



**West Virginia  
Army National Guard**



**CEOI 0603 ADJ2100000002**

**Williamstown AASF1-  
Shower-Restroom Renovation Design**

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WV PURCHASING  
DIVISION

 **McKINLEY**  
ARCHITECTURE + ENGINEERING

*in association with:*

**POTESTA**  
Engineers and Environmental Consultants

14 August 2020

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

Dear Ms. Lyle and Members of the Selection Team,

McKinley Architecture and Engineering has teamed up with Potesta & Associates (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 architectural/engineering design services to complete the renovation of the West Virginia Army National Guard's shower/restroom areas within the flight facility, located at the Army Aviation Support Facility #1 near Williamstown, WV. 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 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We have experience with all aspects of **restroom and shower** renovations, which has included remodeling outdated restrooms, ADA compliance, plumbing infrastructure upgrades, aesthetic improvements, as well as upgrading with **energy efficient** cost-saving fixtures all of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.

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**.

***Potesta & Associates, Inc.*** is our **Asbestos/Hazardous Materials Abatement and Geotechnical Engineering, Utilities, Wastewater/Water Engineering, and Land Development Consultant**. They were founded in 1997 to provide quality engineering and environmental consulting services

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to a wide variety of private and public clients in West Virginia and the eastern United States. They have now grown to a large and very diverse staff that includes environmental, Licensed Remediation Specialists, toxicologists, mining and chemical engineers, surveyors, geotechnical, ecologists, geologists, hydrogeologists, occupational safety and health specialists, and more. Potesta & Associates have been involved with hundreds of asbestos inspections and reports as well as several asbestos abatement design plans.

***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

President

McKinley Architecture and Engineering

(304) 233-0140 x115

[EDellatorre@McKinleyDelivers.com](mailto:EDellatorre@McKinleyDelivers.com)

# Design Team Flow Chart



## Project Manager / Main Point of Contact

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

## Architecture

■■■ Thomas R. Worledge, AIA, LEED AP BD+C, REFP  
*Architect / LEED Accredited Professional specializing in Building Design and Construction*

## Engineering Team

■■■ Tim E. Mizer, PE, RA, QCxP

*Director of Engineering Services / Architectural Engineer / Architect / HVAC Commissioning Process Provider*

■■■ Kurt A. Scheer, PE, LEED AP

*Senior Mechanical Engineer / LEED Accredited Professional*

■■■ Richard G. Berger

*Senior Mechanical Engineering Designer*

■■■ David A. Ullom

*Mechanical Engineering Designer*

■■■ Scott D. Kain

*Plumbing & Electrical Engineering Designer*

■■■ Michael J. Clark Sr.

*Electrical Engineering Designer*

▲ Christopher A. Grose, LRS

*Geological/Geotechnical Engineer*

▲ Terence C. Moran, PE

*Civil / Wastewater Engineer*

▲ Mark A. Sankoff, PE, PS

*Civil / Water Engineer*

▲ Victor M. Dawson, PS

*Professional Surveyor*

▲ Robert J. Ammirato, PE

*Staff Engineer*

## Hazardous Materials Inspection / Abatement Services

▲ D. Mark Kiser, PE, LRS

*Chief Engineer, Licensed Remediation Specialist*

▲ Andrew A. Kirsch

*Staff Scientist / Certified Asbestos Inspector*

▲ Andrew D. Grimmett

*Technician*

## Construction Administration

■■■ Robert E. Smith



# 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 #48600

#### 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:

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

WVU Institute of Technology - Maclin Hall Dormitory in Montgomery

West Virginia University - University Police Building

Charleston Enterprise Center renovation (WV AIA Design Award)

Williamson SMART Office (LEED Registered / Placemaker Award)

Natural Energy Design (NED) 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)

# Tim E. Mizer, PE, RA, QCxP

Architectural Engineer / Architect / Commissioning Provider

## Director of Engineering Services

### 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

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 Manager

The Towers Building renovations

Holiday Inn Express & Suites - multiple projects

Boone County Schools - 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

**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:

### Allen & Shariff Corporation\*

Senior Mechanical Project Engineer responsibilities included- project Management for all disciplines, HVAC/Plumbing/Fire Protection Design and Engineering, Multi-disciplinary staff and client coordination, MEP/FP Project Specifications, LEED Project Administration, Commissioning, Energy Modeling, Construction Administration, and Technical Reports. 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.

### BDA Engineering, Inc.\*

Senior Mechanical Project Engineer / Associate responsibilities included Business Development and Client Relations, Staff Management, Project Management for all disciplines, HVAC/Plumbing/Fire Protection Design and Engineering, Multi-disciplinary staff and client coordination, MEP/FP Project Specifications, LEED Project Administration, Commissioning, Energy Modeling, Construction Administration, and Technical Reports. Sample projects include University of Pittsburgh – Amos Hall renovation, the new University of Pittsburgh (Greensburg) – Frank A. Cassell Hall (LEED Certified), California University – Herron Hall renovation, the Indigo Hotel (East Liberty) additions and renovations (LEED Certified), multiple hospitality projects, and more.

### LLI Technologies, Inc.\*

Responsibilities included HVAC and plumbing drafting and design, HVAC and plumbing load calculations, Coordination with electrical staff engineers, HVAC project specifications, Construction Administration, and Technical Reports. Sample projects included USPS Ambridge Post Office renovations; Verizon Glenshaw CO renovations, Verizon Squirrel Hill CO renovations, Verizon Altoona CO renovations, Pittsburgh Public Schools – Allegheny Middle School pool renovations, Westinghouse Waltz Mills Office Building renovations and Process Building renovations, and Clay Center for Arts & Sciences commissioning.

*\* 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:

#### CJL Engineering\*

Mr. Berger was the Lead HVAC Senior Mechanical Designer for Healthcare/Commercial/Restaurants. Designed HVAC systems utilizing computer aided engineering software Revit/AutoCADD. Performed all aspects of assignments requiring knowledge and application of engineering principles. Prepared engineering calculations, construction drawings, and project specifications. Has experience with design/build projects and/or project delivery. Performed site visits/field services serving as subject matter expert to customer. 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.\*

Worked in the field installing large commercial and health care HVAC systems. Also was project leader in planning department preparing fabrication and shop drawings for buildings. Projects worked on included 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 an unique understanding for problem solving.

### NOTABLE PROFESSIONAL EXPERIENCES:

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

The Towers Building - 7 story, multiple renovations

Belmont County Divisional Courts build-out / renovations

Ft. Henry Building renovations, including office build-outs

Jefferson County Justice Center renovations

WVU Medicine - Reynolds Memorial Hospital renovations

Trinity Health System - Crisis Rehabilitation Unit renovations

Mid-Ohio Valley Technical Institute (MOVTI) HVAC

Ohio County Schools - Bridge Street Middle School renovations

Ohio County Schools - Madison Elementary School renovations

Ohio County Schools - RESA 6 Building renovations

Mining sales in Illinois, Alabama, Kentucky, Ohio, and West Virginia.

Specialist in conical cutting and drilling tools for coal applications.

Reviewed test plans and procedures to ensure adequate coverage of system requirements.

Collaborated with scientific, engineering, and technical personnel to resolve testing problems and system malfunctions.

Created comprehensive test plans, test scripts, and use cases to support testing objectives.

Worked in different geologies across North America assisting sales force in finding the best product for the customer.

Developed and edited maps for the Assessor's office in Marion county, WV (Fairmont).

Gained experience in geographic information systems (GIS).

# 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

Harrison County Schools - Bridgeport High School's Wayne Jamison Field new restroom building

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

# 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



# CHRISTOPHER A. GROSE, L.R.S.

Senior Engineering Associate



## EDUCATION

- M.S. Geological Engineering, 1990  
University of Missouri-Rolla
- B.S. Civil Engineering, 1988  
West Virginia Institute of Technology

## EMPLOYMENT HISTORY

- 1997-Present Potesta & Associates, Inc.  
1994-1997 Terradon Corporation  
1990-1994 GAI Consultants, Inc.  
1989-1990 University of Missouri-Rolla  
1989 Triad Engineering Consultants  
(summer)  
1988 West Virginia Institute of Technology  
1983-1988 Clint Bryan & Associates Architects  
(summers)

## PROFESSIONAL REGISTRATIONS

Licensed Remediation Specialist – West Virginia

## PROFESSIONAL CERTIFICATIONS

- Hazardous Waste Site Operations and Superfund Worker Protection Training
- American Red Cross Standard First Aid and CPR
- Troxler Moisture-Density Gauge

## PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- Association of Engineering Geologists
- Society of America Military Engineers

## AREAS OF SPECIALIZATION

Geological/Geotechnical engineering related to subsurface exploration studies, soil and rock slope design, landslide causation studies, foundation system design, surface/subsurface hydrogeology, ground subsidence, contaminant transport and groundwater flow modeling. Planning, design, and permitting of natural gas production well pads and access roads. Geological study of hazardous waste remediation sites, CERCLA/SARA, RI, and FS report compilation, geological and geotechnical aspects of siting and design of municipal and industrial waste landfills.

## PROFESSIONAL EXPERIENCE

### Civil/Site Design

Civil/Site design included slope stability of both cut and fill slopes in soil and rock for various well production pads in northeastern West Virginia associated with natural gas production in the Marcellus well field. Work consisted of the management of a design engineering team including ground survey crews to development site topographic base mapping, coordination with client regarding land ownership, access roadway alignments, site drainage control, and number/location of production wells. Additional work also included gathering and midstream transmission pipeline locations. The scope of services for these projects also included the preparation of permit documents and attachments for submittal to the WV Department of Environmental Protection-Office of Oil and Gas.

- Stone Energy Corporation
  - Higgins East pad and road
  - Higgins West pad and road
  - Conley Well pad, road, and access bridge
  - Mills-Wetzel No. 3 pad and road
  - Hunter/Pethel well pad
  - Talkington-nice pad and road
  - Bowyers well pad and road
- Viking Oil & Gas
  - United Disciples of Christ well pad

Geotechnical

Completion of numerous subsurface exploration studies for active soil slope landslide failures associated with the development of natural gas production well pads and access roads. Work included the layout, surveying, and logging of subsurface borings to determine the depth and extent of the slope failures. Following collection of soil/rock samples, materials were tested for characteristic and strength properties. Following testing efforts, the failed slopes were modeled using computer-based slope stability design models to determine a stable configuration including the addition of rock buttresses, toe keys, underdrains, mid-slope keys, etc. Final stabilization plans were then prepared for the client allowing bidding and selection of a repair and stabilization contractor to perform the work.

- Stone Energy Corporation
  - Mills-Wetzel No. 2 well pad landslide repair
  - Potoczny well pad landslide repair
  - Mills-Wetzel access road landslide repair
  - Pribble Tank landslide repair
  - Haines Branch pipeline landslide repair
- Columbia Pipeline Group (TransCanada Pipeline)
  - SM8 pipeline landslide repair
  - SM80 Loop pipeline landslide repair
- Chesapeake Energy Corporation – R. Baker well pad landslide causation study
- TransEnergy Corporation – Dewhurst well pad landslide repair
- Reserve Oil & Gas – Reed No. 1 well pad access road landslide repair

West Virginia Division of Highways – Geotechnical engineer on geotechnical/landslide master services agreement for on-call services for a three-year period.

Forensic study, expert testimony, and legal support related to the failure of numerous soil/rock slopes throughout West Virginia. This work included extensive review of relevant project case documents, site reconnaissance visits, interviews with project personnel, and deposition testimony.

Lynn Elementary School – Technical insight and recommendations to attorneys representing an adjacent property owner related to the contributing factors related to the formation and continued failure of an excavated soil slope. The toe of the slope was excavated during the site development of the proposed elementary school site in Lynn, West Virginia.

Crichton & Crichton – Landslide formed along a wooded hillside below a residential driveway on Pleasant Lane in Wood County, West Virginia. The slope failure was noted during a substantial leak in an existing water main. The work included a review of case documents, interviews with various residents (plaintiffs in the case) and the development of supporting causation theory for the formation of the landslide. The work also includes the development of repair alternatives and associated construction estimates to be considered during the dispute hearing between the plaintiff and defendants.

Chesapeake Appalachia/Law Office of Jeffrey Mahal (R. Baker Natural Gas Production) – Provided technical study and file review of case documents related to the grading contractor's construction work efforts to prepare a well pad for the installation of a series of horizontal gas production wells in Marshall County, West Virginia. The work included the removal of soil and rock from an existing hilltop. The resulting material was placed or wasted in series of three side hill fills along the edges of the resulting well pad. All three of these fills experienced progressive and ongoing failures following the construction effort. Reviewed design documents, construction records, and details related to several repair attempts to result in the development of a professional opinion related to the various factors contributing to the multiple slope failures.

Nationwide Trial Division/Khan & Wheeler (Ross v. WVAW Landslide Case) – Provided professional opinion related to the formation of a slope failure along the Elk River immediately behind several commercial and residential homes near the Town of Elkview, West Virginia. The initial landslide occurred immediately following a main waterline break along the front of the structures. The regressive and prolonged failure continued over several weeks and ultimately damaged a gravity sanitary line as well as several of the structures. Work included an extensive review of several years of case records provided for the case including a review of existing utility maintenance records, historic climatologic data, river stage information and depositional testimony from many of the affected parties. A summary of professional opinion report was prepared describing a number of factors including lack of maintenance storm culverts in the area as well as an increase of saturation along the slope from the failed water main as the cause of the slide. It was determined that several of the structures were supported on previously placed fill material which was placed along the river bank in the early 1900's in

conjunction with the initial roadway construction. This coupled with the lack of maintenance and presence of deteriorated drainage culverts likely contributed to the slope failure. The initial installation of this fill material was determined through an extensive study of the historic topographic mapping of the area.

Responsible for development of geotechnical and geological recommendations as well as development of stabilization designs for many failed soil/rock slopes in West Virginia. This work included initial site reconnaissance visits, development of a subsurface exploration study and materials testing program, evaluation of stabilization alternatives, and construction plan preparation.

Travelers Insurance/City of Charleston – Project included a subsurface exploration study, engineering design, and global stability evaluation of a failed soil slope in a residential neighborhood on Bona Vista Drive for the City of Charleston, West Virginia. The slide was caused by a water main break along an existing residential neighborhood paved roadway. The recommended slope stabilization method was to install a soldier beam and lagging retaining wall along an existing paved roadway (supporting the buried utilities) with the remainder of the failed slope below being removed and replaced with compacted soil backfill.

Stone Energy Pribble Tank – Work included the exploration and study of a failed soil/weathered rock slope which was loaded through the placement of fill near the top of the slope to provide adequate area for the construction of 2- 2,400,000-gallon water storage tanks in New Martinsville, West Virginia. Shortly following the installation of the tanks, a large section of the hillside failed leaving one of the tank foundation partially unsupported. Following the subsurface exploration and drilling work, a stabilization plan was developed which included the removal of the failed soil mass (>50,000 CY) followed by the replacement of compacted soil material behind a large toe key and buttress. The repair also included surface diversion drainage ditches and numerous bond benches along the underlying rock line which were fitted with under drains to collect subsurface seepage.

NiSource/Columbia Gas Pipeline Group SM-80 Loop Gas Transmission Line – Development of a subsurface exploration and drilling plan to determine the extent and depth of a soil and weathered rock slope failure which threatened the performance and stability of a 30-inch high

pressure natural gas transmission line in Kanawha County, West Virginia. The slide location was remote and situated along a steep hillside. The stabilization plan recommended the use of soil nail technology due to the remote location and rather inaccessible nature of the location. This repair and stabilization technique allowed for the in-situ repair of the failed slope without extensive excavation and backfill which was deemed difficult and would have required more land disturbance resulting in additional slope stability concerns.

EQT Rockport #7244 Natural Gas Storage Well Pad – Project involved the assessment and repair recommendations for a section of failed fill slope immediately below existing and active natural gas storage well near the community of Rockport in Jackson County, West Virginia. The failed slope was caused by improper surface drainage control along the pad and access road. The stabilization plan included the excavation and removal of the failed slope following “shut-in” of the storage well. The upper failure scarp was situated immediately adjacent the well head which was protected during the stabilization work. Following installation of a rock toe buttress and key way, the failed soil material was amended using lime to reduce the moisture content which was required to achieve the recommended in place density during placement and compaction. Following the regrading effort, the slope was trimmed and seeded followed by the grading a several diversion and collection ditched to control runoff from the upper portion of the hillside below the well pad.

City of Charleston – Geotechnical assessment and development of regrading construction plans for the repair of a failed soil slope below Grandview Drive for the City of Charleston, West Virginia. The slope failure occurred between two adjacent residential structures and encompassed a sanitary sewer main as well as a storm drainage pipe receiving storm drainage from Grandview Drive. The stabilization plan involved the removal of the failed mass beginning at the toe of the slope and then working progressively upslope to result in a stabilized and regraded slope surface. The work required the removal of all failed material to the underlying rock surface and included the installation of a shot rock toe buttress which was installed along a natural topographic bench near the toe. Following completion of the work the affected utilities were installed either below the fill material or outside the regraded slide area.



Greer Industries Cheat River Quarry Haulroad – Project included the development of stabilization and repair recommendations for a failed soil slope which impacted a critical haulroad utilized by the quarry operator to move raw shot rock material from the quarry to the crusher at the aggregate plant in Rowlesburg, West Virginia. The landslide occurred because of the failure of a cross drainage culvert in the haulroad. The failed soil mass was removed to the underlying bedrock and following installation of a stone toe buttress and toe key, the material was blended with aggregate material from the plant and placed in compacted lifts. The underlying rock surface was excavated to result in a series of “bond benches” allowing for the installation of underdrains below the compacted fill to collect groundwater and seepage from the underlying rock. This prevented saturation of the fill material.

Responsible for the design, management, and inspection of a geotechnical investigation of a proposed five-mile rail extension located in Nicholas County, West Virginia. Investigation included study and design of planned rock cuts, and track foundation materials.

General Services Administration – Site evaluation, including continuous HNU scanning of collected soil samples and installation of piezometers for two proposed sites near Charleston, West Virginia.

West Virginia Department of Environmental Protection – Foundation design for a proposed 1,000,000-gallon potable water storage tank and valve pit near Cassidy, West Virginia.

Rhone Poulenc Ag Company – Subsurface sample collection, resistivity measurements, explosivity measurements, and decontamination procedures for an organic contamination study at Institute, West Virginia.

Preparation of foundation investigations for several large structures including a parking garage and student housing complex at Marshall University in Huntington, West Virginia. Tasks included development of subsurface exploration program, soils/rock sampling, testing program, and preparation of a final geotechnical report.

#### Roadway Design

Geotechnical engineer for various bridge and highway projects including:

- North Bridgeport Bypass
- McDowell County Schools
- Corridor H
- Dundon Bridge
- Sulphur Springs Bridge Replacement
- Smith Creek Bridge
- Martha Truss Bridge
- Martha Concrete Girder Bridge Replacement
- Dry Run Interchange
- I-81 Upgrade
- Platinum Drive
- Kenna Ridge Business Industrial Park/Access Road

Hardy County Rural Development Authority – Engineering services for the study, design, and preparation of construction contract plans, related documents, and construction oversight services for an industrial access road for the Baker Business Park District.

Roane County Development Authority – Site development construction documents for National Industrial Wholesale Lumber located in Roane County’s industrial park.

ZMM – Site design and engineering for a new elementary school and new high school in Bradshaw, West Virginia on the site of an existing elementary school.

West Virginia Department of Highways – Evaluation of subsurface conditions including both soil and rock to provide geotechnical recommendations related to potential bridge abutment foundation systems near Martinsburg, West Virginia. Alternatives included both shallow and deep foundations. Deep foundations were required at several abutments due to voids encountered in limestone bedrock.

#### Abandoned Mine Lands

WVDEP Abandoned Mine Lands and Reclamation – Preparation of Phase I and II water studies throughout the state of West Virginia. Work items included interview of area residents to determine major quality and quantity problems, field and records research to determine the location of known pre-law mining activity (which could potentially affect groundwater quality), collection of groundwater samples, and design of water distribution facilities.



WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation to determine the extent of a landslide for Courtright Highwall AML Project in Bridgeport, West Virginia. Field surveying was completed to establish topographic mapping and control, and subsequent design of landslide repair alternatives. Design ultimately selected included a reinforced slope using stabilizing grid. Landslide contained 400,000 cubic yards of material.

WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation, surveying, and design for reclamation of a large coal refuse pile and two mine entries for Vivian Refuse Pile AML Project in Vivian, West Virginia. Plans, specifications, cost estimate, coal refuse reprocessing evaluation, and supporting documents for regrading over 150,000 cubic yards of refuse, surface water control, mine seals, and riprap toe protection were completed.

WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation, surveying, and design for reclamation of three coal refuse piles and six mine entries for Kimball Refuse Pile AML Project in Kimball, West Virginia. Design included replacement of a water well and related supply piping for the Town of Kimball. Completed preparation of plans, specifications, cost estimate, coal refuse reprocessing report, permit for new well, and other supporting documents for reclaiming this large site with over ½ million cubic yards of regarding.

WVDEP Abandoned Mine Lands and Reclamation – Project Engineer for the Mulberry (Stover) AML Landslide Project in Fayette County, West Virginia. Work included a difficult subsurface investigation, design of a remediation of landslide associated with abandoned mines, and preparation of plans and specifications for a reclamation project.

WVDEP Abandoned Mine Lands and Reclamation – Project Engineer for assessment of the Covey Creek Mine Fire AML Project Boone County, West Virginia. Work included subsurface investigation and temperature assessments inside an abandoned burning deep mine.

#### Oil and Gas

Columbia Gas Transmission Corporation – Design of stream relocation plans including preparation and coordination of applicable environmental permits. The

relocation was required due to an adjacent gas pipeline near the stream.

Columbia Gas Transmission Corporation – Preparation of several spill prevention control and countermeasure plans for gas storage well sites in Pennsylvania and West Virginia.

#### Mining

West Virginia Division of Environmental Protection – Engineering evaluations, including collection and analysis of core samples, for possible subsidence-related fracturing of several areas potentially affected by mining subsidence.

Peabody Coal Company – Subsidence evaluation and slope monitoring, using extensometers and tilt plates located on the slope face, of a 60-foot road cut experiencing subsidence-induced fracturing near Kopperston, West Virginia.

Mingo Logan Coal Company – Completion of formal subsidence control plan for a proposed 14,000-acre long-wall mining operation at the Mountaineer Mine in Wharnclyff, West Virginia.

Peabody Coal Company – Evaluation of potential stream flow attributed to long-wall deep mining subsidence in minimal overburden areas in southern West Virginia. Responsibilities included the review of mine maps, stream reconnaissance studies, and the establishment of three in-stream V-notch weirs. The weirs were monitored and maintained during a seasonal study period to generate direct flow measurements. The WVDEP also prepared a study for the site that was reviewed, and comments prepared for the results.

Evaluation of numerous failed soil fill slopes to determine probable failure mechanisms in order to develop remediation alternatives. Responsible for the development of regrading plans which included subsurface drains, benching schemes, and toe buttresses.

Completion of several environmental assessments for coal properties. Work included emphasis on both environmental and reclamation liabilities associated with pre-and post SMCRAs sites on the properties.

- Massey Coal Services, Inc.
- Eastern Associated Coal Corporation

West Virginia Department of Environmental Protection – Engineering design of several wetland habitat areas relating to the effective remediation of a coal refuse disposal site in Glenville, West Virginia.

Preparation of several Article 3 surface mining permit applications for various West Virginia coal companies:

- Eastern Associated Coal Corporation – Proposed deep mine using longwall mining techniques in Boone County, WV, located in the Eagle coal seam.
- Hobet Mining, Inc. – Deep mine using conventional mining techniques near Madison in Boone County, WV. Located in the No. 2 Gas (Campbell's Creek) coal seam.
- Rum Creek Coal Sales – Deep mine using conventional mining techniques near Logan in Logan County, WV. Located in the Alma coal seam.
- Eastern Associated Coal Corporation – Surface mine mountain top removal techniques near Twilight in Boone County, WV. Located in the Coalburg and Lower Kittanning seams.

Landfills/Solid Waste/Waste Disposal

WVDEP Closure Assistance Program – Design of final landfill closure for abandoned solid waste facility. Design included diversion and collection channels, cap design, leachate collection system, and 150,000-gallon leachate storage tank in Montgomery, West Virginia.

American Cyanamid – Engineering design for the closure of a chemical waste landfill in Parkersburg, West Virginia. Completion of a settlement analysis to determine the expected consolidation of waste during dewatering. Cover design incorporated a composite liner system with synthetic drains. The cap utilized synthetic reinforcement to minimize consolidation-induced stresses on the synthetic liner.

West Virginia Department of Environmental Protection – Responsible for the development and design of several interim or maintenance related items associated with drainage at the Monongalia County Landfill in Morgantown, West Virginia. Included the design and upgrade of both new and existing channels, diversions to berms to minimize surface water infiltration and minimizing the amount of leachate generation.

American Cyanamid – Permit completion for closure of a chemical sludge impoundment near Parkersburg, West

Virginia. Analysis of existing monitoring well configuration.

Design, management, and project oversight during construction for the closure of a 7-acre biological sludge pond in Nitro, West Virginia. Preliminary design studies included the completion of batch tests to evaluate stabilization materials. Also handled the development and submittal of several permits associated with the project including erosion and sediment control plan, Army Corps of Engineers permit, and a wetlands investigation and nationwide 404 permit.

Development of closure design for a 14-acre inactive waste water treatment pond in Nitro, West Virginia. Responsibilities included evaluation of sludge stabilization technologies, types of reagent and mixing ratios to achieve the required in-place strengths. Conducted contractor interviews with the owner, as well as providing assistance to the owner during preparation of the construction contract. During construction, conducted weekly safety meetings on-site with the contractor. This project was also expanded to provide stabilization of a 1.5-acre digester basin adjacent to 14-acre pond. The original contract was extended to cover stabilization of this pond. Stabilization efforts included submittal of an Army Corps of Engineers' nationwide permit to stabilize the bank of the Kanawha River and application of a West Virginia NPDES General Stormwater Construction Permit.

North Fork Landfill – Permit completion for a new municipal landfill, including design and construction of monitoring wells to monitor several aquifers in Wheeling, West Virginia.

Sycamore Landfill – Part I permit completion, design, and implementation of a drilling program, including evaluation of an existing monitoring well configuration. Testing of existing site soils for sources of suitable liner material.

Rhone Poulenc Ag Company – Completion of several Part I Solid Waste Facility permits including the design and implementation of drilling programs, formal geological studies, hydrogeological analysis of proposed sites, and locations and development of upgradient and downgradient groundwater monitoring wells. Design, construction, and development of seven monitoring wells for a proposed 13-acre industrial waste disposal facility near Institute, West Virginia.

Storage Tanks

West Virginia Division of Natural Resources – Underground storage tank contamination study in Jesse, West Virginia. Delineation of a subsurface hydrocarbon contamination plume as well as possible flow direction to determine potential receptors.

Groundwater

Operation and maintenance of several groundwater remediation systems including pump and treat and sparge systems for a large chemical manufacturer in Nitro, West Virginia. The pump and treat technology is designed to recover kerosene in one instance and TCE in another. Both systems are safety oriented and are fully automatic. The sparge system is a study/field test to determine the impact that oxygen injection will have on the degradation of phenolic compounds existing in the groundwater.

Columbia Gas Transmission Corporation – Evaluation of numerous groundwater monitoring wells to determine the direction of migration and the feasibility of utilizing them in a planned pump and treat recovery system. The site was an active compressor facility located in Eastern Kentucky.

Design and completion of several geological and hydrologic investigations to determine nature and direction of groundwater flow associated with proposed limestone quarry sites in Nitro, West Virginia. The sites were all associated with Karst terrain and dual permeability systems and primarily fractured flow regimes. Studies included the deployment of drilling equipment to install groundwater monitoring wells.

Measurement of stratified in-site permeability of rock strata in NX boreholes in Hurricane, West Virginia. The permeability measurements were reviewed and evaluated to develop groundwater monitoring systems associated with both existing and proposed municipal landfill disposal facilities.

Rhone Poulenc Ag Company – Analysis and study of elevated levels of organic constituents and elevated pH values in existing monitoring wells. Study to determine if well construction techniques or development procedures contributed to the presence of these constituents.

Dilley's Mill – Review of regional groundwater information for a summer Boy Scout camp facility to locate and construct a replacement drinking water well for the facility. Responsibilities included the development and review of existing facility usage, determination of the location and depth of the proposed water well and design of the well to meet with the requirements of the State of West Virginia Department of Health standards.

Union Carbide Corporation – Design and completion of several monitoring wells to monitor an abandoned fly ash disposal area. Included hydrologic analysis of site geology to determine major aquifers present in the area.

Completion of several groundwater contamination studies in West Virginia. Contaminants included diesel fuel, gasoline, chlorobenzene and benzene. Studies included field exploration utilizing various methods including air and mud rotary drilling. Responsible for the setup, calibration, and analysis of groundwater computer models to lend insight into the flow regimes and dispersion characteristics of the potentially affected areas.

Preparation of Phase I, II, and III water studies throughout the state of West Virginia for the West Virginia Division of Environmental Protection, AML section. Work items included interview of area residents to determine major quality and quantity problems, field and records research to determine the location of known pre-law mining activity, which could potentially affect groundwater quality, collection of groundwater samples, and design of water distribution facilities.

ESAs (Phase I and II)

Responsible for the design and implementation of drilling and sampling programs for several Phase I and Phase II environmental assessments.

# TERENCE C. MORAN, P.E.

Senior Engineer



## EDUCATION

- M.S. Civil Engineering, 1989  
West Virginia University
- B.S. Civil Engineering, 1987  
West Virginia University

## EMPLOYMENT HISTORY

- 1999-Present Potesta & Associates, Inc.  
1989-1999 GAI Consultants  
1987-1989 West Virginia University  
1985-1987 West Virginia Division of Highways  
(summers)

## PROFESSIONAL REGISTRATION

Professional Engineer – West Virginia, Virginia

## PROFESSIONAL CERTIFICATION

- Troxler Moisture-Density Gauge
- American Red Cross Standard First Aid and CPR
- OSHA 40-Hour Hazardous Waste Worker Training

## AREAS OF SPECIALIZATION

Water and wastewater engineering and permitting; preparation of studies, design calculations, drawings, technical specifications, and cost estimates; bidding phase services; and construction phase services, including construction administration.

## PROFESSIONAL EXPERIENCE

### Water Lines, Water Storage Tanks, and Water Treatment Plants

Project Manager/Project Engineer for more than 70 water supply projects involving design and, permitting of water treatment facilities, water line extensions, water storage tanks, booster stations, chlorine boosters, pressure reducing valve stations, service connections and providing fire flow demands. Tasks include client/contract management; mapping development; hydraulic design; geotechnical investigations; preparation of drawings, specifications, and cost estimates; and preparation of Bureau of Public Health, Public Lands Corporation, United States Army Corps of Engineers, West Virginia Division of Highways, and NPDES permit applications.

- Projects funded by federal, state and private funding including small cities block grant, United States Department of Agriculture, Rural Economic Development Agency, Drinking Water Treatment Revolving Fund (DWTRF), West Virginia Infrastructure and Job Development Council, Congressional Supplemental Appropriations (SAP), Abandoned Mine lands, United States Army Corps of Engineers, Governor's office funding, county commissions and private funding.

West Virginia Bureau for Public Health (Region III and Region VI Planning and Redevelopment Councils) – Project Manager for 5 contracts for source water protection:

- Source water reports for 133 public water systems
- Preparation and presentation of state-wide source water awareness symposiums
- Source water assessment and protection plan reports for 68 public water systems
- Engineering study for contingency planning for public water systems

Town of Ceredo – Project Manager for 20,000 feet of water line replacement, water tanks, telemetry, and booster stations.

Boone County Public Service District – Project Manager for 15+ water supply extension projects in Boone County District from 2004 to present. Included were Preliminary



Engineering Reports (PER), and design bidding and construction phase tasks.

Project Manager for Mill Creek Regional Water Supply Extension Project. Design included 34 miles of waterline, booster stations, tanks, and a water treatment plant. Included design of storm water ditches and culverts, and crossings of a railroad. Approval was obtained from CSX Transportation, WVDOH, PLC, USCOE, and West Virginia Bureau for Public Health. Deliverables included drawings, specifications, and cost estimates.

- West Virginia Division of Environmental Protection
- Logan County Public Service District

West Virginia American Water – Project Manager for construction administration/monitoring for the Poca River Road Waterline Extension Project; Cabell County Waterline Extension Project, Contract No. 7; Spite Road Waterline Extension Project; and Fisher Ridge Waterline Extension Project. Work included construction monitoring, preparation of weekly reports, review of contractor submittals, review of contractor invoices, and preparation of record drawings for 100,000+ linear feet of waterline extensions.

City of Philippi – Project Manager for municipal water system upgrade project. Work included design of two replacement booster stations, two new water storage tanks, new pumps for an existing booster station, a 1,500-foot waterline extension, and telemetry systems. Drawings, specifications, and a cost estimate were prepared.

West Virginia American Water – Design of main line pressure reducing valve and vault for the Glenwood Avenue Extension of the Cabell County Waterline Extension Project, Contract No. 6. Work included hydraulic sizing and preparation of drawing.

West Virginia American Water – Design, permitting, bidding and contract documents, and construction phase services for residuals handling facility at largest water treatment plant in West Virginia, including 1,000,000-gallon gravity thickener, sludge pumping stations, two belt filter presses, and a plate settler.

West Virginia Department of Environmental Protection – Project Manager/Project Engineer for design of multiple waterline extension in West Virginia. Included was design of six water storage tanks, five booster stations,

pressure reducing valves, master meters, and telemetry systems. Work included surveying, subsurface explorations, hydraulic design, preparation of drawings, specifications, cost estimates, and permit applications, and assistance with bidding. Representative projects included:

- 10-Mile-South Putnam Water Supply Extension Project in Lincoln and Putnam Counties;
- 5-Mile-Cline Hollow, Younger Drive, Left Hand Fork of Lens Creek, and Emmons-Grippe Water Supply Extension project in Kanawha County;
- 2.5-Mile Godby Branch Water Supply Extension Project in Logan County;
- 20-Mile Cow Creek-Sarah Ann Water Supply Extension project in Logan County;
- 8-Mile Cassity Fork Water Supply Extension project in Randolph County; and
- 10-Mile Olive/Marshville/Catfish Hollow Water Supply Extension project in Harrison County

Tucker County Development Authority – Project Engineer for design of approximately 10,000 feet of water line and sewer line to serve an industrial park, including a lift station. Drawings, specifications, and a cost estimate were prepared. Also performed construction administration services.

West Virginia Division of Environmental Protection - Project Engineer for preparation of conceptual design and cost estimate for the Mill Creek – Isom Community (Logan County Public Service District) Water Supply Extension Project.

West Virginia American Water – Evaluation of water treatment plant and water distribution system, including observation of system during site visit, records review, discussions with regulatory officials, and issuance of findings in a report for the Town of Pineville.

West Virginia Division of Environmental Protection – Project Manager for technical review of the Gauley River Area Waterline Extension proposed by the Gauley River Public Service District and the Heizer/Manilla Creek Waterline Extension proposed by West Virginia American Water. Included hydraulic analysis, evaluation of line size, review of drawings and specifications, and reporting on the evaluation in letter format.

City of Philippi – Relocation of waterlines due to proposed roadway. Relocation included approximately

4,000 feet of 1-inch to 12-inch diameter pipe, fire hydrants, meters, and valves. Prepared construction drawings, specifications, and quantities.

Short Line Public Service District/Harrison County Planning Commission – Project Manager for feasibility/rates analysis study for the proposed Reynoldsville, Wallace, and Clarksburg Water Supply Extension Project. Included evaluation of six options at multiple loan/grant funding scenarios.

West Virginia American Water – Hydraulic analysis for water supply extensions (total of 23 miles) in Cabell County, West Virginia, including line sizing and design of booster station and PRVs.

West Virginia Division of Environmental Protection – Project Manager/Project Engineer for numerous conceptual waterline designs for 20 unserved areas (between 1991 and 2007) in coal mining areas in West Virginia. Included hydraulic evaluation, booster station, and water storage tanks sizing, waterline sizing, and estimation of construction cost. Work completed in Barbour, Boone, Brooke, Fayette, Harrison, Lincoln, Logan, McDowell, Putnam, and Randolph Counties.

West Virginia Division of Environmental Protection – Project Manager for design of booster station upgrade for the Clinton Water Association's Ringgold pump station, including preparation of drawings, specifications, and cost estimate.

West Virginia Department of Energy – Groundwater contamination study for drinking water wells near Cassity, Randolph County, West Virginia, including water supply inventory of over 50 residents, collecting and analyzing well and surface water samples, and researching records to determine the percentage of homes whose water supply had been degraded by acid mine drainage.

Public Utility General – Project Manager for construction administration including preconstruction meetings, shop drawing review, coordination with construction technician team(s), contractor pay application review, public record drawings, and public interface for 15+ water and wastewater utility and/or infrastructure projects including utility line extension and upgrades, construction and modifications of treatment facilities. Clients include municipalities, public service districts, industry, county development authorities and private utilities.

Construction included water and sewer lines, booster stations, tanks, lift stations, vacuum sewer stations, treatment basins, dewatering equipment, clarifiers, chemical feed systems, buildings associated with treatment systems, outfall modifications, and diffusers.

Mingo Logan Coal Company – Project Manager for design, building, and permitting services for potable water system at the new Mountain Laurel Mine in Logan County, West Virginia. Project includes booster station, water storage tank, and 10,000 feet of HDPE pipe.

#### Sewer Lines and WWTPs

Project Manager for more than 30 wastewater projects, including municipal sanitary sewer treatment systems, industrial pretreatment systems, modification of sewer treatment plants, outfall modifications including diffuser installation, and upgrades to municipal collection systems. Also included were completions of studies mandated by the West Virginia Public Service Commission.

- Projects funded by State Revolving Fund (SRF), West Virginia Infrastructure and Jobs Development Council, United States Economic Development Agency and Private Funding sources.

Boone County Public Service District – Preliminary engineering, funding application, and final design for WWTP upgrade. Funding proposed through the Clean Water State Revolving Fund (SRF).

- Mechanical bar screen replacement
- Grit removal system replacement
- Mechanical aerator replacement
- Addition of third clarifier
- RAS pump addition
- UV unit replacement
- Belt filter press replacement
- Wash water system upgrade
- Other upgrades

Town of Ceredo – Perform design, bidding, and construction phase services for upgrade of existing sanitary sewer collection system, including upgrades to gravity and force main lines, and a lift station. Funding was thru the Clean Water State Revolving Fund (SRF).

Town of Ceredo – Evaluation of remaining capacity of grinder pump system.

Salt Rock Sewer Public Service District Master Service Agreement:

- Specification for WWTP wash line
- Preparation of NPDES modification for sludge disposal from a publicly owned treatment works
- Preparation of odor control study mandated by the West Virginia Public Service Commission (WVPSC)
- Preparation of cost estimates for requests for service
- Evaluation of lift station overflows

Town of Moorefield – Study on costs of \$30,000,000 sanitary sewer system (plant and collection system).

South Putnam Public Service District – Project Engineer for review of sewage disposal options for large county-wide sanitary sewer provider. Work included interviews with various publicly-owned treatment works (POTWs), interviews with regulatory agencies, review of regulatory agency files, development of costs, and preparation of a report summarizing findings, including recommendations for future treatment of sewage in West Virginia.

West Virginia American Water – Assessment of City of Oak Hill and City of White Sulphur Springs publicly owned treatment works (POTW) to recommend improvements in operation and maintenance.

Town of Bradshaw – Design of collection system for two new schools, and design, permitting, bidding, and certain construction phase services for equalization basin/lift station, and upgrades to vacuum station and buffer tanks.

Tucker County Development Authority – Design, permitting, bidding, and construction phase services for gravity collection system, force main, and lift station for industrial park.

Boone County Public Service District – Preliminary engineering report for collection system and sequencing bench reactor (SBR) wastewater treatment plant for the Town of Nellus.

MDG Homes – Preparation of hydraulic calculations and record drawings for variable grade effluent sewer system at large development in eastern panhandle.

Client Confidential – Coordination of treatability study for industrial treatment plant.

Design of numerous sanitary sewer extensions associated with private developers, including design of gravity and force main lines and lift stations, including approvals by local public utilities such as Jefferson Utilities, and approvals by West Virginia Department of Environmental Protection.

Pocahontas County Public Service District/Wastewater Management – Study on replacement of Hawthorn Loop Sanitary Sewer System.

Stephoe & Johnson/York Bronze Company – Design of batch chemical pretreatment system for bronze facility in northern West Virginia. Included were sizing of units and building to house treatment system, and preparation of drawings, specifications, and cost estimate.

Columbia Gas Transmission Corporation:

- Design of sump/pump and storage tank to allow treatment and storing of waste water; and negotiation with hauler and POTW to allow disposal of waste water at Files Creek Compressor Station.
- Design of an oil/water separator, sump/pump, and storage tank to allow treatment and storing of waste water; and negotiation with hauler and POTW to allow disposal of waste water at Cleveland Compressor Station.
- Design of a waste water treatment plant for compliance with a compressor station's NPDES permit. Included was preparation of facilities preliminary and final engineering plans, selection of treatment (chemical precipitation, activated carbon and filtration), and detailed drawings and specifications.
- Evaluation of effectiveness of existing ozonator/activated carbon wastewater treatment system at a natural gas compressor station. Evaluation included 30-day composite sampling plan of wastewater, compilation of results, comparison with treatment system capacity, and issuance of findings in a report. Also included was issuance of a report summarizing technical feasibility and costs for alternate treatment options.
- Project Manager for conceptual design of oil/water separator at the Crawford Compressor Station in Ohio.

Tetra Technology – Preparation of operation and maintenance manual for a waste water treatment plant at the Yak Tunnel Superfund site in Leadville, Colorado.



Project Engineer for design and permitting of sanitary waste water treatment system for coal mines in Logan and Raleigh Counties, West Virginia. Included was preparation of drawings and specifications.

- Eastern Associated Coal Corp.
- Rum Creek Coal Sales

West Virginia Department of Environmental Protection, LCAP – Design of 1.2 miles of pressure and gravity sewer line at the Jackson County Landfill to convey landfill leachate to an existing sanitary collection system. Included were provisions for servicing residences along the pathway, hydraulic sizing, and preparation of drawings, specifications and a cost estimate.

West Virginia University – Research assistant for developing an interactive optimal sewer design program SODES.

Evaluation of options for future treatment of wastewater at a chemical industrial facility along the Ohio River in West Virginia. Included were evaluation of options, estimation of capital and O&M costs, and preparation of a report to a law firm in West Virginia.

### Mining

Estimation of AMD treatability and treatment costs at multiple mining sites in West Virginia as part of preacquisition site assessments, including records review of 303(d) TMDL list.

Eastern Associated Coal Corporation – Project Manager for oversight of water supply inventory of structures over a 3200-acre SMCRA permit expansion (during 1994-1995) of the Federal No. 2 longwall deep mine in Monongalia County, West Virginia. Included were negotiations with the West Virginia Division of Environmental Protection (WVDEP) of the locations of permanent surface and groundwater monitoring points.

Eastern Associated Coal Corporation – Project Manager for design of Guyses Run AMD facility. Design included a 3,000,000-gallon pond, 180 feet of relocated stream, and stream crossings. Included was regulatory approval from USCOE, PLC, and WVDEP. Deliverables included drawings, specifications, and a cost estimate.

Old Ben Coal Company – Project Engineer for preparation of PHC statement for SMCRA permit

application for the Nile Stone Slurry Impoundment in Mingo County, West Virginia.

Pre-mining, pre-blast surveys, including field investigations and report preparation, for various coal companies in Ohio, Virginia and West Virginia.

- Elk Run Coal Company
- Island Creek Coal Corporation
- Oneida Coal Company
- Southern Ohio Coal Company

Eastern Associated Coal Corporation – Project Manager for preparation for SMCRA Incidental Boundary Revision and NPDES permit modification applications for addition of 3.7-million-gallon mine drainage treatment pond at Martinka Coal Company's Guyses Run AMD facility.

Southern Ohio Coal Company – Project Manager for water supply interviews with occupants of 70 structures in Gallia, Meigs, and Vinton Counties, Ohio.

Project Engineer for grouting project to abate acid mine drainage at the Omega Mine Complex project in Monongalia County, West Virginia. Project involved collaboration of private/public agencies to provide resources for approximate \$2,500,000 project.

Meadow River Coal Company – Project Manager for water supply inventory of 37 structures over a deep mine in Fayette County, West Virginia, and preparation of subsequent SMCRA permit revision to incorporate water supply inventory to existing permit.

Eastern Associated Coal Corporation – Project Engineer for identification of permanent groundwater and surface water monitoring points including negotiation of locations with the West Virginia Division of Environmental Protection (WVDEP) for 1,750-acre and 3,200-acre SMCRA permit expansions of the Federal No. 2 longwall deep mine in Monongalia County, West Virginia.

Rum Creek Coal Sales, Inc. – Project Engineer for preparation of probable hydrologic consequences (PHC) statement for SMCRA permit application for below drainage deep mine in Logan County, West Virginia.

Eastern Associated Coal Corporation – Project Engineer for preparation of probable hydrologic consequences (PHC) statement for SMCRA permit application for 5000+ acre Montcoal Eagle longwall deep mine,



including establishment of permanent surface and ground water monitoring points.

Ranger Fuel Corporation – Project Manager for SMCRA Incidental Boundary Revision (IBR) for new face-up and portal at the Clinton No. 4 mine in Boone County, West Virginia.

Southern Ohio Coal Company – Completion of drawdown field tests and estimation of well yields for over 12 wells.

West Virginia Division of Environmental Protection – Project Manager for evaluation and design of passive AMD treatment system at the Owings Mine Complex site in Harrison County, West Virginia. Included were detailed sampling plan, issuance of pre-construction water quality report, and preparation of construction drawings, specifications, and cost estimate.

West Virginia Division of Environmental Protection – Project Manager for Harris AMD reclamation project. Design included 400 feet of ditch, one culvert, manholes, 500 feet of subsurface drains, and sealing of mine portals. Deliverables included drawings, specifications, and a cost estimate.

Southern Ohio Coal Company – Project Manager for preparation of SMCRA permit application for the remaining life of the Meigs No. 2 and No. 31 mines in Ohio, including inventory of water supplies of over 200 residents.

#### Abandoned Mine Lands

Project Manager/Project Engineer for the design and development of reclamation plans and feasibility studies for more than 60 abandoned mine land projects for the WVDEP, Office of Abandoned Mine Lands and Reclamation, and the Commonwealth of Virginia, Abandoned Mine Lands Program. Tasks included:

- Client/contract management
- Mapping development
- Hydrologic evaluations
- Reclamation design
- Subsidence evaluation and abatement
- AMD evaluation and abatement
- Hydraulic design
- Geotechnical investigations

- Preparation of drawings, specifications, and cost estimates
- Preparation of Public Lands Corporation, U.S. Army Corps of Engineers, West Virginia Division of Highways, and NPDES permit applications.

West Virginia Division of Environmental Protection – Project Manager for Left Hand Fork reclamation project. Design included 1,600 feet of storm water ditch, 1,900 feet of riprap toe protection, culverts, relocation of a road, and regrading of refuse. Regulatory approval was obtained. Deliverables included drawings, specifications, and a cost estimate

West Virginia Division of Environmental Protection – Project Manager for reclamation design for the Owings Mine Complex site in Harrison County, West Virginia. Design included 8,300 feet of storm water ditch (including relocation of stream), 1,000 feet of culvert/subsurface drains, manholes, and a box culvert in addition to reclamation of refuse piles and sealing of mine portals. Deliverables included drawings, specifications, and a cost estimate. Included was interaction with the WVDOH, and obtainment of USCOE approval for relocation of a stream.

West Virginia Division of Environmental Protection – Project Manager for the Majesty Mine Complex project. Design included storm water ditches, stream relocations, culverts, and regrading of refuse piles and sealing of mine portals. Regulatory approval from the WVDOH and USCOE were obtained. Deliverables included drawings, specifications, and a cost estimate.

West Virginia Department of Energy, Abandoned Mine Lands – Stabilization program for mine subsidence at the Doug Gray Site in Fairmont, West Virginia, including a subsurface investigation, development of an injection plan, preparation of construction quantities, and a pre-bid meeting.

West Virginia Division of Environmental Protection – Project Manager for stabilization program for mine subsidence at the Glen Morgan (Lilly) site in Raleigh County, West Virginia, and the Mainella Site in Marion County, West Virginia. Included were development of injection plan, construction drawings and specifications, and cost estimate.

Assisted on St. John's Road Subsidence Project, Brooke County, West Virginia. Subsurface investigation and

development of specifications and construction drawings for remedial work on mine subsidence affecting 30 acres and 50 homes were conducted.

Project Engineer for Holden (Padgett) Subsidence Project, Whitman Junction, West Virginia. The project included subsurface investigation to determine extent of mine workings, development of stabilization plan, including drainage channels/pipes and mine seals. Construction documents were prepared, and participation in pre-bid and pre-construction meetings was completed.

Assisted on Jonben (Haga) Subsidence Project, Jonben, West Virginia. Subsidence control on an emergency basis including sinkhole backfilling and drainage control. Project included drilling to determine the extent of mining and subsidence, field surveying to develop topographic mapping and development of a backfilling and drainage plan.

West Virginia Division of Environmental Protection – Project Manager for 380 residence water supply inventory (including sampling) as part of the Phase II Water feasibility study for the New Haven Study Area in Fayette County, West Virginia.

West Virginia Division of Environmental Protection – Project Manager for 600 resident water supply inventory (including sampling) as part of the Phase II Water feasibility study for the Mill Creek Study Area in Boone, Lincoln, and Logan Counties, West Virginia.

West Virginia Division of Environmental Protection – Project Manager for 200+ residence water supply inventory as part of the Phase II water feasibility study for the Gauley River Study Area in Fayette and Nicholas Counties, West Virginia.

West Virginia Department of Energy – Abandoned Mine Lands – Project Manager for Phase II groundwater contamination study for drinking water wells in the Crooked Creek, Cow Creek, and Upper Rum Creek communities in Logan County, West Virginia. Work included water supply inventories of 250+ residences, collection and analyzing surface and well water samples, researching water quality records, designing and costing remedial measures, and calculating the percent of wells that had been degraded by mining activity.

#### Environmental Assessments/Impact Statements

Environmental site assessments, including record searches and field investigations, for numerous sites in West Virginia, Virginia, Ohio, and North Carolina. Specialization in large acre tracts, typically ranging from 1,000 acres to 65,000 acres, including coal properties:

- Dominion Resources
- Goldman Associates
- DiMucci Development
- FDIC
- Rhone-Poulenc Ag Company
- GSA
- General Electric
- West Virginia University
- Peabody Coal Company
- Massey Coal Services
- Kanawha County Solid Waste Authority
- Capel, Incorporated
- Plasma Processing Corporation
- Sun Bank South Florida
- Vaughan Railroad Company
- Foodland
- Jackson & Kelly
- Spilman, Thomas and Battle

University of North Carolina – Preparation of an Environmental Assessment showing no significant environmental impact for a proposed 1,400-foot television tower near Chapel Hill, North Carolina.

West Virginia Division of Highways – Project Engineer for completion of hazardous waste portion of environmental assessment for 22 miles of proposed upgrade to US 19, north of Summersville, West Virginia. Included site reconnaissance, interviews, and records search to identify potential hazardous waste sites along path of proposed upgrade.

#### Storage Tanks

Marshall University – Project Engineer for closure, sampling, and remediation activities associated with an UST closure at a new football stadium.

Project Engineer for sampling associated with an underground storage tank removal at a site in Harrison County, West Virginia.

West Virginia Division of Environmental Protection – Project Engineer for sampling associated with two abandoned underground storage tanks at a former mine site in Harrison County, West Virginia.

Goldman Associates – Project Engineer for closure, sampling, and remediation activities associated with an UST closure at a commercial establishment.

Contamination assessment for a national coal company for leaking UST at a coal facility in southern West Virginia, including multiple aquifer well installations, preparation of corrective action plan, and subsequent installation of air sparging system and oil/water separator.

West Virginia Department of Natural Resources – Contamination assessment for leaking underground storage tanks at the Rite Way Packette site in Jesse, West Virginia.

Project Engineer for excavation and off-site disposal of contaminated soil associated with a UST gasoline leak at a coal preparation facility in Kentucky.

Plasma Processing Corporation – Preparation of an underground injection control (UIC) permit application for a secondary aluminum facility.

#### Hazardous Waste/RCRA/Corrective Action

Project Engineer for PCB sampling at numerous mine sites in McDowell, Nicholas, Raleigh, and Wyoming Counties, West Virginia.

Project Engineer for excavation and off-site disposal of a diesel fuel spill on a slurry impoundment in Kentucky.

Regional Solid Waste Disposal Company – Project Engineer for guidance of contamination assessment and remediation activities with a fuel spill at a waste transfer facility in South Carolina.

Island Creek Corporation – Contamination assessment for petroleum products, battery acid, and PCBs at a coal preparation plant in Kentucky.

Feasibility study for future disposal options of residual wet waste from steam plants at a chemical plant in West Virginia.

#### Remediation

Project Engineer for remediation activities for a diesel fuel spill at a tank farm at a coal preparation plant in Kentucky.

Project Engineer for three PCB site remediations for a national coal company by excavation and off-site disposal at a coal preparation plant in Kentucky.

Vandalia Mining Corporation – Project Engineer for a contamination assessment and remedial activities a hydraulic fuel spill in Clay County, West Virginia.

#### Landfills/Solid Waste/Waste Disposal

Project Manager/Engineer for more than 60 private and public solid waste disposal facility projects involving evaluation, design, permitting and construction of disposal cells, closures, and leachate management facilities. Tasks included:

- Client/contract management
- Mapping and development
- Hydrology evaluation and hydraulic design of stormwater structures
- Geotechnical investigations
- Preparation of drawings, specifications, and cost estimates
- Preparation of solid waste and NPDES permit applications
- Construction observation/administration tasks such as full-time observation of construction, review of contractor submittals, review of contractor pay requests, and preparation of record drawings

Project Manager/Project Engineer for study, design, bidding, and construction phase services for 10+ solid waste disposal projects, including lined cell development and closures.

S&S Grading, Inc.:

- Renegotiation of a municipal waste water treatment plant NPDES permit at Grant Union Public Service District, including preparation of corrective action plan for facility, to allow for acceptance of more landfill leachate.
- Project Engineer for preparation of revised Part 2 permit application for S&S Landfill in Harrison County, West Virginia. Work included design of

landfill facilities including storm water structures, drawings, permit application text, NPDES permit application, and negotiations with the WVDEP until permit issuance.

- Project Manager for preparation of construction documents for Phase 1, 2, 2B and 3 expansions of the S&S Landfill in Harrison County, West Virginia. Work included design of liner system and storm water drainage structures, drawings, specifications, quantities, assistance in bidding and contractor selection.
- Project Manager for construction monitoring of the Phase 1, 2, 2B and 3 expansions of S&S Landfill in Harrison County, West Virginia. Work included regular meetings with contractor, preparation of weekly progress reports, preparation of liner system certifications, and submittal to the WVDEP of final certification. Included was construction monitoring of storm water drainage structures.
- Project Manager for preparation of drawings and specification for closure of the old S&S Landfill in Harrison County, West Virginia. Work also included designing proposed grade, storm water structures, landfill cap features, and preparation of quantities.
- Design of a landfill leachate pump station, force main, and primary and secondary containment tanks, including preparation of drawings, technical specifications, quantities, and a cost estimate.
- Renegotiation of a municipal waste water treatment plant NPDES permit, including preparation of corrective action plan for facility, to allow for acceptance of more landfill leachate.
- Project manager for design of valve vault for leachate handling facilities at the S&S Landfill in Harrison County, West Virginia.
- Project manager for construction of additional sedimentation pond at the S&S Landfill in Harrison County, West Virginia.
- Project engineer for permit modifications to allow alternate landfill liner systems at the S&S Landfill in Harrison County, West Virginia.

West Virginia Solid Waste Management Board – Technical review of proposed batch treatment plant/sludge handling equipment for treating landfill leachate.

Feasibility study for future disposal options of residual wet waste from steam plants at a chemical plant in West Virginia.

West Virginia Division of Environmental Protection, LCAP – Assistance with QA/QC review for construction drawings and specifications for the Central Landfill project in Braxton County, West Virginia and the Mingo County Landfill project in Mingo County, West Virginia.

West Virginia Division of Environmental Protection, LCAP – Preparation of construction drawings and specifications for the leachate collection and storage facilities for the closure of the Fleming Landfill in Kanawha County, West Virginia.

West Virginia Solid Waste Management Board – Preparation of an NPDES permit application for a municipal solid waste landfill near Morgantown, West Virginia.

Project manager for preparation of annual cross sections depicting liner elevations, existing elevations, and cap elevations for S&S Landfill in Harrison County, West Virginia and the Carolina Grading, Inc. landfill in South Carolina from 1995 to 1999. Work also included estimating volume of waste disposed, and volume of air space remaining.

- S&S Grading, Inc.
- Carolina Grading, Inc.

Carolina Grading, Inc. – Project manager for redesign of landfill subbase elevations to allow increased airspace at Carolina Grading landfill in South Carolina.

Eastern Environmental Services, Inc. – Project manager for estimation of remaining airspace volume at the Bayside of Marion Landfill in Florida and at a landfill in Maryland.

West Virginia Solid Waste Management Board – Project engineer for study evaluating seven alternatives for future operation of the Monongalia County Landfill.

#### Air Pollution/Air Services

Plasma Processing Corporation – Preparation of air pollution control permit applications, permit modifications, and compliance testing for secondary aluminum facilities in West Virginia and Tennessee.

Preparation of an air pollution control permit (construction and operating) applications for loadouts, coal preparation plants, and associated areas of coal



preparation plants including coal handling equipment, refuse conveyor, stockpiles, rotary breaker and silos.

- Peabody Coal Company
- Meadow River Coal Company

#### NPDES Industrial/Municipal Permitting

Project Manager for the acquisition of NPDES permits for construction activities for multiple civil engineering projects, including sanitary sewer collection systems and water supply extensions.

Project Manager for compilation of storm water sampling plans/kits for NPDES permit applications:

- Columbia Gas Transmission Corporation
- Plasma Processing Corporation

Preparation of Stormwater Pollution Prevention Plans (SWPPs) required by NPDES permits for natural gas compressor stations and secondary aluminum facilities:

- Columbia Gas Transmission Corporation
- Plasma Processing Corporation

Preparations of NPDES permit applications for industrial sites, and regulatory liaison associated with the applications:

- Municipal and industrial waste landfills – West Virginia Solid Waste Management Board, S & S Grading, Inc., and Rhone Poulenc, AG
- Water treatment plant – West Virginia Department of Environmental Protection/Logan County Public Service District, and West Virginia-American Water Company
- Secondary aluminum facility – Plasma Processing Corporation

Design of outfall modifications, including diffuser systems on outfalls. Included were hydraulic sizing and preparation of drawings, specifications and cost estimates. Some projects included bidding and construction phase services.

- City of South Charleston WWTP
- Allegheny Energy Services
- Cytec Industries Inc.
- Consol Energy, Inc.
- Akzo Nobel Chemicals

- Kureha, Inc.
- CNX Gas
- Patriot Coal
- Bayer Crop Science
- Momentive, LLC
- First Energy, Inc.

Served on West Virginia Manufacturer's Association Committee to prepare guidance document for preparing Groundwater Protection Plans (GPP's) for facilities regulated by NPDES permits.

Columbia Gas Transmission Corporation:

- Project Manager for preparation of template Groundwater Protection Plan to cover 50+ natural gas industry facilities in West Virginia. Included was preparation of hard copy and digital format version for use by facility personnel.
- Preparation of comments on draft NPDES permits including negotiations on revising permit conditions for multiple natural gas compressor stations in West Virginia.
- Preparation of report evaluating and recommending disposal options for water at Crawford Compressor Station in Ohio, including subsequent negotiations for direct discharge of water without NPDES permit.
- Project Manager for preparation of State of New York SPDES permit application for the Greenwood Storage Field.
- Preparation of default mixing zone model to allow for proposed increase in iron NPDES limits at the Cobb Compressor Station in Kanawha County, West Virginia.

#### Roadway Design

WVDEP and Logan County Public Service District – Project Manager for the design and layout of the relocated West Virginia County Route 12 (including approval from WVDOH) as part of the water treatment plant site of the Mill Creek Regional Water Supply Extension in Logan County, West Virginia. The design included roadway alignment (including vertical and horizontal curvature, right-of-way, and horizontal clearance with respect to structures), surface and subsurface drainage (including hydraulic calculations and channel and culvert sizing), fill embankment design, cut slope layout, and specifications for pavement, gravel, guardrail, drop inlets, and drainage structures. In addition, the project included compiling

technical specifications including WVDOH standard specifications.

Martinka Coal Company – Project Manager for design of an access road associated with a new 3,700,000-gallon pond at a deep mine in northern West Virginia. Project included subsurface investigation, hydrology calculations, channel and culvert design, cut/fill balance, low water crossing design, embankment design, and selection of road surfacing material. Deliverables included specifications, including references to WVDOH specifications. USCOE and Public Lands Corporation permits were obtained.

S&S Grading, Inc. – Project Manager for design of an access road associated with a closure cap on an old landfill in Harrison County, West Virginia. Project included site grading, hydrology calculations, channel and culvert design, design of subsurface drains under the road, cut/fill balance, embankment design, and selection of road surfacing material. Deliverables included drawings and technical specifications, including references to WVDOH specifications. Roadway quantities were estimated.

Ranger Fuel Corporation – Design of an access road for a new deep mine portal at the Clinton No. 4 Mine in Boone County, West Virginia. Project included site grading, hydrology calculations, channel and culvert design, cut/fill balance, and selection of road surfacing material. Deliverables included drawings and specifications. Regulatory approval was obtained.

West Virginia Division of Environmental Protection – Project Manager for the design of site drainage along WV Route 16/2 (including channels and culverts), reclamation of two landslide areas along WV Route 16/2, and a soldier (pile and lagging) wall to support a slip in WV Route 16/2. In addition, responsibilities including compiling technical specifications, including WVDOH standard specifications and communications with WVDOH for design approval.

# MARK A. SANKOFF, P.E., P.S.

*Chief Engineer*



## EDUCATION

B.S. Civil Engineering, 1982  
West Virginia University

## EMPLOYMENT HISTORY

2011-Present Potesta & Associates, Inc.  
1991-2011 West Virginia American Water  
1988-1991 Dunn Engineers, Inc.  
1982-1988 Kelley, Gidley, Blair & Wolfe, Inc.

## PROFESSIONAL REGISTRATIONS

- Professional Engineer – West Virginia
- Professional Surveyor – West Virginia

## PROFESSIONAL AFFILIATIONS

- American Water Works Association
- National Society of Professional Engineers

## AREAS OF SPECIALIZATION

Water including design of water mains, water storage tanks, booster stations, pressure reducing stations, advanced metering infrastructure – (AMI) and Automated Meter Reading – (AMR) systems. Extensive knowledge in water distribution systems operation and maintenance.

## PROFESSIONAL EXPERIENCE

### Water Lines, Water Storage Tanks, and Water Treatment Plants

Confidential Coal Company – Onsite water management, reuse and disposal project; services included construction of 8,500 gallon per minute combination high pressure pump/pressure reducing station, controlling a 14 mile 26” HDPE pipe, an 8,500 gallon per minute pressure sustaining valve station, energy dissipation structure, river outfall and SCADA system.

Responsible for engineering at West Virginia American Water (WVAW):

- Supervising an engineering staff of eight, working in conjunction with other departments at WVAW.
- Developing and prioritizing multiple capital projects while developing and managing the multi-million capital budget for West Virginia. Budgeting includes developing and creating large investment projects, multiple public private partnerships and several acquisitions.
- Involved in multiple operational issues/projects including non-revenue water reduction, comprehensive planning studies including interconnection studies to combine operations to increase efficiencies.
- Worked on the automation of Bluestone Water plant which is intended to be the first one shift automated and unattended surface water treatment plant in West Virginia.
- Design of multiple pressure reducing stations and booster stations.
- Overseeing a \$1.5+ million per year tank painting program.
- Managed tank painting program, which included evaluating, prioritizing, draining and refilling tanks, tank inspections, preparation of contract documents, bidding, bid evaluations, contract awards, scheduling, taking tanks out of service while maintaining uninterrupted service to customers.
- Responsible for over 300 tanks in the largest water system in West Virginia.

Responsible for the Fayette AMI project, a \$4.3 million-dollar meter replacement/automation project to automate almost 12,000 water meters in Fayette County, West Virginia. This project was part of an EPA Green Project and the project was successfully publically bid using a

performance specification using stimulus money. Methods were developed to economically work through terrain issues as it related to radio signals to develop a successful project. The project successfully incorporated acoustic listening devices to monitor the distribution system at night to reduce non-revenue water in the Fayette water system.

City of Glenville – Project Manager for the study, design, bidding, and construction phase services for project involving upgrades and construction monitoring to their existing potable treatment and water distribution system.

Town of Mills Creek – Project Manager for the design, permitting, preparation of construction plans, specs, and bidding documents, and construction administration/observation services for the construction of two backwash ponds behind the existing water treatment plant.

Responsible for the project management to complete the WVAW building complex at 1600 Pennsylvania Avenue, Charleston, West Virginia. Provided oversight of the building complex for all operation and maintenance items, as well as liaison with the leasees.

Project Manager of the Kanawha Valley to Montgomery Interconnection Project design which included over 20 miles of 20-inch to 12-inch water mains, two relay booster stations, one storage tank, Kanawha River Crossing, railroad crossings, two pressure reducing stations and radio telemetry.

Project Manager for the EPA IDSE disinfection project to develop the computer water models for the Charleston and Huntington water systems which calibrated the two largest water distribution systems in West Virginia.

Project Manager for the Kanawha County IDB Water Project 2000 which served 33 areas and brought water to over 1,740 families. The total project cost of over \$22 million included over 100 miles of water mains, five boosters and six water storage tanks of various sizes. Oversaw the design work of six consultants, including acquiring the rights-of-way, the bidding of 12 water main contracts, and the construction of those contracts with five consultants handling five contractors, while managing the bidding and construction of the above boosters and water storage tanks.

Prepared specifications and plans for numerous water main extensions, water storage tanks, boosters and hydro

pneumatic booster stations and pressure regulating stations including site work, other utilities, and property acquisition, including bidding, project and construction management.

Parcoal Project, Webster County, consisting of 8-inch water main extension and a 160,000-gallon water storage tank using an ARC Grant.

Southridge Development Project consisting of 16-inch water main extension to serve the Southridge Development on Corridor G.

Responsible for the 55-person department that maintained the Kanawha Valley water distribution system, which repaired an average of 1,500 main breaks per year up to 30-inch PCCP:

- Responsible for providing new water services – the department made an average of 850 taps per year
- Oversaw the leak survey effort to reduce unaccounted for water – developed a system to check night flow in systems using existing telemetry to determine leakage and direct efforts to maximize finding and fixing those leaks
- Coordinated the small diameter main replacement program which averaged over one million dollars per year
- Comprehensive supervisory experience between union and non-union personnel – responsible for five supervisors
- Assisted in union negotiations – developing a process to equalize overtime within the distribution department. Worked with the Manager to develop 24-hour coverage shifts to provide better customer service and reduce O&M costs, including a 12-hour shift schedule using four foremen to provide round the clock coverage
- Served as the liaison with Kanawha County Commission and KCRDA on new water projects to serve un-served areas

Oversaw the completion of the construction of the Consolidated Office Complex for WVAW's corporate headquarters in Charleston in 1997 to 1999.

Kanawha County Water Main Extension Project consisting of waterlines, booster, a 200,000-gallon water storage tank, and four pressure-regulating stations for the Campbells Creek area of Kanawha Valley.



Quarry Creek Subdivision consisting of vertical turbine booster station and a 330,000-gallon water storage tank, with an elevated storage tank bid option and water lines.

Kellys Creek Project consisting of 16-inch water main extension, booster station, and water storage tank along Route 60 using WVDEP, AML funding.

Little Sandy, Aarons Fork and Edens Fork Projects. Construction of water mains, a booster station and a 160,000-gallon storage tank utilizing two Small Cities Block Grants with KCDRA.

Summers-Mercer Water Project included design of an 8-inch water main to Hinton and a 24-inch water main from the new Bluestone plant to Princeton, including the pressure reducing stations along with the 300,000-gallon water storage tank near Pipestem.

Designed and constructed multiple small water main extensions, working with developers, customers and small contractors to serve new subdivisions and unserved areas.

#### Sewer Lines and WWTPs

Project Manager for the replacement of the Wastewater Treatment Plant at Point Pleasant, West Virginia. This included being responsible for design, plans, specifications, regulatory approval, bidding and bond sale, and construction management.

Inspection of wastewater collection systems, writing Operation and Maintenance Manuals, Facility Plans, and Grant Applications for various clients.

Project Manager for the Big Sandy Sewer Public Service District Vacuum System Project, which included the design and construction of three vacuum sewer stations, two sewage pump stations, a 9-mile force main, and the vacuum sewer collection system. Responsibilities of the above involved the preparations of engineering contracts, planning reports, plans and specifications, bid documents, operation and maintenance manuals, and change orders for state and federally funded wastewater and water projects. The process involved cost-effective analysis, public relations, technical writing, and public speaking.

Project Engineer for the Logan Wastewater Interceptor Project, the Town of Barboursville Lagoon Improvements, and the Philippi Wastewater Project including a new Oxidation Ditch Plant, renovation of an existing pump station, sewer main replacement design, and construction. Experience included designing wastewater treatment plants, sludge handling facilities including belt filter presses, wastewater collectors and pumping systems, site developments, access roads, and combined sewer overflow (CSO) facilities.

# VICTOR M. DAWSON, P.S.

*Professional Surveyor*



## EDUCATION

A.S. Land Surveying  
Glennville State College

## EMPLOYMENT HISTORY

1998-Present	Potesta & Associates, Inc.
1993-1998	Dunn Engineers
1988-1993	Woolpert Consultants
1986-1988	W. K. Dickson and Company
1986	Clary-Miller and Associates
1985-1986	William F. Knight Land Surveying
1984-1985	Morris Exploration Company
1983-1984	William F. Knight Land Surveying
1981-1983	Columbia Gas Transmission Company

## PROFESSIONAL REGISTRATIONS

Registered Land Surveyor – North Carolina, South Carolina, and West Virginia

## PROFESSIONAL AFFILIATIONS

- North Carolina Society of Land Surveyors
- South Carolina Society of Land Surveyors
- American Congress on Surveying and Mapping
- West Virginia Society of Professional Surveyors, Board of Directors, Greater Kanawha Valley Chapter, 2012-present

## AREAS OF SPECIALIZATION

Expert Witness/Case Preparation, Accident Surveys, ground control, construction stakeout, topographic mapping, boundary and property surveys including ALTA/NSPS surveys, As-built drawings, and quantity measurements. Related areas include courthouse research, location/verification of utilities, preparation of right-of-way plans, and verification of property owners.

## PROFESSIONAL EXPERIENCE

### Surveying

#### Transportation:

- Merritt's Creek Connector Road, WVDOT – Preliminary route survey of four-lane roadway. Crew Chief/Project Manager for work that included courthouse research, property owner questionnaires, stake proposed centerline, tie to properties, set and reference construction control points in Barboursville, West Virginia.
- Benton's Ferry Bridge Replacement, WVDOH – Chief/Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Fairmont, West Virginia.
- Corridor H, WVDOH, Section 16 – Project Manager for route/location/design survey in Elkins, West Virginia.
- Tablers Station, WVDOH – Project Manager/Crew Chief for route/location/design survey in Berkeley County, West Virginia.
- North Bridgeport Connector Road, WVDOH – Crew Chief/Project Manager for work that included GPS control survey of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points, courthouse research, property owner questionnaires in North Bridgeport, West Virginia.
- Corridor H, WVDOH, Section 15 – Crew Chief/Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Elkins, West Virginia.

- Corridor D, WVDOH, Martown Section – Crew Chief/Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Parkersburg, West Virginia.
- Martha Truss Bridge Replacement, WVDOH – Crew Chief/Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Milton, West Virginia.
- Martha Girder Bridge Replacement, WVDOH – Crew Chief/Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Milton, West Virginia.
- Smith Bridge – Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Wetzel County, West Virginia.
- Opaquen Bridge, WVDOH – Project Manager for work included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Wetzel County, West Virginia.
- King Coal Highway, WVDOH – Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Mingo County, West Virginia.
- Sharon Heights Connector Road, WVDOH – Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Mingo County, West Virginia.
- Kanawha Turnpike, WVDOH, Charleston – Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Charleston, West Virginia.
- East Huntington Bridge, WVDOH – Crew Chief/Surveying Supervisor for work that included annual bridge inspection survey of cable stay bridge over the Ohio River in Huntington, West Virginia.
- Corridor H, WVDOT, Section 16 – Project Manager/Crew Chief for preliminary route/design survey in Elkins, West Virginia.
- VDOT – Route 265 in Danville, Virginia.
- NCDOT – NC 218 hydraulics in Wilkesboro, North Carolina.
- NCDOT – B-1277 Bridge hydraulics in Marion, North Carolina.
- NCDOT – NC 1318 Bridge in Taylorsville, North Carolina.
- NCDOT – Charlotte Outerloop Drainage in Charlotte, North Carolina.
- NCDOT – NC 90 Drainage in Charlotte, North Carolina.
- Crew Chief for Sardis Monroe Intersection Widening in Charlotte, North Carolina.
- WVDOT – Crew Chief for Corridor G in Charleston, West Virginia.
- Florida DOT – Crew Chief for Dame’s Point Bridge in Jacksonville, Florida.
- Corps of Engineers – Crew Chief/Quality Control Representative for St. George Harbor in St. George Island, Alaska.

Ground Control:

- Peabody Coal – Project Manager for ground control for 20 square miles of mapping in Putnam and Mason Counties, West Virginia.
- Crew Chief/Project Manager for Belmont Community Development in Charlotte, North Carolina.
- Crew Chief/Project Manager for Asheville Regional Airport in Asheville, North Carolina.
- Lenoir Rhyne College – Crew Chief for aerial photo control in Hickory, North Carolina.
- Crew Chief for Wilkinson Boulevard aerial photo control in Charlotte, West Virginia.
- Crew Chief for Park Road aerial photo control in Charlotte, North Carolina.
- Crew Chief for Beatties Ford Road aerial photo control in Charlotte, North Carolina.
- Crew Chief/Project Manager for Freedom Park aerial photo control in Charlotte, North Carolina.
- Crew Chief for ERM Ground Control Survey in Aberdeen, North Carolina.

Utilities:

- Cogentrix Energy – Surveying Supervisor for work included GPS control survey of project area, boundary survey of 292 acres, topographic survey of 177 acres for site construction, courthouse research in Marshall County, West Virginia.
- Big Sandy Peaker Plant, Constellation Power – Crew Chief/Surveying Supervisor for work that included GPS control survey of project area, boundary and topographic of 42 acres, boundary and route survey for 1 mile of transmission lines, construction stakeout in Cabell County, West Virginia.
- Paintsville Power Plant, Energy Services – Survey Supervisor for work that included control and topographic survey of a 180-acre site for proposed power plant in Paintsville, Kentucky.
- Greenbrier Pipeline, Dominion – Survey Supervisor for work that included control and preliminary route survey of a 264-mile pipeline running from Corton, West Virginia to Raleigh, North Carolina.
- Upshur County Power Plant, Dominion – Survey Supervisor for work that included control survey and construction survey of a 170-acre power plant in Upshur County, West Virginia.
- Nextel - Crew Chief/Survey Supervisor for cellular telephone tower sites for work that included courthouse research, boundary and topographic survey for 86 tower locations in West Virginia, Kentucky, and Ohio.
- Crew Chief/Project Manager for Little Sugar Creek Channel Improvements in Mecklenburg County, North Carolina.
- Crew Chief/Project Manager for Charlotte Stormwater Management in Charlotte, North Carolina.
- Crew Chief for Boy Scout Camp in Mecklenburg County, North Carolina.
- Crew Chief for Manchester Creek HEC Study for Rock Hill, South Carolina.
- Crew Chief Thermoco-Welco Water and Sewer in Kings Mountain, North Carolina.
- Crew Chief for proposed sewer route survey in Spencer, North Carolina.
- Moores Chapel, McIntyre East and West Plant Road, Hampton Park, Charlotte-Mecklenburg Utility Department in Charlotte, North Carolina.
- Crew Chief for Charlotte-Mecklenburg Utility Department in Charlotte, North Carolina.
- West Virginia American Water Company – Crew Chief/Survey supervisor for boundary survey for 180 water tank sites throughout West Virginia.
- Crew Chief for Chester Waterline Extension in Chester, South Carolina.
- Crew Chief for Lancaster Sewer Extension in Lancaster, South Carolina.
- Crew Chief for Marshville Sewer in Marshville, North Carolina.
- Crew Chief for Sewer Route Survey for Norwood in Norwood, North Carolina.
- Crew Chief for Lenoir Water and Sewer Extension in Lenoir, North Carolina.
- Crew Chief for Kings Mountain Route 75 Waterline Extension in Kings Mountain, North Carolina.
- Project Manager for route survey/seismic survey for SM-80 gas pipeline in Cross Lanes, West Virginia

Office, Business, Industrial:

- Walmart – Construction layout for parking, roadways, curb and gutter, and utilities for new store in Barboursville, West Virginia.
- River Ridge – Construction layout for new church building, parking and utilities in Charleston, West Virginia.
- National Lumber Plant – Chief/Survey Supervisor for boundary and topographic survey, construction stakeout for plant site in Roane County, West Virginia.
- Buckskin Council Boy Scout Camp, Boys Scouts of America – Survey Supervisor for topographic survey and construction stakeout for new water and sewer system in Pocahontas County, West Virginia.
- Hampton-Clarke, Philips Lighting Company – Crew Chief/Survey Supervisor for boundary and topographic survey, construction stakeout for cullet pile of hazardous waste site in Fairmont, West Virginia.
- BIDCO – Boundary and topographic survey for several parcels in the development, also stakeout of spec building and parking lots in Kanawha County, West Virginia.
- Crew Chief for Bojangles on Sam Furr Road in Charlotte, North Carolina.
- Crew Chief/Project Manager for Lowe's of Pineville, North Carolina.
- Crew Chief/Project Manager for Firestone Fibers and Textiles in Kings Mountain, North Carolina.
- Crew Chief/Project Manager for Rural Hills in Mecklenburg County, North Carolina.



- Crew Chief/Project Manager for Huntersville Business Park in Huntersville, North Carolina.
- Crew Chief for TransWest Office Building in Charlotte, North Carolina.
- Crew Chief/Project Manager for Chatham Properties in Charlotte, North Carolina.
- Crew Chief/Project Manager for WTVI Transmitter Tower in Charlotte, North Carolina.
- Crew Chief/Project Manager for Greenbrier Business Park in Charlotte, North Carolina.
- Crew Chief/Project Manager for Dickerson Carolina, Inc. in Charlotte, North Carolina.
- Crew Chief for Oakboro Industrial Park in Oakboro, North Carolina.
- Crew Chief for Baxter Medical Warehouse in Charlotte, North Carolina.
- Crew Chief/Project Manager in TechPark Business Center in Rock Hill, South Carolina.
- Crew Chief for Coffey Creek II and III in Charlotte, North Carolina.
- Crew Chief for Red Fez Club in Lake Wylie, South Carolina.
- Crew Chief for Hickory Grove Business Park in Charlotte, North Carolina.
- Crew Chief for Minit Lube in Charlotte, North Carolina.
- Crew Chief for Crescent Gateway in Belmont, North Carolina.
- Crew Chief for Roto Rooter in Charlotte, North Carolina.

#### Construction Stakeout:

- Charleston Federal Building – Crew Chief/Project Manager for staked foundation, anchor bolts, interior and exterior wall lines in Charleston, West Virginia.
- Courthouse Parking Building – Crew Chief for staked foundation and wall lines in Charleston, West Virginia.

#### Boundary & ALTA/NSPS Surveys:

- E.I. DuPont – Project Manager of all property owned by E.I. DuPont in the state of West Virginia totaling over 3, 927 acres.
- Coolfont Resort – Project Manager for boundary survey on 920 acres in Morgan County, West Virginia.
- Pison Development – Crew Chief/Project Manager for ALTA survey and construction layout for six

housing developments in Kanawha, Mason, Randolph, and Ritchie Counties, West Virginia.

- Charleston Housing Authority – Crew Chief/Project Manager for ALTA survey for 4 housing projects located in City of Charleston in Kanawha County, West Virginia.
- Emmanuel Baptist Church – Crew Chief/Project Manager for church in Charleston, West Virginia.
- Coldwater Creek – Crew Chief/Project Manager for ALTA survey of 38-acre distribution site in Mineral Wells, Wood County, West Virginia.
- Big Sandy Peaker Plant, Constellation Energy – Crew Chief/Project Manager ALTA survey of 42-acre plant site and 1 mile of transmission lines in Cabell County, West Virginia.

#### Expert Witness/Case Preparation/Accident Surveys:

- Flowe Construction v. Woolpett Consultants – Rutherford County Airport in Rutherford, North Carolina.
- Sizemore v. Carte – Boundary dispute in Clay County, West Virginia.
- Boundary dispute for case preparation over placement of gas well in Putnam County, West Virginia.
- Columbia Gas – Case preparation over a gas release and spill from a gas storage well in Sissonville, West Virginia.
- Boundary location settlement to determine location of property line due to a tree falling resulting in death in Nicholas County, West Virginia.
- Three-dimensional survey of a pallet crusher and survey a piece of machinery and surrounding structures in a case resulting in a loss of legs in Parkersburg, Wood County, West Virginia.
- Conducted boundary survey and mapping for court documents over a disputed right-of-way through a piece of property to an adjoining tract in Pinch, West Virginia.
- Three-dimensional survey of Huntington Bank parking garage to help determine cause of building collapse resulting in multiple deaths.

#### Hazardous Waste/Disposal Facilities:

- Winfield ACF Site, ACF/Corps of Engineers – Work included boundary, topographic, construction layout and sample point layout of 15 acres along the Kanawha River. This project had over 12,000 sample

- points laid out on a 3' grid in Winfield, West Virginia.
- Fike/Artel Superfund Site, DeMaximus – Surveying Supervisor for work that included boundary, topographic and sample layout for the cleanup and monitoring of the Fike/Artel Site and surrounding properties in Nitro, West Virginia.
  - Phillips Lighting, Fairmont Site, Hampton Clark – Surveying Supervisor for work that included boundary, topographic, structure location and sample layout of the Phillips Lighting glass collect pile and surrounding areas along the Monongahela River in Fairmont, West Virginia.
  - Poor Charlie and Company, Riverside Site; Poor Charlie, Sattes Site; Poor Charlie, Cramer Metals Site – Surveying Supervisor for work that included boundary, topographic, location and boring stakeout of various VERA sites and adjoining properties in Glasgow, Nitro and Parkersburg, West Virginia.
  - Elkem Metals Disposal Facility, Elkem Metals – Surveying Supervisor for work that included control network, boundary, topographic surveys, and yearly volume reports in Alloy, West Virginia.
  - Solutia – Surveying Supervisor for work that included boundary, topographic and location Surveys for various projects, disposal facility caps, charcoal filtering systems, and monitoring well control network throughout the site and adjoining properties in Nitro, West Virginia.
  - Nicholas County Landfill – Surveying Supervisor for work included control network, boundary and topographic surveys for expansion of cells and yearly volume reports in Summersville, West Virginia.
  - Pocahontas County Landfill – Surveying Supervisor for work that included control network, boundary and topographic surveys for expansion cells and yearly volume reports in Pocahontas County Landfill in Pocahontas County, West Virginia.
  - Fleming Landfill, WVDEP – Surveyor Supervisor for work that included boundary and topographic surveys, along with control network and baseline stakeout for landfill closure in Sissonville, West Virginia.
  - Cunard Landfill, WVDEP – Survey Supervisor for work that included topographic and construction layout for landfill closure in Fayetteville, West Virginia.
  - City of Charleston Landfill – Construction layout for new waste cells in Charleston, West Virginia.
  - Putnam County Landfill – Construction layout for new waste cells in Hurricane, West Virginia.
  - Berkeley County Landfill – Crew Chief/Project Manager for construction layout for closure.
  - Hampshire County Landfill – Crew Chief/Project Manager for construction layout for closure.
  - Mingo County Landfill, J & B Contracting – Survey Supervisor for work that included topographic and construction layout for landfill closure in Mingo County, West Virginia.
  - Mercer County Landfill, Jimmy Dunn – Survey Supervisor for work that included topographic and construction layout for landfill closure in Mercer County, West Virginia.
- Parks and Recreation:
- Crew Chief/Project Manager for Freedom Park in Charlotte, North Carolina.
  - Crew Chief/Project Manager for Mallard Creek Park in Charlotte, North Carolina.
  - Crew Chief for York Park in York, South Carolina.
  - Crew Chief for Hargett Park in Rock Hill, South Carolina.
  - Crew Chief for York Road Renaissance Park in Charlotte, North Carolina.
  - Crew Chief for Lockrain Subdivision and Golf Course in Orange Park, Florida.
  - Crew Chief for Amelia Island Golf Course in Amelia Island, Florida.
- Aviation:
- Yeager Airport – Stake out P.A.P.I. lights for Runway 15 in Charleston, West Virginia.
  - Summersville Airport – Crew Chief/Project Manager for topographic and tree location for glide path in Summersville, West Virginia.
  - Rutherford County Airport – Rutherford, North Carolina.
  - Seymour Johnson Air Force Base – Goldsboro, North Carolina.
  - Statesville Regional Airport – Statesville, North Carolina.
  - Asheville Regional Airport – Asheville, North Carolina.
  - Anderson County Airport – Anderson County, South Carolina.
- Motel:
- Crew Chief for Knights Inn Motels in Statesville, Asheville, Gastonia, and Charlotte, North Carolina.

- Crew Chief for Fairfield Inn Motel in Charlotte, North Carolina.

Coal Mines:

Kanawha Eagle Mine – Crew Chief/Survey Supervisor for work that included topographic and construction staking of refuse impoundments, drainage runoff ponds, and stake clearing limits of new mine face in Kanawha County, West Virginia.

Housing and Subdivision:

Yorktowne Subdivision – Crew Chief/Survey Supervisor for work that included boundary survey of exterior tract, construction stakeout of roads and utilities, stake boundaries of lots in Kanawha County, West Virginia.

The Pointe at Northgate – Project Manager for topographic and construction layout for subdivision.

Crew Chief/Project Manager for Woodside Falls Subdivision in Pineville, North Carolina.

Stonegate Subdivision – Crew Chief/Survey Supervisor for work that included boundary survey of exterior tract, construction stakeout of roads and utilities, stake boundaries of lots in Putnam County, West Virginia.

Crew Chief/Project Manager for Amberwood Subdivision in Charlotte, North Carolina.

Crew Chief for Thompson Plantation in Charlotte, North Carolina.

Crew Chief for Wells Crossing Apartments in Orange Park, Florida.

Crew Chief for Park Lake Apartments in Charlotte, North Carolina.

Crew Chief for Lakes of Mayport Apartments in Mayport, Florida.

Crew Chief for Cross Creek Apartments in Charlotte, North Carolina.

Military:

Crew Chief for Seymour Johnson Air Force Base, United States Air Force in Goldsboro, North Carolina.

St. George Harbor, U.S. Corps of Engineers –Contractor Quality Control Representative in St. George Island, Alaska.

Crew Chief for Camp Butner, United States Army in Durham, North Carolina.

Streetscapes:

Crew Chief for Idlewild Road in Charlotte, North Carolina.

Crew Chief/Project Manager for Florida Street in Charleston, West Virginia.

Crew Chief for Streetscape Mapping Project in Charlotte, North Carolina.

Crew Chief for Rock Hill Gateway in Rock Hill, South Carolina.

Crew Chief for boundary/topographic plans for Crescent Gateway Project in Belmont, North Carolina.

Colleges/Universities/Schools:

University of Charleston – Crew Chief/Survey Supervisor for work that included boundary survey of several parcels of land for student housing and parking lot in Charleston, West Virginia.

Marshall University – Survey Supervisor for work that included boundary and location survey of research complex in Charleston, West Virginia.

Marshall University – Crew Chief/Survey Supervisor for work that included courthouse research, boundary and topographic survey of several city blocks for student housing and parking buildings in Huntington, West Virginia.

University of Charleston – Crew Chief/Project Manager for stakeout of new pharmacy school building in Charleston, West Virginia.

Blackwell Field – Crew Chief/Project Manager for stakeout of sports complex for University of Charleston in Charleston, West Virginia.

Ivydale Elementary School – Crew Chief/Project Manager for boundary survey for disputed property line in Clay, West Virginia.

Big Otter Elementary School – Crew Chief/Project Manager for boundary survey for new school in Clay County, West Virginia.

Landfills/Abandoned Mine Lands:

WVDEP AML – Crew Chief/Project Manager for control/topographic survey for Sundial Project.

Jackson County Landfill – Crew Chief/Project Manager for work that included GPS control survey, boundary and topographic survey, construction stakeout for landfill closure in Jackson County, West Virginia.

Nicholas County Landfill – Survey Supervisor for work that included boundary and topographic surveys for biannually reports in Nicholas County Landfill in Nicholas County, West Virginia.

Pocahontas County Landfill – Survey Supervisor for work that included boundary and topographic surveys for biannual reports and construction stakeout in Pocahontas County, West Virginia.

Mercer County Landfill – Crew Chief/Survey Supervisor for work that included GPS control survey, boundary and topographic survey, construction stakeout for landfill closure in Mercer County, West Virginia.



# ROBERT J. AMMIRATO, P.E.

*Staff Engineer*



## EDUCATION

B.S. Mechanical Engineering, 1999  
Virginia Polytechnic Institute and State University

## EMPLOYMENT HISTORY

2002-Present Potesta & Associates, Inc.  
1999-2002 Omron Corporation – Kyoto, Japan

## PROFESSIONAL REGISTRATION

Professional Engineer – West Virginia

## PROFESSIONAL CERTIFICATIONS

40-Hour HAZWOPER  
Nuclear Density Gauge

## AREAS OF SPECIALIZATION

Construction supervision and monitoring, landfill operation, surface mining and reclamation, refuse area construction and operation, and sanitary sewer line design.

## PROFESSIONAL EXPERIENCE

### Spill Prevention, Control, and Counter (SPCC) Plan

Conducted site visits to review facilities and existing SPCC Plans (when available) for compliance with 40 CFR 112. Prepared and certified SPCC Plans the sites:

- Rite Aid – Shipping warehouse
- Essroc – Concrete Plant
- Swanson – Machine Shop
- LP Minerals – Mine Sites
- Columbia Gas/NiSource – Compressor Stations and Gas Wells
- Elementis – Clay Production
- ICL-IP America – Chemical Production Plant
- Flint Group – Ink Production Plant
- RJ Recycling – Scrap yards
- Charles Town Race and Slots – Horse Park
- Rubbermaid – Plastics Production Plant
- Charleston Area Medical Center – Hospital
- Boggs Aviation – Airfield
- Pilgrims – Chicken Rendering Plant
- Morgantown Energy Associates – Power Plant
- Docks Creek – Barge Loading Facility
- Al Rec – Aluminum Recycling Center
- Pierson Lumber – Lumber Yard

### Facility Response Plan (FRP)

Stone Energy – Developed a Facility Response Plan for a 1.5-million-gallon tank of fracking water. Worked with client to set up emergency procedures and training regiments.

### Aboveground Storage Tank (AST)

Assist clients with compliance to the AST Act created in April 2014. Including updates on AST Act revisions, registration of tanks, preparation of Spill Prevention and Response Plans (SPRPs), tank inspections, and filing with the West Virginia Department of Environmental Protection (WVDEP).

- Columbia Gas/NiSource - Compressor Stations and Gas Wells
- Pierson Lumber – Lumber Yard
- Tenaska – Power Plant
- Peerless Block – Block Production Plant
- Enviromine – Mine Chemicals Distribution

Sewer Lines and WWTPs

Carl M Freeman, Coolfont – Design and permitting of a 440,000 GPD membrane bioreactor (MBR) wastewater treatment plant, with potential expansion capabilities, and a 24,000-foot collection system consisting of gravity and force mains. Design included plant basins, piping, and pumping. Permitting included Health Department sewer construction permits.

City of Wellsburg – Preparation and submittal of an Asset Management Plan for a town’s water system. Observed, classified, and cataloged the system components and system components condition. This effort was in conjunction with a WVDEP program to homogenize Asset Management Plans. A report was prepared based on observation and discussions with the City and WVDEP using Environmental Protection Agency asset management software.

Town of Ceredo – Preparation and submittal of an Asset Management Plan for a town’s wastewater system. Observed, classified, and cataloged the system components and system components condition. A report was prepared based on observation and discussions with the town using Environmental Protection Agency asset management software.

Salt Rock Public Service District (PSD):

- Evaluation of existing wastewater collection system and potential modification to the lift stations including selection of replacement pumps and chemical additives.
- Evaluation of existing pump station for increased flow tying into an existing sanitary sewer system.
- Prepared preliminary design of a sewer collection system for a proposed housing project to tie into an existing sanitary system. Design included verifying the existing capacity of the existing sanitary system to accept the proposed flow.
- Reviewed existing sanitary sewer system for potential causes of hydrogen sulfide gas. Worked with the PSD’s chemical suppliers to develop potential options to comply with the PSC’s requirements.

Tackley Mill – Designed and permitted a 13,000-foot sanitary sewer collection system, including lift stations and 700,000 gpd membrane bioreactor (MBR) wastewater treatment plant to meet the Chesapeake Bay Water

Quality Standard. The design also includes feasibility study or drip irrigation for the plant effluent.

Thornhill Development – Designed and permitted a 15,000-foot sanitary sewer collection system and 1,000,000 gpd MBR wastewater treatment plant.

Old Standard Development – Designed and permitted a 4,000-foot sanitary sewer collection system and associated 125,000 gpd MBR wastewater treatment plant. The permitting was the first MBR treatment plant in West Virginia.

Water Lines, Water Storage Tanks, and Water Treatment Plants

West Virginia American Water, South Charleston – Designed a replacement for an existing water supply system with construction designed to not disturb the existing system. Approximately 2,300 feet of water line was design with 5,900 feet of future water line including a tie in for a proposed booster station.

West Virginia American Water, Drawdy Mountain – Design of a 1,100,000-gallon water storage tank to be connected to an existing water system. The design required water service not to be disrupted during installation and disinfection of the tank.

Alan Ives, Orchard Manor/Jarrett Terrace – Design and permitting of water and sewer system replacement for renovations to housing developments. Design included water system modeling for hydrant and sprinkler demands. Permitting included Health Department water and sewer modification permits and WVDEP construction stormwater permits.

NPDES Industrial/Municipal Permitting

Patriot Coal – Designed multipoint river effluent diffuser on the Ohio River for a 1,500 gpm flow.

First Energy – Designed multipoint river effluent diffuser on the Ohio River for a 5,400 gpm flow and connected to an existing outfall with minimal disturbance. The design accommodated an underwater wall.

Panther Energy – Designed multipoint river effluent diffuser on the Kanawha River for a 5,000 gpm flow. The design took into considerations the endangered mussels

located downstream of the diffuser and communications with the US Army Corps of Engineers.

University of Charleston, Trianna Field – Developed a stormwater retention system for proposed site development. Worked with the City of Charleston to meet new stormwater requirements.

Momentive – Review sample results for compliance with NPDES limits. Submit DMR forms to the WVDEP and compile information for the client's review.

#### NPDES Construction Stormwater Permitting

Prepared and filed NDPEs Construction stormwater permits for proposed construction sites. Preparation included hydraulic modeling of the sites run off, design/size stormwater conveyances and retention structures, filing application with WVDEP, preparation of Stormwater Pollution Prevention Plans and Groundwater Protection Plans, and respond to WVDEP comments.

- Clay County School Board
- School Building Authority
- West Virginia American Water

#### Oil and Natural Gas

Reserve Natural Gas:

- Develop a model of a 13-mile natural gas collection system including production wells, customer usage, and compressor stations. The model was utilized to evaluate potential repairs/upgrades to the systems.
- Work with the client and dehydration unit manufacturer to select the appropriate dehydration unit for the customer's gas to meet the buyers' requirements. Permitted the dehydration units after selection.

#### Construction Monitoring

URS Spelter – Responsible for construction quality assurance of 48 acres of geosynthetic liner at a hazardous waste site. Liner system included geocomposite drainage netting, 40 mil HDPE geomembrane, and geotextile cushion.

West Virginia American Water – Provided oversight and documentation of installation of rural water main customer services in Boone County, West Virginia.

- Prenter Road Extension
- Turtle Creek Extension
- Long Branch Extension

Town of Ceredo – Provided oversight and documentation of installation of rural water main customer services and installation of a new water storage tank and associated valve vaults. Work included a bore and jack installation under a West Virginia Division of Highways highway.

Greenbrier County Power Cogeneration Project – Provided oversight and documentation for boring of historic coal refuse piles.

Brook County Landfill – Responsible for construction quality control testing and monitoring of 2.2 acres of geosynthetic liner installation and 0.5 acres of liner repair. Liner system included 60 mil and 80 mil HDPE geomembrane, drainage net geocomposite and geotextiles. Liner system repairs included testing and removal of damaged areas of 60 mil HDPE geomembrane, drainage net, and geotextile and replacement of these layers with new material, including all quality control testing.

Pocahontas County Landfill – Provided construction quality control and testing, includes density testing of subgrade of 1.1 acres and 1.3 acres of geosynthetic liner for a landfill and expansion. The liner system included 60 mil HDPE geomembrane, drainage net, and geosynthetic clay liner.

WVDEP Landfill Closure Assistance Program, Wyoming County Landfill – Design a pump station and 3,600-foot HDPE leachate piping system for an abandoned landfill's heavy metal leachate. The design required the system to be installed without disruption to the existing system and to allow the existing system to be utilized as a backup after installation.

#### Civil/Site Design

School Building Authority, Yeager/Panther Elementary School – Design of elementary school site, including earthwork, utilities, package treatment plant, and road relocation. The earthwork required raising the school site out of the flood plan and associated permitting. Prepared construction permits for submittal to the relevant offices. Coordination with architectural and engineering firms was utilized in the design of the school and school site.

City of Charleston, Clay Center – Designed the water feature for a green space. Design included water collection (city water was not to be utilized), pump sizing, water recirculation system (for a fountain and water fall feature), and overflow into the city storm sewer.

University of Charleston – Design of an underdrain system with a manufactured collection system for a softball field with discharge into a nearby stream. Backflow prevention was provided to water intrusion into the system.

Joint feasibility study with the Office of Naval Warfare and the Army, senior design project.

Tested and verified the feasibility of using magneto-rheological fluid in instantaneous high force shock absorption.

Designed high force shock absorption testing apparatus for a custom-made dampener.

Prepared and made presentations to keep multiple parties current on testing methods and results.

#### Roadway Design

Hardy County Rural Development Authority – Design and permitting of an industrial access road, including stormwater conveyances, located in Hardy County, West Virginia. Worked with the client and West Virginia Department of Transportation to revise the plan and meet regulatory requirements and financial viability.

#### Abandoned Mine Lands

Sundial Mine – Designed drainage channels for reclamation of a 150-acre abandoned mine property, including determination of site hydrology, channel material selection, and channel sizing.

WVDEP AML, Measle Fork – Design of an abandoned mine land reclamation plan and associated bid package. The plan included mine seals and protection of the stream bank due to the reclamation pile along the stream bank. Prepared the construction permits for submittal.

#### Water Pollution

WVDEP – Worked on project team preparing Source Water Assessment Protection Program plans. Project included field reconnaissance, records review, and preparing 36 SWAPP plans for public water supply sources.

Regional Intergovernmental Council – Preliminary layout and preliminary cost estimation for backup intakes for five different PSDs in accordance to Senate Bill 373, the Public Water Supply Protection Act.

#### Additional Experience

Intellectual Property Department:

- Drafted technical responses to patent office's inquiries
- Performed infringement analyses
- Located and assessed documents to restrict or invalidate patents
- Created and utilized database of all company's American patents
- Proofed and translated legal patents
- Analyzed range of patents' coverage
- Translated letters and documents
- Prepared and drafted department correspondences to foreign attorneys
- Updated department on changes to foreign patent office rules
- Found methods to reduce section's operating costs



# D. MARK KISER, P.E., L.R.S.

*Chief Engineer, Licensed Remediation Specialist*



## EDUCATION

B.S. Civil Engineering, 1984  
West Virginia University

## EMPLOYMENT HISTORY

1997-Present Potesta & Associates, Inc.  
1995-1997 Terradon Corporation  
1984-1995 GAI Consultants

## PROFESSIONAL REGISTRATION

- Professional Engineer – West Virginia
- Licensed Remediation Specialist – West Virginia

## PROFESSIONAL CERTIFICATION

- Hazardous Waste Site Operations and Superfund
- Worker Protection Training, 40-Hour Training
- Supervisory Training and Annual Refreshers
- Troxler Nuclear Densometer Certification

## SERVICE ON BOARDS AND COMMISSIONS

Commissioner – Sissonville Public Service District

## AREAS OF SPECIALIZATION

Environmental assessments, environmental sampling and remedial programs, conceptual and final designs for chemical, utility, and municipal solid waste disposal sites, including liner systems, leachate management systems,

stormwater management systems, operational plans and capping/closure systems, abandoned mine land reclamation projects, sludge stabilization and basin/pond closure projects, environmental permitting, hydrologic and hydraulic analyses, quality assurance/quality control monitoring.

## PROFESSIONAL EXPERIENCE

### Civil/ Site Design

Ridgeline, Inc./Cabela's – Retained by developer and Cabela's to provide civil engineering design services for a new Cabela's store in Charleston, West Virginia.

- ALTA survey
- Subsurface exploration
- Grading plan including balanced cut and fill for the building pad, parking fields, and access roads.
- Stormwater collection system design including curb inlets, catch basins, and culverts.
- Pavement design.
- Utility extension designs including sanitary sewer, potable water, fire service, natural gas, underground electric, underground telephone, and underground cable television.
- Permitting services
- Support for local approvals including approval from Charleston Municipal Planning Commission as a Development of Significant Impact and building permit to allow construction to begin.
- MM-109 permit to allow for connection of the store's new roadway with the existing public roadway.

Fieldcrest Subdivision – Project manager/engineer for development of a nine-lot subdivision in Charleston, West Virginia. Design and permitting/regulatory approvals for infrastructure, including new street, sanitary sewer main, water main, stormwater, electric, telephone, cable, and natural gas. Preparation of drawings/specifications for necessary governmental agency approvals and for solicitation of bids. Inspection and certification of completed sanitary sewer system.

Connell Pointe Subdivision – Project manager/engineer for development of an eleven-lot subdivision in Charleston, West Virginia. Design and permitting/regulatory approvals for infrastructure, including new street, sanitary sewer main, water main, natural gas service, stormwater, electric, telephone, and

cable. Preparation of drawings/specifications for governmental agency approvals and for solicitation of bids. Inspection and certification for completed sanitary sewer systems.

Conner Drive Townhouses – Project manager/engineer for development of 13 townhouse lots just outside of Charleston, West Virginia. Planning, surveying, design, and regulatory approvals for infrastructure, including new street, stormwater management system, sanitary sewer main, water main, electric, natural gas, telephone, and cable.

Gettysburg Subdivision – Project manager/engineer for an 18-lot subdivision located in Kanawha County, West Virginia. Design, surveying, and regulatory approvals for infrastructure, including new street, sanitary sewer main, water main, stormwater management system, electric, natural gas, telephone, and cable. Preparation of drawings/specifications for solicitation of bids. Inspection and certification of the sanitary sewer collection system and pump station.

Yorktowne Subdivision – Project engineer for development and construction phase services for a 50-lot subdivision in Charleston, West Virginia. Design of streets, lots, stormwater management systems, sanitary sewer mains and pump stations, water mains, underground electric, natural gas, telephone, and cable.

City of Charleston – Feasibility study for the replacement of the CSX Ramp in Charleston, West Virginia.

Villages at Coolfont – Project manager for project in Morgan County, West Virginia, which included planning, engineering, and permitting associated with developing a second home community on 1,000 acres near Berkeley Springs, West Virginia. Project included:

- Potable water supply source (wells), treatment plant, storage and distribution system
- 0.44 MGD MBR wastewater treatment plant and sanitary sewer collection system
- Community roadways and storm sewer systems
- Detailed plans for the water and wastewater treatment plants and the distribution allocation system serving the first 124 homes
- Permits were obtained for the water and wastewater plants

Project engineer for development of Suncrest Subdivision in Charleston, West Virginia. Project included engineering and permitting for a new residential subdivision including roadway, underground electric, telephone, cable, water, sanitary sewer and storm water. Sanitary sewer system was designed, constructed, and monitored under the terms of an alternate mainline extension agreement with the Charleston Sanitary Board.

Business and Industrial Development Corporation – Preparation of Utility Extension and Roadway Paving Plans for Southridge Centre - Phase 2 area. Project included preparation of bidding/construction drawings to provide natural gas, water, sanitary sewer, telephone, and cable television serving four commercial lots and a 50-lot proposed subdivision. All utilities were underground. The length of the project was approximately ½ mile. The project also included roadway paving and stormwater drainage.

Development of a conceptual development plan for a mixed use industrial park. The evaluation included developing preliminary alignments for two access roadways including earthwork requirements, drainage, subbase, and paving with preliminary cost estimates. Total length of road was over 5 miles. The evaluation also included preliminary layout of water and sewer service for a proposed 400-acre development.

Plasma Processing Corporation – Preparation of permit to construct and site development plan for a secondary aluminum processing facility startup in Jackson County, West Virginia.

Utility relocation plans required for site development, waterline, and sewer construction projects. Projects included determination of utility locations by records review, utility contacts, and surveying. Designs were prepared including locations, details, and pavement replacement. Design also included obtaining approvals from West Virginia Division of Highways and the owners of the utilities.

#### Abandoned Mine Lands

West Virginia Division of Environmental Protection Abandoned Mine Lands (WVDEP AML) Reclamation – Project engineer/project manager for open-end contract from 1988 through 1995. Continued after 1995 with AML projects for WVDEP AML including reclamation

designs, preparation of plans, specifications, bid documents, and permitting. Projects included:

- Duncan Hill No. 1 and No. 2 Subsidence
- Urso Subsidence
- Jonben Subsidence
- Doug Gray Subsidence
- Turner Douglas Complex
- Omar Refuse Piles (project won reclamation of the year award)
- Bear Run Refuse (project won 1994 Ducks Unlimited award)
- Kimble Refuse Pile (project won 1995 southern reclamation award)
- Vivian Refuse Pile
- Summerlee Refuse Pile
- Godby Branch Water Extension
- Williamson (Elias) Landslide
- Lefthand Fork Burning Refuse
- Belle Landslide
- Harris Acid Mine Drainage
- Numerous Phase I and Phase II Water Quality Studies/Survey
- Williamson (Hatfield) Landslide
- Taylorville (Cantrell) Drainage
- Sundial Refuse
- Sundial (Hatfield) Refuse Piles
- St. John's Road Subsidence
- Rachel Refuse
- Putney Impoundment
- Pringle Run No. 2
- Peach Ridge Complex
- Mountain Run Refuse and Portals
- Mill Creek Refuse Pile
- Measle Fork Refuse
- Marmet (Wells Drive) Landslide
- Marmet (Clark) Drainage
- MacArthur Mine Subsidence
- MacArthur Phase 2 Subsidence
- Little Whitestick Refuse
- Lando (Edwards) Drainage
- Kopperston (John's Branch) Refuse
- John's Branch Coal Refuse Dam (Kopperston)
- Jessop Highway #10
- High Coal Tipple
- Harris AMD
- Gray and Iaquinta Subsidence
- Grass Run Refuse
- Godby Branch Waterline Extension
- Georges Creek Portals
- Georges Creek (Lucas) Rockslide

- Garrison Complex
- Flipping Hollow Complex
- Fairmont East Mine Drainage
- East Lynn II
- Crany Mine Dump
- Courtright Highwall
- Cora Mine Drainage No. II
- Charleston (Ratcliffe) Landslide
- Cassity Fork Waterline Extension
- Camp Mohonegan Regrade
- Buffalo Creek No. 5 Refuse
- Borderland (Matney) Portals
- Beckley Subsidence
- Allen AMD

WVDEP-AML – Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for a half-mile water line extension to serve Beaver Creek near Junior in Randolph County.

WVDEP-AML – Management of four Phase II water studies and five Phase I water studies to determine if water supplies had been affected by coal mining. Work included resident interviews, mine map searches, area reconnaissance, obtaining water samples, reviewing water analysis data, preparing conceptual designs and associated costs and preparation of summary report.

Subsurface investigation, surveying coal refuse reprocessing evaluation and report, and design of reclamation plan to stabilize and approximately 15-acre refuse pile at Buffalo Creek No. 5 in Marion County, West Virginia. Developed plans, specifications, cost estimate, and calculations brief for drainage control and regrading plan.

Subsurface investigation, surveying and design for reclamation of three coal refuse piles and six mine entries. Design included replacement of a water well and related supply piping for the Town of Kimball. Completed preparation of plans, specifications, cost estimate, coal refuse report, West Virginia Department of Health permit for new well, and other supporting documents for reclaiming this large site with over ½ million cubic yards of regrading.

Subsurface investigation, surveying, coal refuse reprocessing evaluation, water quality monitoring, and design of a reclamation plan for a coal refuse pile, unreclaimed highwalls, and slurry and water treatment

ponds in Lewis County, West Virginia. Plans, specifications, cost estimates, and calculations brief were completed for the project.

#### Environmental Assessments/Impact Statements

Rhone-Poulenc AG Company – Management and oversight of environmental assessment to identify any liabilities or soil/water degradation for a proposed industrial solid waste landfill. Investigation included drilling, sampling, monitoring well sampling, site reconnaissance, and historic records research to establish baseline soils and groundwater conditions. Results presented in a report.

West Virginia Division of Highways – Environmental Assessment for a 1.25-mile proposed four-lane divided highway in Bridgeport, West Virginia.

West Virginia Division of Highways – Environmental Impact Statement (EIS) for proposed Route 19 upgrade from Summersville, West Virginia to Interstate 79 in Braxton County, West Virginia. Project included evaluation of three alternatives over approximately 25-mile length. Responsibilities included hazardous waste section collection of general data used by other scientists, field reviews, and public meeting participation.

Assessment of environmental and reclamation liabilities associated with over 40 surface mine permits in western Virginia. Evaluation included PCB concerns, reclamation costs, underground and aboveground storage tanks, and acid mine drainage.

Massey Coal Service, Inc. – Assessment of environmental liabilities associated with a large tract of property including over 25 permitted mines and a coal preparation plant. Investigation included a review of permits and requirements, past environmental compliance record, walkover of each site, and development of estimated reclamation costs for each site. Report prepared to document results of the liability assessment.

Completion of environmental assessments and a preliminary design report for two inactive commercial solid waste disposal landfills located in Kanawha and Wyoming County, West Virginia. The environmental assessment included completion of a groundwater user's survey for residents located within ½ mile of each facility, drilling shallow groundwater monitoring wells to monitor flow along the soil/bedrock interface

downgradient of each landfill, an extensive geotechnical soils/rock investigation, assessment of each facilities compliance with the solid waste management rules, and developing recommendations for a preliminary closure plan.

#### Mining

Eastern Associated Coal Corporation – Coal ash utilization study including five mining operations and four coal ash sources in Virginia and West Virginia. Study evaluated both surface and underground beneficial uses of ash to neutralize acidic drainage.

Project manager/engineer for the preparation of coal ash utilization permits for West Virginia mining operations. Permits included placing ash in the embankment of refuse disposal sites and placing ash with spoil backfill.

- Elk Run Coal Company
- Appalachian Mining, Inc.
- Peerless Eagle Coal Company
- Rawl Sales and Processing Company

Pace Carbon Fuels, LLC. – Consulting and permitting for the development of seven coal-based synthetic fuel manufacturing plants in West Virginia, Indiana, Kentucky, and Illinois. Project included obtaining pre-construction and operating permits for air, water and mining for the manufacturing plants and the feedstock coal recovery operations. Assignments included permit application preparation, assistance in locating and evaluating coal feedstock sites, construction monitoring, Phase I environmental site assessments, and other miscellaneous engineering consulting functions.

Pennsylvania Electric Company – Yearly construction designs for lined coal ash and coal refuse disposal sites at the Keystone and Conemaugh power stations, including a synthetic liner system, groundwater and surface-water control, leachate collection, landfill development, and haul road design. Construction quantity and cost estimates and development of IBM-PC software for evaluating the storage capacity of the disposal sites.

#### Landfills/Solid Waste/Waste Disposal

DuPont Washington Works – Project Manager responsible for design, preparation of construction documents, and construction documents, and construction



quality assurance monitoring for a 6.2-acre expansion of a piggyback of a leachate collection system at an industrial waste landfill.

Eastern Environmental Services, Inc. – Project engineer/project manager for finalizing a permit application for the S&S Landfill near Clarksburg, West Virginia. Components of the plan included a detailed staging and closure plan to comply with sediment control and leachate storage requirements. Successfully represented the landfill in a permit appeal hearing before the Water Resources Board. Prepared two construction/bid packages for constructing the initial 10 acres of the landfill.

Cytec Industries – Quality assurance/quality control monitoring for closure of a 10-acre SWMU containing biological treatment sludge. The contents of the basin were stabilized by mechanical mixing. Activities included supervision of testing, data evaluation, and a revised interim grading and drainage plan. Report and certification provided for WVDEP-OWM.

Cytec Industries – Closure plan and permit application for closure of a 5-acre industrial waste landfill. Steep slopes over a portion of the landfill necessitated the design of an innovative cap system and leachate collection system. Project also included closure and capping of a small pit containing tar residue.

Responsible for detailed hydrogeologic investigation and preparation of a major portion of the WVDEP Part A Solid Waste Disposal Permit Application for the Northfork Landfill near Wheeling, West Virginia. Project included field reconnaissance and mapping of existing site conditions, rock corings, test pits, laboratory analysis of soils for potential construction materials, installation of four monitoring wells, and the corresponding analysis and evaluation of data for completing the Part A Application.

Responsible for hydrogeologic investigation and preparation of the WVDEP Part A Solid Waste Disposal Permit Application for the Sycamore Scenic Landfill in Putnam County, West Virginia. Work included coring, test pit, and laboratory analysis of soils; review of existing groundwater data; and analysis and evaluation of data for completing the Part A Application.

Project Manager responsible for construction quality assurance monitoring for three landfill expansions at

Brooke County Sanitary Landfill, including 6.5 acres of composite liner.

Project Manager responsible for construction quality assurance monitoring for 0.8-acre composite liner expansion at Wetzel County Landfill.

Project Manager/Project Engineer for design of composite liner system expansion, design and construction quality assurance for a 2-acre final landfill cap, and design of a new access road serving Pocahontas County Landfill.

Chambers Development Company – Preparation of solid waste disposal permit applications for the Monroeville Landfill, Monroeville, Pennsylvania, and the Southern Alleghenies Landfill, Cambria County, Pennsylvania, both of which include a double synthetic liner system combined with a drainage net leak detection system to conform to Pennsylvania DER regulations.

Project manager/engineer for the West Virginia Division of Environmental Protection's landfill closure assistance program for 1997 through 2002. Responsible for conceptual design, field investigation, construction drawings, specifications, permit applications, etc., for the following projects:

- Wyoming County Landfill
- Jackson County Landfill
- Kanawha Western Landfill
- Monongalia County Sanitary Landfill
- Fayette County Landfill
- Fleming Sanitary Landfill

QA/QC monitoring oversight for a municipal waste landfill in Tazwell County, Virginia.

Design; preparation of drawings, technical specifications, and contract/bid documents; construction monitoring; air monitoring; sludge sampling and analysis; review and approval of a detailed health and safety plan; permitting; and other miscellaneous engineering services for the stabilization and closure of a 3-acre sludge basin and a 1-acre sludge pond. The project included management of a pilot-scale demonstration, procurement of stabilization reagents from multiple providers, and development of an adjacent soil borrow area.

Design; preparation of drawings, technical specifications, contractor's bid sheet, engineer's cost estimate, contract, and cap acceptability evaluation; evaluation of contractor

bids, and construction monitoring associated with the capping and closure of a 2.5-acre cell of an industrial waste landfill facility. Cap included a multi-layer geocomposite system to minimize infiltration and the production and leachate to improve the areas groundwater quality.

Final design and preparation of construction drawings, detailed technical specifications, and engineer's construction cost estimate for the construction of a 1.9-million-gallon double-lined pond and 5 acres of a landfill liner system. This project included development of an ultimate facility layout plan, a two-year detailed development plan, and construction monitoring. Project also included negotiations with regulatory agency to obtain approval of the permit.

Response to regulatory agency review comments and redesign of a pond liner system and piggyback landfill liner system for a 20-acre landfill in West Virginia.

DuPont Environmental Remediation Services – Consulting regarding the design of a final cover/cap for an industrial waste landfill located in West Virginia.

West Virginia Public Service Commission – Site reconnaissance, development of alternative capping/closure systems, and preparation of engineer's cost estimates for the closure of two West Virginia municipal waste landfills in support of rate making testimony and hearings.

American Cyanamid Company – Project manager/engineer for independent quality assurance/quality control monitoring associated with closure of a three-acre SWMU consisting of a waste impoundment. Project included construction of an earthen buttress to improve slope stability, in-place waste stabilization using fly ash and kiln dust, and construction of a RCRA cap. Responsible for field design revisions to overcome problems, conformance testing, and preparation of certifications and a summary report. Project included sampling and analysis of raw and stabilized sludge.

American Cyanamid Company – Coordination of field activities associated with construction monitoring and laboratory testing for RCRA hazardous waste impoundment (the first permitted and constructed in EPA Region III) in Willow Island, West Virginia, including earth moving, construction of a soil-bentonite liner,

monitoring of three, sealed double-ring infiltrometers, and construction of an HDPE double-lined impoundment.

Pennsylvania Electric Company – Field (construction) monitoring for development of a residual waste landfill including compaction testing for heavy earth moving, synthetic (PVC) liner installation, concrete testing, and other miscellaneous testing.

Virginia Power Company – Consultant for site development and construction of a fly ash disposal facility including a review of site operations, developing a maintenance program, compaction testing and review, and problem shooting.

Rhone-Poulenc Ag Company – Design and permitting for a proposed industrial solid waste landfill. Project included complete hydrogeologic evaluation including several borings and installation of seven monitoring wells; documentation of soils, geology, water quality and hydrogeology; detailed site design of leachate ponds, liner system, storm water collection system, access road, and capping/closure system. Multi-volume permit application prepared including Operations Manual, Quality Assurance/Quality Control Plan, Technical Specifications, Permit Application, and Design Drawings.

Rhone-Poulenc Ag Company – Leachate Minimization Study for a RCRA Hazardous Waste Landfill. Project included assessment of existing landfill operation and recommendations to reduce quantity of contaminated runoff from over 8 million gallons per year (MGY) to between 2 and 3 MGY. Detailed staging and operating plan, storm water management plan, and cost estimates prepared.

American Cyanamid Company – Closure plan and permit application for closure of a three-acre surface impoundment containing sludge and tar. Stability concerns for an existing embankment containing the waste lead to the development of a lightweight cap. Subsurface investigation and field surveying completed. Closure application as required by the West Virginia Division of Environmental Protection provided.

Soundings and sampling of three basins containing sludge. Two basins contained sludge from secondary biological treatment of industrial wastewater. One basin contained petroleum product sludges. Sludge quantities determined from soundings and cross sections prepared.

Samples obtained for laboratory analysis to characterize wastes.

- Rhone-Poulenc Ag Company
- Ashland Petroleum Company

Monongalia County Sanitary Landfill – Engineer responsible for expansions, planning, and upgrades for the Monongalia County Sanitary Landfill from 1990 through 1992. Activities included:

- Three expansions (seven acres total) of the landfill liner and leachate collection system, including grading, groundwater collection drains, landfill liner system and leachate drains, protective cover, and surface drainage control
- Construction monitoring
- Certification of landfill expansions
- Construction of a 1.6-million-gallon leachate storage basin, including clay liner, double synthetic liner, synthetic drainage layer, protective cover, and drainage control devices
- Annual landfill volume reports, including surveyed cross sections
- Two borrow area investigations to identify clay liner sources
- Feasibility study for expansion and continued operation of the facility
- Final closure plan for the facility including a multi-layered cap and drainage control plan

Rhone-Poulenc AG Company – Evaluation of an emergency fly ash pond for a chemical plant in Institute, West Virginia. Recommendations, including conceptual design drawings and an engineer's cost estimate, to increase the settling efficiency of the pond. Special design elements, including a polymer feed system, submerged manifold pipe, splitter dike, and an overflow weir.

Hampton-Clarke, Inc. – Project Manager for Independent Quality Assurance Testing (IQAT) services for removal of contaminated soils and placing clean soil backfill at the site of a former cullet pile disposal area.

### Stormwater

Expert witness for plaintiff damaged as a result of flooding caused by lack of maintenance at a culvert system in Westoreland, Wayne County, West Virginia.

Stormwater drainage plans for site development projects including pre- and post- development discharges, design of sediment control devices, preparation of stormwater general permit application, and consulting for numerous construction projects in West Virginia.

Evaluation of stormwater drainage system (culverts and channels) to alleviate flooding problems for a church in Kanawha County, West Virginia. Project included computer modeling to identify culvert capacities and to identify repair options.

Expert retained to support a property owner damaged as a result of flooding caused by downstream obstructions. Reviewed regulatory agency files, conducted site inspections, evaluated possible remedial measures, and provided support in anticipation of litigation.

Expert witness for plaintiff damaged as a result of flooding from upstream construction. Visited site to observe problem areas, reviewed construction practices/procedures, reviewed regulatory permits, and provided testimony as to the cause of flooding.

Developed stormwater management plans, including calculation of peak runoff rates, storm volumes, and design of stormwater management devices including culverts, ditches, sumps, ponds, principal pipe spillways, and emergency spillways for the following projects:

- Site development projects including commercial, retail, and industrial sites ranging from ¼ acre to more than 100 acres.
- Abandoned mine lands reclamation projects, including landslides, refuse piles, slurry ponds, and subsidence control projects.
- Commercial and industrial waste landfill projects.
- Roadway design projects.
- Other projects involving the disturbance of the ground surface.

Water Lines, Water Storage Tanks, and Water Treatment Plants

WVDEP-AML – Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for six-mile water line extension including fire protection. Included in project were 90,000-gallon water tank, booster station, and pressure relief valves. Extension tied into Norton Harding Jimtown PSD System and served town of Cassity in Randolph County.

Design for waterline extension projects including preparation of construction drawings, specifications, and engineer's cost estimates for the West Virginia Division of Environmental Protection, Office of Abandoned Mine Lands and Reclamation.

- Cassity Fork Waterline
- Beaver Creek Waterline Extension
- Godby Branch Waterline Extension

Design, preparation of construction drawings, preparation of permit applications, and other related activities for the construction of waterline projects. Line sizes ranged from 16 inches to 2 inches. Materials of construction included polyvinyl chloride and ductile iron pipe. Drawings included planimetric maps, topographic maps, and aerial photograph formats to depict proposed construction. Permit applications included Bureau of Public Health, Public lands Corporation Stream Activity Permits, Division of Highways Occupancy Permits, and General Storm Water NPDES Construction.

- Cabell County 2000 Project, 23 miles of new waterline construction, West Virginia American Water Company (WVAWC)
- Poca River Road Waterline Extension, 13 miles of new waterline construction, WVAWC
- Route 60 Contract 3 Waterline Extension, 3 miles of new waterline construction, WVAWC
- Buff Creek/Trace Fork Waterline Extension, 6 miles of new waterline construction, WVAWC
- Route 60 Contract 4 Waterline Extension, 2 miles of new waterline construction, WVAWC
- Yorktowne Subdivision, 3,000 linear feet of waterline serving a 50-lot subdivision.

ESAs (Phase I and II)

Numerous Phase I Environmental Site Assessments including reclamation liability assessments for mining and industrial properties in West Virginia and Kentucky. Projects typically focused on solid waste disposal practices, potential acid mine drainage discharges, underground storage tank status, areas of hydrocarbon soil contamination, PCB transformer concerns, and other environmental liabilities.

Phase II environmental site assessment for an abandoned mining complex located in Fayette County, West Virginia. The new owners wished to identify any liabilities and determine approximate clean-up costs for negotiations with the previous owners. The areas evaluated included two aerial tram head houses, a drum storage area, truck maintenance garage, mine machinery repair shop, two commercial properties, a lamp house, and other storage areas. Numerous areas of petroleum hydrocarbon contamination were identified, and the extent of contamination documented. An on-site laboratory was used to expedite testing and establishing the boundary of areas requiring remediation. The results of the investigation were summarized in a report, including a detailed description of sampling and laboratory analysis methods, drawings showing sample locations, laboratory results, estimated volumes of contaminated soils, and recommendations for cleanup.

West Virginia Regional Jail and Correctional Facility Authority – Phase I Environmental Site Assessment to document potential liability for a tract being considered for a regional jail site in Kanawha County, West Virginia. Activities included historic records search, interviews, site reconnaissance and preparation of a report documenting the findings.

DiMucci Development – Phase I Environmental Site Assessment for property proposed for development as a strip mall.

The Multicare Companies, Inc. – Completion of eight Phase I Environmental Site Assessments for nursing and rehabilitation care facilities in West Virginia.

Virginia Electric Power Company – Assistance with site design and engineer's construction cost estimate for the remedial design of a CERCLIS waste disposal facility.



Phase I environmental site assessments for feedstock recovery sites associated with three coal-based synthetic fuel manufacturing plants. The feedstock recovery sites included numerous coal waste slurry impoundments, dry refuse piles, and mixed refuse disposal areas. Assessments focused on potential acid mine drainage problems, former waste disposal areas, and other mining-related environmental liabilities. A report was prepared detailing the findings for each site.

#### Storage Tanks

Columbia Gas Transmission – Project manager for completion of over 350 AST Registrations, Inspections/Certifications, and site-specific Spill Prevention Response Plans for 40 facilities.

- Followed the Aboveground Storage Tank Act §22-30 Title 47 Interpretive Rule Series 62 and the Draft Emergency Rule additionally conferring with the West Virginia Department of Environmental Protection (WVDEP) to establish accurate classification and compliance.
- Met all regulatory deadlines.
- Reviewed comprehensive electronic documentation comprising of completed inspection sheets, photographs, detailed deficiencies.
- Provided recommendations and schedule for abatement for deficient secondary containment structures.

Rhone-Poulenc AG Company – Geotechnical and environmental investigation for two proposed above-ground reinforced concrete tanks to serve as secondary wastewater treatment unit. Investigation included soil drilling, sampling, laboratory analysis for engineering properties, and analysis for contamination. Field survey completed to locate existing structures. Report prepared outlining soils/geology, environmental concerns and foundation recommendations.

Closure of 13 aboveground RCRA storage tanks. Closure services included review of agency approved closure plan to determine compliance items, visual inspection of tank interiors and earthen containment berm areas, review of rinsate analyses, review of soils testing analysis from berm areas, and preparation of closure documentation and certification.

- Rhone-Poulenc AG Company
- American Cyanamid Company

Cannelton, Inc. – Abandoned underground storage tank investigation including sampling of tank contents, geoprobe investigation, and field and laboratory analysis of soil samples.

#### Sewer Lines and WWTPs

Project manager/project engineer for the Fleming Landfill Sanitary Sewer Extension project in Kanawha County, West Virginia. Project included design, permitting, construction monitoring, and certification of 9,900 linear feet of gravity and force main sanitary sewer, a new duplex pump station, and rehabilitation/upgrade of an existing pump station. The construction contract was over \$1 million. The completed sewer extension was turned over from the West Virginia Department of Environmental Protection to the Sissonville Public Service District for ownership and operations.

Project engineer for sanitary sewer system including 8-inch gravity sewer, pump station, and force main sewer serving the Gettysburg Subdivision in Charleston, West Virginia. Project included an alternate mainline extension agreement with Charleston Sanitary Board, construction monitoring, surveying, road design and subdivision plans.

Project manager/engineer for an industrial wastewater sewer extension. Project included design engineering, permitting, and construction monitoring associated with a 5 million gallon, double-lined storage impoundment, duplex pump station with 70 horsepower pumps, and 5,200 linear feet of force main sewer in Monongalia County, West Virginia.

Design, permitting and construction monitoring associated with a 138,000-gallon double containment storage tank, duplex pump station, and force main piping associated with closure of the Jackson County Sanitary Landfill near Ripley, West Virginia.

#### Oil and Gas

Columbia Gas Transmission Corp – Project Manager for in-house consulting services provided for environmental reports and permit applications for natural gas pipeline transmission projects.

Columbia Gas Transmission – Field reconnaissance of approximately 16 miles of pipeline route, preparation of erosion and sediment control measures, and preparation of stream crossing permits for the NJET project.

*Spill Prevention, Control & Countermeasure Plans*

Union Carbide Corporation, South Charleston Plant – Audit of chemical manufacturing plant to determine compliance with the facility Spill Prevention Control and Countermeasures (SPCC) plan. Project included review of SPCC plan prepared by facility staff, on-site inspection of over 50 storage areas to ascertain compliance with the SPCC plan and pertinent regulations, preparation of a list of observed deficiencies, and certification of the SPCC plan by a professional engineer.

*Stream/Wetland Delineation, Permitting, and Mitigation*

Columbia Gas Transmission Corp – Design of stream stabilization and restoration plan for a section of East Fork of Queer Creek in Hocking County, Ohio. Project included obtaining 401/404 certification and preparation of a detailed construction plan.

## EDUCATION

- M.S. Environmental Sciences, 2003  
Marshall University
- B.S. Horticulture, 1997  
West Virginia University

## EMPLOYMENT HISTORY

- 2003-Present Potesta & Associates, Inc.  
1998-2003 Terracare, Inc.  
1997-1998 Greenscape, Inc.

## PROFESSIONAL CERTIFICATIONS

- Certified Asbestos Inspector – Kentucky, West Virginia, and Virginia
- OSHA 40-Hour HAZWOPER Training
- West Virginia Office of Miners' Health, Safety & Training

## TRAINING/RELEVANT COURSE WORK

- 2014 – SWAMP School Wetland Delineation
- 2009 – River Assessment and Monitoring (Rosgen Level III)
- 2006 – River Morphology and Applications (Rosgen Level II)
- 2006 – Applied Fluvial Geomorphology (Rosgen Level I)

## AREAS OF SPECIALIZATION

Experience in conducting and reporting environmental site assessments, biological assessments, and remediation of commercial, industrial, and residential sites, environmental emergency response, and hazardous waste management. Conducting asbestos inspections and report writing. Performing Level Riparian development and stream restoration/enhancement (Rosgen trained).

Stream and wetland delineation assessments and mitigation design. Plant physiology and identification. Principles and implementation of phytoremediation for sites of contamination. Conducted and evaluated habitat and biological surveys. Knowledgeable of mining-related activities and issues, including

mountaintop mining and valley fills.

## PROFESSIONAL EXPERIENCE

### Asbestos

Performed numerous asbestos inspections and report writing for industrial, commercial, and residential entities:

- Kilns – Winchester, Virginia
- Waste Water Treatment Plant – Morgantown, West Virginia
- Charleston Civic Center – Charleston, West Virginia
- Residences

Construction monitoring for asbestos abatement of several large buildings located within a chemical plant in Willow Island, West Virginia.

### Hazardous Waste/RCRA/Corrective Action

Performed site investigations and report writing hazardous material surveys at the following locations:

- Charleston Civic Center – Charleston, West Virginia
- Morgantown Utility Board – Morgantown, West Virginia
- Weatherford – Elkview, West Virginia

### Remediation

Experienced with remediation of sites impacted by petroleum, volatile and semi-volatile organics (including chlorinated solvents), metals, dioxin, and polychlorinated biphenyls (PCBs). Experience with bioremediation (aerobic and anaerobic), excavation, slurry walls, solidification/stabilization, pump and treat, soil vapor extraction, dual phase extraction, capping, and institutional controls.

Assisted in the design for the upgrade of a phytoremediation project on a 7-acre biological sludge pond.

Performed monthly site inspections and reporting for multiple industrial sites including:

- A 110-acre zinc smelter site that has been capped and reclaimed as part of a remediation plan.

- Industrial landfills that have been sealed with a geotextile liner and capped.

ESAs (Phase I and II)

Phase I Environmental Site Assessments (ESAs) on various types of sites:

- Large land transaction totaling over 145,000 acres
- Numerous active and former industrial and commercial facilities
- Undeveloped and residential properties

Phase II/Sampling ESAs, including soil boring advancement and sampling, monitoring well installation and sampling, surface water sampling, and soil gas sampling:

- West Virginia Voluntary Remediation Program (VRP)
- West Virginia Leaking Underground Storage Tank (LUST) Program
- Ohio Bureau of Underground Storage Tank Regulation (BUSTR)
- Resource Conservation and Recovery Act (RCRA) Corrective Action
- Comprehensive Emergency Response, Compensation, and Liability Act (CERCLA) Site Assessment and United States Environmental Protection Agency (USEPA) Brownfields
- Environmental emergency response (petroleum and chemical spills related to transportation incidents), typically performed under state environmental response or enforcement programs
- Property transaction related (*i.e.*, due diligence or baseline ESAs)

Stream/Wetland Delineation, Permitting, and Mitigation

Implemented mitigation designs complete with stream restoration and riparian layout, material requirements, and cost analysis for several projects.

Completed field assessments and biomonitoring for the establishment of a mitigation banking program within the state of West Virginia.

Supervised numerous wetland/stream characterization and delineations.

Preparation of environmental permits and associated documents, (*i.e.* environmental information documents, compensatory mitigation plans, jurisdictional determination reports, and benthic macroinvertebrate reports) for highway construction and individual 404 permits for large-scale disturbances.

Environmental Emergency Response

Environmental response, assessment, and remediation on numerous transportation related incidents in West Virginia, Ohio, and Virginia. These have included response to and assessment and remediation of releases from chemical and petroleum tankers and fuel tanks, transfer and/or removal of cargo, and coordination with regulatory agencies and affected property owners. Examples include:

- Formaldehyde tanker release of over 3,800 gallons in western Virginia. Remediation included soil aeration (unable to excavate due to geotechnical considerations). Obtained No Further Action status from Virginia Department of Environmental Quality (DEQ).
- Gasoline tanker release of over 3,500 gallons in northern Kentucky onto private property and railroad right of way (ROW). Remediation included excavation of soil and subsurface injection of a bioremedial compound on both sides of railroad ROW.
- Gasoline tanker release of over 3,000 gallons to frozen stream in central Ohio. Remediation included excavation of impacted areas of streambed (with United States Army Corps of Engineers approval) and additional soil, and subsurface injection of a bioremedial compound.
- Trailer load of white paint spilled adjacent to an interstate highway in West Virginia. Remediation included onsite solidification and removal of free liquids.



# ANDREW D. GRIMMETT

Technician

## EDUCATION

B.S. Geology, 2013  
Marshall University

## EMPLOYMENT HISTORY

2018-Present Potesta & Associates, Inc.  
2017-2018 Summit Engineering  
2016-2017 Echo Incorporated  
2014-2016 Terracon Consultants, Inc  
2013-2014 Triad Engineering, Inc

## PROFESSIONAL CERTIFICATIONS

- Hazardous Waste Operations and Emergency Response – 40-Hour
- OSHA 30-Hour Construction
- Certified Asbestos Inspector – West Virginia

## AREAS OF SPECIALIZATION

Educational background in geology. Field experience in soil and groundwater sampling, monitoring well installation, field logging, and core drilling.

## PROFESSIONAL EXPERIENCE

### ESA's Phase I and II

Environmental Site Assessment activities, including soil and groundwater sampling on RCRA Corrective Action, West Virginia Voluntary Remediation Program, Leaking Underground Storage Tank, and various former and current industrial sites.

### Stormwater

Industrial stormwater monitoring and sampling.

### Groundwater

Groundwater treatment system maintenance and optimization.

Monitoring well installation, including drilling, screen installation, sand filter pack installation, and well pad/protective cover installation.

### Hazardous Waste/RCRA/Corrective Action

RCRA permitted landfill inspection.

### Sampling

Field logging and classification of soil and rock samples.

### Geotechnical

Core drilling for geotechnical evaluation, landslide, and mining projects.

Inspecting valley fills for signs of erosion, slippage, cracks, bulges, and seeps.

### Storage Tanks

Above ground storage tank inspections.

# Corporate Information

## Firm History

Founded in 1981, McKinley Architecture and Engineering (McKinley & Associates) is a multi-discipline **full service Architectural & Engineering firm**, offering comprehensive professional services in **Architecture, Engineering, Historic Preservation, LEED Design, Planning, Construction Administration, and more**. We have a broad range of skill and experience for projects involving **governmental**, commercial, recreational, hospitality, manufacturing, industrial, educational, retail, development, and much more. Over the years, our firm won multiple **State and National awards and recognitions** for our designs.



## Firm Information

**Ernest Dellatorre**  
President

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

**Patrick J. Rymer, AIA, ALEP**  
Director of Architecture

## 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)  
REFF

## 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 Potesta & Associates have designed many relevant projects involving restrooms/showers. **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 - from architectural and engineering services, mildew and mold abatement, lighting, meeting codes, ADA compliance and current military force protection regulations, utilities, designing to your needs, designing to budget, etc.

**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 AASF#1 flight 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 Army Aviation Support Facility** representatives for a building walkthrough, with all the **McKinley/Potesta design professionals**. 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**.



Project  
Success

Construction  
Administration

Quality Construction  
Documents

Design Based on Your Needs

Understanding Your Needs and Goals

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.

WEST VIRGINIA ARMY NATIONAL GUARD  
ARMY AVIATION SUPPORT FACILITY

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



**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!

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

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

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# 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:

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

Dr. Mark Manchin  
Superintendent  
Harrison County Schools  
P.O. Box 1370  
Clarksburg, WV 26302  
304 / 326-7345

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

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

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

Mark Dziatkowicz  
Director of Maintenance & Facilities  
Hancock County Schools  
2900 Orchard Street  
Weirton, WV 26062  
304 / 797-1643

Mr. Randall Reid-Smith  
Commissioner  
WV Division of Culture & History  
1900 Kanawha Boulevard, East  
Charleston, WV 25305  
304 / 558-0220

Mr. Christopher Petrossi  
Urban Projects Director  
City Planning & Zoning Commission  
City of Steubenville  
115 South Third Street - Suite 108  
Steubenville, OH 43952  
740 / 283-6000 x1702

# POTESTA & ASSOCIATES, INC.

## *Asbestos Inspection Services*

Potesta & Associates, Inc. (POTESTA) is an engineering and environmental consulting firm whose staff of professionals has completed numerous asbestos inspection services. Our qualified personnel can assist you with:

- Building Inspections for Asbestos-Containing Building Materials
- Liaison with Regulatory Agencies
- Completion and Submittal of Notification of Abatement, Demolition and Renovation Forms to the Appropriate Regulatory Agencies
- Selection of Qualified Asbestos Abatement Contractors
- Preparation of Bidding and Contract Documents
- Participation in Pre-Bid and Pre-Abatement Meetings
- Monitoring of Contractor Work Procedures During Completion of Asbestos Abatement Activities

### **BUILDING INSPECTIONS**

State and federal regulations require that an asbestos inspection be performed by a licensed asbestos inspector prior to abatement, demolition or renovation activities. POTESTA has West Virginia and Virginia Licensed Asbestos Inspectors on staff that have conducted several hundred asbestos inspections and produced reports presenting the results of these inspections.

### **REGULATORY ASSISTANCE**

A Notification of Abatement, Demolition and Renovation form must be completed and submitted to appropriate regulatory agencies prior to project start-up. POTESTA has developed strong working relationships with these agencies and can assist you in producing notification forms for your asbestos abatement projects.

### **PROJECT ABATEMENT DESIGN PLANS**

State and federal regulations require that a project abatement design plan be developed by a licensed asbestos abatement project designer. The design plan establishes procedures for abatement of asbestos-containing materials and methods for protecting workers, the public and the environment from releases of asbestos fibers.

### **ENGINEERING AND PROJECT MONITORING ASSISTANCE**

POTESTA's asbestos inspection services also include preparing specifications, cost estimates, and bidding documents; soliciting bids from qualified contractors; assisting in the selection of a contractor; providing project management during completion of abatement activities; and monitoring contractor adherence to specifications, verifying pay quantity, and participating in dispute resolution.



### **POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, SE, Charleston, West Virginia 25304  
Phone: (304) 342-1400 • Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)  
Regional Offices: Morgantown, WV and Winchester, VA

# POTESTA & ASSOCIATES, INC.

## *Civil Engineering and Design*

Potesta & Associates, Inc. (POTESTA) helps clients evaluate and plan projects by completing the following types of preliminary evaluations and analyses.

- Phase I Environmental Site Assessments
- Floodplain Determination
- Geotechnical Explorations Including Soil, Bedrock, and Groundwater Characterization
- Foundation Recommendations
- Monitoring Well Systems and Site Characterization Plans
- Boundary, Topographical and Photogrammetric Surveys
- Utility Planning
- Earthwork Evaluations Including Volume Analysis
- Opinion of Probable Costs/Engineer's Construction Cost Estimates

Once the project has been determined feasible, POTESTA's design professionals complete preliminary and final designs. Frequent communication is made with the client and any other design professionals to review completed activities and obtain input for the design process. Our goal is to provide our services to achieve or exceed our clients' expectations.

Our design services include:

- Erosion and Sediment Control Plans
- Earth Retaining Structures Design
- Geometric Site Layout
- Grading and Drainage Plans, Including Excavation and Fill Optimization
- Access Road Design
- Hydraulic Structure Design
- Water and Sewer Design
- Slope Stability Analysis
- Subsurface Drainage System Design
- Construction Drawings, Specifications and Contract Document Preparation

POTESTA offers experienced environmental engineers and scientists to prepare applications for various environmental permits that may be required. These services include:

- Stormwater Management Permit/Erosion and Sediment Control Plans
- Office of Air Quality Permit to Construct
- Wetland Delineation and Permits
- National Pollutant Discharge Elimination System (NPDES) Permits
- Floodplain Management Permits
- Groundwater Protection Plans
- Spill Prevention, Control and Countermeasure Plans
- Environmental Site Assessments
- Environmental Impact Statements

POTESTA routinely provides professional services throughout construction of our projects. These services include survey layout, construction management, construction monitoring, record drawing preparation, and bid evaluation assistance.



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# POTESTA & ASSOCIATES, INC.

## *Site Design*



Potesta & Associates, Inc. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout West Virginia, and have been part of design teams for elementary, secondary and collegiate projects primarily associated with new building construction.

Our staff of civil, environmental, and geotechnical engineers; surveyors and environmental scientists can provide the following site planning and design services.

- Surveying – Topo and Boundary
- Base Mapping from Aerial Photography
- Geotechnical Engineering
- Land Planning
- Environmental Issues Evaluation and Mitigation
- Site Grading
- Vehicular and Pedestrian Circulation
- Utility Design
- Site Features
- Stormwater Management Plans

Some clients who have used our site design services include:

- West Virginia Development Office
- Development Authorities: Tucker, Wood, Roane and Hardy Counties
- Bright Enterprises
- Charleston Area Alliance
- University of Charleston
- Timberwolf Development Corporation
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Marshall University
- Architects: Associated Architects; Bastian & Harris, Architects; SEM Partners; ZMM



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# POTESTA & ASSOCIATES, INC.

## *Water and Wastewater Engineering*

Our professional staff is dedicated to providing quality engineering services for various types of water treatment and distribution systems, as well as wastewater management, collection and treatment systems. The following is a list of some of the services Potesta & Associates, Inc. is capable of providing:



### WATER AND WASTEWATER DESIGN

- Feasibility Studies
- Conceptual Design
- Final Design
- Bidding and Construction
- Construction Monitoring
- Wastewater Audits
- Wastewater Minimization Studies
- Engineer's Cost Estimates
- Small Flows Design (Traditional and Innovative Treatment Systems for Low Volume Flows)
- Sewage Collection and Treatment
- Water Treatment and Distribution
- Industrial Wastewater Treatment
- Wastewater Treatment Plant Design
- Water Treatment Plant Design
- Water and Sewer Line Extensions

- Remediation Systems
- Landfill Leachate Treatment
- Storage Tank Design
- Flow Measurement
- Surveying/GPS and Mapping
- Permitting and Regulatory Liaison
- Combined Sewer Overflow (CSO) Management, Sampling and Modeling

### STORMWATER MANAGEMENT

- Hydraulic Conveyance Structure Design (Culverts, Channels, Drop Inlets, Etc.)
- Stormwater Retention/Detention Pond Design
- Stormwater Pond Modeling
- Floodplain Identification and Management Strategies
- Hydrologic and Hydraulic Analysis and Evaluations and Modeling
- Construction Monitoring
- Surveying
- Permitting and Regulatory Liaison



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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.**





# J.B. Chambers Family Y.M.C.A.

## Wheeling, West Virginia

### Owner

Young Men's Christian Association

### Size

39,960 SF

### Construction Cost

\$3 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Denis P. Gill, AIA

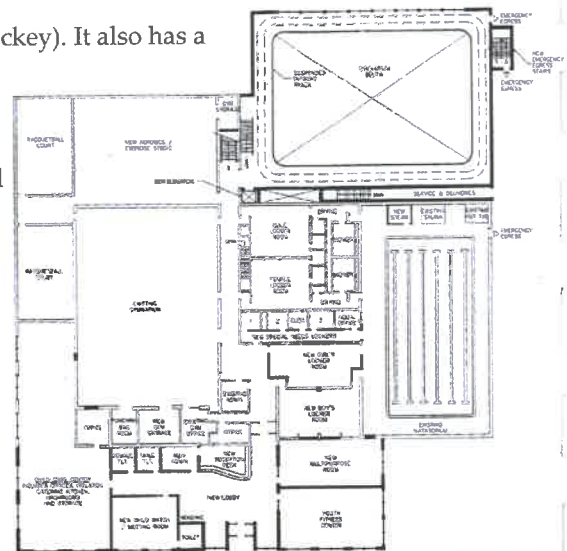
### Contractor

J. D. & E.



This \$3 million upgrade project in the Elm Grove area of Wheeling involved:

- the locker rooms (girls, boys, mens, and womens) all have a new layout and include new lockers and benches. The girl's and boy's locker rooms are open areas with the lockers on the perimeter.
- the new special needs locker rooms are now located in the old toilet rooms. The toilet, sink, and shower were left in each room, but the changing area has a new layout.
- the shower rooms have new layouts, new tile, new shower heads with correct mounting, and hooks for towels.
- the pool was equipped with new piping, valves, etc., since everything was 30 years old.
- the new aquatics office has been shifted to allow the corridor. To do this, the back wall was relocated and the electrical panel had to be relocated to a different wall.
- the steam room on the pool deck is now piped to the existing boiler.
- the youth fitness center has flat benches for free weights, 3 Cybex stations, 2 stair steppers, 3 bikes, 23 total pieces of equipment, a door and a window to the office in the multi-purpose room, and access to the new lobby.
- the new aerobics / exercise studio is 11' high. It has mirrors in the space and includes storage for exercise equipment (mats, etc.).
- the new fitness center (in the second floor of the addition) has free weights, benches, and mirrors in the West room; and over 200 pieces of equipment in the East room.
- the new gymnasium is built for basketball and other activities (such as roller hockey). It also has a suspended running track.
- the new child care center has 100 to 125 lockers or storage space for gym bags, new cabinets and cold storage in the kitchen area, an eating area, and washrooms with toilets for both girls and boys.
- the new child care director's office has doors and windows facing both the child care center and the existing gymnasium, the wall adjacent to punching bag room is sound proofed, and it has proper electrical and computer jacks.
- the new director's office has new furniture, a private toilet, and can be accessed from both the corridor and the board room.
- the new office and administration spaces have new furniture and proper electrical and computer jacks for each space.
- the new board room is equipped with a large table with chairs and a kitchenette. This room can be accessed from both the corridor and the director's office.
- the multi-purpose room has an office, 2 tables with 10 chairs each, a wall mounted television with equipment for presentations, and includes access to the natatorium.
- the project also involved heat reclaim for energy conservation.



Grant County Schools

# 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, water barrier application, drainage**, electrical, lighting, a new building skin/facade, new doors and windows, 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.**



BEFORE



(left shower is ADA roll-in)





Hancock County Schools

# 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. The entire \$56 Program was less than 1% in total non-elective change orders!

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, top). Improvements include restroom upgrades, ADA compliance, plumbing, electrical, life safety, security, etc. 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.

The 2 High School Multi-Sports Complexes/Stadiums and the Field of Dreams include restrooms facilities, game locker rooms, etc. For example, Oak Glen High (seen to the left, bottom) has Visitor's side restroom/concessions building with 4 urinals and 3 stalls for the Men's (including 1 ADA), and 12 stalls for the Women's (including 1 ADA). The Home side includes 10 urinals and 6 stalls for the Men's (including 1 ADA), 27 stalls for the Women's (including ADA), and a Family toilet room. This side also includes Home and Visitor locker rooms. Moreover, the Official's room has 6 lockers, toilet, and shower. Furthermore, there are renovated shower facilities inside the adjacent Oak Glen High School.



Harrison County Schools

# BHS Fieldhouse restroom building

## Bridgeport, West Virginia

**Owner**

Harrison County Schools

**Size**

1,736 SF

**Construction Cost**

\$325,000

**Project Architects-Engineers**

McKinley Architecture and Engineering

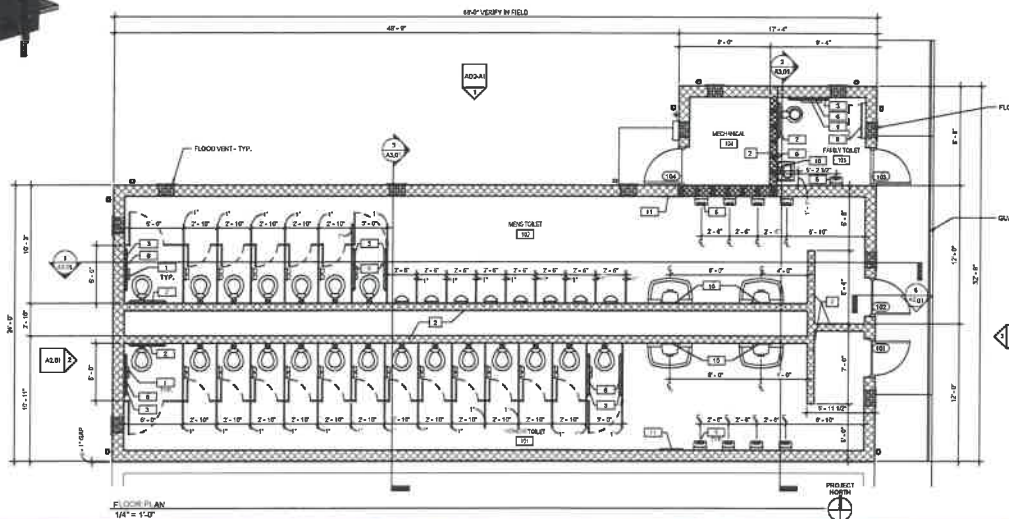
**Project Architect**

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

**Contractor**

City Construction Company, Inc.

Recently completed a new restroom building at Bridgeport High School's Wayne Jamison Field. Project was designed with **Building Information Modeling (BIM)**. This facility consists of a family toilet, men's toilet, women's toilet, and a mechanical room. The family toilet room has 1 toilet, as well as a baby changing station. The men's room has 8 urinals and 7 stalls. The women's room has 14 stalls. There is an ADA compliant stall in both toilet rooms.





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 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.

Furthermore, an asbestos inspection was completed at various part of the school where renovations were going to occur. Only the teachers lounge 9 x 9 flooring tiles and mastic were 3%-5% Chrysotile ACM and had to be abated.

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

# 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.**





# ASSESSMENT AND REMEDY EVALUATION AND SELECTION OF FORMER WEST VIRGINIA PLASTICS/BABY WORLD

*West Virginia Department of Environmental Protection  
Grafton, West Virginia*



Potesta & Associates, Inc. (POTESTA) was contracted by the West Virginia Department of Environmental Protection (WVDEP), Office of Environmental Remediation to complete an environmental site assessment (ESA), risk assessment, remediation feasibility study, and to develop a remediation work plan in accordance with the West Virginia Voluntary Remediation Program (VRP) guidelines. The property was owned by the Taylor County Development Authority and was being evaluated for potential redevelopment. ESA activities included advancement and sampling of soil borings,

installation and sampling of groundwater monitoring wells, and collection of soil fill material, surface water, and sediment samples for laboratory analysis of volatile organic compounds, semivolatile organic compounds, polynuclear aromatic hydrocarbons, pesticides, polychlorinated biphenyls, metals and asbestos.

In addition, POTESTA collected oil and water from a pit and associated manhole that were discovered at the site and submitted these samples for hazardous waste determination analyses. POTESTA reported the summaries and conclusions of this assessment in the Supplemental Environmental Site Assessment Report, which was submitted to and approved by the WVDEP.

POTESTA developed the risk assessment in general accordance with the standards and formats required by the West Virginia Voluntary Remediation and Redevelopment Rule (VRRR), Title 60, Code of State Regulations (CSR), Series 3, and the VRRR Guidance Manual. Based on the risk assessment and the contaminants of concern for this site, POTESTA performed a remedy evaluation, selection and design study. The WVDEP approved of the conclusions of the study which were submitted for their review. POTESTA presented the work plan to the Taylor County Development Authority and the WVDEP.



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# CHILD CARE CENTER

*Marshall University  
Huntington, West Virginia*

Marshall University, working in conjunction with the City of Huntington, coordinated the efforts of a development committee to design a child care facility for the faculty and students of the University, as well as the residents of the city. Potesta & Associates, Inc. (POTESTA) was contracted to Marshall to prepare a topographic map of the site indicating the locations of the utilities at the site. The site also housed an abandoned block structure which served as a hardware store in the past. Prior to demolition of the structure, POTESTA conducted an environmental assessment of the property to determine the presence of any environmental concerns including the presence of asbestos containing materials.

POTESTA also conducted a geotechnical exploration of the property and prepared a foundation recommendation report to indicate the acceptable bearing capacity of the site soils to aid the structural engineering in the design of the foundation system. POTESTA field technicians and engineers were also involved during the construction of the structure. Various tasks included the sampling of concrete, field tests to ensure the bearing capacity of the subgrade met the original design criteria and design changes instituted during construction due to poor subgrade conditions.



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# DUPONT WASHINGTON WORKS

*E.I. DuPont de Nemours & Company  
Washington, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by E.I. DuPont de Nemours & Company (DuPont) to provide consulting services with respect to upgrading piping insulation at its Washington Works chemical manufacturing facility, in Washington, Wood County, West Virginia. The following services were provided by POTESTA.

POTESTA evaluated DuPont's asbestos inspection reports and piping insulation labeling system, and along with DuPont, identified piping insulation to be upgraded. POTESTA prepared cost estimates, and bidding documents for the upgrade and solicited bids from qualified contractors. POTESTA attended a pre-bid conference with DuPont, reviewed bids for completeness and assisted DuPont in the selection of a contractor. In addition to work history and total bid cost, the contractors were evaluated based upon Experience Modification Rates published by the West Virginia Workers Compensation Division. Prior to commencement of the project, POTESTA completed and submitted the required asbestos abatement/demolition/renovation forms to regulatory agencies.

POTESTA provided continuous on-site project monitoring during completion of the piping insulation upgrade. Contractor abatement procedures, personal protective equipment and air monitoring methodologies were monitored by POTESTA. POTESTA also inspected work area enclosures to ensure that their construction was in compliance with state and federal asbestos regulations.

POTESTA also monitored adherence to specifications, verified pay quantity, and participated in dispute resolution.



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# ASBESTOS INSPECTION AND SAMPLING PREPARATION PLANT

*Anker Energy Corporation  
Tallmansville, Upshur County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Anker Energy Corporation to perform asbestos inspection and sampling of the coal preparation plant located north of Tallmansville, Upshur County, West Virginia.

POTESTA's tasks for the project included:

- The inspection for suspected asbestos containing materials (ACM), which was conducted by a West Virginia licensed asbestos inspector and included a seven-story coal preparation plant building, lab building, screen tower, silos, metal shed, pump room, and loadout facility.
- Selection of a West Virginia certified laboratory to analyze samples for asbestos by polarized light microscopy (PLM) with dispersion staining techniques according to United States Environmental Protection Agency "Interim Method for Determination for Asbestos in Bulk Insulation Samples, July 1993" (EPA/600/r-93/116).
- Quantify and characterize identified ACM.
- Recommend proper handling procedures and disposal methods for ACM disturbed during renovation and demolition activities.



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# CITIZENS BANK DRIVE-THRU ADDITION

*Pray Construction Company, Inc.  
Elkins, Randolph County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Pray Construction Company, Inc. (Pray) for surveying and civil site design services for the Citizens Bank Drive-Thru Addition located on the corner of 3<sup>rd</sup> Street and Kerens Avenue in Elkins, Randolph County, West Virginia.

POTESTA's engineering and surveying services for this project included the following:

- Provided a topographic survey including generation of a topographic map with 1-foot contour intervals. POTESTA established horizontal and vertical control at the site and performed conventional surveying. POTESTA located visible existing utilities as they pertained to the property.
- Utilization of topographic mapping and site surveys previously prepared by POTESTA to generate construction-level design drawings including a site grading plan, demolition plan, erosion and sediment control plan, stormwater plan, and supplementary detail drawings.
- Determined final building pad (drive-thru) elevations based on the topographic mapping.
- Sizing and locations of the storm water collection system, drop inlets, buried pipes, and discharge protection.
- Provided utility coordination and design with City of Elkins (City) for the proposed water and sanitary sewer lines. This includes one on-site meeting with the City. Preparation of construction level drawings for the water and sewer lines.
- Prepared detail drawings for drop inlets, pipe profiles, trench details, access road profile, access road cross section (with stone base and pavement thicknesses), curbs, and erosion and sediment control details.
- Provided stakeout plan to Pray including entrance radii, top and bottom of sidewalk and curbing elevations, and elevations of drainage features.



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# DAVIS & ELKINS COLLEGE MYLES PLAZA

*Mills Group, LLC  
Elkins, Randolph County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Mills Group, LLC for engineering consulting services associated with the proposed Myles Plaza at Davis & Elkins College in Elkins, Randolph County, West Virginia. The project included renovations of the area around and adjacent to Robbins Chapel to include parking lots, new sidewalks, hardscapes, and green spaces. The project also included a new featured entry to Hermanson Campus Center, as well as a roof extension between Hermanson Campus Center, Harper-McNeeley Auditorium, and Myles Center for the Arts.

POTESTA's engineering and geotechnical services for this project included the following:

- Providing geotechnical recommendations regarding the suitability of the site for construction of the proposed plaza and roof structure.
- Coordinating private utility locating services using geophysical methods including electromagnetic scanning and ground penetrating radar. These services provide the horizontal designation of buried utilities.
- Utilization of topographic mapping and site surveys prepared by POTESTA to generate construction-level design drawings including a site grading plan, demolition plan, erosion and sediment control plan, stormwater plan, and supplementary detail drawings.
- Sizing and locations of the storm water collection system including, but not limited to, drop inlets, buried pipes, and discharge protection.
- Preparation of detail drawings for drop inlets, pipe profiles, trench details, sidewalk details, pavement sections (with stone base and pavement thicknesses), curbs, and erosion and sediment control details.



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# UNDERGROUND UTILITY LOCATION PROJECT CAMP DAWSON

*ZMM Architects and Engineers  
Kingwood, Preston County West Virginia*

Potesta & Associates, Inc. (POTESTA) performed private utility location, surveying, and engineering services for the existing utilities for approximately 150 acres of the Camp Dawson Facility in Kingwood, Preston County, West Virginia. The project consisted of locating the existing aboveground/underground utilities and providing construction documents to move the existing aboveground utilities to underground.



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# **BURNWELL (STANDARD/PAINT CREEK/ COLLINSDALE) WATER LINE EXTENSION – PATHWAY AND SOURCE STUDY**

*West Virginia Department of Environmental Protection  
Office of Abandoned Mine Lands  
Kanawha and Fayette Counties, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to prepare a study evaluating possible water line extensions to the Collinsdale/Burnwell area from neighboring public water systems. An initial study completed by the WVDEP determined that the area was 100 percent impacted by pre-1977 mining activities. The study recommended construction of a water treatment plant near Burnwell. Upon further review, WVDEP determined that Collinsdale/Burnwell did not have the personnel or financial ability to operate and maintain a water treatment plant. Accordingly, WVDEP directed POTESTA to complete a study that compared alternate pathways (from alternate sources).



To complete the study, POTESTA performed a file review of the public water systems in the area to verify their production and financial capabilities. Meetings were held with the WVDEP and public water systems to address concerns regarding the additional customers and service line. Based upon the aforementioned as well as site visits, POTESTA prepared a preliminary engineering report, including preliminary water system design, and a West Virginia Infrastructure & Jobs Development Council Preliminary Application. The study evaluated two pathways including estimates of construction and project cost, and summaries of advantages and disadvantages. The recommended water line extension proposed approximately 48,000 LF of water line, one booster station, a tank, fire hydrants, meter assemblies, and miscellaneous valves and fittings.

POTESTA will design the water line extension selected by the WVDEP from the preliminary engineering report. The extension will be mapped, including locating utilities, public water system connection points, identifying easements via tax maps, and surveying tank and booster station sites. POTESTA will prepare and submit the necessary "clearance" letters and permits for construction.

Geotechnical exploration and assessment will be performed for tank and booster sites. Boundary surveys and plats will be prepared for the property transfer of the tank and booster station sites, and POTESTA will perform a hydraulic evaluation to estimate the impact of the additional demand on the selected public water system.

Ultimately, POTESTA will prepare drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project.



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# EVALUATION OF SANITARY SEWER SYSTEM FOR HUNTING HILLS RESIDENTIAL DEVELOPMENT

*CNX RCPC, LLC*  
*Monongalia County, West Virginia*

Potesta & Associates, Inc. was retained by CNX RCPC, LLC to complete an evaluation of Hunting Hills Residential Development Sanitary Sewer System. Included in the scope of services was:

- Reviewed violations from the West Virginia Department of Environmental Protection, and preliminarily evaluated existing package plant and determined it was in a state of disrepair.
- Designed a new plant including permit level drawings and all associated permits to bring it back in to compliance.
- Performed an Inflow and Infiltration Study to evaluate problems with the sanitary collection system.
- Performed smoke testing on the sanitary collection system.
- Observed 2,200 feet of sanitary collection system pipe via CCTV (i.e., camera).
- Identified defect in the pipeline, including offset joints, cracks and breaks, and direct connections.
- Developed a preliminary estimate of a construction cost for rehabilitation.



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# LOCATION OF MAIN INTERCEPTOR SEWER COLLECTION

*Huntington Sanitary Board  
Huntington, West Virginia*

Potesta & Associates, Inc. (POTESTA) currently has a general agreement with the Huntington Sanitary Board (HSB) to perform services related to the Board's implementation of their Long Term Control Plan, Water Treatment Plant Modernization Plan, and Storm Water Management Utility Establishment/Operation. This agreement has been comprised of multiple work orders for improvement of Huntington's combined sewer system.

POTESTA worked with the Huntington Sanitary Board staff to identify the location of the City of Huntington's main combined sewer interceptor line to locate manholes for access to clean out the interceptor. This interceptor was installed in the late 1950s and collects flow from approximately 90 percent of the system. Most of the interceptor line is located in excess of 20 feet below the surface and many of the manholes have been buried under material deposit by the Ohio river over the years and have never been located by the HSB. Some tops of manholes were buried over 10 feet in depth.

POTESTA and the HSB initially performed field work to locate manholes visually; however, with the overgrowth of brush and the amount of river sediment deposited, it became apparent that the line and manholes could not be located by conventional methods. Because of access problems, the use of HSB's camera truck was not possible.

POTESTA and the HSB used the SB Leica DidgiCat System and construction "as-built" record drawings, with excavation equipment, to locate the interceptor and manholes.



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# EVALUATION OF WATER SYSTEM FOR THE CITY OF KINGWOOD

*Kingwood Water Works  
Preston County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Kingwood Water Works (Kingwood) to evaluate the condition of the distribution system of the Preston County Public Service District No. 2 (PCPSD #2), the operation and maintenance (O&M) costs, system debt, unaccounted for water, the ability to repay Kingwood for outstanding water purchases, and provide recommendations on the potential option of whether it was in the best interest for Kingwood to take over PCPSD #2.

Tasks completed as part of the preliminary evaluation included review of the West Virginia Public Service Commission Annual Reports; Department of Health and Human Resources Sanitary Surveys; and meeting with Kingwood water personnel to review and discuss the existing water system, including tours of the distribution system, water storage tanks and booster stations. Based on the review, POTESTA made recommendations on system improvements; preparation of a list of prioritized areas for improvements; preparation of a report summarizing the findings of the preliminary evaluation, provided overall recommendations and met with Kingwood to discuss the findings.

Kingwood has since taken over PCPSD #2 and is currently operating the system, including the construction of the Howesville water project which includes the new Howesville water storage tank above.



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# SANITARY SEWER SYSTEM UPGRADES

*Town of Ceredo*  
*Wayne County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Town of Ceredo to provide design, permitting and construction phase services for an upgrade to their sanitary sewer system. The design phase included identifying the need to upgrade piping sizes and pumping rates. The project construction included:

- Replacement of 8-inch gravity line with 12-inch gravity line.
- Replacement of 2-inch force main line with 4-inch force main line.
- Upgrade of a pump station via replacement of 35 GPM submersible pumps with a new 100 GPM vacuum primed pump station.



After construction, POTESTA completed an Asset Management Plan for the sanitary system.

Project was completed within budgeted amounts using funding from the Clean Water State Revolving Fund (CWSRF).



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# MASTER SERVICES AGREEMENT 2012 – PRESENT

## *West Virginia American Water West Virginia*

Potesta & Associates, Inc. (POTESTA) is currently working with West Virginia American Water (WVAW) on multiple projects, including the replacement of aging water mains including cast iron, pvc, asbestos cement (AC) and transite piping. POTESTA has assisted WVAW in replacing over 100 sections of water lines. Work has included design, permitting, contract documents, drawings, construction observation, project management, and invoice approval.

POTESTA has worked with WVAW and the contractor so that the new line is placed in service while maintaining service to the existing customers and then performing an organized transition to the new water line. Then eliminating the old water line after the customers are transferred over to the new water line, thus minimizing customer interruption.



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

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

Proc Folder: 761812

Doc Description: Williamstown AASF1- Shower-Restroom Renovation Design

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2020-07-30	2020-08-18 13:30:00	CEOI 0603 ADJ2100000002	1

**BID RECEIVING LOCATION**

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

**VENDOR**

Vendor Name, Address and Telephone Number:

\*000000206862  
 McKinley Architecture and Engineering  
 32 20th Street - Suite 100  
 Wheeling, WV 26003  
 (304) 233-0140

**FOR INFORMATION CONTACT THE BUYER**

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

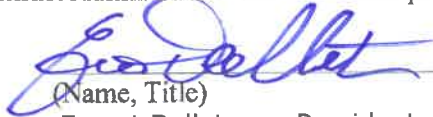
Signature X

FEIN # 55-0696478

DATE 14 August 2020

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.



(Name, Title)

Ernest Dellatorre, President

(Printed Name and Title)

32 20th Street - Suite 100, Wheeling, WV 26003

(Address)

(304) 233-0140 | (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)



(Authorized Signature) (Representative Name, Title)

Ernest Dellatorre, President

(Printed Name and Title of Authorized Representative)

14 August 2020

(Date)

(304) 233-0140 | (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:  Date: 14 August 2020

State of West Virginia

County of Ohio, to-wit:

Taken, subscribed, and sworn to before me this 14 day of August, 2020.

My Commission expires August 16, 2020.



NOTARY PUBLIC



*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) 01/02/2020

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 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 J Associates  
1311 Chapline Street  
P. O. Box 990  
Wheeling, WV 26003-0123

INSURED  
McKinley & Associates Inc  
See Below Additional Named Insured  
32 - 20th Street Ste 100  
Wheeling, WV 26003

AGENCY  
304.233.3303 FAX 304.233.3333

INSURER A: Cincinnati Insurance Co. 10677  
INSURER B: Brickstreet Ins Brtck  
INSURER C:  
INSURER D:  
INSURER E:

CERTIFICATE NUMBER: 2019-2020 CERTIFICATES REVISION NUMBER:  
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

TYPE OF INSURANCE	ADDL. SUBR. (SEE 10)	POLICY NUMBER	POLICY EFF. DATE	POLICY EXP. DATE	LIMITS
COMMERCIAL GENERAL LIABILITY		EPP/EBA0146335	06/19/2019	06/19/2020	EACH OCCURRENCE: \$ 1,000,000 DAMAGE TO RENTALS: \$ 500,000 PERSONAL & ADV INJURY: \$ 10,000 MED EXP (Any one person): \$ 1,000,000 PERSONAL & ADV INJURY: \$ 1,000,000 GENERAL AGGREGATE: \$ 2,000,000 PRODUCTS - COMPROP AGG: \$ 2,000,000
CONTRACTUAL LIAB					
COMBINED SINGLE LIMIT (See schedule)		EPP/EBA0146335	06/19/2019	06/19/2020	\$ 1,000,000
ANY AUTO					
ALL OWNED AUTOS					
SCHEDULED AUTOS					
LEASED AUTOS					
NON-OWNED AUTOS					
UMBRELLA LIAB		EPP/EBA0146335	06/19/2019	06/19/2020	EACH OCCURRENCE: \$ 1,000,000 AGGREGATE: \$ 2,000,000
EXCESS LIAB					
WORKERS COMPENSATION AND EMPLOYERS LIABILITY		MCB1018014	12/30/2019	12/30/2020	E. EACH ACCIDENT: \$ 1,000,000 E. DISEASE - EA EMPLOYEE: \$ 1,000,000 E. DISEASE - POLICY LIMIT: \$ 1,000,000
PA EL INCLUDED					
MV BROAD FROM EL					
BLANKET WAIVER OF SUBROGATION		MCB1018014	12/30/2019	12/30/2020	INCLUDED

CERTIFICATE HOLDER: MCKINLEY & ASSOCIATES, INC. ATTN: LISA DICARLO 32 - 20TH STREET STE 100 WHEELING, WV 26003

CANCELLATION: 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: Lisa C. Dicarlo

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**ACORD** **CERTIFICATE OF LIABILITY INSURANCE** DATE (MM/DD/YYYY) 10-3-2019

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 NAME: Noelle Boyd  
PHONE: (440) 216-367-4654  
FAX: (440) 216-639-2815  
ADDRESS: nboyd@oswaldcompanies.com  
INSURER(S) AFFORDED COVERAGE: NAIC #

INSURED  
McKinley Architecture and Engineering  
32 20th Street #100  
Wheeling WV 26003

INSURER A: Commercial Insurance Company  
INSURER B:  
INSURER C:  
INSURER D:  
INSURER E:

CERTIFICATE NUMBER: 1311-4827 REVISION NUMBER:  
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

TYPE OF INSURANCE	ADDL. SUBR. (SEE 10)	POLICY NUMBER	POLICY EFF. DATE	POLICY EXP. DATE	LIMITS
COMMERCIAL GENERAL LIABILITY					EACH OCCURRENCE: \$ DAMAGE TO RENTALS: \$ PERSONAL & ADV INJURY: \$ MED EXP (Any one person): \$ PERSONAL & ADV INJURY: \$ GENERAL AGGREGATE: \$ PRODUCTS - COMPROP AGG: \$
CONTRACTUAL LIAB					
COMBINED SINGLE LIMIT (See schedule)					\$
ANY AUTO					
ALL OWNED AUTOS					
SCHEDULED AUTOS					
LEASED AUTOS					
NON-OWNED AUTOS					
UMBRELLA LIAB					EACH OCCURRENCE: \$ AGGREGATE: \$
EXCESS LIAB					
WORKERS COMPENSATION AND EMPLOYERS LIABILITY					E. EACH ACCIDENT: \$ E. DISEASE - EA EMPLOYEE: \$ E. DISEASE - POLICY LIMIT: \$
PA EL INCLUDED					
MV BROAD FROM EL					
BLANKET WAIVER OF SUBROGATION					

CERTIFICATE HOLDER: MCKINLEY & ASSOCIATES, INC. ATTN: LISA DICARLO 32 - 20TH STREET STE 100 WHEELING, WV 26003

CANCELLATION: 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: Lisa C. Dicarlo

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