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

Solicitation

NUMBER

PAGE

DEFK14023

ADDRESS CORRESPONDENCE TO ATTENTION OF

TARA LYLE

304-558-2544

RFQ COPY TYPE NAME/ADDRESS HERE *709060537 McKinley & Associates The Maxwell Centre 32 20th Street - Suite 100

Wheeling, WV 26003

P

ARMORY BOARD SECTION

DIV ENGINEERING & FACILITIES

1707 COONSKIN DRIVE CHARLESTON, WV 25311-1099 304-341-6368

ADDRESS CHANGES TO BE NOTED ABOVE

DATE PRINTED 04/07/2014 BID OPENING DATE 05/15/2014 BID OPENING TIME CAT LINE QUANTITY UOP ITEM NUMBER UNIT PRICE AMOUNT 0001 JB 906-00-00-001 1 ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL EXPRESSION OF INTEREST (EOI) THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, DIVISION OF ENGINEERING & FACILITIES, WV ARMY NATIONAL GUARD, IS SOLICITING EXPRESSIONS OF INTEREST FOR ARCHITECTURAL AND ENGINEERING SERVICES TO RENOVATE THE HEATING, VENTILATION AND AIR CONDITIONING SYSTEM AT THE WILLIAMSTOWN AASF1 FACILITY, PER THE ATTACHED DOCUMENTATION. ATTACHMENTS INCLUDE: DEFK14023 EXPRESSION OF INTEREST INSTRUCTIONS TO VENDOR'S SUBMITTING BIDS GENERAL TERMS AND CONDITIONS CERTIFICATION AND SIGNATURE PAGE PURCHASING AFFIDAVIT VENDORS SHOULD PROVIDE ONE (1) ORIGINAL PROPOSAL AND TWO (2) CONVENIENCE HARD COPIES AND ONE (1) SUBMISSION ON CD-ROM. 05/09/14 11:21:13AM West Virginia Purchasing Division TELEPHONE (304) 233-4613 SIGNATURE ^{DATE} 7 May 2014

55-0696478

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

McKinley & Assoc	iat	es	
(Company)		Illele	
Authorized Signature	:)		
Ernest Dellatorre	, Pi	esident	
(Representative Name	, Ti	tle)	
(304) 233-0140	/	(304) 233-4613	
(Phone Number)		(Fax Number)	
7 May 2014			
(Date)			

RFQ No.	DEFK14023	
REW NO.	D = 1	

Purchasing Affidavit (Revised 07/01/2012)

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

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

Wendor's Name: McKinley & Associates Authorized Signature: Date: 7 May 2014 State of West Virginia County of Ohio , to-wit: Taken, subscribed, and sworn to before me this 7 day of May , 2014. My Commission expires August 16 , 2020. AFFIX SEAL HERE NOTARY PUBLIC

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
KATHRYN McKINLEY
McKinley & Associates
32 - 20th Street, Suite 100
Wheeling, West Virginia 26003
My Commission Expires Aug. 16, 2020

On the following pages, you will see copies of our various licenses & registrations as evidence that we are currently registered in the State of West Virginia. These include Tim Mizer's (your project manager) 2013-14 registration from the West Virginia State Board of Registration for Professional Engineers (on this page), as well as our firm's Certificate of Incorporation, Business Registration Certificate, and Certificate of Authorization for providing Engineering Services in West Virginia. We can also provide more licenses of other Professionals if you wish to see them.

West Virginia State Board of Registration for Professional Engineers

TIM E MIZER WV PE #

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

EXPIRES June 30, 2014

But I was to



I state of West Virginia, hereby certify that

by the provisions of Chapter 31, Article 1, Sections 27 and 28 of the West Virginia Code, the Articles of Incorporation of

McKINLEY & ASSOCIATES, INC.

conform to law and are filed in my office. I therefore declare the organization to be a Corporation for the purposes set forth in its Articles, with the right of perpetual existence, and I issue this

CERTIFICATE OF INCORPORATION

to which I have attached a duplicate original of the Articles of Incorporation.

Given under my hand and the

Great Seal of the State of

West Virginia, on this

FIFTEENTH day of

DECEMBER 1989

The Heelle

Secretary of State.

WEST VIRGINIA STATE TAX DEPARTMENT BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:

MCKINLEY & ASSOCIATES INC 32 20TH ST WHEELING, WV 26003-3750

BUSINESS REGISTRATION ACCOUNT NUMBER:

1040-9524

This certificate is issued on:

06/28/2011

This certificate is issued by the West Virginia State Tax Commissioner in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued. This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

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CERTIFICATE OF Authorization

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

The West Virginia State Board of Registration for Professional Engineers having verified the person in responsible charge is registered in West Virginia as a professional engineer for the noted firm, hereby certifies

MCKINLEY & ASSOCIATES, INC. C00366-00

Engineer in Responsible Charge: TIM MIZER - WV PE 013169

has complied with section \$30-13-17 of the West Virginia Code governing the issuance of a Certificate of Authorization. The Board hereby notifies you of its certification with issuance of this Certification of Authorization for the period of:

July 1, 2013 - June 30, 2014

providing for the practice of engineering services in the State of West Virginia.

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE.
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.

BMIT THIS CERTIFICATE WITH TOUR APPLICATION.

IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA UNDER ITS SEAL, AND SIGNED BY THE PRESIDENT OF SAID BOARD.

BOARD PRESIDENT

Insurance

On the following pages, you will see copies of our various Insurance Coverages, including General Liability and Automobile Liability (on this page), Professional Liability, and WV Statutory requirement - WV Code §23-4-2 Madolidis (included on Workers Compensation and Employer's Liability Certificate)

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Insurance

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MCKINLEY & ASSOCIATES
ARCHITECTS · ENGINEERS · INTERIOR DESIGN

The ACORD name and logo are registered marks of ACORD

ACORD 25 (2010/05)

Insurance

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7 May 2014

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

Dear Ms. Lyle and Member of the Selection Committee;

We are pleased to provide the West Virginia Army National Guard with our expression of interest to provide professional architectural and engineering services to design and develop construction documents to renovate the heating, ventilation and air conditioning system design at the Williamstown AASF1 facility in Williamstown, WV. As you review this submission, we emphasize the following strengths of McKinley & Associates with respect to your project:

Your project will be led by Tim E. Mizer, PE, RA, QCxP. He is a very talented and unique professional being a Professional Engineer, a Registered Architect, as well as a Qualified Commissioning Process Provider. He has a complete understanding of projects from both the engineering and architectural disciplines, and as a 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. He will assure that your project is completed to your specifications on time and within budget, will meet the needs of the Williamstown AASF1 unit, and will also meet the current building codes.

McKinley & Associates has been providing design services since 1981. With offices in Wheeling and Charleston, WV and Washington, PA, we support a professional staff of mechanical, electrical, plumbing/fire protection Engineers (MEP Engineers); Architects; Construction Administrators; Commissioning Agents; LEED Accredited Professionals; as well as a certified Interior Design department. These professionals are all In-House. We also have depth in each discipline.

Our mechanical/HVAC engineering staff has recently had special opportunities and experience related to various typical and atypical building types. For example, our engineering department has designed the first Chilled Beam HVAC System in the State of West Virginia, as well as one of the first Variable Refrigerant Volume / Air-Cooled DX Multi-Zone System in the State. We have a well-rounded range of experiences, which you will see throughout our submittal, and we are not afraid to take on new challenges.

McKinley & Associates has recently designed the HVAC / MEP Systems for the West Virginia Army National Guard on both the Multipurpose Building and the ChalleNGe Learning Center at Camp Dawson in Kingwood, both of these buildings have been recognized and been awarded either merit or honor award from the West Virginia AIA.

With our previous experience on hundreds of projects which involve HVAC renovations, upgrades, and repairs, our vast experience with codes, and our great working relationship with various state agencies; we are confident that we have the talent and technology needed to make this successful. Also, as your Engineers/Architects and single point of responsibility, you can be reassured of smooth project delivery and sensitivity to all relevant guidelines in our state.

McKinley & Associates has a great working relationship with our State Fire Marshal and we will design to the States Fire and Life Safety codes. We have worked with owners in many different sectors of business and have been able to comply with their various requirements and standards, including all Federal and State Agencies. 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.

For all of our construction projects we require a full set of Operation & Maintenance Manuals be submitted as Close-out Documents. Often a videotaped demonstration of the instruction session(s) is also required for each piece of equipment for future reference by the Owner's staff. On occasion, we have incorporated equipment specific Maintenance Agreements into the construction documents when the Owner believed their staff availability to be sporadic. Also, testing, adjusting and balancing are always required by a third party entity to insure proper operation of MEP equipment. The Eleven-Month Walkthru is specified to follow-up on the status of the completed work and to make it possible to review equipment maintenance and operation before the warranties expire. Lastly, we utilize modern HVAC systems with electronic monitoring options so that alerts are issued immediately upon detection. In addition, third party monitoring agreements of HVAC systems and Security Systems can be specified.

We are committed to each of our projects and encourage you to check with our references. Most of our clients are repeat, which is a great indication of the services we provide. The main reason we have been able to maintain this relationship is because we LISTEN to our clients needs. We encourage you to speak with our references because we feel this is the best way that our abilities can be conveyed to you.

Thank you for reviewing our submission and considering McKinley & Associates for your proposed project.

Sincerely,

Ernie Dellatorre

President

McKinley & Associates

edellatorre@mckinleyassoc.com

Corporate Information

Firm History

Founded in 1981, McKinley & Associates is a multi-discipline full service Architectural & Engineering firm, offering comprehensive professional services in Architecture. Engineering, Interior Design, LEED Design, Commissioning, **Educational Planning, and Construction Administration.** We have a broad range of skill and experience for projects involving emergency facilities, governmental, medical, commercial, educational and more. McKinley & Associates is now a 100% ESOP Company (Employee Stock Ownership Plan), which is a benefit plan that gives our employees 100%

ownership of stock in our company. This is a contribution to



McKinley & Associates' Charleston, WV Office





the employee, not an employee purchase.

McKinley & Associates' Washington, PA Office

Firm Information

Ernest Dellatorre President

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

Gregg Dorfner, AIA, REFP **Director of Architecture**

Date of Incorporation

July 1, 1981 Wheeling, West Virginia

Number of Professionals

Total Size	35
Architects	8
Engineers	3
Construction Admins.	4
Arch./Eng. Designers	10
Interior Designers	1
Quality Controllers	2
REFP	2
LEED AP / LEED AP BD+0	3
Commissioning Agents	2
MIS	1

Locations

The Maxwell Centre

Thirty-Two - Twentieth Street Suite 100

Wheeling, West Virginia 26003

P: 304-233-0140 F: 304-233-4613



Charleston Enterprise Center

1116 Smith Street Suite 406 Charleston, West Virginia 25301

P: 304-340-4267 F: 304-340-4269

Washington Trust Building

6 S. Main Street **Suite 1028** Washington, Pennsylvania 15301

P: 724-223-8250 F: 724-223-8252

Credentials

McKinley & Associates is a member of the following organizations: CEFPI, AWI, WVEDC, AIA, NFPA, NCARB, ASCE, ASPE, BOCA, ASHRAE, ACI International





Project Approach

Over the years, McKinley & Associates has designed hundreds of projects which involve HVAC assessments, renovations, replacements, upgrades, and/or repairs. During this time our expertise has been called upon many times upgrading outdated machinery, and even evaluating and correcting errors in existing design (pipe sizing, piping material errors, control valving etc). With our vast renovation experience, experience with codes, and our great working relationship with various state agencies; we are confident that we have the talent and technology needed to make this successful.

Also, as your MEP Engineers/Architects and single point of responsibility, you can be reassured of smooth project delivery and sensitivity to all relevant guidelines in our state. In addition to A/E design, we also have the ability to complete Building Commissioning Services. McKinley & Associates has the manpower to dedicate additional Engineering Designers, Architects, Interior Designers, LEED Accredited Professionals, and Construction Administrators as needed to make this project a success.

We currently support clients on a number of significant renovation / upgrade projects that illustrate this ability. McKinley & Associates has significant experience with renovation projects divided into multiple Phases. If we have to sequence/phase the new installations, say for example, as to not disrupt the current occupants of the buildings, or for maintaining existing heating or cooling through the respective season; we have vast experience with phasing from our hundreds of renovation projects, and will coordinate your renovations as required.

To start your project, a kickoff meeting will be held with the West Virginia Army National Guard's Construction and Facilities Management Office, the Williamstown AASF1 representatives, along with a facility walkthrough for all the design professionals. From this meeting the Owners Project Requirements will be defined and documented, to be used as a guideline through the design phase. After this, we will verify the existing, or establish a new load of the facility, through the review of the existing conditions, existing drawings if available, and with discussions with the Owner. We will then use all this information to design and specify new equipment and HVAC systems to better fit the standards of design today.

Our philosophy regarding these types of work requires an intimate knowledge of the building so we can determine how to most effectively use the existing resources. Early activity includes carefully mapping out any damaged areas and formulating a plan of action for repairs. This process targets the areas of greatest need and helps to control cost. It is with this experience that we are able to bring insight to the design of spaces that will retain long term value. We can and will perform for you on time and to your budget.

Additionally, years ago the United States Postal Service made commissioning a requirement on all HVAC projects; therefore, we commission every USPS project to ensure everything is working properly, and to teach the maintenance personnel how to use the machinery and gives them all the correct manuals. From this, your project manager, Tim Mizer, became a Qualified Commissioning Process Provider. McKinley & Associates can work with the Contractors and Testing Adjusting & Balancing Company to verify proper system operation. The purpose of the verification is to verify all systems and equipment are operating as intended, and to the designed efficiency. We have completed commissioning services on multiple USPS projects (in WV and PA), West Virginia State Police, Raleigh County Emergency Services Authority, School Building Authority projects, and LEED projects.

HVAC Replacement Projects

The following examples are chosen to exhibit a partial assortment of HVAC system replacement projects:

AEP Building

Wheeling, WV

Barnesville Elementary School Barnesville High School

Barnesville Exempted Village Schools, OH

Braxton County High School
Braxton County Middle School
Braxton County Middle School Gym
Burnsville Elementary School
Davis Elementary School
Sutton Elementary School
Braxton County Schools, WV

Bridge Street Middle School Ritchie Elementary School Warwood Middle School Ohio County Schools, WV

City County Building Wheeling, WV

Hillview Terrace Church of Christ *Moundsville, WV*

John Marshall High School Sherrard Junior High School Washington Lands Elementary School Marshall County Schools, WV

Kanawha Elementary School Wood County Schools, WV

Long Drain School Wetzel County Schools, WV

Maxwell Centre Wheeling, WV

Maysville Elementary School Grant County Schools, WV

Oak Glen High School Hancock County Schools, WV

Ohio County Correctional Complex *Wheeling, WV*

Ohio Valley Distribution Center Clarksburg, WV

Orchard Park Day Care Center Wheeling, WV

Orrick Building Wheeling, WV

Southern WV Comm & Tech College Williamson Campus Southern WV Comm & Tech College Wyoming/McDowell Campus

St. Mark's Lutheran Church Wheeling, WV

St. Mary's Elementary School New Martinsville Pleasants County Schools, WV

United States Postal Service *multiple locations in WV & PA*

Wagner Building Wheeling, WV

West Virginia Independence Hall Wheeling, WV

West Virginia State Police multiple locations in WV

Wheeling Island Race Track & Gaming Center Wheeling, WV

Wheeling Park Commission:
Oglebay Glassworks Restaurant
Wheeling Park Stone Room
Wheeling Park White Palace
Wheeling Park Wilson Lodge
Wheeling, WV

WVU Tech - Conley Hall WVU Tech - Maclin Hall WVU Tech - Technical Center Montgomery, WV

Sustainable "Green" Design

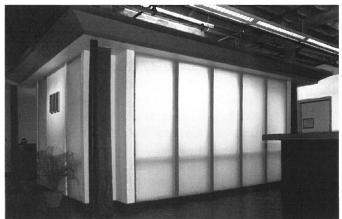
Buildings designed today will need to meet the demands of the future; McKinley & Associates identifies the changes necessary in the design of today and to meet these demands. This approach helps to retain the buildings' long-term profitability and value, which achieves the buildings' sustainability.

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 institutional 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**



McKinley and Associates has been honored to have won some very notable awards and to have received some very prestigious nominations over the years. We recently won a **West Virginia Chapter of the American Institute of Architects Merit Award** for our newly renovated Charleston Office; a project led by Thom Worlledge.



View of our award-winning Charleston Office renovation showing our centrally located conference room "Lantern." This glows all day long through the translucent walls, which are illuminated with natural daylight from a skylight above.

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, we were honored to have won 5 Placemakers Awards from West Virginia GreenWorks, at 2013 The Building Conference in Morgantown. In addition, Cameron Middle School/High School won the 2014 Black Bear Award for the Highest Achievement for the West Virginia Sustainable Schools program, and was just selected on April 22nd as a 2014 U.S. Department of Education Green Ribbon School!

Moreover, Hilltop Elementary School is one of our many projects that we designed using **energy efficient** and **sustainable design** approaches. It was not until <u>after</u> construction had commenced that the Owner decided to submit for LEED Certification. This required a great deal of coordination with

HILLTOP ELEMENTARY SCHOOL
Sharard Press Vegrals

CERTIFIED

Rain
May 2011

Allemented.

the architects, engineers, subcontractors and suppliers. Since we incorporated good sustainable design practices from the beginning, this allowed for an easy transition, and for the project to be successfully completed in July 2009. This is the first LEED Certified school in the state of West Virginia. Hilltop won a 2010 Gold Medal Green Building Award by Building of America. Hilltop also won the 2012 West Virginia Department of Environmental Protection's Clean Energy Environmental Award. Hilltop received the 2012 Black Bear Award for the Highest Achievement for the West Virginia Department of Education's

U.S. DEPARTMENT OF EDUCATION

GreenRibbonSchools

Green Ribbon Schools program. In addition, in April 2012, Hilltop was one of 78 schools (which span 29 states and D.C.) to be awarded the <u>first-ever</u> U.S. Department of Education Green Ribbon Schools! Moreover, Hilltop won a 2013 Placemaker Award for Leadership of/for Place from the West Virginia GreenWorks.

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 (<u>www.usgbc.org</u>). 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. The LEED AP Specialty Logos signify advanced

We have LEED® Accredited Professionals on staff:

- 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!
- West Virginia State Office Building in Logan, WV (LEED NC 2.2)

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

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

All of our current LEED Registered Projects are either under construction or in design with potential LEED Platinum Certification (SMART Office) or potential LEED Silver **Certification** (Cameron Middle/High 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

is embodied in the existing physical structure itself!



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

knowledge in green building practices and specialization in a particular field. The LEED AP BD+C represents specialization in commercial design and construction.

projects. Twenty percent of a building's energy consumption 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.



Construction Administration & On-Site Representation

Observe the Construction Progress

Liaison between the Owner, Contractor, and Architect

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 4 Construction Administrators / Project Coordinators have an extra responsibility than what most firms' Construction Administrators have; our Project Coordinators 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 Project Coordinators have an important role as being the liaison between the Owner, Contractor, and Architect. The primary objective of the Project Coordination services is to ensure completion of work the way the client wants it - as scheduled and as budgeted. Our Project Coordinators 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 Project Coordinator is typically on-site once every two weeks, but we can provide additional on-site representation if requested.

Design Team Flow Chart



Project Manager / Point of Contact

Tim E. Mizer, PE, RA, QCxP

Engineering Team

Tim E. Mizer, PE, RA, QCxP

Director of Operations /
Architectural Engineer / Architect / Commissioning Agent

Darren S. Duskey, PE Electrical Engineer

William D. Ciprella

Senior Mechanical Engineering Designer

Michael A. Heath

HVAC & Fire Protection Engineering Designer

Scott D. Kain

Plumbing & Electrical Engineering Designer

Michael J. Clark

Electrical Engineering Designer

Architecture

Patrick J. Rymer, AIA

Construction Administration

Robert E. Smith

^{*} McKinley & Associates is willing to dedicate more professionals if they are needed; including Architects and Designers, LEED Accredited Professionals (Energy Efficient "Green" Design), and more.



Tim E. Mizer, PE, RA, QCxP

Architectural Engineer / Architect / Commissioning

Director of Operations

EDUCATION:

Kansas State University B.S. Architectural Engineering - 1983

University of Cincinnati Architecture

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Registered Engineering in: West Virginia

West Virginia Ohio

Registered Architect in:

Qualified Commissioning Process Provider

PROFESSIONAL EMPLOYMENT:

McKinley & Associates Architect / Engineer 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:

Mr. Mizer is a very talented and unique professional being both a Registered Architect and Professional Engineer. In addition, he is also a Qualified Commissioning Provider. He joined McKinley & Associates in 1995, and has over 30 years of experience. Mizer's background as 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. As the Director of Operations, 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.

NOTABLE PROFESSIONAL EXPERIENCES:

WVARNG Mountaineer ChalleNGe Academy

WVARNG Multi-Purpose Building at Camp Dawson

WVARNG Parkersburg AASF #1 - SPCC Certification (2011)

WVARNG Parkersburg AASF #1 - SPCC Certification (2012)

WV Department of Health & Human Resources Office Building renovation (adaptive reuse of former car dealership)

Building 55 - West Virginia State Building in Logan (LEED Certified)

Building 34 - West Virginia State Office Complex in Weirton

West Virginia State Police - dozens of renovations and additions, as well as multiple new detachments. Also surveyed, reviewed, projected, budgeted, and documented 72 police facilities State-Wide

USPS - worked on dozens of Post Offices renovations in multiple states including West Virginia and Pennsylvania

Wheeling Island Fire Department renovation

Wheeling Island Hotel•Casino•Racetrack - multiple renovations

Ohio County Justice Center renovations

Millennium Centre Technology Park

Panhandle Cleaning & Restoration warehouse and office building renovation and addition

WVU State Fire Training Academy

Environmental Protection Services, Inc. - SPCC Certification

Nicholas Co. Division of Homeland Security & Emergency Management

Raleigh County Emergency Services Authority renovations

Darren S. Duskey, PE Electrical Engineer

EDUCATION:

The Ohio State University B.S. Electrical Engineer - 1993

Marshall University Graduate courses in Engineering

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Registered Professional Engineer in: Ohio

Pennsylvania West Virginia

PROFESSIONAL EMPLOYMENT:

McKinley & Associates Wheeling, WV (2002 to present)

Pickering Associates Parkersburg, WV (1997-2002)

Magnetic Specialty, Inc. Marietta, OH (1995-1997)

Inland Products, Inc. Columbus, OH (1993-1995)

SUMMARY OF EXPERIENCE:

Mr. Duskey has over 20 years of experience in the governmental, industrial, commercial, educational, historic preservation, and institutional markets with projects ranging from electrical design of State office complexes, State Police detachments, higher educational projects, PK-12 schools, health care facilities, large and small industrial projects, and commercial properties. He has extensive knowledge and experience with the National Electrical Code, state building codes, building industry standards and practices, and has demonstrated the ability to design qualitative and economic solutions to a myriad of challenges.

NOTABLE PROFESSIONAL EXPERIENCES:

Electrical Engineer

West Virginia Army National Guard - Mountaineer Challenge Academy at Camp Dawson in Kingwood, WV

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

United States Postal Service - multiple post office renovations in West Virginia and Pennsylvania

West Virginia State Police - multiple buildings state-wide, including new buildings, additions, and renovations

WVU State Fire Training Academy

Wheeling Island Fire Station renovations

Follansbee City Building renovations

Jefferson County Courthouse Electrical renovations

Building 55 - West Virginia State Building in Logan (LEED Certified)

Building 34 - West Virginia State Building in Weirton, WV

WV Department of Health & Human Resources Office renovations

Panhandle Cleaning & Restoration warehouse and office renovations

Raleigh County Emergency Servies Authority renovations

Orrick's Global Operations Center renovations

Hancock County Schools Bond Project (\$56 million)

Cabela's Eastern Distribution Center [New large (~1,200,000 SF) distribution center services, electrical design]

WVU Institute of Technology - Maclin Hall Dormitory (Upgrade electrical service, renovations)

West Virginia University - Colson Hall (Upgrade electrical service, including medium voltage distribution, renovations)

Marshall County Schools - Hilltop Elementary (LEED Certified)

Marshall County Schools - Cameron Middle/High School (LEED Registered project)

William D. Ciprella

Senior Mechanical Engineering Designer

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

ASHRAF

PROFESSIONAL EMPLOYMENT:

McKinley & Associates Wheeling, WV (2009 to present)

Burt Hill Pittsburgh, Pa (2007-2009)

McKinley & Associates Wheeling, WV (2005 to 2007)

Astorino Branch Engineers Pittsburgh, PA (1995-2005)

SUMMARY OF EXPERIENCE:

Mr. Ciprella brings over 45 years experience designing HVAC systems for governmental, industrial, institutional, educational, and commercial facilities. He has 26 years experience using Autocad software, and twelve years using Microstation software. In addition, Bill has 35 years experience using computerized heating and cooling load calculation software. Bill has worked on many multi-million dollar educational projects, dorms such as Maclin Hall, and has experience on various high-rise buildings like the Presbyterian Hospital of Pittsburgh and the Children's Hospital of Pittsburgh; both around 25 stories high.

NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - Mountaineer ChalleNGe Academy West Virginia Army National Guard - Multipurpose Building

United States Postal Service - renovations in Clarksburg, WV United States Postal Service - renovations in Charleston, WV United States Postal Service - renovations in Martinsburg, WV United States Postal Service - renovations in Huntington, WV United States Postal Service - renovations in Grafton, WV United States Postal Service - renovations in Williamson, WV

United States Postal Service - HVAC & Windows in Altoona, PA United States Postal Service - renovations in New Cumberland, PA United States Postal Service - renovations in Corry, PA United States Postal Service - renovations in Monongahela, PA

United States Postal Service - HVAC in Washington, PA

Big Sandy Superstore Arena & Convention Center boiler renovations

Grave Creek Mound Museum renovations

Capitol Theatre renovations

Hancock County Schools - Oak Glen High Multi-Sports Complex Hancock County Schools - Weir High Multi-Sports Complex Hancock County Schools - Field of Dreams

Marshall Co. Schools - Cameron Middle/High School (LEED Registered)

Wood County Schools - Parkersburg High School Wood County Schools - Parkersburg South High School Wood County Schools - Williamstown High School Wood County Schools - Franklin Elementary School HVAC

Wood County Schools - Blennerhassett Middle School HVAC and boiler

Wood County Schools - Kanawha Elementary HVAC

Wetzel County Schools - Long Drain Elementary HVAC Wetzel County Schools - New Martinsville School HVAC

Wetzel County Schools - Magnolia High School

Wetzel County Schools - Center for Children & Families

Wetzel County Schools - Maintenance Facilities

West Liberty University - Russek Field renovations

West Virginia University - Colson Hall

Michael A. Heath

HVAC & Fire Protection Engineering Designer

EDUCATION:

ITT Technical Institute
Associate Degree in Specialized Technology:
Computer-Aided Drafting Technology - 2000

PROFESSIONAL EMPLOYMENT:

McKinley & Associates Mechanical & Fire Protection Designer Wheeling, WV (2007 to present)

Janus, Inc. AutoCAD Designer / Project Manager Pittsburgh, PA (2002-2007)

Comunale Automatic Sprinkler Fire Protection Designer Pittsburgh, PA (July 05 - Oct 05)

S.A. Comunale Inc. Fire Protection Designer Pittsburgh, PA (2000-2002)

SUMMARY OF EXPERIENCE:

Mr. Heath brings a cross-trained design background to your project, and has vast knowledge in a diverse range of disciplines. He was trained by the National Fire Protection Association (NFPA) in Dallas, Texas, and has used these skills to work on projects from multiple business sectors and with various sizes, such as the 4 story, 1,500,000 square foot David L. Lawrence Convention Center in Pittsburgh, Pennsylvania. He has vast expertise in designing and calculating fire protection systems, standpipes, dry and wet systems, hydraulics, and water cannons; stock listing materials for systems; as well as surveying job sites and frequent business trips to coordinate jobs.

NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - Multipurpose Building at Camp Dawson

Wheeling Island Hotel • Casino • Racetrack - various renovations

Bennett Square Office Building renovations

Holiday Inn Express Hotel & Suites - multiple projects

Panhandle Cleaning & Restoration warehouse & office building

Cabela's Eastern Distribution Center

West Virginia Health & Human Resources Wheeling Office

Building 55 - West Virginia State Office Building in Logan, WV (LEED Certified)

Silver Company - Moss Neck Storage Building

Carenbauer Wholesale Corporation warehouse addition

PWP Industries

Capitol Theatre renovations

West Virginia Independence Hall renovations

Boone County Schools - multiple projects

Marshall County Schools - multiple projects

Ohio County Schools - multiple projects

Hancock County Schools - multiple projects

Ritchie County Middle/High School

Tyler County Schools - 3 HVAC projects

Wetzel County Schools - Long Drain Elementary

For 14 West Virginia counties; provided Fire Protection and Mechanical assessments at every school (160+ schools), for their 10-year Comprehensive Educational Facilities Plan (CEFP 2010-2020).

Scott D. Kain

Plumbing & Electrical Engineering Designer

EDUCATION:

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

PROFESSIONAL EMPLOYMENT:

McKinley & Associates 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 electrical, plumbing, and fire protection. He has been utilized for various McKinley & Associates' 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 & Associates.

NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - Mountaineer Challenge Academy at Camp Dawson in Kingwood, WV

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

United States Postal Service - multiple projects

West Virginia State Police - multiple projects

Wheeling Island Hotel • Casino • Racetrack - Multiple Projects

Wheeling Island Fire Station renovations

West Virginia University - State Fire Training Academy

Millennium Centre Technology Park - multiple projects

Panhandle Cleaning & Restoration warehouse and office building

Cameron Middle School/High School (LEED Registered)

Hilltop Elementary School (LEED Certified)

Building 55 - West Virginia State Office Complex in Logan, WV (LEED Certified)

Building 34 - West Virginia State Office Complex in Weirton, WV

West Virginia Health & Human Resources Wheeling Office renovations

West Virginia University - multiple projects

WV Independence Hall renovations

Catholic Heritage Center (office building) renovations

Maxwell Centre (office building) renovations

Orrick Building (office building) renovations

Wagner Building (office building) renovations

Bennett Square Office Building renovations

Sisters of St. Joseph's Convent renovations

Holiday Inn Express & Suites - multiple projects

WVU Institute of Technology - Maclin Hall Dormitory renovations

Hancock County School Bond Project (\$56+ million)

Marshall County School Bond Project (\$38+ million)

Wood County School Bond Project (\$63+ million)

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 & Associates Electrical Engineering Designer Wheeling, WV (2012 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:

West Virginia State Office Building in Logan (LEED Certified)

Bennett Square office build-out

Follansbee City Building renovations

Wellsburg City Building renovations

Jefferson County Courthouse renovations

Big Sandy Arena & Convention Center renovations

Silver Company - Moss Neck Storage Building

Carenbauer Wholesale Corporation warehouse addition/renovations

Holiday Inn Express Hotel & Suites / Washington, PA

Holiday Inn Express Hotel & Suites / Cambridge, OH

Grave Creek Mound Museum renovations

Union Bank renovations

City of Steubenville - Parks Lighting

West Liberty University - Football Field Lighting

Brooke County Schools - Adult Learning Center (ALC)

Grant County Schools - Maysville renovations

Hampshire County Schools - Animal Vet Science Center

Hancock County Schools - Weirton Elementary

Hancock County Schools - Oak Glen High renovations

Hancock County Schools - Weir High renovations

Marshall County Schools - Cameron High

The Linsly School's 200th Anniversary Campaign renovations



Patrick J. Rymer, AIA

Architect

EDUCATION:

University of Tennessee Bachelor of Architecture - 1999

Memphis Center for Design - 1998

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Registered Architect in:

West Virginia

Member:

The American Institute of Architects

NCARB

IDP

ArchNet

PROFESSIONAL EMPLOYMENT:

McKinley & Associates Wheeling, WV (2005 to present)

Capitol Engineering Charleston, WV (2003-2005)

United Brotherhood of Carpenters & Joiners (2000-2003)

SUMMARY OF EXPERIENCE:

Mr. Rymer brings nearly 15 years experience in the building design and construction industry. His recent relevant experience includes the project management of several projects, as well as the lead design and construction administration of various Federal, State, County Government and private projects. Bringing a diverse background from the hands on experience of an apprenticeship in the construction trades to project management of multi-million dollar facilities, Mr. Rymer has an intimate understanding of building and design on a holistic level.

NOTABLE PROFESSIONAL EXPERIENCES:

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

West Virginia State Police:
Jackson County Detachment
Kanawha County Troop 4 Headquarters
Berkeley County Detachment

Wellsburg City Hall Building

Regional Economic Development Office, Wheeling: Parking Facility Adaptive Reuse Warehouse Study

Comprehensive Educational Facilities Plan for: Brooke, Hancock, Ohio, Ritchie, Tyler, Wetzel

Hancock County Schools:

Oak Glen Elementary School
Oak Glen Middle School Wrestling Addition
Oak Glen High School Stadium and Field of Dreams
Weir High School Stadium

Marshall Co. Schools - Cameron High School (LEED Registered)

Tyler County Schools:

Board Office Renovations
Bus Maintenance Garage
County-Wide Security SAS Project

Wetzel County Schools:

Bus Wash Addition Magnolia High

Wetzel County Center for Children and Families

Wood County Schools - Parkersburg South High School

* previous work experience with a firm other than McKinley & Associates

Robert E. Smith

Construction Administrator (Project Coordinator)

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 & Associates Construction Administrator / Project Coordinator Wheeling, WV (2009 to present)

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

Edison Local School District Director of Operation (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 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 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. In addition, has 23 years of direct supervisory experience, as well as 13 years of documented success as an Air Force Officer.

NOTABLE PROFESSIONAL EXPERIENCES:

Construction Administration / Project Coordination for:

Follansbee City Building renovations

Jefferson County Commission - Ohio Valley Towers renovations

Jefferson County Jobs & Family Services renovations

Steel Valley Regional Transit Authority renovations

Lincoln National Bank Building renovations

Cabela's Eastern Distribution Center

City of Steubenville Parks Lighting & Security Project

Cameron American Legion Exterior renovations

Brooke Co. Schools - Follansbee Middle renovations

Grant Co. Schools - Maysville HVAC/Windows

Grant Co. Schools - Union Educational Complex renovations

Hampshire Co. Schools - Animal Vet Science Center

Hancock Co. Schools - A.T. Allison Elementary renovations

Hancock Co. Schools - John D. Rockefeller Career Center renovations

Hancock Co. Schools - New Manchester Elementary renovations

Hancock Co. Schools - Oak Glen High HVAC and renovations

Hancock Co. Schools - Oak Glen High Field of Dreams

Hancock Co. Schools - Oak Glen High Multi-Sports Complex

Hancock Co. Schools - Oak Glen High Wrestling Room

Hancock Co. Schools - Weir High Multi-Sports Complex

Hancock Co. Schools - Weir MS/HS renovations

Hancock Co. Schools - NEW Weirton Elementary

Marshall Co. Schools - NEW Cameron Middle / High School (LEED Registered)

Marshall Co. Schools - NEW Hilltop Elementary School (LEED Certified)

Tyler Co. Schools - 3 HVAC projects

Tyler Co. Schools - Bus Maintenance Garage renovations

The Linsly School - Banes Hall renovations

The Linsly School - Behrens Gym renovations

Management and Staffing Capabilities

The work to be performed by your design team is very clear; to evaluate, prioritize and design within budget and schedule to meet the needs of the West Virginia Army National Guard. In the past 32 years we have extensive experience with similar projects. Our project team has been chosen for this project and they are available to dedicate the necessary time to this effort. We are available to start immediately upon our being selected. We can and will perform for you on time. This team is an "In-House" team that works together everyday and has done most of the projects here as a group. These team members have been working up to seventeen years together at McKinley & Associates. The technical depth of our professional staff indicates that this project can be accomplished without overloading our group or computer graphics systems.

The most important element of the entire process becomes communication from you to our designers. We use and welcome your input throughout the project. We continually achieve success in projects by maintaining time and cost management, quality control and excellent communication amongst the client and contractors.

The areas of expertise for each member coincides with his/her Role in this Contract. With our large staff we have the ability to have registered architects and engineers designing within their area of expertise. HVAC design by a Mechanical Engineer, electrical design by an Electrical Engineer, etc. These professionals are not only "In-House," we also have depth in numbers of each discipline in our firm.

We hold **weekly meetings** to discuss your project, the budget, schedule and quality assurance. We provide **Documented Minutes** of all of our meetings and encourage the Owner to participate in these meetings.

Our **Quality Assurance Program** starts with a peer review where a registered professional not involved in the design becomes reviewer of the project before going to bid. Additionally, at our regularly scheduled project meetings the entire design team is constantly reviewing the process.

We are confident we can meet your program requirements. We have worked with owners in many different sectors of business and have been **able to comply with their various requirements and standards**, including Federal Agencies such as the USPS, DOD, FAA, HUD, EPA and NPS, and also **State Agencies** such as **WVARNG**, West Virginia University, Marshall University, WV School Building Authority, West Virginia State Police, DOE, and the Department of Culture & History. 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.

You appropriately recognize how codes, and state / federal regulations are important to a successful project. Our professional's design within these codes daily, as our practice is and remains a West Virginia practice and we are dedicated more than ever to the state in which we live. All documents will be prepared with the current WV State Building Code and WV State Fire Code as well as all State and Federal Codes, Regulations, and Ordinances. We are members of many organizations, and follow their standards, such as NFPA, CEFPI, AWI, WVEDC, AIA, NCARB, ASCE, ASPE, BOCA, ASHRAE, and ACI International.

Our Eleven Month Walk-Through is a process where our professionals return to your facility eleven months



after the project is completed. At that time they review all the work that was completed and check all warranties. We are making sure all of the covered work is in order and that the warranties do not expire with equipment or product not working properly. We have been doing this for 16 years which has now been adopted as an AIA 101 Standard. We also conduct Post Occupancy Evaluations with the Owner to find out how well we matched the Owners' needs.

Orrick's Global Operations Center

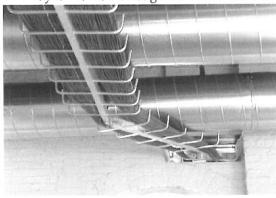
Project Location Wheeling, West Virginia

Project Description

This 100 year old warehouse was adaptive reused and renovated to create some of the most creative office space in the State. This four-story, 88,000 SF former historic warehouse is now a high tech "back office" for a major multinational company in downtown Wheeling. The greatest challenge was to convert the 100 year old once very industrial wood-framed building into a modern "Class A" office facility while retaining the historical heritage of the structure and district itself. This \$8 million dollar project won a West Virginia AIA Merit Award.

Extensive restoration of the exterior was needed first. The entire exterior shell was designed and constructed in 6 months to attract a new tenant (it quickly became the home to the international law firm Orrick. This building soon became the company's Global Operations Center; no other firm has a 24/7 facility that rivals it. It provides the firm and its clients with a central business infrastructure that delivers comprehensive and reliable support services around the world, and around the clock). The exterior renovations included reconstructing 120 dilapidated steel windows and glazing, extensive brick repointing, and construction of a new public entrance and parking lot were just the beginning. The entire brick envelope was sealed and painted with a red brick paint following the repointing. Insulating and replacing of the roof of the entire facility was also required. Galvanized metal wall panels and downspouts now enhance the industrial style of the building. That siding is now juxtaposed by a new four story all glass entrance, which allows a glimpse of the atrium balconies and walkways inside.

The building was partially occupied while renovations continued. Architecture & engineering design was completed in-house and included a completely new mechanical/HVAC system, structural, civil, electrical and fire suppression systems. On the interior, the original facility was almost void of the vertical circulation needed a modern day, team oriented work environment. An exposed steel atrium/elevator/stair core connects the four 22,000 square foot floors while introducing the industrial metals into the interior. Perforated columns, beams, and wire meshes allow daylight to filter in through usually solid steel construction. Two exposed, glass backed passenger elevators with stainless steel interior finishes now traverse the four floors allowing passengers a dynamic view through the atrium and walkways out to Main Street. The stainless steel and galvanized finishes of the exposed



spiral ductwork, electrical conduits and cable trays, sprinkler piping, and perforated metal light fixtures further enhance the industrial concept of the design. The interior structure itself required reinforcing of the exposed wood columns and joists in a historically correct manner. Solid wood knee braces add character to the existing wood columns while providing the necessary bracing. Security for the facility was to be comparable to the rest of the firm's nation-wide facilities; however, one of the challenges we had to overcome was creating a design which did not appear to be fortress-like. One unique feature, the atrium/lobby, included a four-story open-air design, a skylight, a glass wall for the entryway, 2 new elevators, a stair tower, and multiple bridges/walkways. We provided a new parking with around 85 spaces, which included ADA handicapped accessible spaces. A few years later, when the company increased the amount of their employees, we added a second parking lot with around 112 spaces, which included more ADA handicapped accessible spaces.

Name of Project Owner Mr. Will Turani Orrick, Herrington & Sutcliffe LLP 2121 Main Street Wheeling, WV 26003 304/231-2629

Date of project completion Multiple phases/years - most recent was 2008





USPS Charleston Processing & Distribution Center HVAC Renovation

Project Location

Charleston, West Virginia

Project Description

Like many USPS projects, this P&DC project originally started out as a report (investigation study, feasibility study, etc.), we gave them various recommended options to choose from, and it turned into a project.

The main goal of this \$375,000 HVAC renovation project involved the removal of all the Thermofusers and the ceiling fan coil units, and the installation of 8 Fan Powered VAV Boxes and 3 Single Duct VAV Boxes with Hot Water Reheat Coils. The existing DDC Control System was extended to control these new items.

In addition, the 3 Existing Rooftop Heat Pumps Units were in need of repair, as two compressors had failed; therefore, they were replaced with Rooftop Units with electric heat. These new RTUs have economizers to allow the unit to provide free cooling whenever the outside air temperature is below 55° F, by modulating the amount of outside air delivered through the unit.

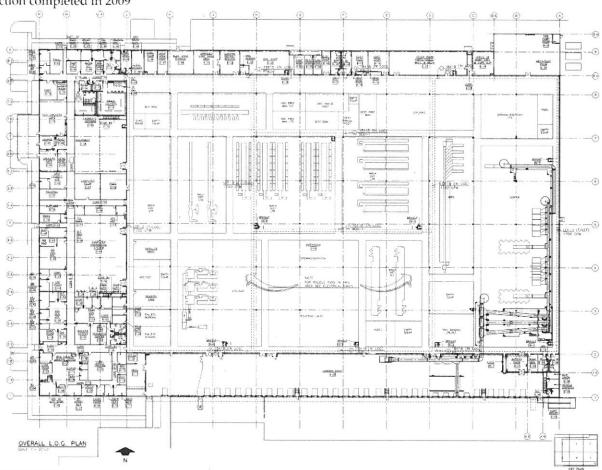
Finally, the UPS Room did not have any mechanical cooling, and so two new 5-Ton Sanyo Mini Split air conditioning units were installed. The controls for these units include a sequencer to assure equal runtime on the units.

Name of Project Owner

Mr. Don Mackey United States Postal Service 27497 Albert Pick Road Greensboro, NC 27498 336/665-2894

Date of project completion

Construction completed in 2009



USPS Clarksburg HVAC Renovation

Project Location Clarksburg, West Virginia

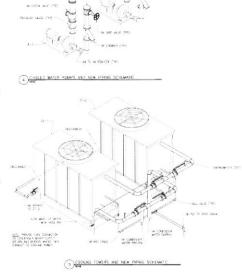
Project Description

Since the 1980s, we have worked dozens of times for the USPS in the Clarksburg; the newest project is a \$375,000 elevator renovation which is about to be constructed. Another project, which was completed in 2009, is an HVAC renovation.

The main objective of this \$460,000 project was the replacement of the 120-ton Water Cooled Chiller, which was 24 years old. The typical useful life for a water-cooled chiller, located indoors is approximately 15 to 20 years.

This replacement included new piping from the existing shutoff valves to the Chiller, strainer, thermometer, pressure gauge and flexible connectors. In addition to the chiller, was the replacement of two 107-ton Cooling Towers. These towers had rust on them, patches had been welded onto the panels, the controls had been rewired and there were clamps holding the motor mounts in place. This task involved new shutoff valves to the Cooling Tower and Pumps, strainer, thermometer, pressure gauge and flexible connectors; moreover, new piping from the existing shutoff valves.

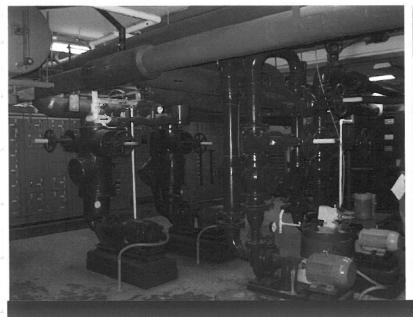
Also, this project involved the replacement of 4 Pumps (2 new Condenser Water Pumps and 2 new Chilled Water Pumps), the installation of new 6' wide door out of the mechanical room, and a Hydronic System Balancing. The demolition included the existing chiller, 2 cooling towers, 4 pumps, and miscellaneous piping, fittings and equipment.



Name of Project Owner Mr. Don Mackey United States Postal Service 27497 Albert Pick Road Greensboro, NC 27498 336/665-2894

Date of project completion

Multiple years/phases - The HVAC was completed in 2009.





USPS Martinsburg Processing & Distribution Center HVAC Renovation

Project Location Martinsburg, West Virginia

Project Description

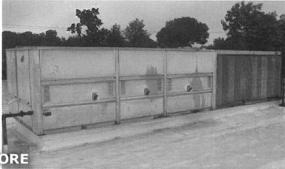
The \$280,000 USPS Martinsburg Facility HVAC Renovation project consisted of replacing (4) Packaged Rooftop Units with new, like-in-kind, Packaged Rooftop Units. While the RTUs are similar, there were some design changes made to bring the units in to USPS Standards compliance and to provide a more efficient system. The new units were installed on the existing RTU curbs and tied into the existing duct systems. In order the meet the USPS Standards, the units all utilized R-410A refrigerant. Pappy's Air Comfort helped perform the commissioning on the RTUs.

The energy saving mentioned above were achieved with the use of economizers to allow free cooling when ambient temperatures are below 60o F. The existing equipment consists of Packaged Rooftop Heating and Cooling Units with DX Cooling and Gas Heating. The workroom, which makes up the majority of the building square footage houses high amounts of equipment providing high levels of internal heat gain, requiring DX Cooling when the outside air temperatures are below the economizer enable setpoint. As a result, currently to maintain space comfort the RTUs must operate DX Cooling into the heating months or the units are turned off, to save energy. The new equipment provides increased operating efficiencies with the addition of Economizers.

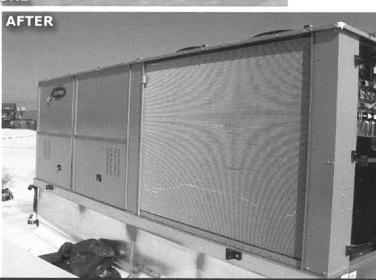
Name of Project Owner Mr. Don Mackey United States Postal Service 27497 Albert Pick Road Greensboro, NC 27498 336/665-2894

Date of project completion Construction completed in 2009









Logan Detachment

Project Location Logan, West Virginia

STATE POLICE

Project Description

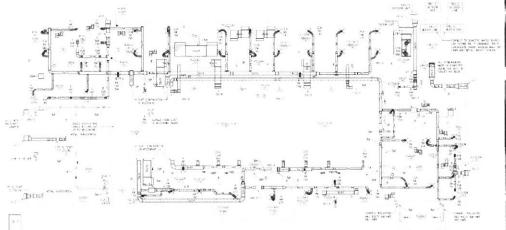
For over 15 years, McKinley & Associates has been honored to have been selected for multiple West Virginia State Police open-ended contracts for all architectural and engineering services throughout West Virginia.

A new 13,000 SF detachment in Logan County includes a Dispatch Center with a dispatch room, radio room, a computer rooms with raised access floors, and an uninterruptible power supply (UPS) room with raised access floors. Also included in the detachment is a District Commander's office, Detachment Commander's office, Assistant Commanders' offices, Lieutenant Inspector office, Lieutenant offices, squad bay for 25 Troopers w/workstations, receptionist area, file rooms, dayroom, evidence room, 30 trooper lockers, a two bay garage, conference rooms, processing room, witness interview room, commons spaces, conference room, and more. This is the first time Insulated Concrete Forms (ICF) have been used for State Police Buildings. ICF's are an almost perfect fit for the detachments they are cost effective to construct, energy efficient, and secure. The \$4.5 million Detachment also uses a daylight clearstory to let daylight into the internal squad and conference rooms. The site required close coordination with the Department of Highways because the DOH will be placing their building on the same site in the near future. The contractor was W. Harley Miller Contractors, Inc.

The HVAC System included the installation of 2 high efficiency condensing boilers, pumps with variable speed drive control, custom air handling unit with dx (remote condensing unit) and hot water coils, variable air volume boxes with hot water heating coils, computer room units with remote condensing units, and direct digital controls.

Name of Project Owner Colonel C. R. "Jay" Smithers West Virginia State Police 725 Jefferson Road South Charleston, WV 25309 304/746-2115

Date of project completion Construction completed in October of 2011













Raleigh County Emergency Services Authority's 911 & Emergency Operations Center HVAC

Project Location

Beaver, West Virginia

Project Description

McKinley & Associates was commissioned to investigate and provide Construction Documents to repair the ill-functioning HVAC system in the Raleigh County Emergency Services Authority's office building (911 Center and Emergency Operations Center) in Beaver, WV. In addition to HVAC renovations, the \$250,000 project also includes associated electric work, miscellaneous interior renovations and insulation work. Construction is underway, and the contractor is Pennington Plumbing & Heating.

Upon investigation of this 13,000 SF facility, it was determined that many of the heat pumps were undersized within the 911 Center's most critical areas (such as the Dispatch Room). More importantly, it also was determined that the building was not constructed architecturally as designed and this deficiency greatly influenced the total building's HVAC system's performance. Since the facility is a 911 Center, it must remain in operation 24/7; therefore, the pumps will be replaced one at a time so that the building can remain in operation, while the building is being occupied.

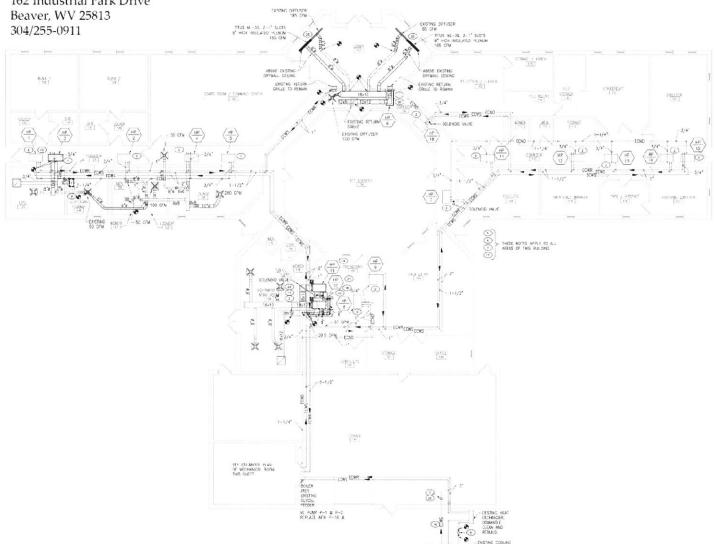
Name of Project Owner

Ms. Margaret Agee

Director

Raleigh County Emergency Services Authority

162 Industrial Park Drive



Building 55: West Virginia State Office Complex

Project Location Logan, West Virginia

Project Description

This new five story building underscores its major role in the development and revitalization of downtown Logan by uniting office space for various state agencies under one roof, whom were once scattered throughout the city; a total of 127 state employees are now working at this location. The \$11 million building provides current technology, flexibility for future growth, and security features for existing and future tenants. At the request of the Owner, the building was designed to be energy efficient and meet sustainable design goals, confirmed by LEED and energy star requirements. This 53,200 SF building is LEED Certified. To help achieve this, a tight building envelope was created with closed cell foam insulation and thermal efficient windows. One of the unique features of the building is the daylight system. The design takes clues from older buildings that were designed to let daylight penetrate deep into the buildings by necessity. To enhance this effect we added "light louvers" which are devices that redirect daylight to the ceiling and diffuse natural light throughout the space. The open offices were placed around the exterior of the building and the enclosed offices along the interior wall so more of the tenants receive quality light. In addition, interior windows allow the daylight to pass to the center offices.

The HVAC System included the installation of 2 high efficiency condensing boilers, pumps with variable speed drive control, custom air handling units with chilled and hot water coils, variable air volume boxes with hot water heating coils, water cooled chiller with cooling tower, packaged rooftop energy recovery ventilator, and direct digital controls.

The Contractor is the Massaro Corporation. The Commissioning Agent is lams Consulting, LLC. The streetscape design along the north and south faces of the building are to act as a template for all future sidewalk development. Major brick patterns intersect at a paver quilt star, a symbol of West Virginia heritage that is carried into the fover of the building. The stained glass window in the entry was custom designed to reflect the culture and history of the area; this won a 2013 AIA Craftsmanship Award. By incorporating history, technology, security and structure; this building has successfully created the desired catalyst for the future of Logan.

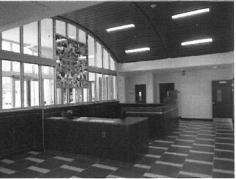
Name of Project Owner Mr. Robert P. Krause, PE, AIA State of West Virginia General Services Division 1900 Kanawha Boulevard East Charleston, WV 25305 304/558-9018

Date of project completion Dedicated on August 16, 2013















Bishop Bernard Schmitt Catholic Heritage Center

Project Location Wheeling, West Virginia

Project Description

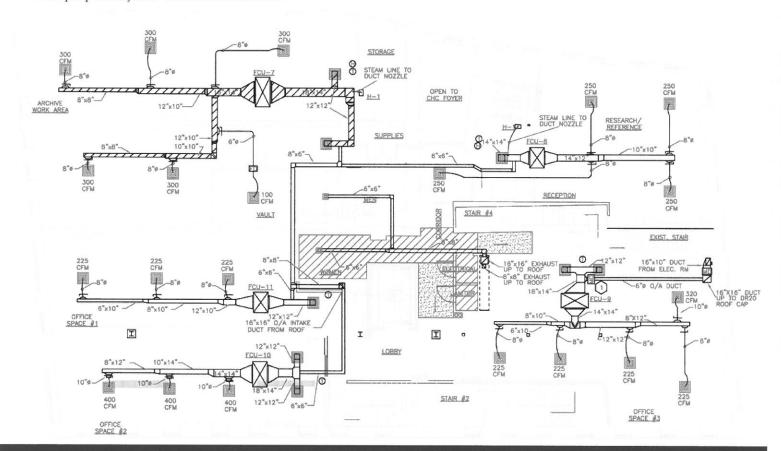
This \$2.9 million renovation project of a 100 year old auto parts warehouse (former Seymour Auto Parts Building) is now the home of all informational records and artifacts of the Wheeling-Charleston Diocese. It exists as a resource for educating and enriching the public about the state's Catholic heritage through exhibits, special programs, outreach activities, access to historical records, and promoting historical research. The 40,000 SF building was remodeled in Phases to include space for diocesan offices and archives on the second floor, 3,700 SF of museum-quality exhibits and a conference area on the third floor, as well as retail establishments that rent out the first floor. The Archive spaces utilized a specialized HVAC heating, cooling and humidity controls. The HVAC renovations to the building included 2 high efficiency boilers, pumps with variable speed drive control, custom air handling units with hot and chilled water coils, concealed fan coil unit with hot and chilled water coils, split system, air cooled chiller, and direct digital controls. Work also included selective demolition and renovation to the exterior elevations of the existing building, construction of 2 canopy additions affixed to the building, limited exterior foundation, concrete, masonry, framing, molded trim & cornice carpentry, EIFS, metal roofing, epdm/metal flashing, sealing, guttering & spouting, painting, roof drainage, storm sewerage trades, removal and replacement of the building's windows, all new systems throughout the structure, new elevators, flood-proofing, fire protection, and ADA compliance. The building is found in the Centre Market Square Historic District, in the National Register of Historic Places.

Name of Project Owner

Mr. Darryl Costanzo Diocese of Wheeling-Charleston 1307 Jacob Street Wheeling, WV 26003 304/233-0880

Date of project completion

Multiple phases/years - most recent was 2007



Big Sandy Arena & Convention Center

Project Location Huntington, West Virginia

Project Description

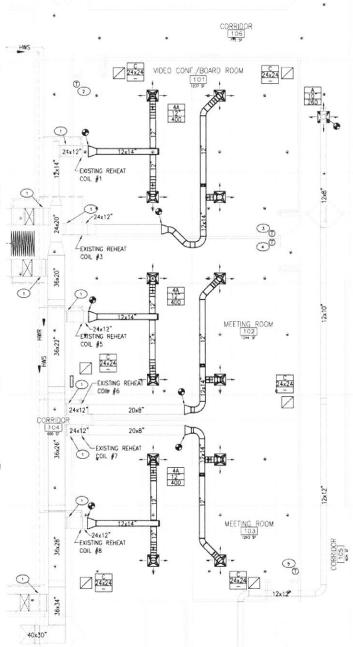
The \$800,000 Big Sandy Superstore Arena (the former Huntington Civic Center) project for the City of Huntington includes the renovation and redesign of the Convention/ Conference Center meeting rooms, where we converted 6 Break out rooms into 3 "smart rooms" with 80" LED media screens, smartboard controls, and multi media capabilities. One of the rooms is designed as a "Life Size" video conference room for up to 50 local participants and video conference participants from 8 different locations. The Conference Center is a 15,000 square foot facility. It houses a registration area, suites, large meeting rooms, small meeting rooms, and banquet facilities for up to 350 persons. The center is served by its own entry lobby, lounge, restroom facilities and catering kitchen. The center hosts weddings, receptions, reunions, proms, tradeshows, holiday parties, office functions, job fairs, conferences and more. In addition to the media rooms, we replaced the Conference Center acoustical dividing walls; we renovated the restrooms and added a family ADA restroom in the front lobby; and and we built a catering room in the backstage area for the performers and their crews. McKinley & Associates completed the architecture and HVAC/MEP engineering on this 100,000+ GSF building. All of this work was completed while the conference center was open for business.

McKinley & Associates was also instrumental in modernizing the existing HVAC system and boiler, and added independent controls for the Conference Center. We replaced an existing Cleaver-Brooks Model CB-200-150 Combination Gas-Oil Hot Water Boiler and Pump with 2 Fulton VTG-3000DF Combination Gas-Oil Condensing Boilers (Gas only) having a capacity of 2,640 MBH output each, and two 800 GPM Pumps (1 normal and 1 stand-by).

Name of Project Owner Mr. Brian Sipe Big Sandy Superstore Arena 1 Civic Center Plaza Huntington, WV 25701 304/466-6000

Date of project completion December 2013





HVAC KEY NOTES

- EXISTING MANUAL BALANCING DAMPER.
- 2 NEW THERMOSTAT REHEAT COIL #1 & #3 BASE BID. NEW THERMOSTAT - REHEAT COIL #1 ONLY - ALTERNATE #1.
- (3) NEW THERMOSTAT REHEAT COIL #3 ONLY ALTERNATE #1.
- 4 NEW THERMOSTAT REHEAT COIL #5 & #6.
- 6 NEW THERMOSTAT REHEAT COIL #7 & #8

CONVENTION CENTER HVAC RENOVATIONS-BASE BID & ALTERNATE #





Mount St. Joseph Convent Renovation Project

Project Location Wheeling, West Virginia

Project Description

Listed on the National Register of Historic Places, the Mount St. Joseph Convent is a five story building that provides all living accommodations on site. Modern infrastructure was installed to accommodate state of the art video conferencing equipment in the main conference room, dining room and social hall. Except for non-public service entrances and mechanical spaces, we upgraded the building to be fully ADA accessible.

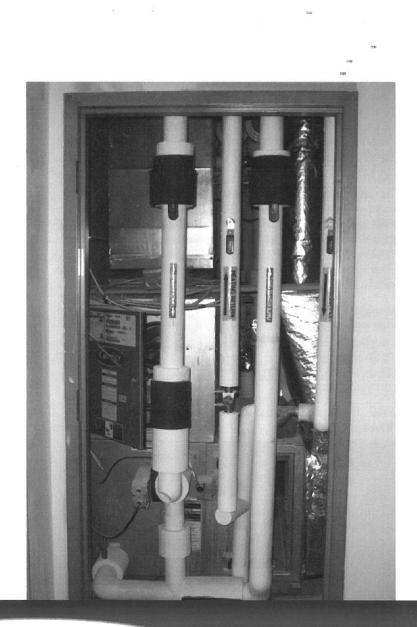
In addition to upstairs individual apartments designed for independent living, the 71,000 SF facility includes a floor dedicated to full nursing care and a floor especially for assisted (limited or select services) living accommodations. There is also a library, a hair salon, laundry services, social hall, formal dining room for 100, a complete commercial kitchen, a chapel and an exercise space. Meeting rooms and private apartments are also available for visiting lecturers and seminars. This project was completed in multiple phases.

The HVAC portion of the Phase I renovations to the building included the installation of 6 high efficiency boilers, pumps with variable speed drive control, custom air handling units with hot and chilled water coils, unit ventilators with hot and chilled water coils, vertical stacked fan coil units with hot and chilled water coils, and an air cooled chiller. In order to hide the new ductwork and piping, we installed new acoustic tile ceilings with high efficiency, dual switch lights.

In Phase II, the HVAC portion of the renovations to the laundry room included the installation of custom air handling units with chilled and hot water coils, as well as vertical stacked fan coil units with chilled and hot water coils. The new piping for Phase II was routed where the chilled and hot water pipes were installed in Phase I.

Name of Project Owner Sister Marguerite O'Brien Sisters of St. Joseph 137 Mount St. Joseph Rd Wheeling, WV 26003 304/232-8160

Date of project completion Multiple phases/years - most recent was 2010





West Virginia University's Colson Hall

Project Location Morgantown, West Virginia

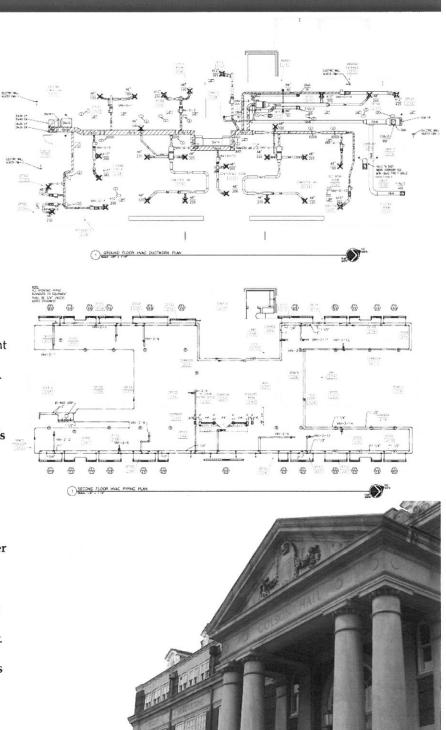
Project Description

McKinley & Associates completed a \$5.6 million renovation/restoration project on Colson Hall at the downtown campus of West Virginia University in Monongalia County, West Virginia. This project involved renovation and restoration to this approximately 35,000 SF historical facility. The scope of work was to take this existing building and readapt it for use as a faculty office building with additional classrooms. Work included architectural elements as well as major electrical and mechanical systems design. The building was renovated and provided with all new systems. There was also an elevator upgrade. There was also moisture penetration issues that were addressed in the roof, ceiling, and walls; especially with the tile for the front porch. The windows were restored by following the Historic Treatment of Wood Windows specifications. Since this building is now the home to offices, we had to create a quiet and comfortable HVAC system, create adequate lighting, and design a data/ communication system that met the needs of today's faculty requirements, while at the same time still keeping the original design from 1923 in tact.

The HVAC System consists of (2) Variable Volume Air Handling Units with Hot Water and Chilled Water Coils, and Enthalpy Controlled Economizer. The AHUs provide heating and cooling through a series of Variable Air Volume Boxes with Hot Water Reheat Coils. The exterior spaces also have finned tube radiation to compensate for the building envelope loss. The Chilled Water is provided from the campus Chilled Water Plant and is fed through the building with (2) Base Mounted pumps with variable speed drives, configured as duty / standby. The Hot Water is developed through a Shell-n-Tube Heat Exchanger. The steam, from the Campus System is converted to Hot Water and distributed throughout the building with (2) Base Mounted pumps with variable speed drives, configured as duty / standby. A complete Direct Digital Control System was installed to provide all programming and alarm notification.

Name of Project Owner Mr. Robert Moyer West Virginia University 979 Rawley Lane Morgantown, WV 26506 304/293-2873

Date of project completion November 1, 2007



McKINLEY & ASSOCIATES

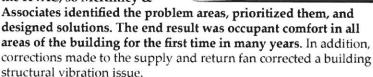
Project Name SWVCTC Williamson Campus HVAC and roof

Project Location Williamson, West Virginia

Project Description

For the HVAC portion of this \$763,635 Southern WV Community & Technical College project, which is an American Recovery & Reinvestment Act of 2009 (ARRA) grant project, we expanded the existing digital controls system to incorporate new equipment. Duct and grille modifications were made to correct insufficient airflows within the system. Reheat coils were added to provide proper separation of HVAC zones. In addition, a 13 ton rooftop

unit, a 23,500 cfm supply fan, and a return fan were replaced. Due to the restrictions from the funding source, the project was designed in a shortened timespan. The building included multiple construction types and multiple HVAC systems. The budget did not allow for a complete renovation to the HVAC, so McKinley &

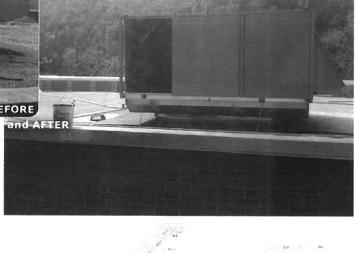


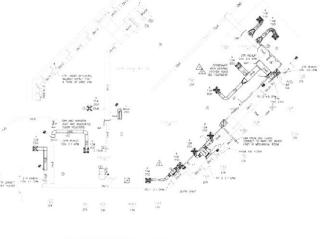
The Owner was also experiencing water penetration in several areas of the 60,000 SF facility; due to our findings during the HVAC renovations, it was decided to replace the roof. A new, built up roof system was installed, replacing the worn and over extended ballasted system. Special consideration was given to flashing in areas of unique design. Moreover, the 8,664 SF roof replacement project was designed, specified, bid, awarded and constructed in 8 weeks. The Owner had a very tight timeline due to funding restrictions placed by the federal government. This project was successful in part due to our relationship, developed prior to the project's inception, with the roofing consultant. This relationship allowed McKinley & Associates to develop clear and concise estimates for the Owner to determine what product best suited their situation and needs, as well as bring in a viable number on bid day. The Contractor for this project was Elco Mechanical Contractors, Inc.

Name of Project Owner Mr. Samuel Litteral Southern WV Community & Technical College 2900 Dempsey Branch Road Mount Gay, WV 25637 304/896-7426

Date of project completion June 30, 2010







EXP. NOTES

Common and shared analysis distributions on the control of the common and co

SWVCTC Wyoming/McDowell Campus HVAC

Project Location Saulsville, West Virginia

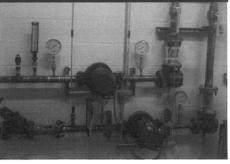
Project Description

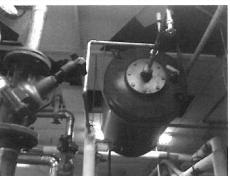
This \$293,700 HVAC renovation project included the replacement of a 75 ton rooftop unit, including duct modification, roof work, crane, electric, piping, and more. Also involved was the replacement of a boiler plant with a new high efficiency plant, including 2 condensing boilers, 2 pumps, breeching, concrete pads, and hydronic accessories. In addition, a new DDC controls system was installed and custom programming was written for this 22,800 SF project. Due to the restrictions form the funding source, the project was designed in a shortened timespan. We reduced the energy usage for the building by installing high efficiency equipment and controlling the entire HVAC system via custom programming that utilizes energy saving techniques. This project is an American Recovery & Reinvestment Act of 2009 (ARRA) grant project. The Contractor for this project was Elco Mechanical Contractors, Inc.

Name of Project Owner Mr. Samuel Litteral Southern WV Community & Technical College 2900 Dempsey Branch Road Mount Gay, WV 25637 304/896-7426

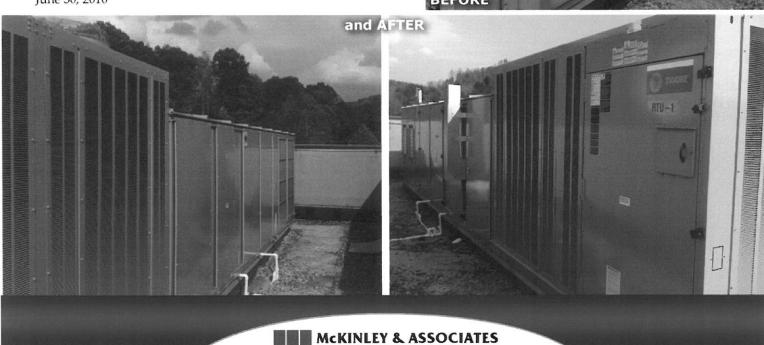
Date of project completion June 30, 2010











A.T. Allison Elementary School

Project Location Chester, West Virginia

Project Description

The original Allen T. (A.T.) Allison Elementary School building was built in 1963, and now consists of 440 students and 31 faculty members. There was a complete renovation to the 56,000 SF building. The HVAC renovations to the building included the installation of 2 high efficiency condensing boilers, pumps with variable speed drive control, custom air handling units with chilled and hot water coils, unit ventilators with hot and chilled water coils, fan coil units with hot and chilled water coils, air cooled chiller, and direct digital controls. Other improvements to this \$5.5 million addition/renovation project include a brand new cafeteria, 31 additional parking spaces, all new security windows and doors, restroom upgrades, landscaping, roofs, ceilings, elevators, data wiring and electrical upgrades and new sidewalks. A major school-wide life safety upgrade includes a new fire alarm, fully sprinklering the building, and the addition of egress corridors. The building was brought up to today's standard of Security. This included the addition of Man Traps at every public entry point, video monitoring of all access points, door position monitoring, and a building-wide access control system which controls and records all access to the building. Expanded parking will make drop-off and pickup times safer for students by facilitating better traffic flow for private vehicles and school buses. There are also new playgrounds - one for prekindergarten pupils and one for kindergarten through fourth-grade pupils. The renovations/additions now gleam with the brightness of new lights, new ceilings, new flooring and new paint. This project also includes a 3-classroom Pre-K addition with a separate entrance. Previously, trailers separated from the rest of the school were used for Pre-K classes. This prekindergarten wing includes carpet squares, Smart Boards and pint-sized toilet fixtures. This new entrance to the pre-kindergarten addition features video cameras and a buzzer system for visitors. The Contractor for this project was Jarvis, Downing & Emch, Inc.

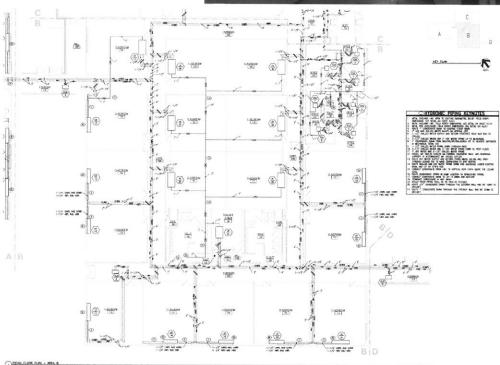
Name of Project Owner
Mr. Mark Dziatkowicz
Director of Maintenance & Facilities
Hancock County Schools
104 North Court Street
New Cumberland, WV 26047
304/564-3411

Date of project completion A Dedication Ceremony was held on August 25th, 2013.











Weir Middle / High School HVAC Renovations

Project Location Weirton, West Virginia

Project Description

For Hancock County Schools; this \$5 million HVAC project on this 195,000 square foot building involved:

The demolition of the existing HVAC system which included single zone air handling units, multizone air handling units, unit ventilators, boilers and pneumatic control system.

Abatement of asbestos insulation on boiler piping.

The construction of the new Mechanical Rooms at Buildings A and F.

The installation of the new hot water boiler plant which includes four 1750 MBH boilers, pumps, hydronic specialties and controls.

The removal of corridor ceilings and installation of two 225 ton chilled water piping mains. As part of the removal of the corridor ceilings all existing ceiling mounted equipment was temporarily suspended until new ceilings were installed and the equipment was remounted. The ceiling mounted equipment was field verified and included lights, sprinklers, smoke detectors, exit signs, intercom speakers, air inlets & outlets, etc.

The installation of the primary conduits, concrete pads for the utility pedestal and transformers, the secondary conduits and conductors from the transformer to the existing switchboard in Building H, as well as the cutover of this switchboard to the new service, secondary conductors and raceways from the other two transformer pads to the panelboards in the new Mechanical Rooms at Buildings A and F.

The exhaust fans and other miscellaneous mechanical equipment replacement was coordinated with the owner and engineer.

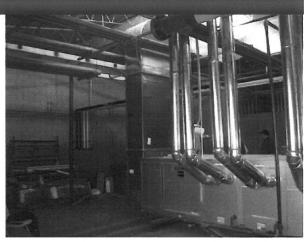
The air handling units serving the Auditorium and Cafeterias were replaced when the school was on a break, and the work was completed and the systems operational prior to the students returning to the school.

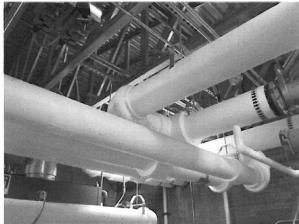
The remaining air handling units were replaced during the school year. The adjacent classrooms, where the units were removed and re-installed, was relocated temporarily.

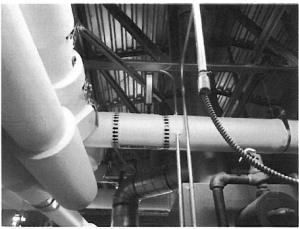
The unit ventilators were replaced, and included misc. pipe chases, valving & electric.

Name of Project Owner Mr. Mark Dziatkowicz Director of Maintenance & Facilities Hancock County Schools 104 North Court Street New Cumberland, WV 26047 304/564-3411

Date of project completion Multiple Phases/Years - Most recent was in 2012









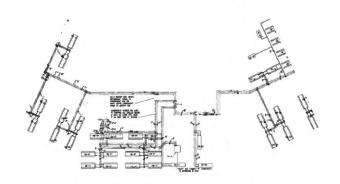


Cameron High School

Project Location Cameron, West Virginia

Project Description

The new \$32 million Cameron Middle School / High School building was recently completed. Design analysis and complexity began with the site, with an existing grade of 33%; the resulting 3 tiered levels + mezzanines reduced overall site excavation and provided daylighting opportunities to each of the academic departments. The retaining walls also serve as building enclosure walls and contribute to passive conditioning by thermal mass. The predominant exposed orientation is to the south. This facade is emphasized with insulated translucent panel walls/clerestories with a U-Factor of .08 and light transmittance of over 8% for diffuse daylighting. Glass curtainwall is used to highlight main and secondary public entrances. Translucent panel skylights are utilized at interior spaces to expand daylight harvesting throughout which is integrated into the buildings lighting controls. Design constraints related to potential mine subsidence necessitated



eschewing traditional load bearing masonry walls and required an intricate system of rotated grids for the steel superstructure of the facility. The design aesthetic that emerged emphasized the structural and mechanical systems as an exposed element and integrated teaching tool. The 130,000 SF facility features Departmentalized classroom groupings teacher prep & meeting areas with access to a School wide WI-FI and Interactive "smart" boards in all classrooms. The Science Suite and labs are arranged with proximity to Agricultural Science Suite for program integration. Safe Schools considerations included CPTED transparency as an element in safety, with administrative areas strategically placed for supervision of entrances and commons areas. An electronic access control and security system integrated into the Owner's district wide system is also incorporated into the project. This system features card/video access and door latch/camera monitoring systems. Roof mounted HVAC equipment was predominantly eliminated for additional security and maintenance considerations. Sustainable design goals of the Owner included reduced life cycle costs met through incorporation of LEED accreditation goals, the use of air terminal units, "chilled beams," and desiccant wheel dehumidification. The HVAC System included the installation of 4 high efficiency condensing boilers, pumps with variable speed drive control, custom air handling units with chilled and hot water coils, variable air volume boxes with hot water heating coils, fan coil units with chilled and hot water coils, chilled beams with chilled and hot water coils, water cooled chiller with cooling tower, split system, and direct digital controls. The General Trades Contractor is Nello Construction, the Construction Manager is PICIS, and the Commissioning Agent is L. L. DUNN & Company. To date the school has won multiple awards acknowledging achievements in taking a comprehensive approach to green schools, including: a 2013 Placemaker Award for Innovation from West Virginia GreenWorks; the 2014 Black Bear Award for the Highest Achievement in the West Virginia Sustainable Schools program; and selection as a 2014 U.S. Department of Education Green Ribbon School.

Name of Project Owner Mr. lack Cain Principal 2012 Blue and Gold Road Cameron, WV 26033 304/686-3336







U.S. DEPARTMENT OF EDUCATION sustainable GreenRibbonSchools

Date of project completion

Construction was completed in December 2012









McNinch Primary School

Project Location Moundsville, West Virginia

Project Description

This \$4 million McNinch Primary School (grades PK-2) project included 53,730 SF of construction. The 47,423 SF of renovations included the replacement of every interior and exterior door, renovations of existing interior building space; includes gypum board partition enclosure of open-plan instructional spaces in areas of renovation; **HVAC**, electrical, and sprinkler work necessary to accommodate the renovations; cosmetic upgrades of floor, wall & ceiling finishes; a roof; replacement of accessories (display boards, etc.); as well as minor "wet wall" & underslab work at selected toilet rooms.

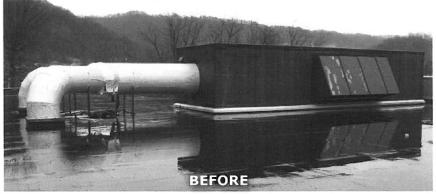
The renovation of the HVAC system consisted of installing VVT Zone Dampers onto the existing ductwork to create a zoned system. A bypass line was installed between the return and the supply main. The Electrical was upgraded as necessary to accommodate renovations outlined above. We made the building handicapped accessible and provided new wheelchair stair lifts. For building security, we replaced the existing exterior entry doors and provide new interior foyer with electric access control; added security barrier cross-corridor doors and security gate at lobby area.

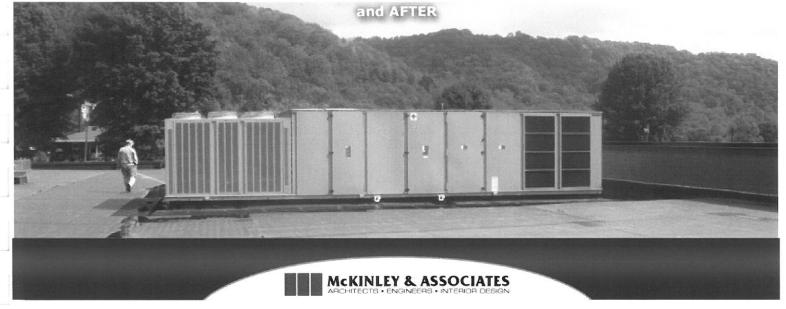
The 6,307 SF of additions included a roof, multi-use room with Physical Education space, a kitchen addition, a new classroom, and a new art room. The HVAC in these areas included Single Zone Packaged Rooftop Units with DX Cooling and Electric Heating (gas heating for the kitchen) and low-pressure ductwork. There was electrical upgrades for these areas as well.

The 47,423 SF roof replacement included the removal & replacement of the existing roofing/insulation system with non-ballasted EPDM over Iso. This single ply fully adhered membrane system, over tapered 2" minimum roof insulation, includes all cants, flashings, etc. on the main building. The 5,767 SF roof expansion included the removal & replacement of existing expansion joint system with EPDM-compatible "soft" joint; selective undefined removal/replacement of existing drainage elements such as roof drains. This single ply fully adhered membrane system over 2" minimum roof insulation was a sloped roof structure for drainage at the addition. At both roofs, there was new aluminum copings, flashings, scuppers with downspouts, metal decking, an insulated roof hatch, and a roof access ladder.

Date of project completion

2010





Bridge Street Middle School HVAC

Project Location Wheeling, West Virginia

Project Description

Bridge Street Middle School was built in 1927 for the Ohio County Schools. The original HVAC included steam radiators, served from a single steam boiler located in the basement of the 80,350 SF school. The only air conditioning in the building was provided by individual window AC units, and ventilation air was not adequate.

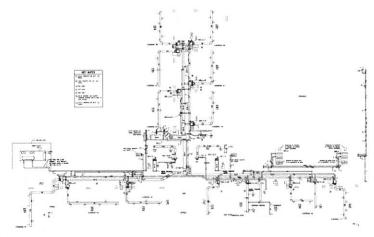
The \$2 million in renovations to the building included converting the steam boilers to hot water. The remainder of the renovations included installing pumps with variable speed drive control, Custom Air Handling Units with chilled and hot water coils, Variable Air Volume boxes with hot water heating coils, unit ventilators with chilled and hot water coils, and Direct Digital Controls. In order to hide the new ductwork and piping we also installed new acoustic tile ceilings with high efficiency, dual switch lights.

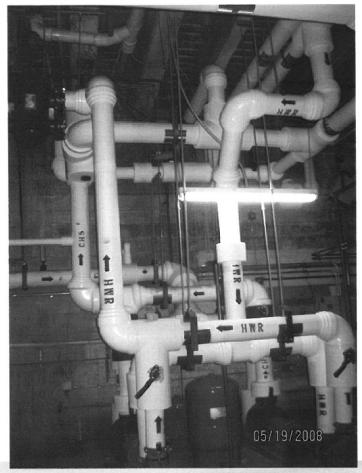
Name of Project Owner

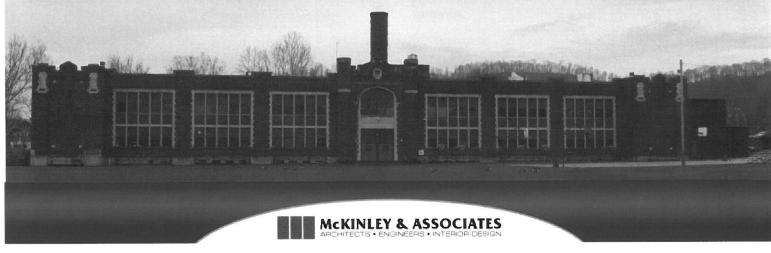
Dianna Vargo, Ed.D. Ohio County Schools 2203 National Road Wheeling, WV 26003 304/243-0300

Date of project completion Construction completed in 2008









Madison Elementary School HVAC

Project Location Wheeling, West Virginia

Project Description

The 74,820 SF Madison Elementary
School was built for the Ohio County
Schools in 1916. The existing heating
system consisted of steam radiators,
served from a single steam boiler located
in the basement of the school. The entire
lower level of the school, including the boiler room was

lower level of the school, including the boiler room was located below the flood plain. The only air conditioning in the building was provided by individual window AC units, and ventilation air was not adequate.

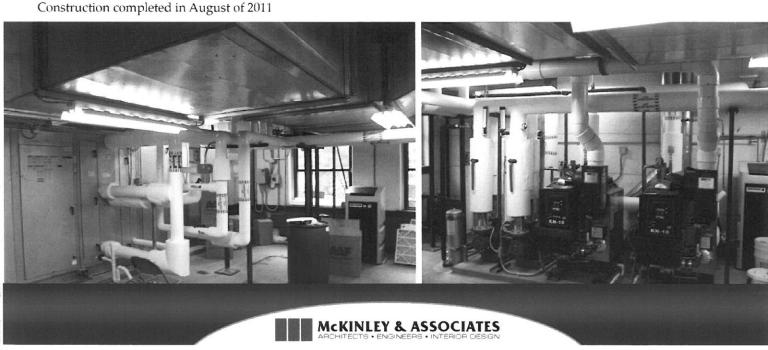
The \$4.6 million in renovations to the building included relocating the Boiler Room to the main level, to bring it out of the flood plain. This required structural reinforcement of the floor from below, installation of a concrete floor, sound dampening panels around the perimeter of the room, floor drains, and new lighting.

The remainder of the HVAC renovations included the installation of 2 high efficiency condensing boilers, pumps

with variable speed drive control, Custom Air Handling Units with chilled and hot water coils, Variable Air Volume boxes with hot water heating coils, packaged Rooftop Units and Direct Digital Controls. In order to hide the new ductwork and piping we also installed new acoustic tile ceilings with high efficiency, dual switch lights. The Air Cooled Chiller also needed to be elevated above the flood level, so a structural platform was installed with an integral sound wall, so the chiller will not be seen or heard. The Contractor for this project was Climatech, Inc.

Name of Project Owner Dianna Vargo, Ed.D. Ohio County Schools 2203 National Road Wheeling, WV 26003 304/243-0300

Date of project completion Construction completed in August of 201



Project Name Summers Middle School HVAC

Project Location Hinton, West Virginia

Project Description

McKinley & Associates completed a \$1.5 million HVAC renovation project on the 58,000 SF Summers Middle School. The scope of work was to replace the Water Source Heat Pumps, Condenser Water Piping, Boilers, Pumps, Cooling Tower and Controls.

At the start of the project the owner relayed concerns about their existing boiler system that was piped incorrectly, resulting in continuous boiler failures. To correct this issue, we performed the design work in two phases. The first phase was to re-pipe the existing boilers, converting the condenser water loop to a primary / secondary piping system, to correct the deficiencies.

The second phase of the project was to re-pipe the entire facility, install new water source heat pumps, install high efficiency condensing boilers, a new cooling tower along with the required pumps and controls. As a cost savings, the existing PVC piping was replaced with CPVC piping. CPVC piping is an approved equal to schedule 40 Black Steel for condensing water piping. By utilizing CPVC for this application, we were able to increase the project's total scope of work. This included 4 additional air handling units in other parts of the facility; without the need for any additional funding. The final result was a reliable system with a much lower operating cost. The Contractor for this project was Beckley Mechanical, Inc.

Name of Project Owner David Quisenberry Summers County Schools 116 Main Street Hinton, WV 25951 304/466-6008

Date of project completion Multiple Phases - Most recent was October of 2009

