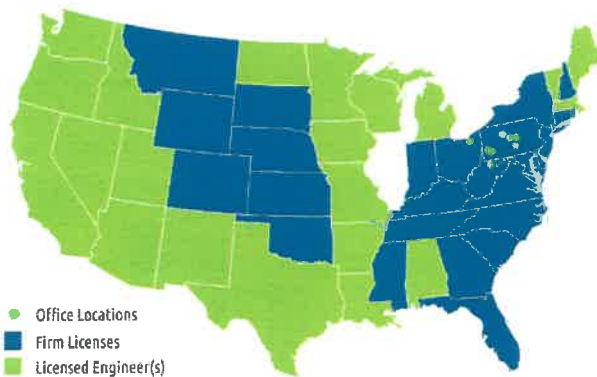
360 Euclid Avenue  
 Canonsburg, PA 15317  
 (724) 338-7853

**Canton, OH**

1401 S Main St, Ste 203  
 North Canton, OH 44720  
 (330) 794-5490

**Morgantown, WV**

250 Lakewood Center  
 Morgantown, WV 26508  
 (304) 381-4281



# Services

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## Site Engineering

Stahl Sheaffer provides a broad range of site development services including feasibility analysis, environmental reviews, site design, survey, traffic studies, structural engineering, regulatory permitting, utility coordination, erosion and sedimentation control design, storm water design, and construction inspection. As a representative of our client, Stahl Sheaffer provides a professional approach through all stages of the project delivery process, including planning, design, meetings, and construction oversight. We work closely with local and state agencies to resolve the many issues involved in moving a development process from design through construction. Services include:

- Site feasibility studies
- Environmental review
- Site layout & grading
- Access design and layout
- Storm water management
- Erosion & sediment control plans
- Regulatory coordination
- Land development plans
- NPDES permit applications
- Bridge & culvert design
- Retaining wall design
- Site lighting
- Perimeter fencing & retaining wall design
- Municipal meetings & review preparation
- Utility coordination and relocation

Land development and site engineering services are supported by In-house surveying capabilities, including Professional Land Surveyors and LiDAR technology. And we can provide construction management and inspection services, serving as the point of contact through project close-out.

## Geotechnical Engineering & Subsurface Investigations

Stahl Sheaffer specializes in Full Depth Reclamation (FDR) and Cold-in-Place Recycled (CIR) Asphalt designs to support roadway construction. Our services include sub-grade testing, embankment stabilization testing, and roadway coring, allowing us to recommend effective FDR and CIR mix designs and quality control monitoring during construction to ensure efficient soil stabilization. Stahl Sheaffer has a 5,000 sf, AASHTO re:source Accredited full service lab in Washington County.

- AASHTO re:source Accredited Testing of Soils, Aggregate and Asphalt
- Full-Depth Reclamation (FDR) Mix Designs
- Cold In-Place Recycled (CIR) Asphalt Mix Designs
- Pavement Design & Analysis
- Foundation Design & Analysis
- Slope Stability Analysis
- Roadway Cores & Dynamic Cone Penetrometer (DCP) Testing
- Moisture Density / Compaction Testing using the latest InistroTek Nuclear Gauges

Stahl Sheaffer creates customized reports for clients which include all the laboratory and/or field data generated or collected. Based on those results, Stahl Sheaffer delivers reliable site-specific recommendations. for each project.

## Building Structural Engineering

Stahl Sheaffer's Building Structures Group is experienced in the design of new construction, additions, and renovated spaces serving a broad spectrum of building uses and construction types including a full realm of structural materials. Project sizes range from support of new mechanical equipment or creation of openings for new shafts to multi-million-dollar, free-standing buildings. In addition to traditional structural consulting for design, our staff is skilled in structural assessments for buildings, including maintenance planning and development of construction documents for rehabilitation projects. Stahl Sheaffer commonly provides structural analysis and design for building-related elements such as access platforms and fall protection appurtenances, support towers for equipment and piping, underground tunnel and vault design, and anchor design for mechanical systems and equipment. We leverage technology as needed through our advanced use of three-dimensional analytical modeling and implementation of 3D laser scanning and detailed use of Revit on every project to create construction document packages from a three-dimensional model.

We pride ourselves on being an integral member of the design team from project inception through the completion of construction, using our depth and breadth of experiences to contribute to the design through innovative thinking and non-standard solutions resulting in economical, coordinated, and constructible project designs and documents. Our building structures group is founded on the principal of timely, concise, and accurate communication with our clients. Most importantly, each member of our group is cognizant that project success hinges on listening to and learning from each member of the team including the architect, building owner, fellow engineers, contractors, fabricators, specialty engineers, and product representatives.

Stahl Sheaffer's structural engineering department includes a staff of professional engineers and designers dedicated to building structures who provide expertise in:

- Feasibility and planning studies
- Design of new facilities
- Retrofit of existing components
- Rehabilitation design
- Construction shoring
- Construction administration & inspection
- Analysis of structural capacities
- Forensic investigation
- Historic preservation
- Design of new facilities
- BIM / 3D modeling
- Compliance upgrades
- Façade restoration
- Roof repair



## Testimonials & References

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### **Joe Kantz, Chairman Snyder County Commissioners, (570) 837-4207, Middleburg, PA**

"I am happy to recommend the services of Stahl-Sheaffer Engineering. After a bad experience with another Engineering firm, Snyder County hired Stahl-Sheaffer Engineering to design and prepare plans and bid specifications for a Parapet project on the County Courthouse. Ever since then, they have been the "go to" Engineering firm for the county. They have worked on a number of projects since that time and we continue to be very pleased with their responsiveness to our customer needs."

### **Bryan Yarnell, Allegheny Restoration, (724) 832-8209, Greensburg, PA**

"It is with great pleasure that we at Allegheny restoration endorse our recommendation on behalf of Stahl Sheaffer engineering. Over the last ten years, Stahl Sheaffer Engineering's team of skilled professionals has maintained a committed effort not only in engineering for the State College area, but the surrounding regions. Originating from a larger market like Pittsburgh, our company consistently works with new/different engineers and architects. Being that we work with so many, naturally we find those that excel at certain tasks more than others. We feel Stahl Sheaffer and their team are the total package. Engineering design, project management, on-site support, constant personable interaction, prompt and simple resolutions to problems, all reasons why we look forward to the opportunities to work with Stahl Sheaffer Engineering... efforts on the HUB parking deck and Beaver Stadium were among those that made our job, as a contractor, exponentially easier. Clear and concise drawings, simple to understand details, also most importantly knowing the region and its unique characteristics all play a role in understanding the problems that not only face the University but how those also impact the region. We believe that it is this effort by Stahl Sheaffer and their network of qualified individuals that shall continue to improve upon Penn State's already stellar reputation of excellence."

### **Kurt H. Coduti, P.E., Project Manager, Office of Physical Plant, (814) 863-4960, The Pennsylvania State University, University Park, PA**

"Over the past several years, Stahl Sheaffer Engineering has provided excellent professional engineering services from scoping to construction administration for the preservation of the parking decks at Penn State University... the team has done a great job of making sure maintenance needs in the parking decks are being addressed in the most cost efficient and effective manner."

### **Ron Kobelenske, Project Coordinator, Commonwealth Services, (814) 280-8792, The Pennsylvania State University, University Park, PA**

"I am the Project Leader for Commonwealth Services responsible for the Fall Protection improvement needs of the University's 28 Campuses and Research Centers throughout the Commonwealth, away from University Park. In this capacity, I have had the privilege to team with Stahl Sheaffer Engineering (SSE) to, assess risks, implement designs and administer construction on several projects. Aside from the excellent engineering services and extremely competitive fee SSE is widely known for and has consistently delivered for me, I'm most impressed by the design development methods SSE implements to reach a successful final design, especially when it comes to working with numerous stakeholders....SSE is at the top of my list to contact for my Fall Protection project needs. Finally, I would be pleased to speak about my experiences with Stahl Sheaffer Engineering."

# Maclin Hall Dormitory

## Montgomery, West Virginia

### Owner

WVU Institute of Technology

### Size

53,900 SF approx.

### Construction Cost

\$6 million

### Project Architects-Engineers

Mckinley Architecture and Engineering

### Project Architect

Thomas Worlledge, AIA, LEED AP BD+C

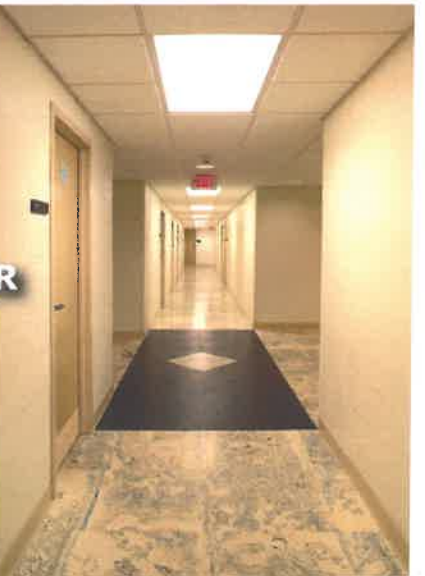
### Contractor

Wiseman Construction

Mckinley was selected to renovate the dorm and bring it up to current standards. A comprehensive renovation to the historic Maclin Hall dormitory on the campus of WV Tech in Montgomery, WV. The \$6 million project included redesigning the 142 dorm rooms and RA bedrooms in this 4-story building, including new finishes and furnishings, paint, flooring, lighting, data, and much more. In this 53,900 SF building, we also brought it up to current codes and ADA compliance, replaced the entire HVAC, lighting, fire protection, plumbing, data systems, shared areas, new roof, and restoration of the exterior, added a theater room, exercise area, laundry room, studies, computer rooms, tv rooms for video games, student commons areas, and lounges. Included in this renovation was the replacement of the elevator, which had to be added to the inside of the building to meet the current accessibility law and to facilitate the movement of furniture and equipment throughout the building. We also completely regutted every restroom and provided new shower facilities. On the ground floor, there were 5 restroom/shower renovations; on the upper floors there was 2 communal restrooms/showers per floor, and the 8 suites per floor each had their own separate restroom. There were 35 total restroom renovations, and we brought the building up to ADA compliance. This project had two fast-tracked aspects to it; there was a design time of only 1 month, along with a construction time of only 5 months. This project was fast-tracked throughout the summer of 2007, so the building could be occupied by students for the start of the 2007-2008 school year. Even with this extremely short timeline, we were still able to bring the project in under budget. By careful planning we were able to meet all of the ADA requirements, save the client the cost of reroofing, and bring the building up to the standards required for a modern dormitory.



BEFORE and AFTER

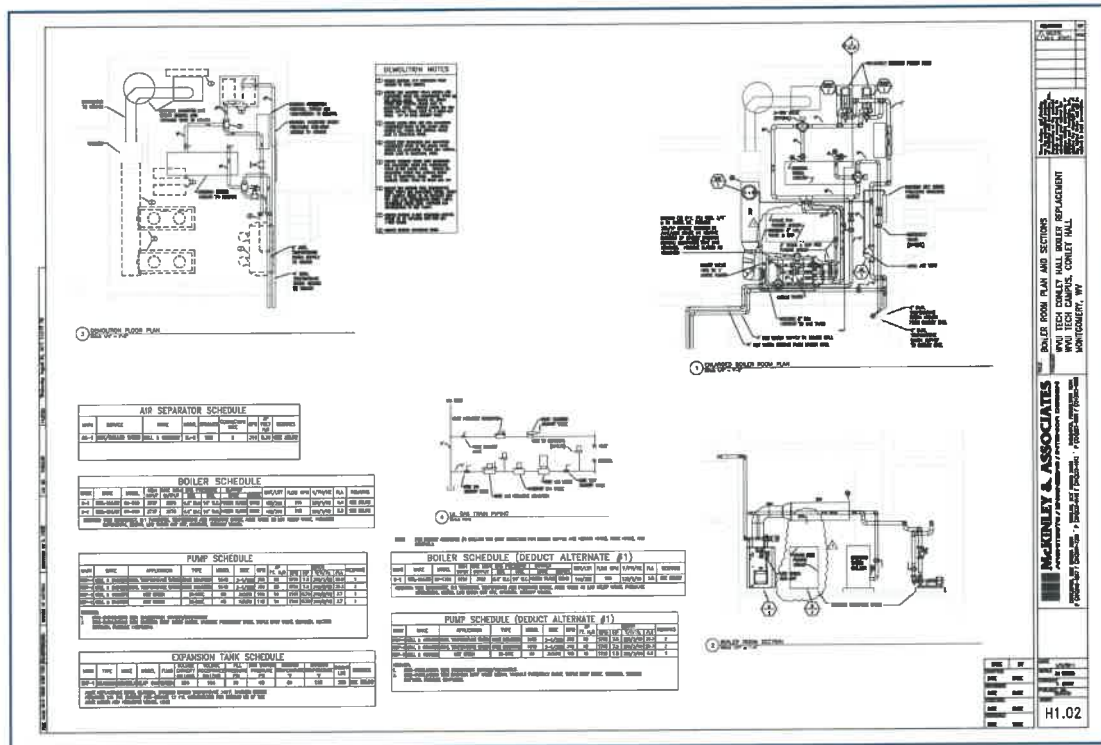


# West Virginia University's Institute of Technology Maclin Hall Dormitory

From working on Maclin Hall, we have drawings of the building.



We also have partial plans of Conley Hall (shown is the boiler):





# Building 55 West Virginia State Office Complex



## Logan, West Virginia

### Owner

State of West Virginia

### Size

52,300 SF approx.

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Thomas Worlledge,  
AIA, LEED AP BD+C, REFP

### Contractor

Massaro Corporation

### Commissioning Agent

Iams Consulting, LLC

This new 5-story West Virginia State Office Complex underscores its major role in the development and revitalization of downtown Logan by uniting office space for 127 employees for 6 State agencies under one roof, whom were once scattered throughout the city. The agencies include the Department of Health and Human Resources, Division of Rehabilitation Services, the Offices of the Insurance Commissioner, State Tax Department, WorkForce West Virginia, and Workforce Investment Board. The 52,300 SF building provides **current technology, flexibility for future growth, and security features for existing and future tenants.** In March 2014, this project became **LEED Certified.**

There were secure exterior and interior doors, with various hardware and glazing. The exterior doors and storefront included aluminum, galvanized hollow metal, or steel (garages) doors and frames materials. The interior doors are mainly wooden with hollow metal frames. Many are fire rated for 60 or 90 minutes.

At the request of the Owner, the building was designed to be energy efficient "green" and meet sustainable design goals. To help achieve this, a tight building envelope was created with closed cell foam insulation and thermal efficient windows. The windows are both energy efficient and secure. One of the unique features of the building is the daylight system. The design takes clues from older buildings that were designed to let daylight penetrate deep into the buildings by necessity. To enhance this effect we added "light louvers" which are devices that redirect daylight to the ceiling and diffuse natural light throughout the space. The open offices were placed around the exterior of the building and the enclosed offices along the interior wall so more of the tenants receive quality light. In addition, interior windows allow the daylight to pass to the center offices.



View Showing Both Natural Daylighting with Light Louvers, as well as Light from Bulbs





# WV Department of Health and Human Resources Office Building

Wheeling, West Virginia

## Owner

WV Department of Administration:  
Real Estate Division

## Size

56,783 SF

## Construction Cost

\$2 million

## Project Architects-Engineers

McKinley Architecture and Engineering

## Project Architect

Thomas R. Worlledge, AIA, LEED AP BD+C, REFP



BEFORE



and AFTER



We were asked by our client to **renovate** a former car showroom and service area into an office building (now called the Mary Margaret Laipple Professional Building). The first fit-out includes space for the **West Virginia Department of Health & Human Resources'** new Ohio County office. The building was concrete and designed for cars; not people. The first challenge was to remove a large ramp that connected two floors of the building and level the concrete floors. We worked with our client to fit the DHHR's program into the space and maximize the use of the space. We had to work around the existing structural walls and columns and provide fire escapes at the different floor levels of the floor structure. The project was built in **three phases: the exterior was completed first (including new doors, windows, skin, etc.)**, next the interior (**including secure doors and windows**), and then the parking lot so the project could be fast tracked to meet the Owner's 2013 move-in requirements. The building was divided into three distinct spaces: **secure office space, Client space, and training areas. The Office space is secured from the client area by an access control system.** The training space was designed to be stand alone for use by other State staff training. **The showroom windows were mostly in-filled because of the sensitive nature of the materials in the building, but windows high on the wall provide natural daylight in the space.** We worked with the local and state code officials to **bring the building into compliance with the current building and fire codes and provide access to all of the occupied areas of the building.** We worked with the owner of the building to allow a separate entrance for future tenants of the upper two floors and to keep the renovation cost to a minimum while providing a state of the art facility for the DHHR's use.

Allied Plate & Glass was hired for the Phase I secure exterior doors and hardware (as well as windows). There are exterior doors at 3 locations, which are heavy-duty hollow-metal doors and frames. There is front glaze aluminum storefront framing for 3 entrances, 6 exterior fixed frame windows, and 4 sections of continuous fixed frame windows. This included 112 pieces of glass (both tempered and annealed) in the doors, frames, and windows. The entrances have door frames that are 2" x 4-1/2" thermally broken front glaze transom door frames with front glaze sidelites. The doors and sidelite glazing are 1" overall thickness insulated *tempered* units, where the transom glazing is 1" overall thickness insulated *annealed* units. The entrance frame size at 101B is 100" x 129", at 179B is 136" x 129", and at 125A is 138" x 129". All doors are 72" x 84" pairs with continuous hinges and rim panic devices, wide stile doors, 1-3/4" thick with 10" bottom rails & 6" cross-rails. There are two sets of custom hardware, which includes head receptors and aluminum sill flashing with end dams.

Deluxe Doors was hired for the Phase II secure interior doors, windows, and hardware. This included 80 interior door openings of knocked down primed steel frames, red oak clear pre finished wood doors and hardware and glazing. Furthermore, there are closers and reinforced frame heads to 17 doors, passage lever sets to 2 doors, and electrified trim to 2 doors. The video conference room includes a hollow metal, knocked down, primed frame with one way mirror. The reception window (*shown to the right*) includes aluminum tracking with security glass. The door contact and reader interface was installed by a security contractor.

# Open-Ended Contract West Virginia State Police

## Owner

West Virginia State Police

## Construction Cost

These projects were completed under 3 multi-year open-ended agreements

## Project Architects-Engineers

McKinley Architecture and Engineering

McKinley Architecture and Engineering have completed design services on **dozens of renovations, multiple new detachments, and several additions** on West Virginia State Police detachments throughout the State. For all 72 facilities throughout the State of West Virginia, we examined the buildings, completed an assessment of needs, and then determined the future needs for each facility. Some buildings have **E911 Centers** which have a higher level of security. We understand the need for security throughout the entire buildings, especially where the public enters the detachment. There are various levels of secure windows and doors. The windows are usually bullet-proof glass, some are tinted and insulated secure-lined glass, some allow daylight but also obstruct exterior vision (looking in). At the WVSP Academy, we designed a shooting range control center with a watch tower that is windowed on three sides with full view of the range (with insulated & safety glass), as well as a staging area that is enclosed with a glass wall toward the range. In addition at the WVSP Academy, we renovated 3 buildings and includes all new windows which are both energy efficient and secure, and completed ADA renovations. In addition, we design multiple energy-efficient and sustainable design aspects to the various buildings, such as the Logan Detachment uses a daylight clearstory to let natural daylight into the internal squad and conference rooms (seen to the bottom right). Typically we use block for force and bullet protection; but in an existing building where we have to use gypsum board partitions we would use fiberglass ballistic panels and expanded metal mesh behind the gypsum board, and on the inside of the wall we would use plywood under for extra blast protection. Providing security below the access floor can be addressed by using expanded metal mesh; allowing the wiring to pass through, but limiting access to the space above. We have extensive experience designing secure interior and exterior doors and associated access control systems on dozens of WVSP Detachments.

Architectural and Engineering design for **new addition and renovations** to the detachment in **Pendleton (Franklin)**. The **3,170 SF addition** was for a **911 Center (E911)** that included 2 offices, a communications room, a transmitter room, a kitchen and a vestibule. The **3,840 SF of renovations** included **providing security for the secretary, replacing door hardware to more secure hardware, a bunkroom, ADA upgrades, exit and emergency lights, and an emergency generator to name a few.**



A new 3,465 SF **Mason County Detachment** in Point Pleasant includes **secured/separate access to the main WVSP areas** which has a squad room with gun storage, Sergeant's office, evidence room, additional/separate evidence lockers, interview room, kitchen, day room, restrooms, file room, garage, and secretary's room with view of commons area. The commons area includes a **separate access vestibule**, lobby, restroom, conference room, mechanical room, and an additional storage area.



The new 13,000 SF **Logan Detachment** is now the Back-Up Data Center for the WVSP Headquarters facility in South Charleston; therefore, it needed much of the same **security, emergency and power distribution** systems since the facility must remain in operation 24/7. We designed **secured entrances, doors and windows; a 350 kW backup generator for the entire building; an uninterruptible Power Supply (UPS) room; raised access floors; and more.** There is a **daylight clearstory window system** to let natural daylight into the internal rooms.





# Orrick's Global Operations Center

## Wheeling, West Virginia

### Owner

Orrick, Herrington & Sutcliffe LLP

### Size

88,000 SF approx.

### Construction Cost

\$8 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

David B. McKinley, PE

### Contractor

John Russell Construction

This 100 year old warehouse was adaptive reused and **renovated** to create some of the most creative office space in the State. This four-story, 88,000 SF former historic warehouse is now a **high tech "back office"** for a **major multinational company**. The greatest challenge was to convert the 100 year old once very industrial wood-framed building into a modern "Class A" office facility while retaining the historical heritage of the structure. This **\$8 million** dollar project won a **West Virginia AIA Merit Award**. The entire exterior shell was designed and constructed in **6 months** to attract a new tenant, which included **reconstructing 120 dilapidated steel windows and glazing**. It quickly became the home to the **international law firm Orrick**. This building soon became the company's Global Operations Center; no other firm has a **24/7 facility** that rivals it. **It provides the firm and its clients with a central business infrastructure that delivers comprehensive and reliable support services around the world, and around the clock; therefore, security was a major concern.**

**Security for the facility was to be comparable to the rest of the firm's nationwide facilities; however, one of the challenges we had to overcome was creating a design which did not appear to be fortress-like. The security system features we had to incorporate, understand, and design by included: a card access system that allows single card with multiple-levels of access programmed into that card, with card readers at the front door, server rooms and network operations center, elevators, loading dock, stairs, and other sections; there is not a full time receptionist; glass break and motion detectors on the ground level; an intercom at the front door; and finally, security cameras are placed at the loading dock, rear parking lot, and front door.**

We designed the interior and exterior doors to comply with various levels of ANSI 250.8 for level and model, ANSI A250.4 for physical-endurance level, NFPA 80 for clearances for fire-rated doors, and other relevant codes. The exterior doors, panels, and frames were fabricated from metallic-coated steel sheets. The exposed faces of the interior doors and panels, including stiles and rails of nonflush units, were fabricated from cold-rolled steel sheet. Reinforce doors and frames received surface-applied hardware. For glazing, there are nonremovable stops on outside of exterior doors and on secure side of interior doors for glass, louvers, and other panels in doors, as well as screw-applied, removable, glazing stops on other side of interior doors.



BEFORE and AFTER

**McKINLEY**  
ARCHITECTURE + ENGINEERING

# Braxton County Senior Center

## Gassaway, West Virginia

### Owner

Braxton County Senior Citizen Center, Inc.

### Size

13,965 SF approx.

### Construction Cost

\$2.8 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Christina Schessler, AIA, LEED AP BD+C

### Contractor

Flint Construction Co.

**Architectural/Engineering design** for an addition and adaptive reuse/renovation of a former steak house restaurant into a **rustic-looking** multi-use senior citizen center in Gassaway, WV. The project involved the total renovation of existing building, a single story addition, site grading and drainage, landscaping improvements, renovation and expansion of parking areas (approximately 65 spaces), gravel overflow lot, and an automatic sprinkler system. Included in the structure are a community room, exercise room, arts & crafts room, audio video room, conference room (used weekly for veteran meetings), offices, kitchen, and much more. The 3,685 SF Community Room has the ability to hold 526 persons, or have dining for 246 persons for assembly with less concentrated use. The facility was designed to support events within the center, such as weddings, receptions, bingo, meetings, and much more. The center also supports a Meals On Wheels Program. **We renovated restrooms and had fit-outs. These included employee lavatories, public toilets, and assisted shower/toilet. These were built to be ADA Compliant/ handicap-accessible. There were new plumbing fixtures and toilet partitions, primary door and frame, all wall-mounted urinals, toilet accessories, floor tile, drain system, wall tile, and much more.**



BEFORE



and AFTER





West Virginia University

# University Police Building

## Morgantown, West Virginia

### Owner

West Virginia University

### Size

11,768 SF

### Construction Cost

\$450,000

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Thomas R. Worledge, AIA, LEED AP BD+C, REFP

McKinley Architecture and Engineering assisted West Virginia University in renovating a new space for the University Police Department. First, a site visit was conducted in order to determine the physical condition of building regarding building code violations, fire and life safety issues, and American with Disabilities Act (ADA) compliance. The main purpose of this study was to determine the areas of code violation as they pertain to life, **safety** and welfare of the inhabitants. An Architect and Engineers visited the site and documented extensive notes and photographs were taken in order to best evaluate, draw conclusions and formulate recommendations.

The design of this three-story building included **security walls, force protection, and ballistic materials that were built into the existing gypsum board walls to provide security for the dispatch/emergency communication center. The waiting area required bullet/explosion proof drywall and glass windows; the transaction windows have a bullet resistant standard stainless steel frame, glazing, talk window, and pass thru. Also, a double door was added walking into the waiting area. Only exit/entrance doors will be on card swipe to allow entry into the building; all other doors are lock set with key. The dispatch room has card swipe access. There is an overnight evidence room off the existing double doors; this room has electronic lock and a different card swipe into the Secure Evidence. The next room is Fire Arms and storage; this room has card swipe and floor to deck above for security reasons, and the storage room also has a standard lock set for door. The front doors have card swipe access to the upper floors.**



BEFORE



and AFTER



BEFORE and AFTER

**McKINLEY**  
ARCHITECTURE + ENGINEERING

West Virginia University

# State Fire Training Academy

## Jackson's Mill, West Virginia

### Owner

West Virginia University

### Size

25,752 square feet including  
the 8,300 sq. ft of the Arena

### Construction Cost

\$4.5 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Christina Schessler, AIA, LEED AP BD+C

The \$4.5 million WVU State Fire Training Academy is located near the Jackson's Mill 4-H Campus in Lewis County, WV. Every year, WVU Fire Extension Services uses this one-of-a-kind facility to train more than 2,000 volunteer and professional firefighters and first-responders from around the state and nation. Because of the proximity to this historic site, the design directive given by the Owner was to **blend into the rural community**. The exterior brings to mind a **barn** set into the sloping terrain in an agricultural setting. The Users we have spoken to enjoy teaching in our facility, and it contextually "fits" into the Campus and local agricultural community. There are 2 major components to the 25,752 SF building; the first is the multi-use Classroom Wing which is comprised of classrooms, offices, conference, dining and more. The second component, the 8,300 SF Arena, is an all-weather interior training facility. Having a clear interior height greater than 30' allows the full extension of authentic fire training apparatus, and for various types of vehicles and hands-on programs. There is a 1900+ SF Men's restroom/shower/locker room and a 1100+ SF Women's restroom/shower/locker room on the ground floor. The Owner requested large, 24" wide lockers, and there are 12 lockers in the Men's Locker Room and 7 in the Women's Locker Room. The Men's room also includes 10 showers (including 1 ADA roll-in shower), 5 urinals, 4 stalls (including 1 ADA), and an equipment storage room. The Women's room also includes 4 showers (including 1 ADA roll-in shower), 4 stalls (including 1 ADA), and an equipment storage room. There are additional ME's and Women's restrooms on the first floor, as well.



The Men's room also includes 10 showers (including 1 ADA roll-in shower), 5 urinals, 4 stalls (including 1 ADA), and an equipment storage room. The Women's room also includes 4 showers (including 1 ADA roll-in shower), 4 stalls (including 1 ADA), and an equipment storage room. There are additional ME's and Women's restrooms on the first floor, as well.





# Union Educational Complex

## Mt. Storm, West Virginia

### Owner

Grant County Schools

### Construction Cost

\$1.6 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Christina Schessler, AIA, LEED AP BD+C

### Contractors

Harbel Construction (Phase I)

G & G Builders, Inc. (Phase II)

The 65,673 SF Union Educational Complex is a PreK-thru-12th grade facility accommodating approximately 270 students from three schools: Union Elementary (Pre-K-4), Union Middle (5-8), and Union High School (9-12). This \$1.6 million **renovation and addition** project involved 2 Phases of work. This included **3,500 SF locker room/shower/restrooms renovations, 300 SF of additional renovated restrooms**, a new ADA entry, furnishings and finishes, **plumbing, HVAC, new security doors and windows**, water barrier application, drainage, electrical, lighting, a new building skin/facade, school-wide fire alarm protection system, new interior ADA ramps, gymnasium floor replacement and painting, and more. Overall building improvements combine design flexibility and high performance, which involves form, function, and **security** features. For example, the windows are energy efficient and allow natural daylight to enter, but at the same time also obstructs exterior vision (looking in).

There was also a **3,500 SF of locker rooms/shower/restrooms renovations**. These areas included **boys/girls showers (6 each, including 1 roll-in handicap shower with folding corner shower seats), wood repairs, systems upgrades, walls and ceilings painting, floors and ceiling tiles, ADA compliance, boys toilet (2 urinals & 1 ADA stall), girls toilet (3 stalls, 1 is ADA accessible), boys office toilet, girls office toilet, toilet partitions and accessories, vanities, 200 lockers, benches, shelving, and more.**



# District-Wide Construction Program +

## Hancock County, WV - county-wide

**Owner**  
Hancock County Schools

**Project Architects-Engineers**  
McKinley Architecture and Engineering

**Coordination Architect**  
Gregg P. Dorfner, AIA, REFP

McKinley Architecture and Engineering has completed over \$71 million in projects over the years for Hancock County Schools. Most recently, multiple projects were completed as a part of a \$56 million District-Wide Construction Program (funded with a \$37 million local bond vote supplemented with \$19 million from WV School Building Authority). This bond call is a result of the Comprehensive Education Facilities Plan (CEFP) that was developed by our firm. The Program included a new Weirton Elementary School (\$26.5 million), A.T. Allison Elementary additions and renovations (\$5.3 million), New Manchester Elementary additions and renovations (\$6.2 million), Oak Glen Middle wrestling room (\$784,675), Oak Glen High renovations (\$1.7 million), Oak Glen High Multi-Sports Complex/Stadium (\$4.63 million), Weir Middle School renovations (\$669,486), Weir High renovations (\$2.4 million), Weir High Multi-Sports Complex/Stadium (\$4.8 million), Senator John D. Rockefeller IV Career Center HVAC project (\$1.1 million), and 3 former elementary school demolitions. We incorporated multiple energy efficient "green" components into these projects, such as low flow plumbing fixtures, energy monitor on the main electrical gear, dimmable lighting with occupancy sensor control, and T-5 & T-5 HO fluorescent bulbs used as primary light sources throughout school to name a few. **There were several restroom renovations in many schools. Several projects had HVAC upgrades. The entire \$56 Program was less than 1% in total non-elective change orders!**



Several of the buildings were brought up to today's standard of school safety and security. This included a redesigned secure main entrances, new exterior doors and interior doors with insulated security glass, the addition of Man Traps at every public entry point, security cameras and video monitoring of all access points, door position monitoring, new security windows, and a building-wide access control system which controls and records all access to the building.

One of the District-Wide Construction Program projects was the addition/renovation project to the Allen T. (A.T.) Allison Elementary School (seen to the left). Improvements include restroom upgrades, ADA compliance, HVAC, plumbing, electrical, life safety, security, etc. The 56,000 SF building was brought up to today's standard of Security. There is 1,012 SF of renovated restroom space including a total gut and rework of piping and new fixtures to fit the new design; 730 SF of refit restroom space which get replacement

of flush valves, toilet seats and faucets, stop valves and p-traps; as well as 113 SF of new restroom space where we extended piping to serve supply and waste from existing restrooms. These are all now ADA Accessible. In addition, there are new exhaust fans, 6 new floor drains added to serve new mechanical equipment throughout the building, and more. Furthermore, all of the new faucets and flush valves are automatic operation.



Before and After



Ohio County Schools

# Madison Elementary School

## Wheeling, West Virginia

### Owner

Ohio County Schools

### Size

74,820 SF approx.

### Construction Cost

\$4.6 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Contractor

Climatech, Inc.

The \$4.6 million Madison Elementary School 2-phased renovation is **one of our many projects** we have completed for Ohio County Schools; our relationship has been **on-going since the 1980s**. The 74,820 SF school was built in 1916. It is now a Contributing Structure in the Wheeling Island Historic District on the National Register of Historic Places, so our design had to respect the State Historic Preservation Office standards.

The original phase of renovations and upgrades included HVAC, electrical and power distribution, plumbing, fire safety, new security doors and frames, new pipe chases, brick and concrete masonry infill which matched the existing, new balcony railings in the auditorium/gymnasium, new classroom bookcases, lounge casework, kitchenette, cabinetry, new ceilings, acoustics, lighting, and painting among others. The HVAC replacement was a major goal of the project; the new **energy efficient** system included **relocating the Boiler Room to the main level, to bring it out of the flood plain.**

Furthermore, the original design and construction came in just under budget, and we had available contingency and the project had minimal change orders; therefore, we were able to apply funds to other needs and the second phase. We worked with the client and contractor, and quickly designed basement restroom renovations which included ADA compliance, toilet partitions, drainage, epoxy & ceramic floors, lighting, and more. The ceiling grid was chosen not only for aesthetics, but to also permit accessibility to the ductwork. Our coordination and quick design led to an easy construction transition to this phase.

Both phases of renovations and restorations were completed while school was in session. The entire project involved close coordination with the State Fire Marshal.



BEFORE and AFTER

**McKINLEY**

ARCHITECTURE + ENGINEERING

# Security Doors and Windows

## Wetzel County, WV - county-wide

**Owner**  
Wetzel County Schools

**Project Architects-Engineers**  
McKinley Architecture and Engineering

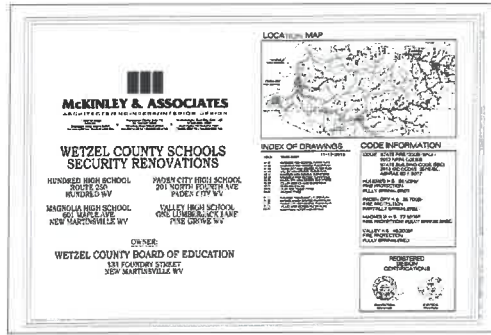
**Coordination Architect**  
Patrick J. Rymer, AIA, ALEP/CEFP

McKinley Architecture and Engineering recently completed 9 projects for Wetzel County Schools of roughly \$7 million dollars in upgrades, achieved substantial completion on time or early, and were on budget with less than 1% Change Orders.

For one project, we completed County-Wide School Access Safety Plan updates including preliminary floor plans and elevations, as well as budget estimates, for safety and security renovations/additions to every school in Wetzel County from elementary, middle, high, and vocational technology facilities. From this study McKinley Architecture and Engineering and Wetzel County has further prioritized the order of renovations, and recently completed the first construction phase of this county-wide undertaking. All 4 High School (Hundred, Magnolia, Paden City, & Valley) facilities just received safety and security enhancements, including door and window replacements with security glazing and frames, access controls, video intercom and surveillance systems, door position and latch monitoring, fire separation, vandal resistant hardware, and other security enhancements. There were various electrical requirements (such as for access controls, power supply, wiring), as well as

mechanical work (such as for duct connections at the louvers). These 4 projects were \$1.25 million total budget. Future phases of construction will include all of the above mentioned items as well as entry mantrap additions to other school facilities around the county.

For another project, we completed a 4 Elementary School Window Replacement Project, \$918,000 total budget, which includes replacement of all county elementary schools' aging windows [at Paden City, Long Drain, Short Line, & New Martinsville] with new units that include energy efficient, forced entry resistant, laminated safety glazing. Work includes fire rescue windows at schools without fire protection system and alarm notification. Buildings now meets present day Fire & Life Safety Code Requirements. Upgrades improved Building Security, Energy Efficiency, and Interior Building Acoustics. The total county window replacement project came in on time and on budget. For one school example, at Long Drain, we replaced single-pane windows that were mounted on the face of exterior block wall. The new window upgrades greatly enhance the building's internal environment.





# Project Experience

## EXPERIENCE WITH PUBLIC SAFETY / EMERGENCY AND GOVERNMENT SERVICE FACILITIES

Stahl Sheaffer has completed projects for a variety of public and government facilities and other similar structures including fire stations, healthcare buildings, municipal structures, labs, and maintenance facilities.



### Centre County Public Safety Training Center (CCPSTC), Centre County, PA – Structural Design for New Fire Station No. 82

Stahl Sheaffer served as the Structural Engineer of Record for the new storage building at the Centre County Public Safety Training Center (CCPSTC). Stahl Sheaffer designed a structural steel mezzanine within the Pre-Engineered Metal Building (PEMB) and coordinated the detailing and load requirements with the PEMB manufacturer to avoid a double structure along the exterior walls. Stahl Sheaffer also designed the slab-on-grade for fire-truck traffic and detailed the foundations for the reactions provided by the PEMB Engineer. A deep foundation system including grade beams and

drilled piers was deemed to be the most appropriate system for the project site. The design was completed with several add-alternate bays to allow the construction budget to be maximized. The full building design was selected after bidding.

### Snyder County Courthouse Rehabilitation, Snyder County, PA



Stahl Sheaffer Engineering provided numerous engineering services for the Snyder County courthouse with an emphasis on rooftop and parapet rehabilitation. Stahl Sheaffer performed an evaluation to determine and prioritize maintenance and renovation needs for the historic structure located in Middleburg, PA. The evaluation assessed the rooftop conditions, masonry façade, windows, exterior wood surfaces, space needs, adjacent structures, parking, exterior lighting, interior lighting, backup generator maintenance, and mechanical system maintenance. The project led to the following maintenance projects that were designed by Stahl Sheaffer:

- Exterior Woodwork Painting
- Roof Replacement
- Metal Roof Repair & Coating
- Masonry Parapet Reconstruction
- Conversion of Library
- Demolition of Adjacent Office Building
- Security Enhancements
- Backup Generator Maintenance
- Energy Efficient Lighting Project
- Parking Lot Paving & Lighting

Stahl Sheaffer also provided design and construction administration for the conversion of the County law library into a new meeting room.

## WV State Capitol Dome 360° Scan Site Engineering, State of West Virginia, Kanawha County, WV

Stahl Sheaffer collected nearly two billion data points of the inside of the West Virginia State Capitol Dome to provide historically accurate rehabilitation data for construction of a moisture intrusion repair project. High-resolution 3D point cloud and 360-degree imagery was captured and processed. The scanning covered the entire circumference of the dome area which is approximately 230 feet. Scanning was performed utilizing a FARO Focus 330X HDR phase-based laser scanner on a high-resolution setting. Data collection consisted of high-resolution colorized point cloud data that will be used to document the precise elevations and extents of each unique plaster banding element with reference points from locations that will remain in place such that all components can be reinstalled in their existing location. The reference points consist of non-destructive mark, tags, stickers, and tape to ensure the points would last for the duration of the project. Location and radius of the existing walls and reference points were established so the walls can be replicated in their existing locations.



## New Maintenance Facility Design, The Pennsylvania Turnpike Commission, South Fayette, PA - Structural and Site Engineering

The Pennsylvania Turnpike Commission's new maintenance facility project included the design of all buildings and infrastructure necessary to construct a fully-unctional, highly-efficient, and sustainable highway maintenance and vehicle maintenance facility. Stahl Sheaffer provided structural building engineering services for a office and maintenance building housing offices, maintenance bays and a truck wash bay, a warehouse/storage building, a pump house and generator building, and support facilities including material storage and a free-standing cantilevered steel framed fueling island roof. The primary maintenance facility building included the design of 57-foot long custom engineered and detailed double pitched roof trusses supporting an overhead crane over the maintenance bays. The main building also housed a hazardous material containment pit, accommodations for vehicular maintenance lifts and wash equipment, and an elevated mechanical mezzanine. Walls and roof framing were designed to accommodate large translucent wall panels in the maintenance bays to provide additional natural lighting.



As part of a team, Stahl Sheaffer also managed the design effort for the site engineering, including the County and Township land development submissions. The project involved site layout, grading, stormwater management, landscaping, and utility service design for the nine-acre maintenance facility. Work also included coordinating with the Pennsylvania Turnpike Commission to complete facility layout, grading, drainage design, utility connections, erosion control, and contract administration.



### City of Pittsburgh Fire Station Interior Remodel, Pittsburgh, PA – Interior Remodel

Stahl Sheaffer was recently selected as a subconsultant to provide design services for the interior remodel of several fire stations in Pittsburgh, and an addition to Fire Station #19. Services include structural evaluations, review for new HVAC support and general details for ADA upgrades as needed, assistance for stair design implementation at project sites as required, and design and detailing for building additions.

### Clinton Township Volunteer Fire Department, Montgomery, PA – Foundation Stabilization

This project for the Clinton Township Volunteer Fire Company required the rehabilitation of an existing concrete foundation and the design of an integral grade beam slab due to excessive settlement and structural distress. Stahl Sheaffer assessed the settlement prior to implementing a micro-pile and underpinning bracket support system. This restoration included exposing the foundations experiencing settlement and providing proper anchorage between the underpinning brackets and existing concrete footings. Micro-piles were also implemented to stabilize the new grade beams and concrete slab. The urgency of this project required a responsive design, where Stahl Sheaffer delivered by producing construction documents within a few weeks of being awarded the project.



### American Refining Group Lab Addition, American Refining Group Lab, Bradford, PA - Structural and Site Engineering

Stahl Sheaffer Engineering was part of a Design-Build team in partnership for the approximately 7,500-sf lab addition.

The structure is a combination load bearing masonry structure (exterior walls) and steel frame (interior column line) supporting a traditional steel framed flat roof with metal deck and bar joists. A steel-framed exterior canopy bearing on steel columns created a secure location for exterior storage. The floor is slab-on-grade with standard shallow spread foundations. Slab-on-grade is designed to accommodate equipment and traffic for the processes planned within the space. Interior revisions to the existing facility included new wall openings for doors and ductwork, and the design of a jib crane supported on an existing elevated floor for material handling.

Stahl Sheaffer provided site and structural engineering for this project. Site amenities included an underground storage tank for waste materials from the laboratory testing processes, site paving, and vehicular routing including tanker trucks on the restricted site area. The site was designed to accommodate the owner's needs and processes. Stahl Sheaffer designed the building structure to accommodate the local environmental loadings, equipment and process loading, and user-induced loads.



### **Pottsgrove Fire Station, Pottsgrove, PA – Site Development**

Stahl Sheaffer performed site engineering for a fire station and social hall in the village of Pottsgrove, Northumberland County. Site plans included details for a new parking lot, concrete apron and sidewalk, entrance drive, and utility connections. A stormwater and an erosion and sedimentation control plan was developed including details for stormwater infiltration, above and below ground detention. Specifications for construction were provided by Stahl Sheaffer.



### **Reedsville Fire Company, Reedsville, PA – Structural Engineering**

Stahl Sheaffer completed structural engineering services from design through construction for a new 15,000-SF building to house the Reedsville Fire Company. The design includes foundations for support of the pre-engineered metal building with slab-on-grade throughout, a second floor partial mezzanine framed using light gauge steel bearing on cmu and light gauge steel walls, and metal plate connected wood trusses bearing on wood stud walls to create an exterior entry vestibule. This project presented unique challenges due to material and construction changes throughout the design process as dictated by the owner based on contractor recommendations, the coordination of the mezzanine framing with the PEMB, a masonry water table, and the incorporation of multiple different construction materials in the final design (masonry, steel, wood, and light gauge framing).

### **William Cameron Engine Company, Lewisburg, PA – Feasibility Study**



Stahl Sheaffer provided site engineering and structural services to determine the most prudent option for renovations and additions to the existing engine company. The study included an evaluation of three options each investigating site layout and grading, parking lot design and layout, stormwater management, erosion and sedimentation control plan requirements, site landscaping and lighting, highway occupancy permit status and/or needs, and sewage planning module requirements.

### **Port Trevorton Fire Company, Union Township, PA – Structural Design**

Stahl Sheaffer was selected as the design engineer for a 3,700-SF building addition to the Port Trevorton Fire Company. Stahl Sheaffer designed the foundation size and reinforcement as well as the wood framing for the metal walls and roofing. The mechanical, plumbing and electric design included plans for a radiant heat floor slab, and locations for the sanitary sewage line, water supply line, lighting and air drops. Stahl Sheaffer also provided a quality assurance plan for construction inspection.

### **William Cameron Engine Company No. 1, Lewisburg, PA – Ambulance Garage Conversion**

Stahl Sheaffer provided structural engineering services for the William Cameron Engine Company No. 1 facility in Lewisburg. This project involved the conversion of three openings of the ambulance garage into two wide openings, including the demolition of two CMU columns and design of new headers/lintels and columns for increased openings. Stahl Sheaffer performed code-based analysis to determine member forces and reactions under wind, snow, and other applicable loads. Building design criteria was based on the 2009 International Building code and ASCE 7-05, minimum design loads for buildings and other structures as well as local code requirements. Stahl Sheaffer also reviewed basic material submittals and shop drawings for compliance with contract drawings and design intent. Further construction administration and/or testing services are beyond the scope of this project.

## **Borough of State College Maintenance Facility, State College, PA – Site Study & Stormwater Management Design**

The Borough of State College required various site improvements and facility expansions for its municipal facility, primarily to address existing stormwater management issues and lack of interior storage space for equipment and materials. Stahl Sheaffer conducted a site analysis and designed a stormwater management plan to reduce the site's proneness to flooding during large runoff events. The design included upgraded utilities, stormwater management facilities, and replacing and relocating various structures within the site.



## **Rivesville Volunteer Fire Department, Rivesville, WV**

Stahl Sheaffer provided surveying services for the Rivesville Volunteer Fire Department. Tasks included a boundary survey, in which Stahl Sheaffer performed preliminary courthouse research of the site and all adjoining properties. Deeds and plans of record were plotted and compiled to assist with boundary determination.

## **Penn Building Renovation, Altoona Blair County Redevelopment Corp., Altoona, PA – Structural Engineering**

Stahl Sheaffer Engineering provided structural engineering services for the renovation of the Penn Building, constructed in 1922, to be commercially leased to The Pennsylvania State University. The basement of the structure extends outside of the footprint of the building above to the curb of the street. Steel framing supports cast-in-place concrete which forms the base for the sidewalk in front of the building. A large concrete beam supports the three-story façade wall above. Water infiltration led to severe corrosion of the steel framing as well as the reinforcing within the concrete beam.



The severity of corrosion was assessed, and a remediation plan was developed. New steel members were added to supplement the existing members which were corroded beyond repair and inaccessible in large part due to the construction detailing. The concrete beam reinforcing was cleaned and coated, and spalling concrete was patched with a repair mortar. Sequencing was provided to the contractor to ensure the integrity of the member was not jeopardized throughout the construction process. Reconfiguration of the basement space allowed the design team to locate a new bearing and footing directly below the deteriorated concrete beam to assure long-term stability of the exterior façade wall supported above the beam. Miscellaneous concrete defects throughout the slab were also identified for repair as part of the project.





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> 845807			<b>Reason for Modification:</b>
<b>Doc Description:</b> EOI- MCA South Facility Upgrades Design			
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2021-02-19	2021-03-11 13:30	CEOI 0603 ADJ2100000007	1

**BID RECEIVING LOCATION**

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

**VENDOR**

**Vendor Customer Code:** \*000000206862

**Vendor Name :** McKinley Architecture and Engineering

**Address :**

**Street :** 129 Summers Street - Suite 201

**City :** Charleston


**State :** West Virginia                      **Country :** USA                      **Zip :** 25301

**Principal Contact :** Ernest Dellatorre

**Vendor Contact Phone:** (304) 340-4267                      **Extension:** 115


**FOR INFORMATION CONTACT THE BUYER**

David H Pauline  
 304-558-0067  
 david.h.pauline@wv.gov

**Vendor Signature X**  **FEIN#** 55-0696478                      **DATE** 9 March 2021

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

**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.

 , Director  
(Name, Title)  
Ernest Dellatorre, Director  
(Printed Name and Title)  
129 Summers Street - Suite 201, Charleston, West Virginia 25301  
(Address)  
(304) 340-4267 x115 | (304) 233-4613  
(Phone Number) / (Fax Number)  
edellatorre@mckinleydelivers.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.

McKinley Architecture and Engineering  
(Company)

 , Director  
(Authorized Signature) (Representative Name, Title)

Ernest Dellatorre, Director  
(Printed Name and Title of Authorized Representative)

9 March 2021  
(Date)

(304) 340-4267 x115 | (304) 233-4613  
(Phone Number) (Fax Number)

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: McKinley Architecture and Engineering

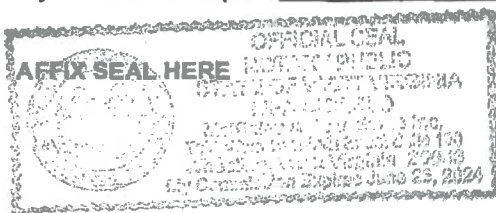
Authorized Signature: *Justin Dullator* Date: 9 March 2021

State of West Virginia

County of Ohio, to-wit:

Taken, subscribed, and sworn to before me this 9 day of March, 2021.

My Commission expires June 26, 2024.



NOTARY PUBLIC

*Justin Dullator*

Purchasing Affidavit (Revised 01/19/2018)



Per your request in the Solicitation, in GENERAL TERMS AND CONDITIONS, Part 8. INSURANCE, here are sample copies of our various Insurances and their Coverages:

**ACORD**  
**CERTIFICATE OF LIABILITY INSURANCE**  
 DATE (MM/DD/YYYY) 02/03/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER: Paul Associates, Inc. 1311 Chapline Street PO Box 890 Wheeling WV 26003-0123  
 CONTACT: Amy Sloner (304) 233-3303 FAX: (304) 233-3333  
 E-MAIL: astoner@paulassociates.com

INSURED: McKinley & Associates Inc. 32-20th Street Ste 100 Wheeling WV 26003  
 INSURER A: CINCINNATI INDEMNITY NAIC # 3260

CERTIFICATE NUMBER: EPP 0146335 REVISION NUMBER:

TYPE OF INSURANCE	ADDITIONAL COVERAGES	POLICY NUMBER	POLICY EFF DATE	POLICY EXPIRES	LIMITS
A X COMMERCIAL GENERAL LIABILITY	X CLAIMS MADE X OCCUR	EPP 0146335	06/15/2020	06/15/2021	EACH OCCURRENCE: \$ 1,000,000 DAMAGE TO RENTED PREMISES (per occurrence): \$ 500,000 MED EXP (Any one person): \$ 10,000 PERSONAL & ADV INJURY: \$ 1,000,000 GENERAL AGGREGATE: \$ 2,000,000 PRODUCTS - COMP/OP AGG: \$ 2,000,000
A AUTOMOBILE LIABILITY	ANY AUTO OWNED X SCHEDULED AUTOS X AUTO ONLY X HIRED X NON-OWNED AUTOS ONLY	EPP 0146335	06/15/2020	06/15/2021	COMBINED SINGLE LIMIT (All accidents): \$ 1,000,000 BODILY INJURY (Per person): \$ BODILY INJURY (Per accident): \$ PROPERTY DAMAGE (Per accident): \$
A X UMBRELLA LIAB	EXCESS LIAB X OCCUR X CLAIMS MADE	EPP 0146335	06/15/2020	06/15/2021	EACH OCCURRENCE: \$ 1,000,000 AGGREGATE: \$ 1,000,000
WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	ANY PROPERTY DAMAGE/EXCLUSIONS OFFICERS/EMERGENCY OCCURRED? (Check only in NY) If yes, describe under EXCLUSIONS AND CONDITIONS below.				X PER STATUTE OTH JER E1. EACH ACCIDENT: \$ 1,000,000 E1. DISEASE - EA EMPLOYEE: \$ 1,000,000 E1. DISEASE - POLICY LIMIT: \$ 1,000,000

DESCRIPTION OF OPERATIONS, LOCATIONS, VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Specimen Copy to be held for McKinley and Associates.

CERTIFICATE HOLDER: Specimen CANCELLATION: AI 005479

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE: *[Signature]*

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**ACORD**  
**CERTIFICATE OF LIABILITY INSURANCE**  
 DATE (MM/DD/YYYY) 10/12/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER: The James B Oswald Company 1100 Superior Avenue, Suite 1500 Cleveland OH 44114  
 CONTACT: Steven Galica (440) 216-308-0047 FAX: (440) 216-930-2915  
 E-MAIL: sgalica@jboswald.com

INSURED: McKinley Architecture and Engineering 32-20th Street #100 Wheeling WV 26003  
 INSURER A: Continental Insurance Company NAIC # 35269

CERTIFICATE NUMBER: 1067424632 REVISION NUMBER:

TYPE OF INSURANCE	ADDITIONAL COVERAGES	POLICY NUMBER	POLICY EFF DATE	POLICY EXPIRES	LIMITS
A COMMERCIAL GENERAL LIABILITY	CLAIMS MADE OCCUR				EACH OCCURRENCE: \$ DAMAGE TO RENTED PREMISES (per occurrence): \$ MED EXP (Any one person): \$ PERSONAL & ADV INJURY: \$ GENERAL AGGREGATE: \$ PRODUCTS - COMP/OP AGG: \$
AUTOMOBILE LIABILITY	ANY AUTO OWNED SCHEDULED AUTOS AUTO ONLY HIRED NON-OWNED AUTOS ONLY				COMBINED SINGLE LIMIT (All accidents): \$ BODILY INJURY (Per person): \$ BODILY INJURY (Per accident): \$ PROPERTY DAMAGE (Per accident): \$
UMBRELLA LIAB	EXCESS LIAB OCCUR CLAIMS MADE				EACH OCCURRENCE: \$ AGGREGATE: \$
WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	ANY PROPERTY DAMAGE/EXCLUSIONS OFFICERS/EMERGENCY OCCURRED? (Check only in NY) If yes, describe under EXCLUSIONS AND CONDITIONS below.				X PER STATUTE OTH JER E1. EACH ACCIDENT: \$ E1. DISEASE - EA EMPLOYEE: \$ E1. DISEASE - POLICY LIMIT: \$
A Professional Liability	Claims Made Retrospective	N Y ABH591803924	10/13/2020	10/10/2021	Each Claim Aggregate Deductible: \$1,000,000 \$25,000

DESCRIPTION OF OPERATIONS, LOCATIONS, VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Waiver of Subrogation as designated above is provided when required of the Named Insured by written contract or agreement.

CERTIFICATE HOLDER: Specimen For Purposes of Evidencing Coverage Only CANCELLATION: AI 005479

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE: *[Signature]*

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