

WVARNING

Buckhannon Field Maintenance Shop

PROJECT TEAM

E.T. BOGGESS, ARCHITECT, INC.

101 Rockledge Ave. Princeton, WV 24740 304-425-4491



CMA ENGINEERING

824 Cross lanes Drive Charleston, WV 25313 304-343-0316



TERRADON CORPORATION

PO Box 519 Nitro, WV 25143 304-755-8291



RECEIVED

MOMENT ENGINEERS, INC.

179 Summers St. Charleston, WV 25301 304-414-4000

2010 JUN 16 P 12: 22

Winfield H. Strock

3410 Chesterfield Ave. Charleston, WV 25304 304-925-3190

PROCUREMENT DIVISION
STATE OF WV

E. T. BOGGESS, ARCHITECT, INC.
P.O. BOX 727
PRINCETON, WEST VIRGINIA 24740
(304)425-4491
(304)425-2028 FAX

LETTER OF TRANSMITTAL

PROJ. NO:
 DATE: June 15, 2010
 Atten: Buyer 32
 RE: DEFK10020

TO: Purchasing Division
 2019 Washington Street, East
 PO Box 50130
 Charleston, WV 25305-0130

GENTLEMEN:

We are sending you Enclosed By UPS the following items:
 Prints CD Specifications Shop Drawings/Submittals
 Application & Certificate for Payment Qualifications

COPIES	DATE	SHEET	DESCRIPTION OF ENCLOSED ITEMS
2			<i>Expression of Interest – Buckhannon Field Maintenance Shop for the WVARNG</i>
1			CD containing pdf file of Expression of Interest

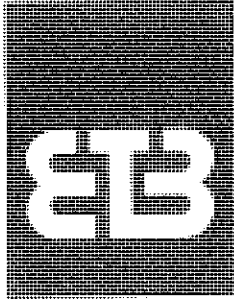
Remarks:

THESE ARE TRANSMITTED as checked below:

- For Payment
- For your information/use
- For review and comment
- Resubmit
- Approved as submitted
- Approved as corrected
- As requested
- Returning your information
- Please return to ETB

Signed: Todd Boggess, AIA, NCARB, Architect

If enclosures are not as noted, kindly notify us at once.



■ Chuck Bowman
Purchasing Division
2019 Washington Street, East
PO Box 50130
Charleston, WV 25305-0130

■ June 17, 2010

RE: How the State of West Virginia will benefit by choosing the ETB Team

Dear Mr. Bowman:

The E.T. Boggess, Architect, Inc., team is ready to begin designing your new West Virginia Army National Guard Field Maintenance Shop near Buckhannon. Our plan ensures that all the needs of the members of the Guard, the citizens of West Virginia, and administrative personnel will be met. We believe our past accomplishments on projects for the state, specifically the Guard, proves we have the experience and dedication to provide you will all the professional services you will need.

How we will meet your needs . . .

I will be your architect and will be responsible for all aspects of the design of the new facility specifically for the Army National Guard. ETB will be coordinating the activities of our team of professional consultants which includes:

- | | | |
|--------------------------|---|--|
| ■ CMA Engineering | — | Mechanical/Electrical/Plumbing Engineering |
| ■ Terradon Corporation | — | Civil Engineering and Landscape Design |
| ■ Moment Engineers, Inc. | — | Structural Engineering |
| ■ Winfield H. Strock | — | Estimator |

What you will get from our team . . .

- You will receive our full attention, from start to finish.
- You will benefit from the experience we have with similar projects throughout our state over the past 44 years.
- You will appreciate our dedication to the success of your project.

Our team is here to offer you the best in service, knowledge, and experience. Thank you for your consideration and we look forward to meeting with you during the interview process.

Sincerely,

Todd Boggess, AIA, NCARB, Architect
President

P.S. You can reach me by cell phone at 304-920-6778, or by e-mail at etb@etbarchitects.com.

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SECTION ONE

WV Ferry & Purchasing Affidavit



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

Request for Quotation

RFQ NUMBER
DEFK10020

PAGE
1

ADDRESS CORRESPONDENCE TO A PERSON OR
 BUYER 32
 304-558-2544

RFQ COPY

TYPE NAME/ADDRESS HERE

E.T. Boggess, Architect, Inc.
101 Rockledge Avenue
Princeton, WV 24740

SHIP TO

DIV ENGINEERING & FACILITIES
ARMORY BOARD SECTION
1707 COONSKIN DRIVE
CHARLESTON, WV
25311-1099 304-341-6368

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
05/21/2010				

BID OPENING DATE: **06/17/2010** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-29		
<p>BUCKHANNON FIELD MAINTENANCE SHOP</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA ARMY NATIONAL GUARD, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ARCHITECTURAL ENGINEERING SERVICES FOR THE BUCKHANNON FIELD MAINTENANCE SHOP IN UPSHUR CO., WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>***** THIS IS THE END OF RFQ DEFK10020 ***** TOTAL:</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>E.T. Boggess</i>	TELEPHONE 304-425-4491	DATE June 17, 2010
TITLE President	FEIN 55-0515917	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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

Request for Quotation

RFQ NUMBER
DEFK10020

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
BUYER 32
304-558-2544

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

E.T. Boggess, Architect, Inc.
101 Rockledge Avenue
Princeton, WV 24740

SHIP TO

DIV ENGINEERING & FACILITIES
ARMORY BOARD SECTION

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

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
05/25/2010				

BID OPENING DATE: **06/17/2010** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
				***** ADDENDUM NO. 1 *****		
				ADDENDUM ISSUED FOR THE BUCKHANNON FIELD MAINTENANCE SHOP DESIGN CONTRACT TO CORRECT THE PROJECT LOCATION AS STATED IN SECTION 1.2 OF THE EXPRESSION OF INTEREST PROJECT IS LOCATED IN BUCKHANNON, WV, WITH AN ESTIMATED 32,955 SQUARE FOOTAGE.		
				BID OPENING DATE AND TIME REMAIN 06/17/2010 AT 1:30 PM.		
				***** NO OTHER CHANGES *****		
0001	1	JB		906-29		
				BUCKHANNON FIELD MAINTENANCE SHOP		
				***** THIS IS THE END OF RFQ DEFK10020 ***** TOTAL: _____		

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *E.T. Boggess* TELEPHONE: **304-425-4491** DATE: **June 16, 2010**

TITLE: **President** FEIN: **55-0515917** ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (*West Virginia Code §61-5-3*), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: E.T/Bogges, Architect, Inc.

Authorized Signature: *E.T. Bogges* Date: June 15, 2010

State of West Virginia

County of Mercer, to-wit:

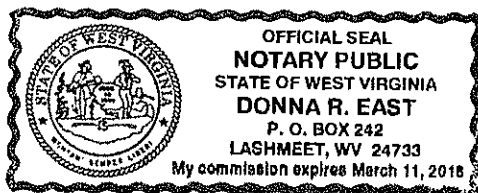
Taken, subscribed, and sworn to before me this 15 day of June, 2010.

My Commission expires March 11, 2018.

AFFIX SEAL HERE

NOTARY PUBLIC

Donna R. East



SECTION TWO

Executive Summary

Executive Summary

E.T. Boggess, Architect Inc.

WVARNG Field Maintenance Shop - Buckhannon

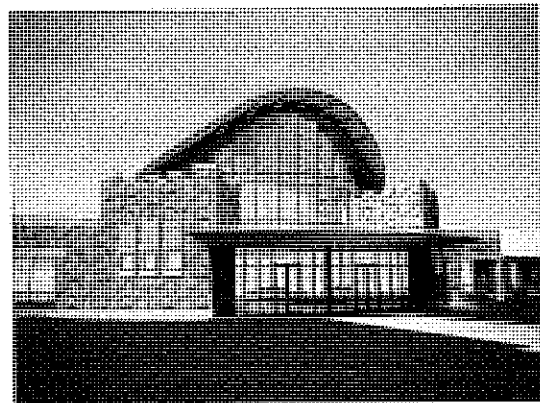
The E.T. Boggess, Architect, Inc. team understands the needs of the WVARNG. Our team has recently completed the bidding phase of the Elkins Readiness Center, including a Field Maintenance Shop, and construction has begun. To everyone's satisfaction, the bid came in approximately 3 million dollars under the projected budget. We believe our interactive design process addressed the needs of the WVARNG and that we have proven our ability, dedication, and sincere desire to create multi-use facilities that satisfies the many needs of the Guard.

Our single-story design for the approximately 32,955 square feet Field Maintenance Shop will accommodate the mechanical and electrical equipment. Outside supporting facilities should also include . . .

- parking (military & private)
- security fencing
- sidewalks
- exterior fire protection
- outside lighting
- access roads
- detached facility sign
- wash platforms
- loading ramp
- fuel storage and dispensing systems
- flagpoles

We will design the Field Maintenance Shop to be cost effective and functionally efficient.

We will incorporate energy management control systems and high efficiency motors, lighting and HVAC systems into the design. Proper security measures will be incorporated into the design and landscaping so that access can be controlled even when standoff distance cannot be maintained.



WVARNG Readiness Center, Elkins, WV

Our firm recognizes the importance of a major capital expenditure for the WVARNG and the necessity that all budgets and schedules are met. You will benefit from 44 years of experience designing within the confines of strict budgets and tight construction schedules.

We understand the demands being placed on all government agencies as they strive to offer the necessary services to their citizens and their efforts to do so within limited budgets. The ETB team can fully satisfy all your needs for professional services.



Interactive Design

Communication, collaboration, and consensus are the three elements we feel are essential to the planning, design and building process. The architect is responsible for the finished product, but the design process must include guidance and review by you and representatives from the various agencies. Our goal is to develop a "partnership" with our clients – a relationship that includes a long-term commitment, trust, and shared vision.

ETB believes architectural design should be an interactive process. We work closely with you to identify and define all your project goals, objectives, functions, responsibilities, and relationships. This interactive approach enables us to develop facilities that meet your requirements, as well as being aesthetically distinctive. Design cannot be mass produced or provided in a "cookie cutter" fashion, it must be developed from scratch with the unique attributes of each individual project in mind. Even though we have recently prepared a similar facility for Elkins, we will design a Field Maintenance Shop for Buckhannon that will address their specific needs.

Utilizing the interactive design approach will best serve the needs of the WVARNG by allowing us to better identify your objectives and produce long-term solutions. Your project will be completed by emphasizing the following activities:

- **Understanding goals.** We develop a plan for identifying and prioritizing individual goals as a means for addressing the overall project.
- **Brainstorming ideas.** We investigate opportunities for greater service through value engineering, strategic partnering, or an alternative delivery method.
- **Assuring timelines.** We generate a management plan to fulfill deliverables and meet milestones on schedule. All team members participate in and monitor this plan.
- **Maintaining client contact.** We are accessible, convenient, and committed to success from the beginning through the design process, and after completion.
- **Inviting performance feedback.** We involve all team members and clients in project evaluation at closeout and determine how well time, cost, and design goals were met.

Results

The consistent implementation of effective communication and an interactive design process throughout your project will result in a Field Maintenance Shop that will . . .



Executive Summary

E.T. Boggess, Architect Inc.

- Provide secure housing for the mechanical and electrical equipment.
- Utilize the most efficient energy management control systems.
- Allow for the Guard to conduct their operations more efficiently and cost effectively.

Your new facility will comply with the International Building Code, Life Safety Codes, all local, state and federal regulations, as well as the Americans with Disability Act (ADA). The facilities will have these standards as a natural part of the over-all design, not just an add-on for a special group of people. We will also utilize the *Army National Guard Design Guide*.

During the construction phase, we will be at the site on a regular basis and will be available by phone to answer any of your contractor's questions. We review shop drawings/submittals, and pay requests from the contractor. We want to ensure the construction is in compliance with the design intent.

Once the doors open and you occupy the building, we will remain available to assist you with start-up questions, "fine tuning and balancing" of systems required to make sure the building works specifically for the WV Army National Guard.

Our team appreciates the opportunity you have given us thus far, and we believe that you can feel confident in selecting us to design the new Buckhannon Field Maintenance Shop.



SECTION THREE

Team and Organizational Chart

TEAM and ORGANIZATIONAL CHART

E.T. Boggess, Architect, Inc.

The ETB Team consists of the following:

Architectural Firm:

E.T. Boggess, Architect, Inc.
101 Rockledge Avenue
Princeton, WV 24740

Contact: Todd Boggess

304-425-4491 (phone)
304-425-2028 (fax)
etb@etbarchitects.com

Mechanical/Electrical/Plumbing Engineering:

CMA Engineering
824 Cross Lanes Drive
Charleston, WV 25313

304-343-0316 (phone)
304-343-5146 (fax)

Civil Engineering:

Terradon Corporation
PO Box 519
Nitro, WV 25143

304-755-8291 (phone)
304-755-2636 (fax)

Structural Engineer:

Moment Engineers, Inc.
603 Peoples Building
179 Summers Street
Charleston, WV 25301

304-414-4000 (phone)
304-414-4001 (fax)

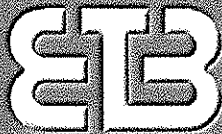
Estimator:

Winfield H. Strock
3410 Chesterfield Avenue
Charleston, WV 25304

304-925-3190 (phone)
800-308-8927 (fax)



**West Virginia
Army National Guard**



Ted Bogges, Chairman of the Board

Todd Bogges, President - Principal in Charge

Roy Morum, Project Manager

Steve Mackey

Nathan Turner

Chris Canterbury

Jonathan Bailey

**CMA
Engineering**

Timothy Cox

Dan Ellers

James Kerns

**Moment
Engineers**

Doug Richardson

Rich Johnson

Mike White

**Strock
Estimating**

Winfield
H. Strock

**Terradon
Corporation**

Greg Fox

Robert Thaw

John James

SECTION FOUR

Firm Profile

Firm Profile

E. T. Boggess, Architect Inc.

History

E. T. BOGCESS ARCHITECT, INC., was established by E. T. "Ted" Boggess in January, 1966, in Princeton, West Virginia. Mr. Boggess continues to serve as Chairman of the Board and is responsible for business development, marketing activities, and design document review.

In 1988, Ted's son Todd received his master's degree in architecture and joined the firm full time. Todd is now President and is responsible for design development, project management, supervising the office staff, and the overall management of the corporation.

Location

Our firm is located in Princeton. Although the majority of our current projects are located in WV, we have satisfied clients reaching all the way from Michigan to Florida. We have a reputation for service to our clients regardless of the project site. The location of our firm and knowledge of our state, its people, its construction materials, its contractors, as well as its regional climatological characteristics, are all important considerations for the success of your project.

During the construction administration phase, today's technology allows us to observe the work through pictures, as necessary, in a very efficient and cost effective manner. Responding to questions early on will help minimize problems and allow for timely solutions.

Reputation

Our firm lives or dies by its reputation. We work for "Pride in Product" and are confirmed by the amount of repeat business we can truthfully claim.

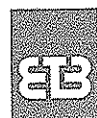
The architects at ETB are well-respected for their high ethical standards, as well as professional and civic activities. They are frequently asked to serve as expert witnesses and arbitrators in legal disputes. They have also been selected to serve on various local, state and national committees. These committees cover areas from determining local zoning ordinances to reviewing and developing educational requirements for future architects, to preserving West Virginia's historic architecture.

Attitude

Bigger is not always better. This corporation has purposely controlled size in order to maintain personal involvement and quality control. We feel that it is important to maintain close client contact and availability to answer any needs that may arise. Limiting the number of projects we undertake also increases the importance of each and every project. Your project will not get lost in the shuffle.

Experience

Over the past 44 years, ETB has accomplished many different types of buildings in 12 different states and 1 foreign country.



Firm Profile

E.T. Boggess, Architect Inc.

We have not limited ourselves by focusing on one particular type of project or a single location. Instead, we choose to maintain a diverse practice which will allow us to begin your project with renewed enthusiasm. Our strength is in the delivery of appropriate and analytical solutions for complex buildings and doing so within restricted budgets and time constraints.

ETB was one of the first architectural firms in the state to implement the use of computer-aided design and drafting into the everyday practice of architecture. Today we continue to lead the industry as we utilize photorealistic imagery through computer modeling and digital photography. The building 3-D model and associated imagery can be developed early in the design process. You can then use the imagery for design approval and community presentations. We are also experimenting with the vast opportunities associated with virtual reality which allows you to actually "walk-thru" your finished building long before the foundation is laid.

The most recent innovation being utilized by our firm is a working project website. This dynamic and adaptive feature has allowed us to share information between ourselves, our consultants and the owner throughout the design phase. It is now being used by the contractor during the construction phase and will also be very helpful to the site resident who will be joining the team in the near future for the Elkins AFRC project.

Access is limited to authorized personnel only and the information that is provided on the site includes all plans, specifications, meeting minutes, finish selections, schedules, and contact information. Photographs taken during the construction process will also be posted on a regular basis. Once construction has been completed, the WVARNG will be able to continue utilizing this information for as-built drawings and reference material indefinitely. Our goal is to provide the client with an effective, on-going project and facilities management tool.

E.T. BOGGESS ARCHITECT INC.
PO Box 727 101 Rockledge Ave. Petoskey WV 26109-0727
304 423 4471 Fax 304 433 2036
http://www.etbarchitect.com

West Virginia Army National Guard / U. S. Army Reserve
ARMED FORCES RESERVE CENTER (AFRC)
Randolph County, Elkins, West Virginia

CONTACTS | CONSTRUCTION ADMINISTRATION | KEYNOTES | DOCUMENT INDEX | DRAWING FILES | PROCEDURES & DATA

PROJECT NOTICES	PROJECT DESCRIPTION
Preliminary bid dates proposed Elkins AFRC - Utility Extension Contract	The proposed Ready-to-Construct consists of the primary facility, military equipment parking (MEP), and privately owned vehicle (POV) parking. The primary facility will be housed in a 94,800 square foot, single-story building with a steel frame.
ADVERTISMENT AND INFO	The site is located approximately 8 miles west of Elkins, West Virginia and borders on U.S. Route 33 (Corridor H), a four-lane highway with limited access control. A new two-lane access road will be required up the hill to the opposite area of the property.
PRE-BID MEETING	The proposed site is approximately 112 acres and site occupies a hill in a large bend of the Tygart Valley River, with a large, gently sloping hilltop, and moderately steep to steep slopes down to the river. Approximately 99 of the 112 acres are wooded with another 22 acres of ungraded strip mine covered by pine trees and gravel. The site drains directly into the Tygart Valley River.

Elkins WVARNG Project Website Homepage

Our experience, combined with ongoing technological research and innovations, will greatly benefit the WVARNG and the personnel who will be serving at the new Buckhannon Field Maintenance Shop.



C O R P O R A T E P R O F I L E



Clingenpeel/McBrayer & Associates, Inc.

Services

Clingenpeel/McBrayer & Associates is a West Virginia based small business firm, providing services in the areas of HVAC, plumbing, fire protection and electrical engineering. CMA's founders have long believed in the philosophy that a successful project requires a comprehensive approach. This includes all traditional facets of project planning, starting with master planning, working closely with the client, developing the completed construction documents, bidding the project and contract administration. However, our depth of expertise goes far beyond the traditional services. From developing design criteria for owners to designing the mechanical and electrical systems for the West Virginia DEP Consolidated Office Building, the first LEED certified building in the state, CMA is a proven leader in providing engineering services in the design-build delivery method.

History

Since 1986, Clingenpeel/McBrayer & Associates has provided services on numerous projects of varying size and complexity. Clients include architects, industrial companies, governmental agencies, contractors, engineers, developers and private organizations. Project locations include West Virginia, Virginia, Ohio, Kentucky, Maryland, Pennsylvania, California and Connecticut.

Commitment

Clingenpeel/McBrayer & Associates' submittal is based on your needs and our experience. Our firm has the experience, service and quality work to create a successful project. We are committing senior design professionals in order to assure you receive top priority. We have extensive experience with projects of this nature. Examples of projects for which we were the Engineer are listed in this proposal.

From an initial staff of five employees in 1986, the company has grown to eleven employees, which includes two professional engineers and two engineers-in training. Facilities and equipment have grown to support CMA's staff and client's needs.

In 1987, computer aided drafting stations were added to provide the best quality and engineering services for our clients. We are currently operating AutoCad 2009. Our firm is constantly monitoring the latest technology, the cost effects and the end results to the final project.

Present staffing allows CMA to complete work in a timely manner without limiting our ability to perform our ongoing work. The staff of CMA is large enough to handle any size project, yet small enough for direct input and supervision by key personnel.

EXPERIENCE

Previous Five Years	
Projects:	492
Construction Costs	
MEP Costs:	\$156,039,689.
Total Costs:	\$472,847,542.



Clingenpeel/McBrayer & Associates, Inc.

824 Cross Lanes Drive
Charleston, WV 25313
(304) 343-0316 tel
(304) 343-5146 fax

5 Riddle Court
Morgantown, WV 26505
(304) 598-2558 tel
(304) 598-2472 fax

w w w . c m a w v . c o m

Professional Affiliations



Leadership in Energy &
Environmental Design
(LEED)



U.S. Green Building
Council
(USGBC)



American Society of
Heating, Refrigerating and
Air Conditioning Engineers,
Inc.,
(ASHRAE)



American Institute of
Architects— WV Chapter
Affiliate Member
(WVAIA)



National Fire
Protection Association
(NFPA)

ASPE

American Society Of
Plumbing Engineers
(ASPE)



The
LIGHTING
AUTHORITY

Illuminating
Engineering Society
(IES)



MasterSpec
Specifications
(ARCOM)



Business Partner



WV Society of
Healthcare Engineers
(WVSHE)



International Code Council (ICC)

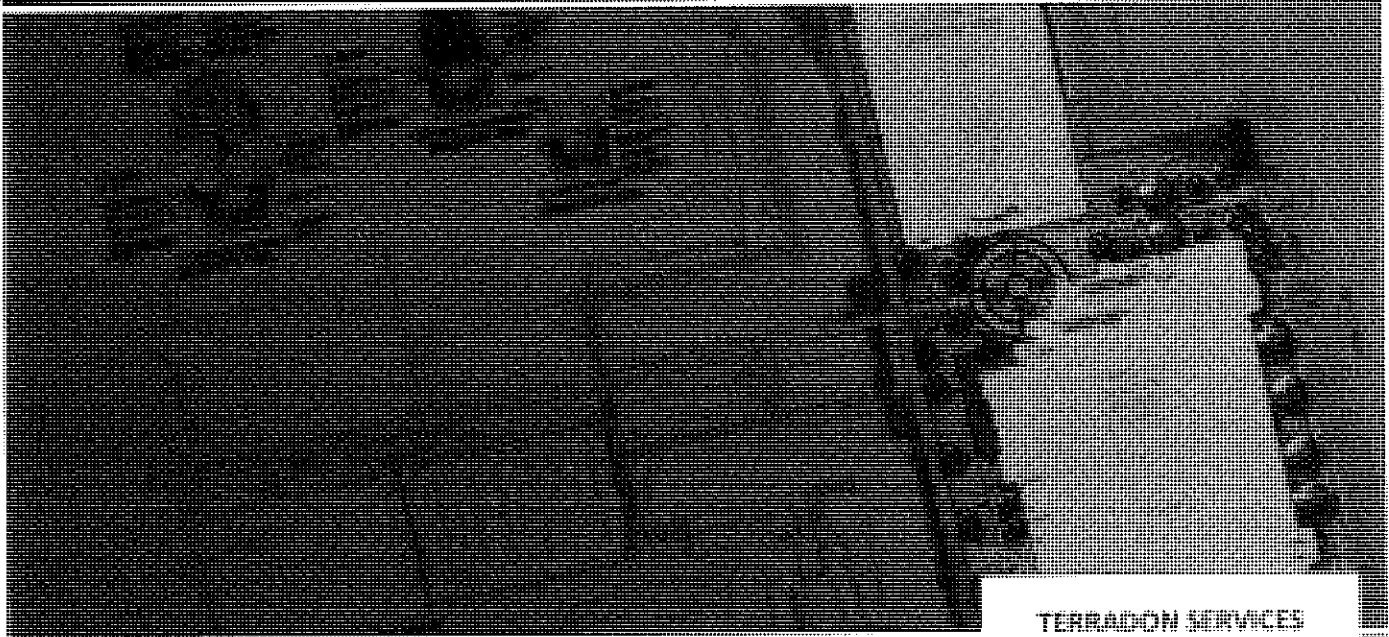


Clingenpeel/McBrayer & Associates, Inc.

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Charleston, WV 25313
(304) 343-0316 tel
(304) 343-5146 fax

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Morgantown, WV 26505
(304) 598-2558 tel
(304) 598-2472

www.cma.wv.com



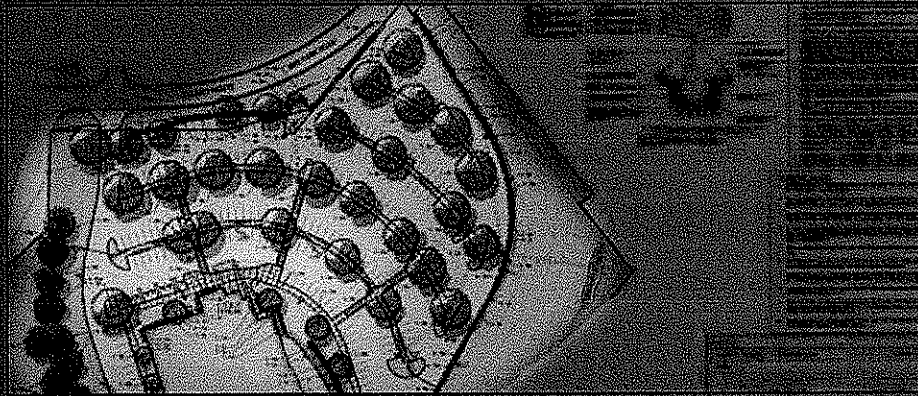
About TERRADON Corporation

TERRADON CORPORATION offers a wide range of engineering and environmental services, and is particularly noted in land and infrastructure design and development in the mountainous areas of West Virginia and the Eastern United States. The company was formed in 1989, and its staff includes engineers, landscape architects, surveyors, planners, real estate specialists, environmental scientists, designers, and technicians. TERRADON's services are organized into the following seven service areas that work together or independently, depending on client needs and the scope of the project.

Due to the breadth of services offered, TERRADON is recognized as one of the region's leading land and infrastructure planning and design firms. The firm has built its reputation by providing cost effective design solutions and maintaining the highest level of customer service.

TERRADON SERVICES

- Civil Engineering
- Land Planning & Site Design
- Surveying & Mapping
- Geotechnical Engineering
- Materials Testing and Construction Monitoring
- Environmental Engineering
- Roadway and Structural Design



Land Development

TERRADON is recognized as a leader in providing site design and land planning services. The firm's professional landscape architects work closely with the client from the project's initial phase, through schematic design, construction documents, and project delivery. Services provided include master planning, site feasibility studies, schematic design, layout plans, grading plans, stormwater management plans, erosion control plans, planting plans, presentation drawings/renderings, graphic design, and construction observation.

TERRADON is experienced in providing a wide variety of engineering, environmental, and surveying services required for your project. These related services enhance and integrate with Landscape Architecture. This provides TERRADON with the opportunity to provide clients across the region with the highest level of quality site design and landscape

architecture available. The engineering and environmental services include identifying site constraints and conditions that could have an impact on the feasibility of a site. Site design and land planning services are provided for a wide range of project types including:

- » Recreation facilities
- » Education institutions
- » Commercial Developments
- » Government entities
- » Residential Development
- » Environmental elements
- » Medical facilities
- » Riverfront enhancement
- » Greenway/greenspace projects
- » Vehicular/Pedestrian circulation

EXPERT PERSONNEL

Greg Fox
Department Head – Land Development

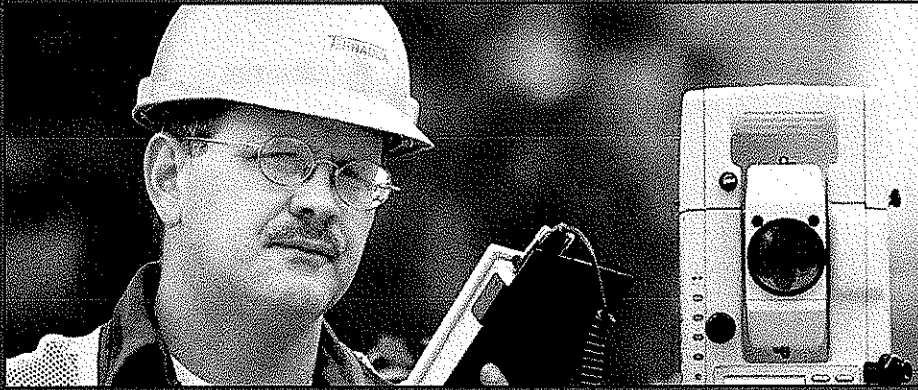
TERRADON's Land Development Services are managed by Gregory D. Fox, ASLA. Mr. Fox, a native of West Virginia, has been responsible for a number of notable recreation, commercial, and educational site development projects since joining TERRADON in February of 2000.

His group earned a 2002 Engineering Excellence Award from the West Virginia Association of Consulting Engineers and a 2002 Merit Award from the American Society of Landscape Architects for the City of Fairmont Riverfront Master Plan project. Most recently, the 2005 Gold Award from the American Council of Engineering Companies and a 2005 Honor Award from the American Society of Landscape Architects was presented to the firm for the site design of the new West Virginia Division of Environmental Protection Headquarters Building.

TERRADON
CORPORATION

"TERRADON has done a comprehensive engineering program for a 900-acre development in Greenbrier County. TERRADON's planning, research, knowledge and advice was complete with sound judgment. Before this project was completed, we had also engaged the engineering group to do a 4,000 acre development just North of Boone, NC on the Tennessee/North Carolina State Line."

Ted H. Thieman, Manager
Thieman Enterprises, LLC
Dayton, OH



Surveying and Mapping

TERRADON has an experienced staff of professional surveyors who provide mapping, construction layout, ALTA surveys, topographic surveys, and boundary surveys.

TERRADON is equipped with the newest surveying instruments, ensuring the highest standards of efficiency and accuracy. Fully equipped data collection stations are utilized for complete field-to-office automation, resulting in high productivity levels. The latest software is then used to process the data and achieve the desired end product/results.

Small mapping projects are completed in-house, following the aforementioned process. Large projects are more economically mapped by aerial mapping with TERRADON providing the necessary control surveying. As a quality

control measure, mapping is field checked for accuracy. Mapping information is then received in digital format for direct input into the CAD system.

TERRADON also offers Global Positioning System (GPS) services. Data acquisition is accomplished by visiting the point and recording its attributes for inclusion in a geographic information system or database. Labor costs are significantly reduced by a one-person operation. The more remote or geographically diverse your needs are, the greater the savings using TERRADON'S GPS services.

EXPERT PERSONNEL

Robert Thaw
Professional Surveyor
Department Head – Survey

Robert Thaw is Department Head for TERRADON's survey operations. Thaw organizes and supervises survey crews; designs commercial sites for drainage, building site locations, parking and utility easements; reviews project plans; and creates base mapping.

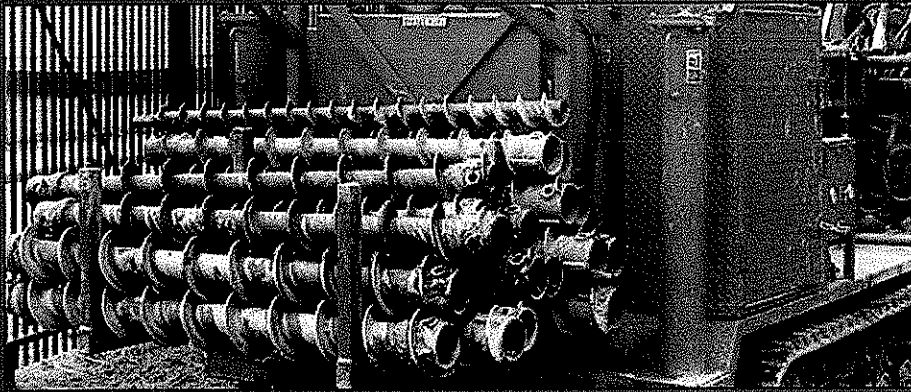
Thaw specializes in control surveys (conventional and GPS, topographical surveys, waste management facilities, boundary surveys, site design, gas well locations and permitting, and construction stakeout.

With nearly 25 years of surveying experience, Thaw brings a wealth of knowledge to TERRADON projects and provides solid results to clients.

TERRADON
CORPORATION

“Overall the project finished ahead of schedule and under budget. DEP is very pleased with the project outcome.”

B.F. Smith, P.E.
Chief of Administration
West Virginia Department of Environmental Protection
Building Project Director (Retired)
Charleston, WV



Geotechnical Engineering

TERRADON has provided geotechnical investigations associated with earthen dams, mining, waste disposal, construction of new buildings, and environmental remediation. Our geotechnical engineers have many years of experience working in the difficult soil and groundwater conditions found in the Appalachian region of the United States. We have the capability to perform both the subsurface investigation and the geotechnical design described below:

- » Drilling
- » Test pit excavations
- » Soil and rock logging, sampling, and testing
- » Monitoring well and piezometer installation
- » Foundation design
- » Earthen dams
- » Landslide analysis and remedial design
- » Retaining structure design
- » Municipal and industrial landfills
- » Stability analysis
- » Flexible and rigid pavement design
- » Soil nailing

EXPERT PERSONNEL

John James
Department Head –
Geotechnical

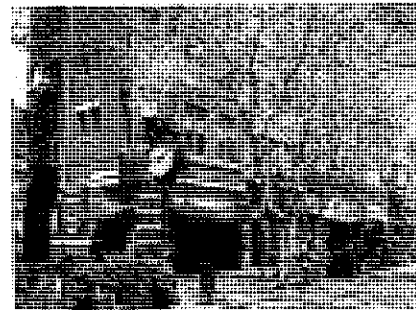
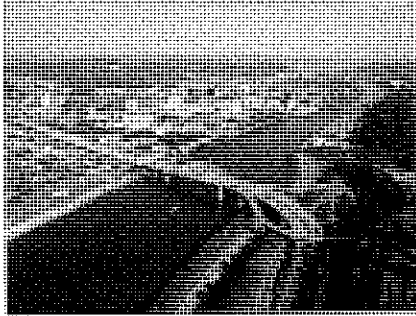
Mr. James is a Senior engineer for various geotechnical, environmental, and mining projects. Mr. James specializes in innovative and cost saving concepts for his projects. Typical projects include numerous foundation investigations, studies and designs for landfills and environmental facilities, surface and ground water studies and remediation, foundation investigations and designs ranging in size from houses to major industrial complexes, roads, highways and bridges, earth and rock fill dams, storm drainage facilities, airport facilities, landslide analysis and correction, and forensic engineering.

TERRADON
CORPORATION

“Vecellio & Grogan has appreciated TERRADON’s continuous effort in providing us with construction-friendly design support on our bridge projects in West Virginia. Bill White has been a pleasure to work with.”

Matt Farley
Vecellio & Grogan, Inc.
Structure Operation Engineer
Beckley, WV

Background



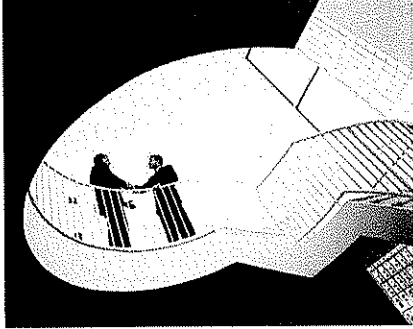
Moment Engineers, Inc. is a professional consulting firm specializing in structural engineering. We serve the architectural and building construction communities throughout West Virginia. Based in Charleston, West Virginia at 179 Summers Street, Moment Engineers was founded by Douglas Richardson in early 2005.

During his more than 20 years of experience, Mr. Richardson has had sole responsibility for the structural engineering design of more than 5 million square feet of built space. The construction costs of these projects exceeded a half billion dollars. His experience, which ranges from small to very large multi-phase projects, is invaluable in providing the technical expertise and creative flexibility to deliver results in a prompt and reliable manner.

Our staff's experience encompasses a wide variety of building types and sectors, and our expertise includes design analysis for steel, concrete, masonry, and wooden structures.



Approach

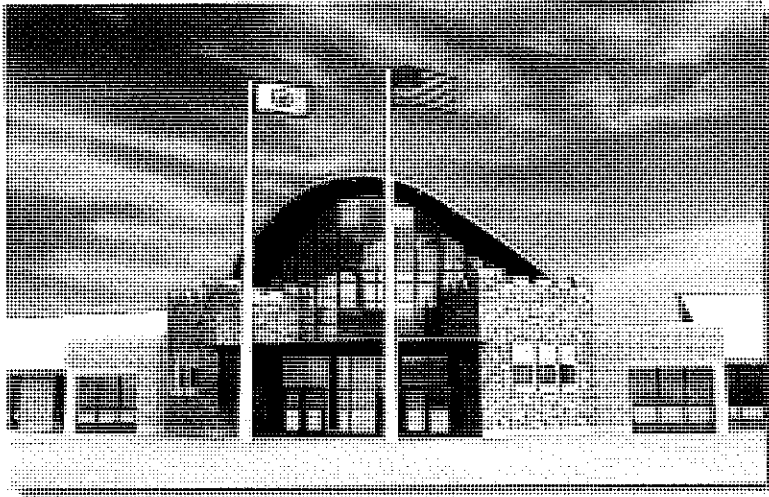


At Moment Engineers, we recognize that the architect is the primary contact for the building owner. Our role is to strengthen that relationship by producing high quality designs in a prompt and cost effective manner. To that end, we emphasize incorporating traditional and technical means of communication and data transfer to ensure a seamless integration of structural integrity and architectural creativity.

We believe that the practice of engineering is the point at which science and society meet. We also believe that the architects and builders we serve are essential in the development of the fundamental dignity of the community. Moment Engineers is strongly committed to developing structural solutions which bring permanence and strength to the expression of architectural thought.

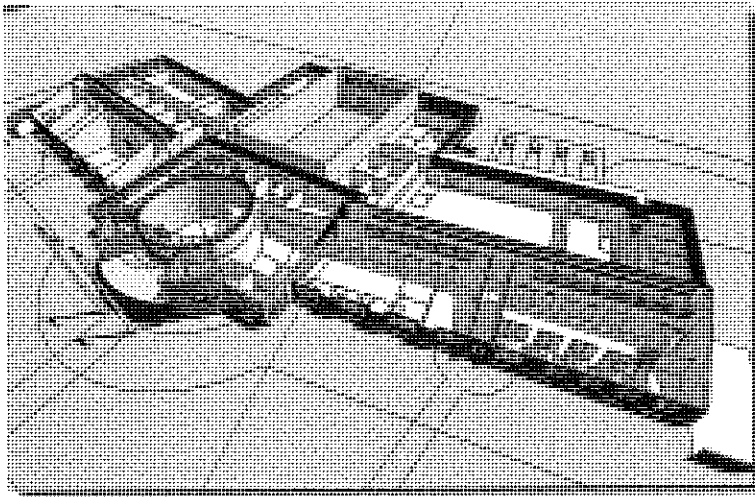
SECTION FIVE

Project

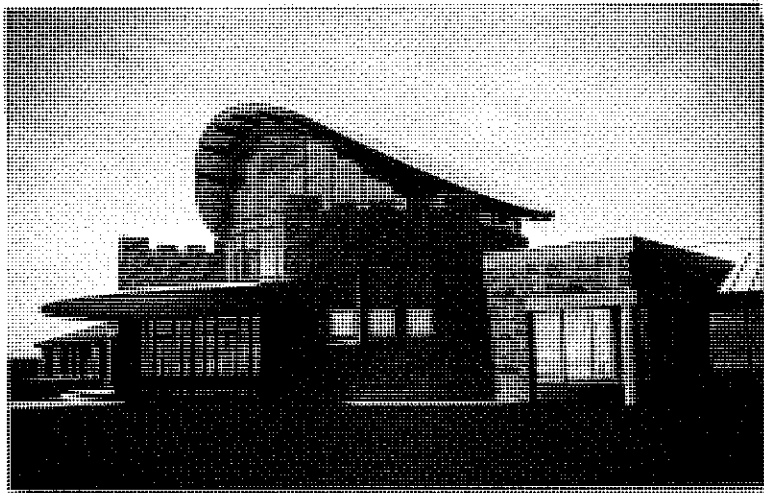


WV Army National Guard Readiness Center

The ETB team has completed the design of the 50,000 sf, single-story facility to house the Elkins units of the Army Reserve and National Guard.



The Readiness Center will have two main entrances; the front into the lobby and the rear into the assembly hall. The circular central core of the entrance leads to the administrative wing (east) and classroom wing (west). The facility will also contain a learning center, library, storage areas, locker rooms, kitchen, break-room, and Telcon spaces. Areas within the lobby will be used for recruiting, family support and distance learning.

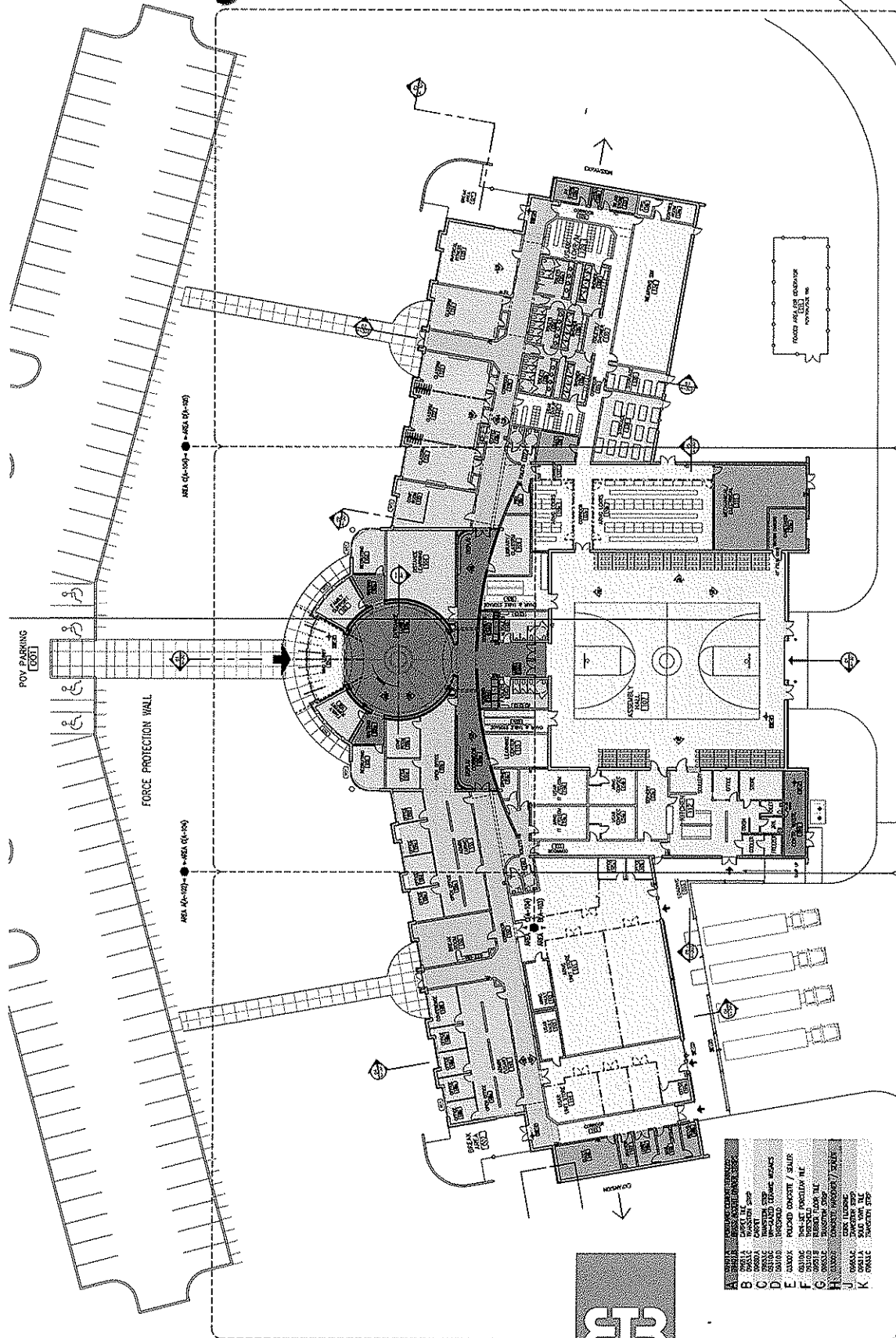


The project also includes the design and construction of a separate structure for secure storage and a maintenance/workshop/office structure.

E.T. Boggess, Architect, Inc.

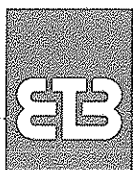


WV Army National Guard Readiness Center



02
 4-801
SITE LAYOUT PLAN
 SCALE: 1" = 20'-0" (1" = 40'-0" on tabloid sheet)
 (4ft module)

A	CONCRETE
B	PAVING
C	ASPHALT
D	GRAVEL
E	GRAVEL
F	GRAVEL
G	GRAVEL
H	GRAVEL
I	GRAVEL
J	GRAVEL
K	GRAVEL

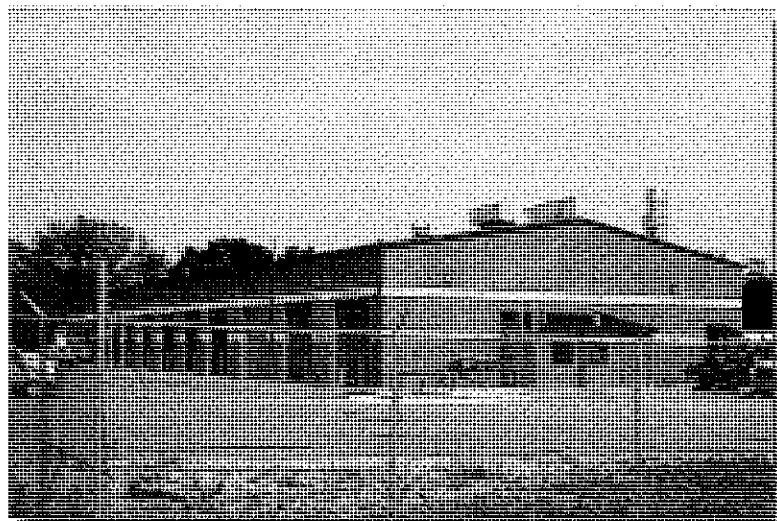


E.T. Boggess, Architect, Inc.

0 1/2" 1" 2"
 SCALE



Office Building



Maintenance Building

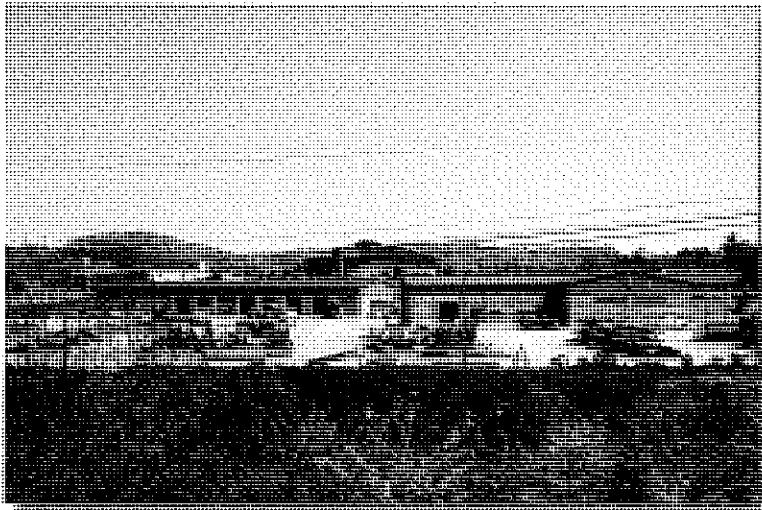
West Virginia DOH District 6 Complex

The District 6 Complex at Moundsville will bring together district functions that were previously scattered in several locations throughout the county, onto a single campus-like setting/site.

Facilities that will make up this complex include the office building, and the recently completed maintenance shop. The maintenance shop includes modern repair bays for trucks and equipment, weld, prep, wash and paint bays, office areas, parts and general storage.

The bridge & sign shop was completed in 2008. The lab building will be bid and constructed in the future.

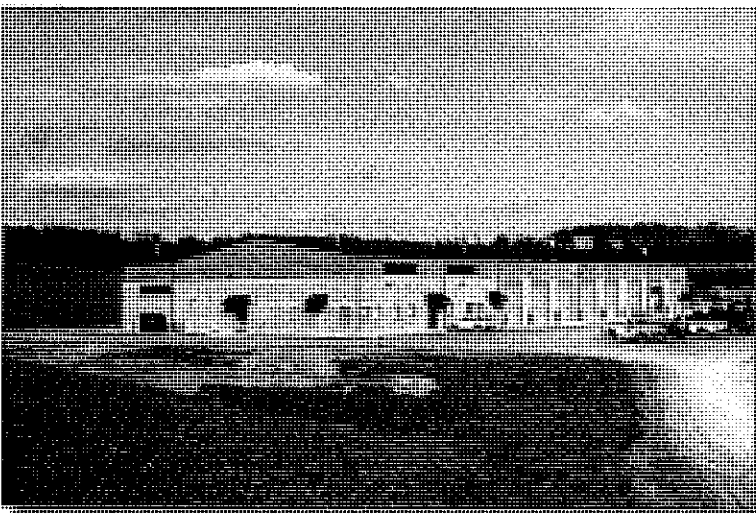




Total Complex



Office Building



Maintenance Building

West Virginia DOH District 10 Complex

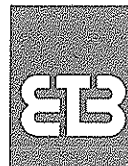
The District 10 Complex at Gardner brings together district functions that were previously scattered in several locations throughout the county, onto a single campus-like setting/site. Facilities that make up this complex include the office building, the bridge & sign shop, and the maintenance shop (which includes modern repair bays for trucks and equipment, weld, prep, wash and paint bays, office areas, parts and general storage). The final building to be constructed was the lab building.

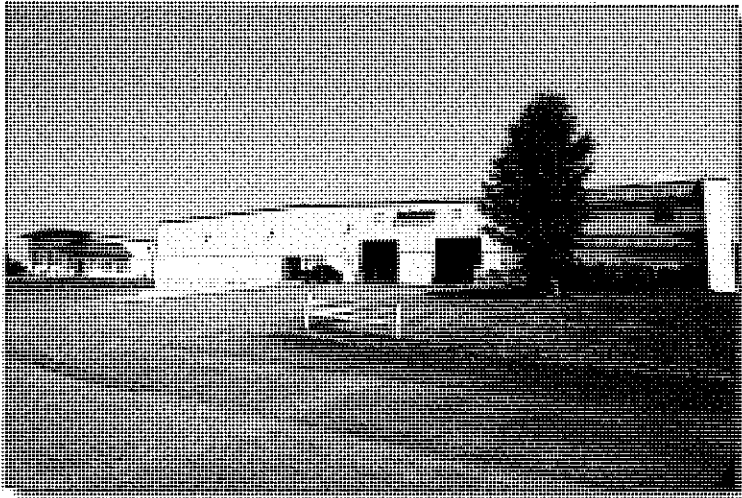
Office: 27,791 sf

Maint: 18,488 sf

B & S: 16,820 sf

E.T. Boggess, Architect, Inc.

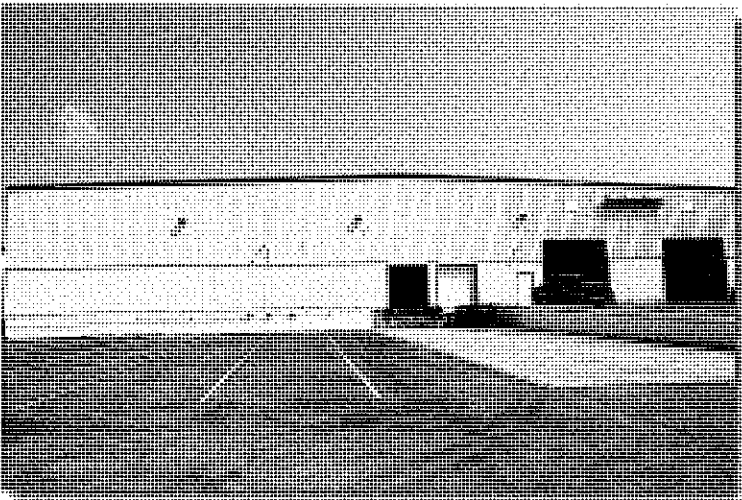
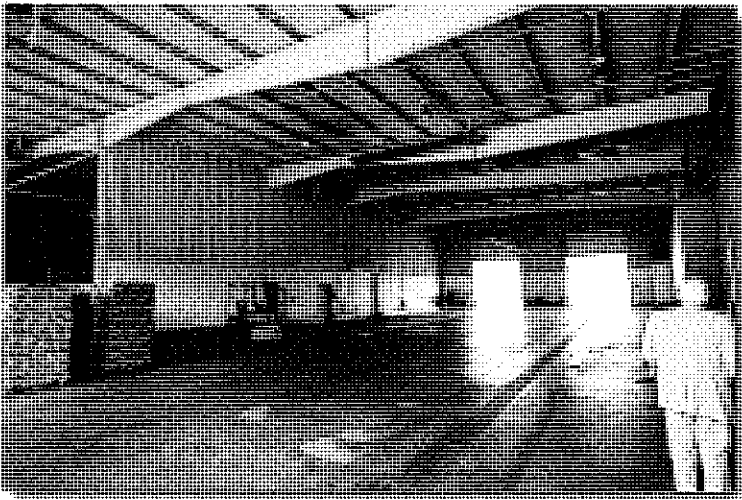




Mountain Eagle Distributor

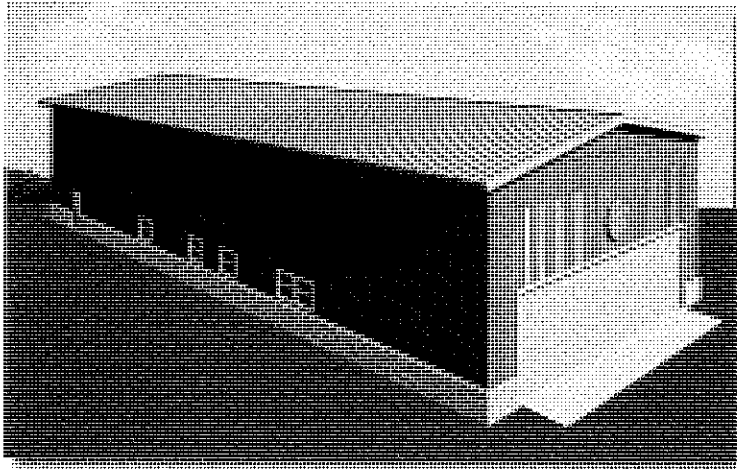
Beckley, WV

E. T. Boggess, Architect, Inc., has designed several projects for this Anheuser Busch distributor, including a warehouse, a separate office building, and special recreational areas for their employees.



E.T. Boggess, Architect, Inc.





Mercer County Civil Air Patrol



Princeton Municipal Building & Fire Department



Princeton Fire Department 2

Governmental Projects

E.T. Boggess, Architect, Inc., has designed offices and maintenance/storage facilities for a variety of governmental agencies.

These facilities include:

- Civil Air Patrol HQ
- Firestations
- 911 Emergency Center
- Courthouse annexes
- Conference centers
- Visitor's centers
- Museums
- Streetscapes
- Security upgrades
- Feasibility studies
- Fireman Rescue/
Training Structure

Projects

E.T. Boggess, Architect Inc.

Governmental - New Construction:

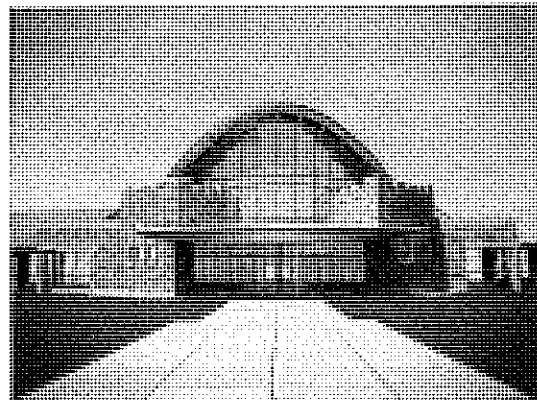
- WVARNG Readiness Center, Elkins, WV
- Mercer County Courthouse Annex, Princeton, WV
- U.S. Social Security Offices for the GSA
 - Welch, WV
 - Williamson, WV
 - Bluefield, WV
- West Virginia Tourist Information Center, Princeton, WV
- WVDOH District 10 Headquarters Complex
 - Office Building*
 - Maintenance Building*
 - Bridge/Sign Shop*
 - Lab Building*
 - Gardner, WV
- WVDOH District 6 Headquarters Complex
 - Office Building*
 - Maintenance Building*
 - Bridge/Sign Shop*
 - Moundsville, WV
- Mercer County Civil Air Patrol Hanger and Headquarters, Bluefield, WV

Governmental - Historical Re-creations - New Construction:

- Princeton Railroad Museum, Princeton, WV
- Coal Interpretive Museum, Bramwell, WV

Governmental - Renovations:

- Princeton Public Library (*Historical Renovations*), Princeton, WV
- Nicholas County Judicial Annex, Summersville, WV
- Pipestem State Park Conference Center (Addition), Pipestem, WV
- Beckley Financial Center - IRS Offices for the GSA, Beckley, WV



Elkins Readiness Center



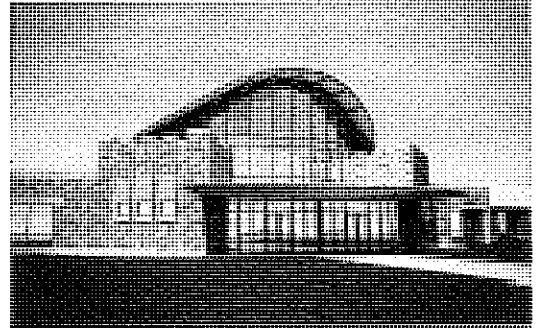
Project Profiles

New Construction Military

Design of mechanical, electrical, plumbing, fire protection and communication systems

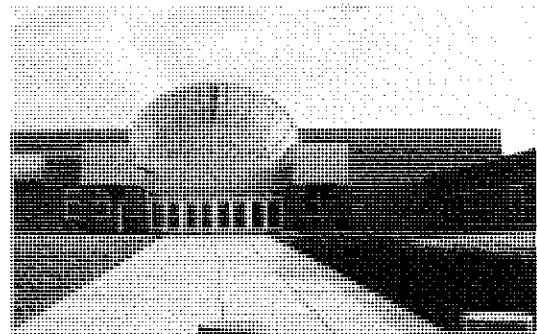
WVANG Elkins Readiness Center

CMA Engineering provided mechanical, electrical, plumbing, fire sprinkler, fire alarm and communications systems design services for the new 54,500sf facility. The design criteria for the project was to meet a LEED Silver rating.



WVANG Summersville Readiness Center

CMA Engineering provided engineering services for the design of mechanical, electrical and plumbing systems for the 42,000sf readiness center. This facility also features areas for use by the City of Summersville for events throughout the year.



WVANG Lewisburg Readiness Center

CMA Engineering provided mechanical, electrical and plumbing design services for the new 37,000sf readiness center that includes a vehicle maintenance bay.



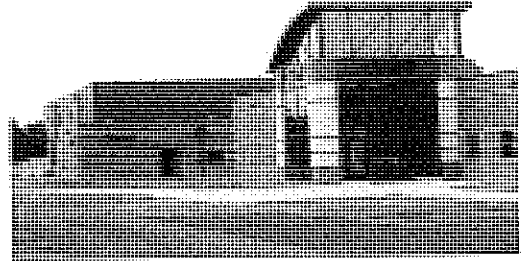
Project Profiles

New Construction Military

Design of mechanical, electrical, plumbing, fire protection and communication systems

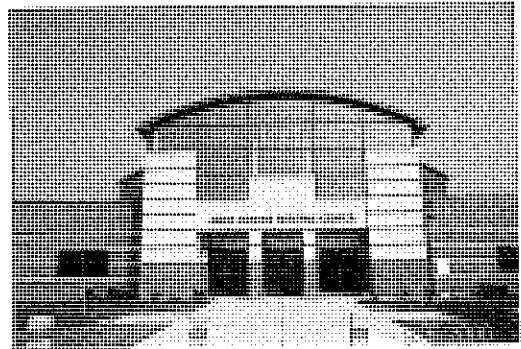
WVANG Eleanor Maintenance Center

CMA Engineering provided mechanical, electrical and plumbing, design services for a 132,000sf maintenance facility to house combined support maintenance shop and Class IX USPFO warehouse. CMA has continued to provide engineering services for the addition of the paint booth, entrance guard house, MCOFT pad, and covered storage.



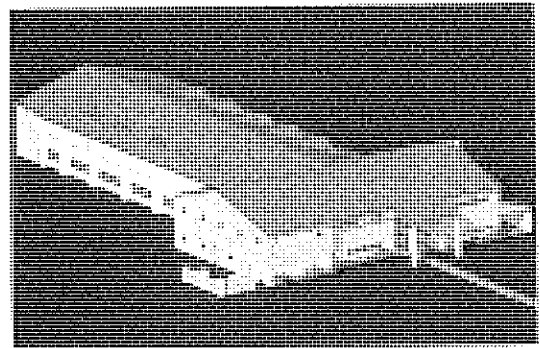
WVANG Eleanor Readiness Center

CMA Engineering provided engineering services for the design of mechanical, electrical and plumbing systems for the new 80,000sf readiness center, including a 16,000sf section that is utilized by the United States Navy.



WVANG-Fire Station

CMA Engineering is provided design services for the HVAC, plumbing, fire alarm, fire sprinkler, communications systems, lighting and electrical power for the design/build of the new approximately 21,000sf fire/ crash/ rescue station in Charleston, WV.



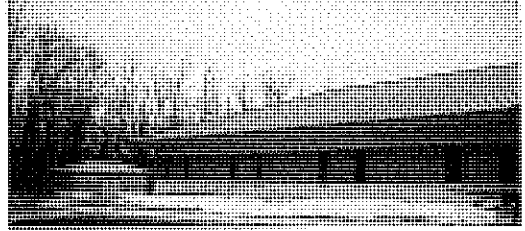
Project Profiles

New Construction Emergency Response Facilities

Design of mechanical, electrical, plumbing, fire protection and communication systems

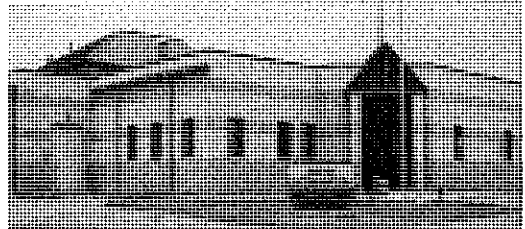
New Raleigh County 911 Center

CMA is currently providing design services for HVAC, plumbing, fire sprinkler/alarm systems, data and communication and electrical power for the new Emergency Operation Center in Raleigh County.



New Randolph County 911 Center

CMA provided design services for the HVAC, plumbing, fire alarm, fire sprinkler, electrical and communications systems for the new 12,000sf facility.



New Putnam County 911 Center

CMA is currently providing design services for the HVAC, plumbing, fire alarm, fire sprinkler, electrical and communications systems for the new single story 911 Facility(11,700sf) and new two story maintenance garage(5,000sf) with six maintenance bays on lower level and storage area (1,500sf) on second level.

No Picture Available

Under construction

New Wetzel County 911 Center

CMA is currently providing design services for the HVAC, plumbing, fire alarm, fire sprinkler, electrical and communications systems for the new 3,100sf facility.

No Picture Available

Under Construction

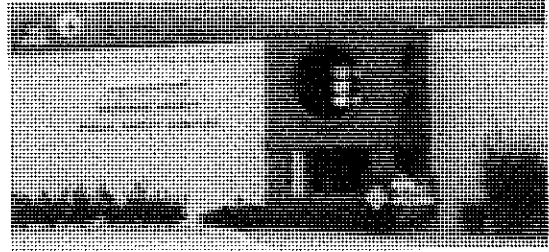
Project Profiles

New Construction Emergency Response Facilities

Design of mechanical, electrical, plumbing, fire protection and communication systems

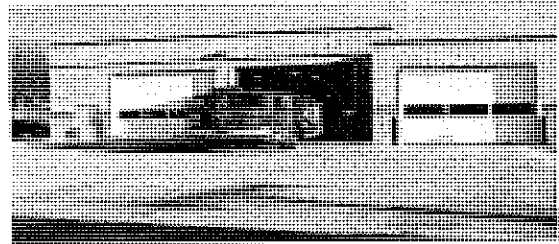
Harrison County 911 Center

CMA Engineering provided mechanical, electrical, plumbing, fire alarm, fire sprinkler and communication systems design services.



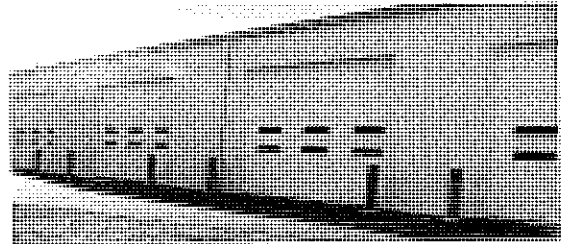
Orchard Manor Fire Station, Charleston, WV

CMA Engineering provided design of HVAC, plumbing, fire sprinkler and fire alarm, electrical and communications systems and site utilities for new 9,000sf fire station .



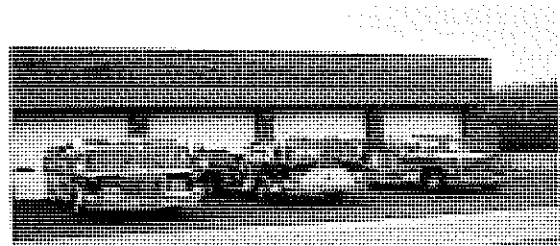
Northview Fire Station, Clarksburg, WV

CMA Engineering provided design of HVAC, plumbing, fire sprinkler and fire alarm systems, communication systems, lighting and electrical power for renovations to 7,000sf existing office facility and new connected garage facility of 7,300sf.



White Sulfur Springs Fire Station

CMA Engineering provided design of HVAC, plumbing, fire sprinkler and fire alarm systems, communication systems, lighting and electrical power for new 7,800sf facility.



Project Profiles

New Construction Design/Build

Design of mechanical, electrical, plumbing, fire protection and communication systems.

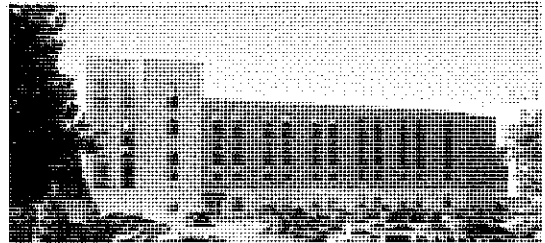
WV Department of Environmental Protection

CMA Engineering provided mechanical, electrical, plumbing and fire protection design services for new consolidated DEP office in Charleston, WV. Building is a three-story facility of approximately 180,000sf with a 650 car parking area. **This facility is registered as a LEEDS construction project.**



Residence Halls-University of Charleston

CMA Engineering provided mechanical, electrical, plumbing and fire protection design services for the design/build of two new four-story Dormitories, constructed during the summers of 2004 and 2005. In 2006, CMA provided design for the addition of a wing to the second dormitory.



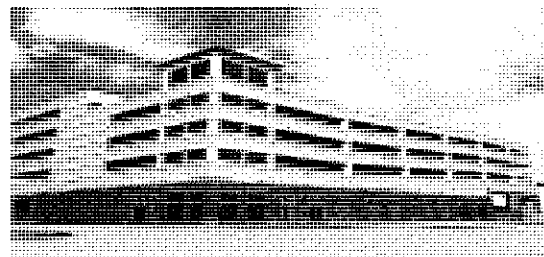
Parking Facility at Marshall University

CMA Engineering provided mechanical, electrical and plumbing design services for new 6 level parking garage facility on the Huntington campus. Garage includes 1009 parking spaces, glass elevators and pedestrian walkway above 3rd Avenue that connects the garage to Cam Henderson Center.



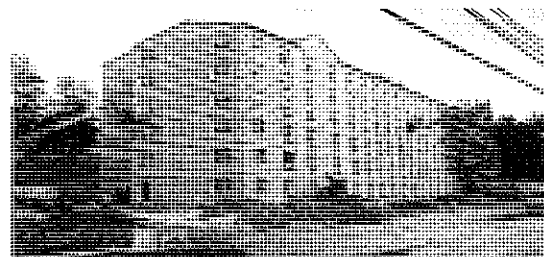
Parkersburg Transit Authority

CMA Engineering provided mechanical, electrical and plumbing design services for developing the design criteria for the new 5 floor Transit Authority Facility which includes 378 space parking garage, office areas, transit station, and passenger waiting area.



Bed Suite Housing-Fairmont State University

CMA Engineering provided mechanical, electrical, plumbing and fire sprinkler design services for developing the design criteria for the new 400 bed suite style residential housing.



CMA
ENGINEERING

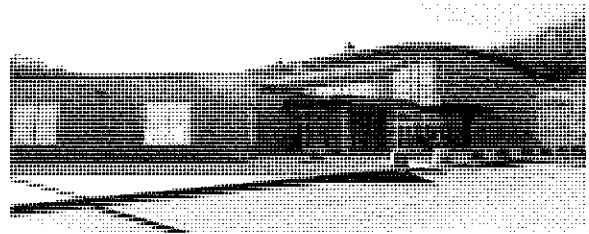
Project Profiles

New Construction

Design of mechanical, electrical, plumbing, fire protection and communication systems.

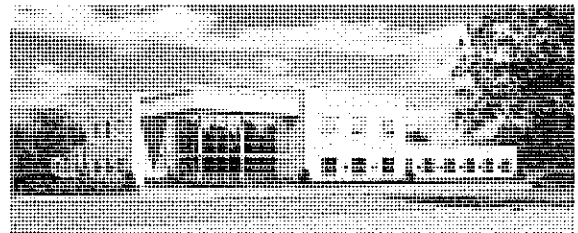
Sissonville Middle School, Kanawha County

CMA Engineering is currently providing mechanical, electrical, plumbing, sprinkler, and data/communication/alarm/control engineering design for the new,



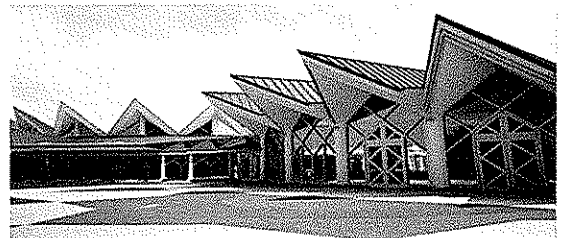
Go-Mart Office Building

CMA provided mechanical, electrical and plumbing design services for the new 13,000sf corporate office building in Gassaway, WV.



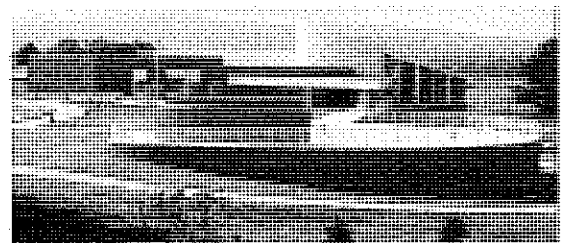
Tamarack Caperton Conference Center

CMA Engineering provided mechanical, electrical, plumbing, fire protection and communication systems design for the 22,450sf addition to the Caperton Center. CMA provided engineering services for the original construction of the Tamarack facility.



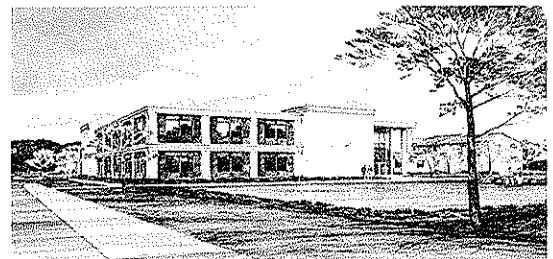
NRAO Greenbank Observatory Visitor's Center

CMA Engineering provided mechanical, electrical, plumbing, fire protection and communication systems design for new visitor's science center.

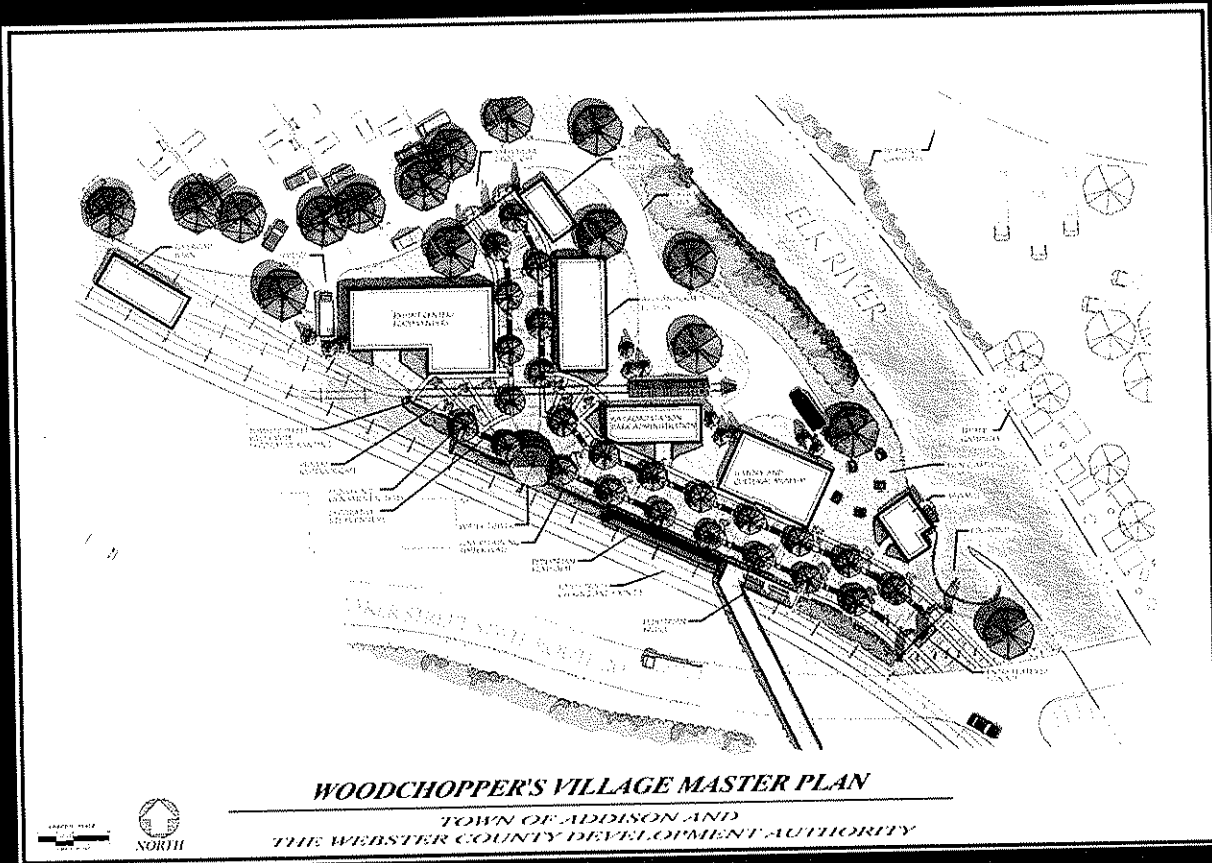


St. Albans Community Center

CMA Engineering provided design for HVAC, plumbing, fire sprinkler, fire alarm systems, communication systems, lighting and electrical power for new 26,900sf community center which included gymnasium, wrestling room, fitness room, locker rooms and an open area for aerobics, dance and gymnastics.



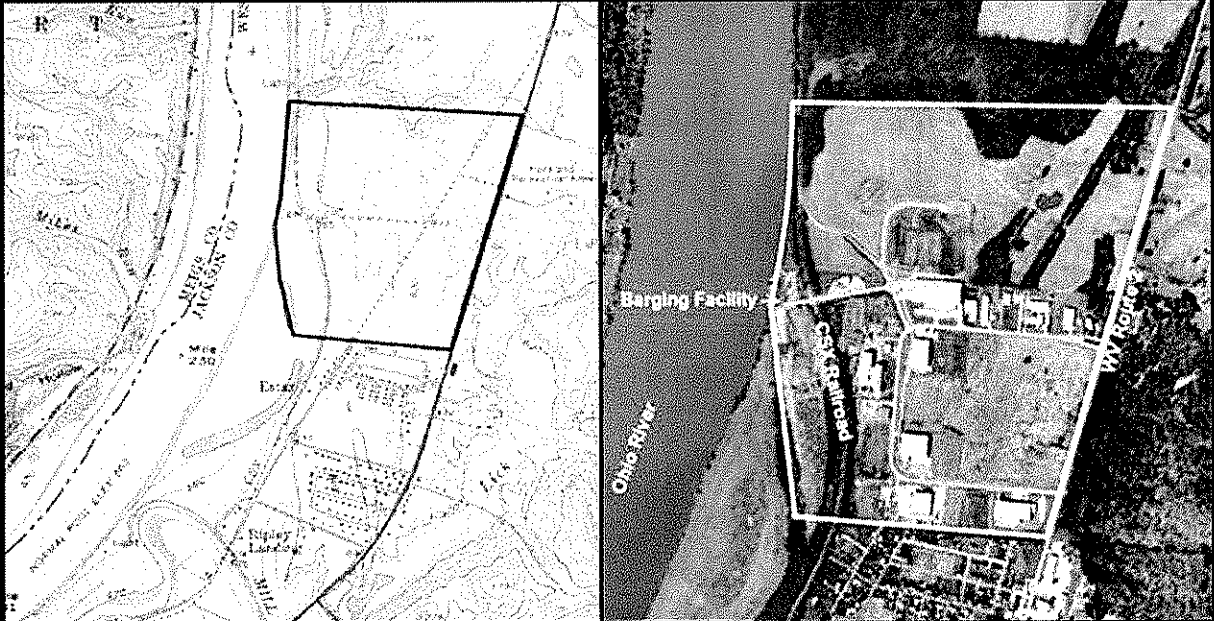
CMA
ENGINEERING



Woodchoppers Village

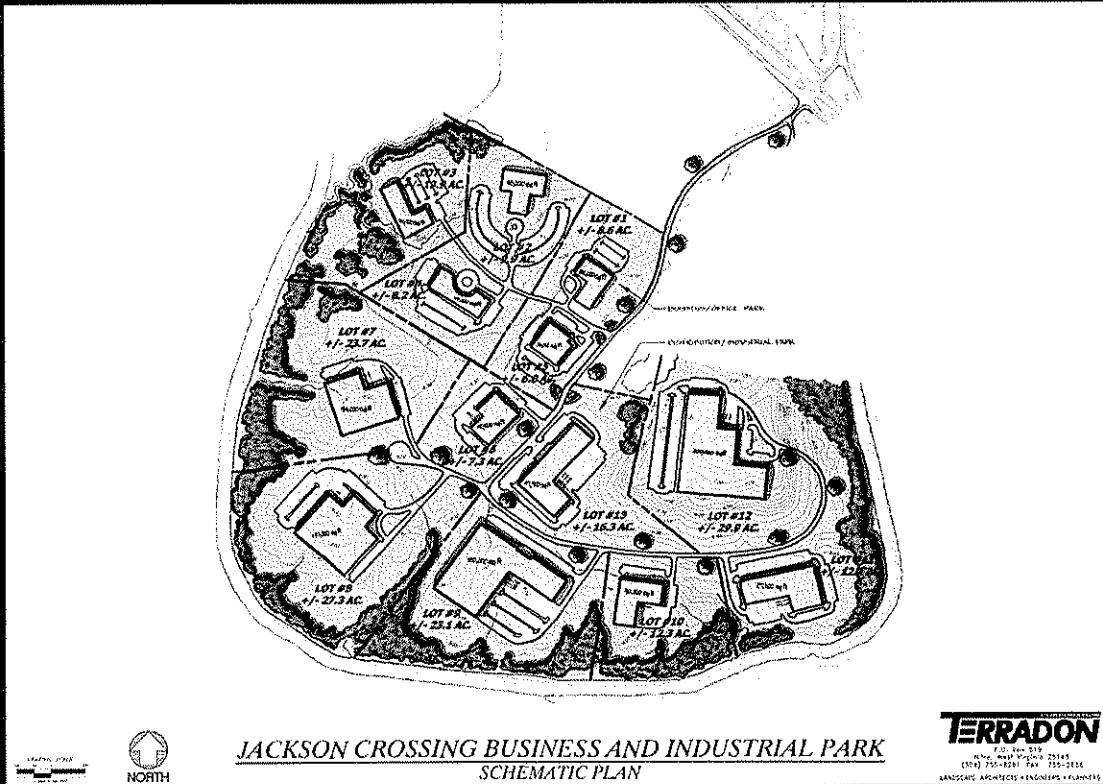
TERRADON Corporation provided Master Planning services to the Webster County Development Authority and the Town of Addison for the development of Woodchoppers Village.

TERRADON provided a Master Plan and Feasibility Study for the project. The deliverables included Site programming, layout, inventory and land use analysis. The site also had an existing train depot that TERRADON was able to reincorporate into the site plans.



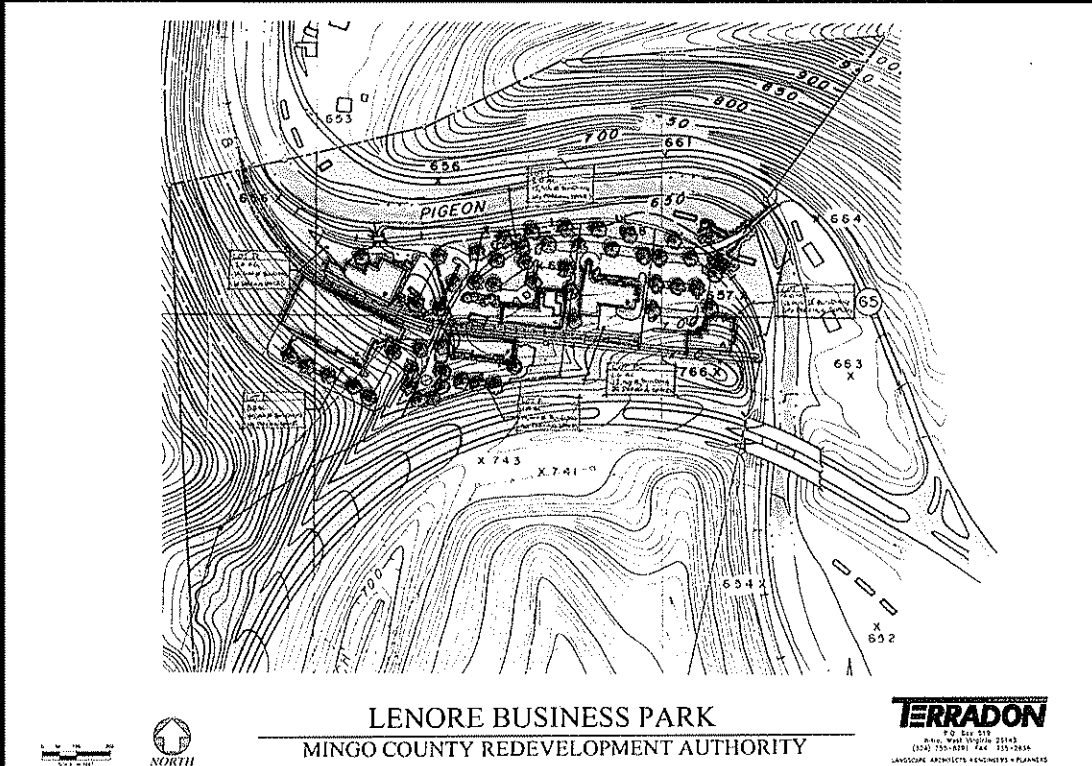
Maritime Business Park

Taking 159 acres of rural land in Western West Virginia, TERRADON designed Maritime Business Park with accessibility in mind. The design features access to the Ohio River for barge traffic, the CSX Mainline runs alongside the site, Jackson County Airport is located a half-mile away, and the business park also supplies privately owned utilities such as electricity, natural gas, water, and telephone cables.



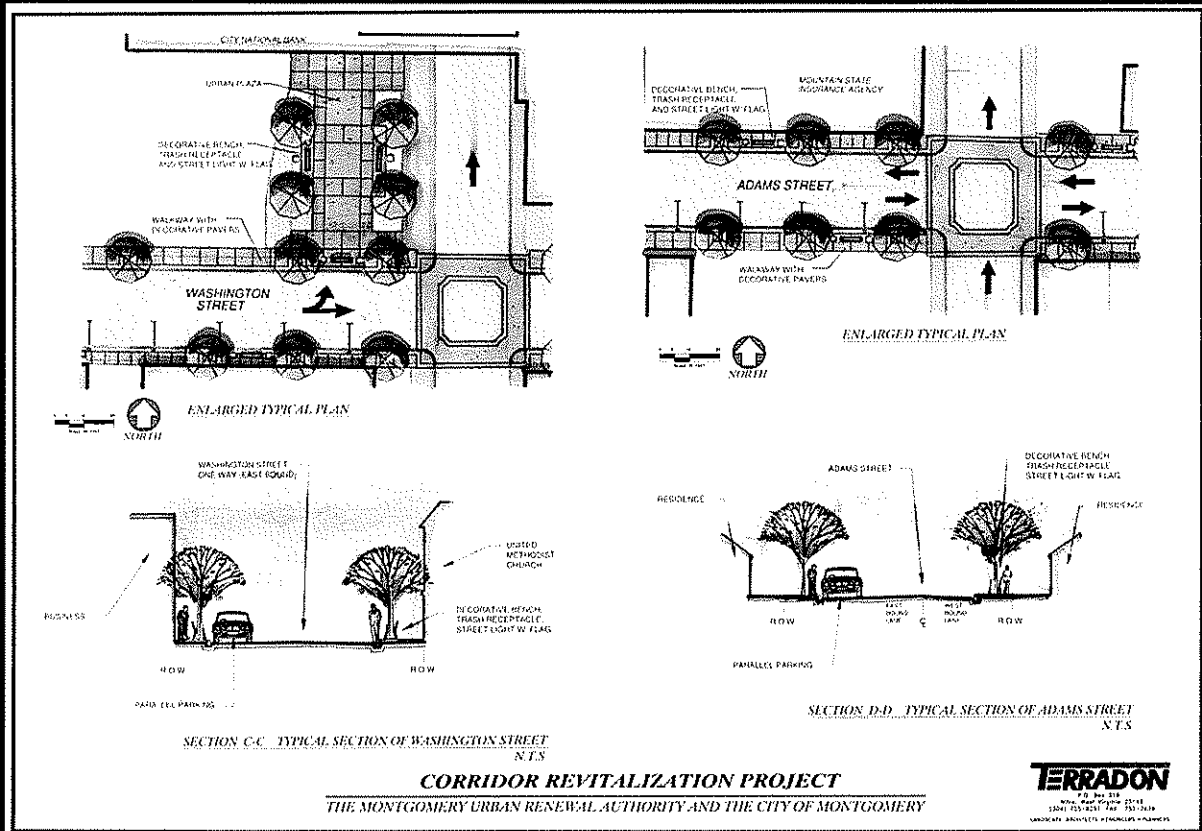
Jackson Crossing Business and Industrial Park

TERRADON provided a Master Plan and Feasibility Study for the project. Off of I-77N in Jackson County, the Jackson Crossing Business and Industrial Park is in a convenient location for TERRADON's retail development study. This project was built to enhance commercial development in the state of West Virginia.



Lenore Business Park

Located in a highly accessible area right off US 52 and Rt. 65, the Lenore Business Park project was supported by the Mingo County Redevelopment Authority. TERRADON's Master Plan and Feasibility Study utilized the existing on site railroad.



City of Montgomery

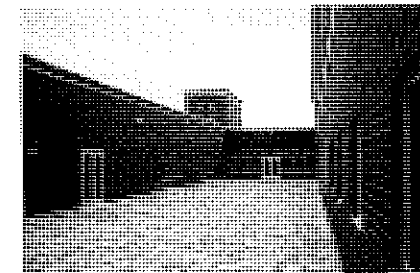
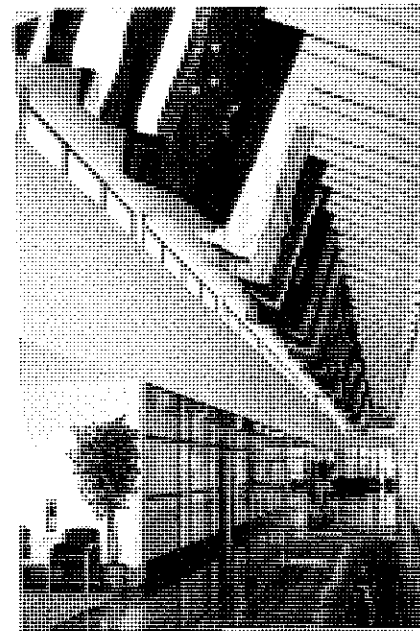
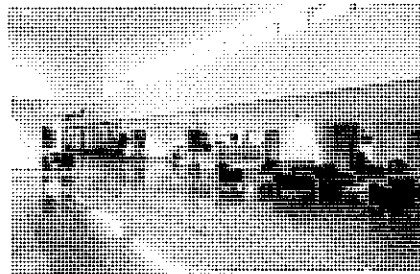
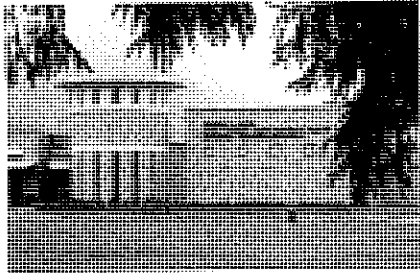
TERRADON Corporation provided Urban Revitalization services to the Montgomery Urban Renewal Authority and the City of Montgomery for streetscape enhancements.

TERRADON provided a Master Plan and Feasibility Study for the project. The deliverables included Site programming, layout, inventory and land use analysis. The site also included planning in and around an existing Amtrak train station.



Fountain Place Business Park

TERRADON provided site planning, schematic design, and full civil/utility construction documents for a major expansion of the Fountain Place Retail Complex in Logan, West Virginia. Expansion plans include the development of a business/office park.

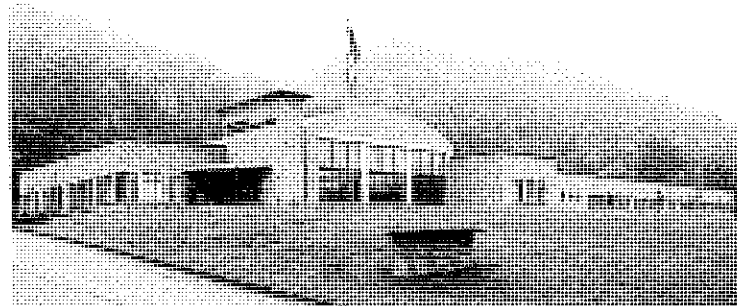
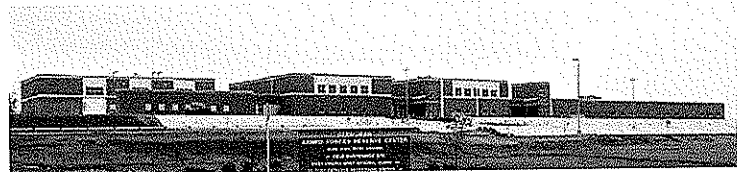


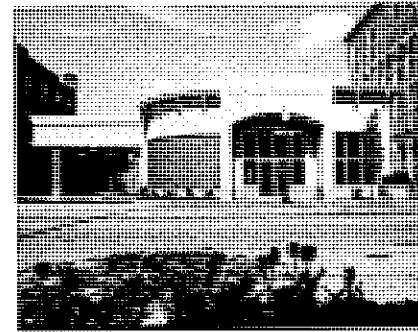
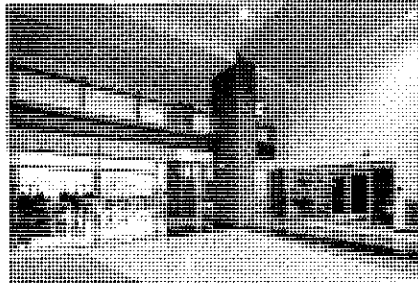
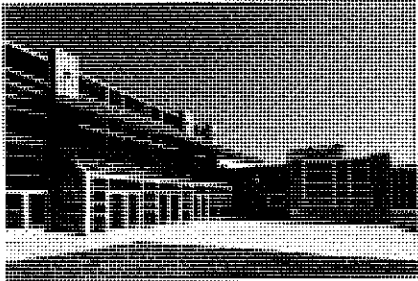
West Virginia Army National Guard Project Experience

Douglas Richardson has provided the structural engineering and design for the following projects:

- Robert C. Byrd Regional Training Institute - Camp Dawson, WV
- Armed Forces Reserve Center - Camp Dawson, WV
- Armed Forces Reserve Center - Glen Jean, WV
- Construction & Facilities Management Office - Charleston, WV
- Mountaineer Challenge Academy - Camp Dawson, WV
- Armed Forces Reserve Center - Elkins, WV
- Multi-Purpose Building - Camp Dawson, WV

These six facilities total over 460,000 square feet of built space, and each serves as a outstanding example of how a military structure can enhance the readiness of the units they support while also contributing to the local, state and national communities in which they are located. The structural systems utilized include steel frames, reinforced concrete and masonry, load bearing cold-formed steel studs, and long span steel joists.





Additional Project List

In addition to these WVARNG projects, Moment Engineer's staff experience includes a wide variety of new building design and existing building analysis. The list below is a small sample of the projects for which Douglas Richardson has had responsible charge of the structural engineering, design and contract document production. A more extensive list is available upon request.

<u>Project</u>	<u>Sq. Ft.</u>
Barboursville Elementary School	63,947
Greenbrier East H.S. Renovations & Additions	205,057
Lincoln Co. High School	216,500
Wayne Co. Spring Valley High School	175,000
St. Albans High School	172,600
Dunbar Primary Center School	14,100
Judge Donald F. Black Courthouse Annex	37,000
WV Hospital Association Office Building	29,710
Cabell West Elementary School	55,788
Capital State Bank	4,088
Kappa Alpha Fraternity House, WVU	14,000
Sears, Chesterfield Mall, Richmond VA	146,980
Sears, Loudon VA	132,600
Alderson Federal Prison Dormitory	60,625
Western Juvenile Detention Center	29,015
Cacapon State Park Addition	9,842
Lewisburg United Methodist Church	12,800
Kroger Store Renovation, Kanawha City	15,427
Goodwill Industries Renovation and Addition	15,460

SECTION SIX

Scope of Services and Approach

Scope of Services and Approach

E.T. Boggess, Architect Inc.

SCOPE OF SERVICES

The ETB team of professional consultants can provide the WVARNG with any or all of the following services:

- Architectural Design
- M/E/P Design
- Site Development / Parking
- Landscaping Design
- Feasibility Studies
- ADA Compliance Evaluation
- Computer Visualization

The services listed above will be accomplished in steps or phases beginning with Pre-Design/Planning, then Schematic Design Phase, followed by Design Development Phase. Once you approve the final design, we start the Construction Documents Phase, then proceed to the Bidding Phase, and, finally, the Construction Administration Phase. The information that follows will help you understand each phase.

Pre-Design/Planning

Our team's services in this first critical phase will lay the groundwork to clarify project goals and design issues. We have no preconceptions and will work to answer your project needs as we define them together.

Services/tasks include . . .

- Determine project goals and design objectives.

- Identify project constraints and opportunities.
- Gather and analyze data – space program/staffing.
- Evaluate site – arrange for geotech analysis, if necessary.

Schematic Design Phase

The schematic design documents will establish the general scope and conceptual design of your project, and the scale and relationships of the building components. The main goal of this phase is to arrive at a clearly defined, feasible concept and to present it in a form that will result in your understanding and acceptance.

You will have the following items to review at the end of this phase:

- Conceptual Site Plan
- Preliminary Building Plan with elevations or space adjacency studies
- Perspective Sketches
- Preliminary Cost Estimates

Design Development Phase

Services in the design development phase strive to achieve the refinement and coordination necessary for a polished work of architecture. Here decisions made in schematic design are worked out at a more detailed level to minimize the possibility of major modifications being needed during the development of construction documents.



Scope of Services and Approach

E.T. Boggess, Architect Inc.

Your design team arrives at a clear, coordinated description of all aspects of the design, including . . .

- Architectural
- Mechanical
- Electrical
- Plumbing
- Fire Protection Systems

Final Design Phase / Construction Document Phase

Construction documentation is the bridge between building design and physical building form. A key element of documentation services, construction drawings provide the instructions for transforming the design solution into brick, mortar, landscapes, access, etc. The purpose of providing construction document drawings is to provide graphic documentation for bidding and execution of construction services.

Services/tasks include . . .

- Prepare construction drawings based on approved design development drawings.
- Coordinate and incorporate drawings from all team members.
- Prepare specifications to accompany drawings to establish a desired level of performance.
- Submit documents to building code officials.
- Prepare bid packages.

Bidding Phase

Construction procurement activities assist the client in obtaining competent construction services. Our team will prepare bid packages or request for proposals/qualifications, and we will support the selection, negotiation, and contract award processes.

Services/tasks include . . .

- Assist client in selection of project delivery method.
- Identify prospective bidders.
- Organize or participate in pre-bid conference.
- Distribute bidding documents.
- Address questions submitted by bidders.
- Review and evaluate competitive bids.
- Assist client in contractor interviews for obtaining negotiated proposals.
- Award contract for construction.

Construction Phase / Contract Administration Services

Contract administration services are important in order to ensure construction conforms to construction documents; to support the design intent; to lessen project risks; to identify and resolve construction problems early; and assist you in understanding the construction process.



Scope of Services and Approach

E.T. Boggess, Architect Inc.

The architect, serving as a construction administrator, observes construction for conformity to construction drawings and specifications.

Services/tasks included . . .

- Establish lines of communication.
- Maintain and distribute paperwork/records.
- Respond to contractor's requests for information.
- Track changes in construction documents.
- Review contractor's requests for payment.
- Review shop drawings and product information.
- Prepare field reports and records.
- Supervise completion and closeout.
- Assist with any post-occupancy issues.

APPROACH

The Integrated Design Process is our process of design in which the users, owners, and the ETB team (architects and engineers) and project participants are all integral team members. This integrated process and the implementation of high performance design requires both efficiency and innovation.

Active participation of users, code officials, cost consultants, civil, mechanical, and electrical engineers, and the community in general is critical to the project's success.

In our role with this team as the design leader and project organizer, ETB will be responsible for coordinating and orchestrating the work of the many disciplines and users involved throughout the design, documentation, and administrative functions of the project.

We have been successful in the development of ETB project websites that can have different levels of access and/or security for the review or distribution of many facets of the project. These can range from meeting minutes and submittals to updated CADD plans and graphics to virtual project walk-thrus and photorealistic imagery. We feel that the project website is a key communication component for all types of information related to the project.

High Performance Design

High Performance Buildings – those that incorporate the very best design strategies and building technologies – are long-term, critical investments in the future of our state. They simultaneously provide better environments for their users and employees, cost less to operate, and help protect the environment. High Performance Buildings are healthier (superior indoor air quality); thermally, visually, and acoustically comfortable (day-lighting); energy, water and material efficient (life cycle cost analysis); safe and secure, adaptable, and easy to operate and maintain.



Scope of Services and Approach

E.T. Boggess, Architect Inc.

They also incorporate environmentally responsible site planning, stimulating architecture, foster a sense of pride and accountability, and provide a resource for the entire state.

Our team of professionals will design the new Field Maintenance Shop so that it will be more user-friendly and comfortable. The design will also help the WVARNG to retain quality staff, reduce operating costs, and reduce liability, all in an environmentally friendly and economical manner by utilizing High Performance Facilities design.

We are committed to providing facilities that incorporate both High Performance and Sustainable Design features so that our state's natural resources and finances are best utilized.

Sustainable Design

Sustainable Design is a direction in architecture that we have been practicing for many years. Our team has a number of members who are already LEED Certified, including three ETB employees. We feel this direction in designing and constructing buildings is necessary to achieve the minimal impact on our world's natural resources. We must learn to use these natural resources in conjunction with our technology to achieve the quality and standards of life that do not destroy future generations' environments.

These directions are very cost effective when properly approached. The architect and the client need to recognize and understand that cost is measured in many ways. We must approach solutions that provide the comforts we seek and do so within restricted budgets. It truly is a team effort to make it work to everyone's satisfaction.

Sustainable design recognizes the interdependence of the built and natural environments; it wants to harness natural energy flows and biological processes, eliminate reliance on fossil fuels and use of toxic materials, while improving resource efficiency.

The following information contains ideas and recommendations that we reference on all of our projects.

Site, Water, Energy, Materials and Indoor Environmental Quality

These are the five impact categories the LEED credits are organized under. These areas are related and interconnected. For this reason, some credits will impact more than one category. This LEED approach will be utilized to describe our design approach that is sustainable, cost effective, and compliant to state requirements, scope, and applicable codes.



Scope of Services and Approach

E.T. Beggess, Architect Inc.

Sustainable Sites

- Site selection should take advantage of the East-West linear axis to expose much of the building to North/South light – Passive Solar.
- The site should not harm the surrounding environment, but make improvement on water, soil, and habitat.
- Limit disruption to existing vegetated terrain. Natural forested areas should remain as is, thus reducing direct site impact.
- When designing the overall building and the structure, prevailing wind direction and building orientation to minimize heating/cooling costs.
- Buffer zones should be left as undisturbed as possible.
- Landscape strategy should slow down, retain and bioremediate stormwater run-off. Indigenous plantings of grasses, low shrubs, and trees, create more porous, diverse, and shaded sites.

Water Efficiency

- We often take for granted the precious nature of water as a resource. Strategies for reducing consumption of potable water should be practiced where practical. This kind of conservation based on practicality and wise use has no sacrifice on our quality of life.
- The overall site development lay-out and design should make use of existing site terrain slopes and drainage patterns.
- By recapturing site water, the use of potable water can be entirely eliminated for landscape and maintenance purposes.
- One of the facets of a building that can consume enormous quantities of water is the landscape. Landscaping should be accomplished using native plants that are adapted to their environment without much need of irrigation, pest control, or maintenance.
- Efficient fixtures range from low flow flush valve toilets to waterless urinals that can dramatically reduce consumption rates.



Scope of Services and Approach

E.T. Boggess, Architect Inc.

- Waterless urinals also require less plumbing and less maintenance, which can reduce first cost and life cycle costs. Sensor faucets and gray water plumbing systems can reduce consumption as well.
- Installation of watersaving and automatic shut off, sensor activated, plumbing fixtures.

Energy and Atmosphere

- Improve energy efficiency while ensuring thermal comfort thru the development of passive solar strategies to improve comfort and reduce energy demands first; then optimize the efficiency of the HVAC system.
- Energy efficiency is one of our team's top priorities because of the broad range of impacts that energy production has on the environment and economy. LEED promotes not only reducing a building's dependence on energy, but in improving the sources of what energy it does consume.
- Design strategies that are effective in reducing the energy consumption have an important relationship on the ones that will be effective in improving the indoor environmental quality.
- Explore opportunities to reduce reliance on fossil fuels and to use cleaner sources of power.
- The building orientation and design should maximize the South and North light, and minimizes the harsh, harder to control, low sun at sunrise and sunset.
- The use of exterior shade devices and interior light shelves should reflect the direct rays, diffusing daylighting and bringing it further into the interior.
- HVAC strategies that reduce energy use of mechanical systems can be passive – using building envelope design natural ventilation strategies in the design of spaces, as well as active-relying on technologies like displacement ventilation. This stack effect of rising hot air pulling cool air upward can potentially serve as a light source throughout a building.



Scope of Services and Approach

E.T. Boggess, Architect Inc.

- Daylighting is a passive strategy that improves the indoor environmental quality of a space.
- The utilization of a daylight and occupancy sensors could be used to control the lights in day lit spaces.
- Using photosensors in daylight spaces to control dimmable ballasts allows a system to work without being actively operated. Without dimming the lights would cycle on and off in response to changes in daylight levels. With dimming lights, the change would still be in response to ambient light levels but it would be subtle and not distracting to the occupants, as well as consuming less energy while lessening the overall cooling load of the building.
- The utilization of a trombe wall could be explored as an effective indirect-gain passive solar technique on the south elevation of the building. These tall 12'-18' foot high, 12-16" thick masonry walls would be covered with a double layer of glass 1" in front of the walls surface. Solar heat is absorbed by the walls' dark colored outside surface and stored in the wall's mass where it radiates into the

space over a period of several hours. Heat travels thru a masonry wall at an average rate of 1 hour per inch. So heat absorbed on the outside of an 8 inch thick concrete wall at noon will enter the interior around 8:00 p.m.

- Vents can also be added to the top and bottom of the air gap between the glazing and thermal mass. The vents have one-way flaps which prevent convection at night, making heat flow directional. This is an isolated passive thermal collector. The vents to the interior are closed in the summer months when the heat gain is not wanted.

Materials and Resources

Our team practices Simplification of Systems and Reduction of Use as a means to reduce the cost and impact on our environment.

- With every material that can be simply reused, the impact associated with its extraction, manufacture, delivery, installation, and eventual disposal are eliminated.
- For example, poured concrete slabs could utilize stained or sealed concrete floor being an acceptable finish, rather than adding the various materials associated with a carpet or tile system.



Scope of Services and Approach

E.T. Boggess, Architect Inc.

- There are a number of different lists of criteria that help define whether a building material or product may be preferable environmentally.
- LEED gives credit to projects that show that they have reduced the resource consumption of the building by specifying products that are renewable, recycled, salvaged, certified wood, or that are low-emitting materials.
- Implementation of appropriate waste management during construction and operation of the building. By putting an advanced plan into place for the effective recycling and salvage of building materials during construction can reduce landfill burdens.
- Some aspects of a product's environmental performance we consider are:
 - products that are natural and biodegradable, that do not contain hazardous or toxic materials
 - energy efficient
 - made of renewable materials and/or recycled materials
 - made of certified wood
 - healthy for indoor air
 - low voc
 - healthy for the atmosphere
 - non-toxic in use, production, or at end of useful life
 - recyclable at the end of useful life
 - made near to the building site – low transportation impacts (i.e. masonry plant)
- For building exteriors, using thermal and moisture-barrier systems that reduce heating and cooling loads.

Indoor Environmental Quality

- Effective delivery of fresh air is a priority to our design team.
- Use natural ventilation and/or HVAC systems that promote ventilation effectiveness.
- Locate building intake and exhaust locations carefully to avoid contamination.
- Protect indoor air quality through careful selection of building materials with attention given to methods of installation, finishing and maintaining.



Scope of Services and Approach

E.T. Boggess, Architect Inc.

- Good building ventilation is required during building construction as well as the life of its use.

Daylighting

- Advanced daylighting systems and control strategies can be developed for different parts of the building depending on use, orientation, location, etc.
- The building façade designs, interior finishes, structural expression, the selection and integration of systems and services are all related to the buildings daylighting plan.
- Daylighting design should influence the basic decisions about the building's shape and orientation.
- Treat the building as a luminaire.
- Separate the vision and daylight glazings.
- Position the daylighting apertures to create mood and visual focus.
- Address the requirements of the visual task.
- Integrate the daylighting system with the architecture and other building systems.

Integrated Design Team Approach - Design Process and Innovation

In an attempt for a more sustainable practice, our team is looking to deepen our partnerships, emphasizing early, open, communication lines, ensuring that all in the end product have the opportunity to influence the project. We want all team members partnering together in the solution.

Design developed with flexibility in mind, simple circulation patterns eases expansion possibilities reconfiguration for adaptive reuse. This enhances building longevity. Flexible building infrastructures for HVAC, power and communications will be adaptable for future needs and changing functions. The use of fixed cabling, ductwork and chases that are embedded into the building structure should be avoided. The need for longevity and flexibility calls for a design to ease periodic refurbishment and selective replacement of building systems.



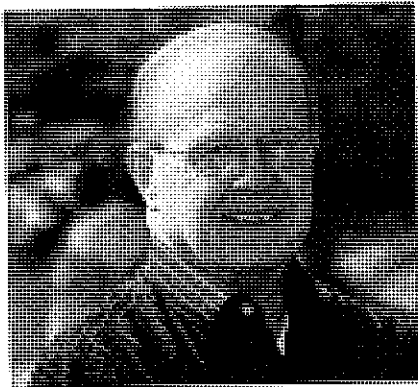
SECTION SEVEN

Perimeter

E. Ted Boggess, AIA, NCARB, Architect

Chairman of the Board

E.T. Boggess, Architect Inc.



EDUCATION:

Bachelor of Architecture
The Ohio State University
School of Architecture

RESPONSIBILITIES:

Ted founded E. T. Boggess, Architect, Inc., in 1966. Prior to Todd joining the firm, Ted was solely responsible for all design and managerial aspects of the corporation. After serving 35 years as president, Ted decided to hold only the position of Chairman of the Board.

Ted is responsible for . . .

- business development
- document review
- construction observation
- application for payment review
- contract negotiations
- administration

Your project will benefit from his 40+ years of architectural excellence. Ted's understanding of code requirements ensures that your project will satisfy all building, ADA, and life-safety regulations

PROFESSIONAL:

Over the years, Ted has been very active on state and national architectural boards and committees. West Virginia Governors have appointed him to five consecutive, five-year terms on the WV Board of Architects. In addition, he has served on the following national committees:

- National Council of Architectural Registration Boards (NCARB)
- Past Region II Coordinator for NCARB IDP Program
- Past Chairman – NCARB, National Education Committee
- Past Member – NCARB, Procedures and Documents Committee
- Past Member – NCARB, Professional Development Committee
- Past NAAB Accreditation Team Member

These committees are responsible for establishing educational requirements for new architects, and evaluating architectural programs at colleges and universities throughout the country. Even if you don't select our firm, you will still benefit from Ted's years of work improving the educational requirements of today's architects.



E. Ted Boggess, AIA, NCARB, Architect

Chairman of the Board

E.T. Boggess, Architect Inc.

PROJECTS:

Ted's extensive work on a variety of projects has prepared him for almost any problem your project may encounter. A few years ago, the parking lot for a new pharmacy that our firm was designing proved to be smaller than the owner wanted. The site was restricted by a creek that ran between the property and the highway. Ted suggested covering the creek with a special system that allowed for increased parking directly over the waterway and provided access directly to the highway at two locations.

Ted will be available to develop the same kind of innovative solutions for your project as well.

PROJECTS

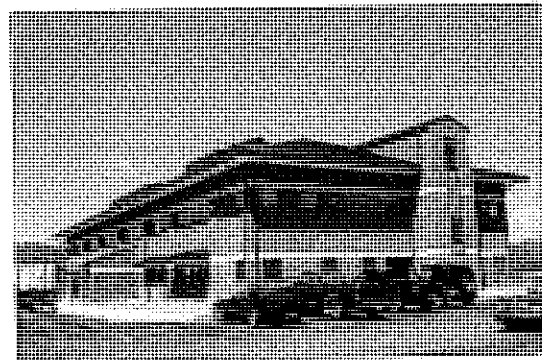
Governmental & Office Buildings:

- Mercer County Courthouse Annex, Princeton, WV
- Concord University Rahall Technology Center, Athens, WV
- WVDOH District 10 Headquarters Office Complex, Gardner, WV
- WVDOH District 6 Headquarters Office Complex, Moundsville, WV
- US Social Security offices for the GSA in Bluefield, Welch and Williamson, WV

- Mercer County Civil Air Patrol Hanger & Headquarters, Bluefield, WV
- First Community Banks in Princeton, WV; Athens, WV; Bluefield, VA; Emporia, VA
- First Century Bank, Beckley, WV
- MCNB Bank, Princeton, WV
- First Sentry Bank, Huntington, WV



WVDOH D-10 Office Building, Gardner, WV



WVDOH D-6 Office Building, Moundsville, WV



Todd Boggess, AIA, NCARB, Architect

President

E.T. Boggess, Architect Inc.



EDUCATION:

- Master of Architecture, Clemson University School of Architecture
- International Studies, Clemson University Daniel Center for Urban Design & Building Studies, Genoa, Italy
- Bachelor of Arts Degree in Design, Clemson University School of Architecture

RESPONSIBILITIES:

Todd joined ETB as a project architect and office manager in 1988 after graduating from Clemson University. In January, 2001, he assumed the office of President.

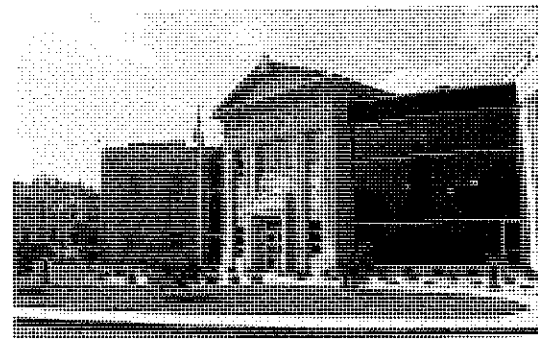
Todd is responsible for . . .

- architectural design and development
- project management and coordination
- computer aided design and visualization
- interior design
- site planning
- submittal reviews/shop drawings

Your project will receive his complete attention, from the interview and project meetings, through the construction process. As the president of the firm, you are putting your trust in him and he takes that commitment very seriously. He wants to make sure you are satisfied with our service, performance, and design.

PROJECTS:

Todd's design for the Mercer County Courthouse Annex involved a great deal of preliminary research. He met with each one of the agencies several times to examine how each office functioned and ensure that their new spaces would satisfy all their requirements. He obtained input not only from the department heads, but also the staff. Once he generated a preliminary design, he again met with the agencies to obtain their approval. Todd always uses this interactive design approach in order to ensure the client's current and future needs are satisfied. The Courthouse Annex (shown below) opened in 2004 and is home to the Magistrate Court, Prosecuting Attorney, Juvenile Probation, and Family Law.



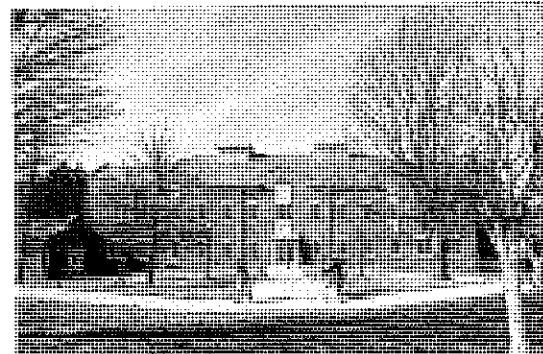
PROJECTS

Governmental & Office Buildings:

- WVARNG Readiness Center, Elkins, WV
- Mercer County Courthouse Annex, Princeton, WV
- Nicholas County Judicial Annex (*Renovation*), Summersville, WV
- Concord University Rahall Technology Center, Athens, WV
- WVDOH District 10 Headquarters Complex
 - Office Building*
 - Maintenance Building*
 - Bridge/Sign Shop*
 - Lab Building*
- WVDOH District 6 Headquarters Complex
 - Office Building*
 - Maintenance Building*
 - Bridge/Sign Shop*
- WVDOH District 9 Headquarters Complex
 - Office Building*
 - (under construction)*
- US Social Security Offices for the GSA in Welch and Williamson, WV
- Mercer County Civil Air Patrol Hanger and Headquarters, Bluefield, WV
- Pipestem Conference Center (*Addition*), Pipestem State Park

AWARDS:

In the fall of 2003, Todd was selected as one of *West Virginia Executive Magazine's* "Young Guns". He was also selected as "Citizen of the Year – 2000" by both the Princeton/Mercer County Chamber of Commerce and the Princeton Elks Club for his efforts in creating opportunities for new business and improving our overall community.



*Concord University Rahall Technology Center
Athens, WV*



EDUCATION:

Bachelor of Science Design
Clemson University

Master of Architecture
Clemson University

RESPONSIBILITIES:

With over 25 years of experience in all phases of design and construction, Mr. Mackey brings strong design, management and leadership skills to the firm. His significant experience has enabled him to successfully oversee the design and construction of a number of large government projects. Specific project responsibilities include:

- code review and analysis
- program development
- master plan development
- conceptual design
- design visualization
- project management
- project coordination
- construction specifications
- construction administration and supervision

PROJECTS:

Mr. Mackey rejoined ETB Architects last year after serving as Executive Vice President for two Florida Architectural firms. During his absence, he served as project manager on several large projects for the military and other government agencies.

In addition to his design and project management responsibilities, Steve also directed the day to day operations and management of the firm.

PROJECTS - Public Buildings:

- Nicholas County Courthouse Annex, Summersville, WV
- WVARNG Readiness Center, Elkins, WV
- Multiple School Projects, Greenbrier County Schools, Greenbrier County, WV

Prior to joining ETB, Steve worked on the following projects:

- Florida Dept. of Law Enforcement Crime Laboratory & Office Building, Jacksonville, FL
- Florida Dept. of Health Office Building, Tallahassee, FL
- Florida Air National Guard Drug Interdiction Laboratory, Jacksonville, FL
- Truscott Air Terminal, Hunter AAF, Savannah, GA
- Concord HH-60 Operations/Para rescue Facility, Moody Air Force Base, GA
- Base Supply Support Centre, Robins Air Force Base, GA



Roy Morum, LEED Green Associate

Project Manager

E.T. Boggess, Architect, Inc.

EDUCATION:

Bachelor of Architecture
University of the Orange Free
State, South Africa

Master of Design Management
UNITEC
Auckland, New Zealand

RESPONSIBILITIES:

Roy joined ETB in 2004 as a project architect. His area of expertise is in design, documentation, and information management. His will be responsible for the ftp site that we will create to share project information. Most of his work before joining ETB was completed in South Africa and New Zealand. His work in the USA includes government facilities for the West Virginia Army National Guard and other public buildings.

Roy is responsible for . . .

- planning/programming
- construction documentation
- coordination of other disciplines
- ftp site design
- responding to contractor's requests for information
- reviewing submittals and shop drawings
- site visits/construction administration
- overall project management

PROJECTS:

Roy's expertise in project management and communication is reflected in his use of technology to enhance the delivery process via the internet and FTP. His mastery of information management systems will ensure that team members, contractors, and your representatives will be able to share ideas efficiently and cost effectively.

PROJECTS - Public Buildings:

- WVARNG Readiness Center, Elkins, WV
- First Century Bank, Beckley, WV
- Four Seasons YMCA, Tazewell, VA
- Mathena Cultural Arts Center, Princeton, WV

Prior to joining ETB, Roy worked on the following similar projects:

- Lewisburg Readiness Center for the National Guard, Lewisburg, WV
- Summersville Readiness Center for the National Guard, Summersville, WV



EDUCATION:

Bachelor of Science, Eng. – Arch.
Fairmont State University

Master of Architecture (May, 2009)
Boston Architectural College

RESPONSIBILITIES:

Mr. Turner joined ETB last year and brings with him experience in architectural design, as well as construction methods and practices. His prior experience with educational facilities has already proven extremely valuable as we have several elementary, middle, and high school projects at various stages of completion. Nathan recently obtained LEED certification and will assist in our efforts to provide a “green” approach to as many projects as possible.

Specific project responsibilities include:

- architectural programming
- construction documentation
- design visualization
- project management
- project coordination
- construction specifications

PROJECTS - Public Buildings:

- WV Council for Community and Technical College Education - Facility Programming
- Multiple School Projects for Greenbrier County Schools, WV
- PikeView Middle School, Mercer County, WV
- Mercer County Comprehensive Educational Facilities Plan
- Greenbrier County Comprehensive Educational Facilities Plan

Prior to joining ETB, Nathan worked on the following governmental projects:

- Mecklenburg County Courthouse, Charlotte, NC
- US Federal Courthouse, Jefferson City, MO
- US Embassy, Athens, Greece



Chris Canterbury, Associate AIA

Construction Admin. Manager

E.T. Boggess, Architect, Inc.

EDUCATION:

Bachelor of Science Engineering
Technology/Architecture
Fairmont State University

RESPONSIBILITIES:

Chris joined ETB in 2000 as a CADD Technician. His focus in recent years has been project administration and his current position of Construction Administration Manager reflects that area of expertise. Your project will benefit from his superb organizational skills. He attends meetings and keeps track of your needs and wishes through notes and minutes. His timely response to submittals will ensure that your project stays on its construction schedule.

Chris is responsible for . . .

- construction documentation
- organizing and attending meetings
- distribution of minutes and progress reports
- contacting material suppliers
- responding to contractor's requests for information
- reviewing submittals and shop drawings
- construction administration
- site visits/observations

PROJECTS:

During the construction of the Mercer County Courthouse Annex, Chris monitored the budget very closely. He distributed updated amounts at the monthly meetings with the building commission and was instrumental in keeping the project under-budget. He will be just a diligent with the budget for your project as well.

PROJECTS - Public Buildings:

- Mercer County Courthouse Annex, Princeton, WV
- Concord University Rahall Technology Building, Athens, WV
- Beckley Financial Center/IRS Center for the GSA, Beckley, WV
- US Social Security Offices for the GSA in Welch and Williamson, WV
- Mercer County Civil Air Patrol Hanger & Headquarters, Bluefield, WV
- DHHR Office (Remodeling), Welch, WV



EDUCATION:

Bachelor of Science Civil Engineering
and Technology
Bluefield State College

RESPONSIBILITIES:

Jonathan joined ETB in 2010 to assist with the Comprehensive Educational Facilities Plans in Mercer and Greenbrier Counties. With his 12 years of experience and knowledge as an estimator and project manager, he aides with costing and construction administration on ETB projects. He also takes the lead in overseeing the quality control program for projects in the design phase and construction phase.

Jonathan is responsible for . . .

- specification writing/organization
- construction document quality control
- contacting material suppliers
- responding to contractor's request for information
- managing project costs and budgets
- construction administration
- site visits/observations

PROJECTS:

Jonathan has been very involved in the bidding process for the Elkins Readiness Center. His experience tracking project costs will be very beneficial to us throughout the construction process.

PROJECTS - Public Buildings:

- WVARNG Readiness Center, Elkins, WV
- Mercer County Memorial Building (*Renovations*), Princeton, WV
- Mercer County Comprehensive Educational Facilities Plan
- Greenbrier County Comprehensive Educational Facilities Plan
- Greenbrier County Schools (multiple projects), Greenbrier County, WV
- PikeView Middle School, Mercer County, WV
- Jaeger/Panther Elementary School, McDowell County, WV
- Greenbrier County Convention & Visitor's Center (*Renovations*), Lewisburg, WV



P R O F I L E

Timothy Cox, P.E.,
NCEES.
President
Mechanical Engineer

(304) 598-2558
tcox@cmawv.com



EDUCATION

University of Colorado
Boulder, Colorado
Degree: Mechanical Engineering B.S.

REGISTRATIONS/PROFESSIONAL AFFILIATIONS

Association of Energy Engineers-CBCP
Registered Professional Engineer in WV, VA, KY
CPD (Certified in Plumbing Engineering)
Member of ASHRAE
American Society of Plumbing Engineers
National Association of Fire Protection Engineers
WV Society of Healthcare Engineers

EXPERIENCE

Mr. Timothy Cox, President and Senior Mechanical Engineer of CMA Engineering brings 24 years of mechanical design experience to our clients. Mr. Cox has been project manager and project engineer for a variety of projects.

PROJECTS

West Virginia University-

Open End Contract since 1999
Mountain Lair Plaza Renovations
Boreman HVAC/Plumbing/Fire Sprinkler
Upgrades
Soccer Stadium
Coliseum Life/Safety Renovations
Coliseum Locker Room Suites
Engineering Science Building Addition/
Renovations
Arnold Hall Fire Alarm/ Fire Sprinkler Upgrades
Wrestling Training Facility

West Virginia University Hospitals

WV Eye Institute-MEP systems design for new
facility
Cheat Clinic-MEP design for new clinical
addition
WVUH Emergency Department-HVAC, electrical,
fire and communication systems design for new
addition
Chestnut Ridge Hospital-various MEP
renovations
Healthworks Rehab and Fitness -MEP systems
design for new facility

Mylan Pharmaceuticals, Morgantown, WV

Various projects including HVAC, plumbing, fire
Sprinkler and controls for new office building,
fluid bed addition, north plant expansion,
parking garage and weighing and packaging.



Clingenpeel/McBrayer & Associates, Inc.

824 Cross Lanes Drive
Charleston, WV 25313
(304) 343-0316 tel
(304) 343-5146 fax

5 Riddle Court
Morgantown, WV 26505
(304) 598-2558 tel
(304) 598-2472

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P R O F I L E

Daniel Lee Ellars, P.E. LEED AP

Principal
(304) 343-0316
dellars@cmawv.com



EDUCATION

West Virginia University Institute of Technology
Montgomery, West Virginia.
Bachelors of Science in Electrical Engineering

West Virginia State University
Institute, West Virginia
Bachelors of Science in Business Administration

REGISTRATIONS/PROFESSIONAL AFFILIATIONS

Registered Professional Engineer in West Virginia

National Fire Protection Association (NFPA)

Institute of Electrical and Electronics Engineers
(IEEE)

American Society of Heating, Refrigerating and
Air-Conditioning Engineers (ASHRAE)

EXPERIENCE

Mr. Daniel L. Ellars, Electrical Engineer for Clingenpeel/McBrayer & Associates, Inc. brings 19 years of electrical design experience to our clients. Mr. Ellars has been a project manager and project engineer for a variety of projects including commercial and industrial facilities as well as for both power and tele-communications utilities.

PROJECTS

Educational Experience

Jackson County (WV) Schools—Electrical
Upgrades &
Expansions.

Hospital Experience

West Virginia University / Ruby Memorial Hospitals
West Virginia Eye Institute—Electrical systems
design for new facility.
Thomas Memorial Hospital—Electrical systems
survey, upgrades and documentation. Standby
emergency power engine/generator replacement.

Military Experience

West Virginia Army National Guard
Elkins (WV) Readiness Center—Electrical systems
Design for new facility
Eleanor (WV) Maintenance Center—Electrical
systems design for new facility.

Correctional Experience

St. Mary's Correctional Center—Multiple
emergency power engine/generator systems with
combined control and monitoring.

Industrial Experience

Mylan Pharmaceuticals
Mylan Office & Lab Buildings—various electrical
systems designs for new, existing and expanded
facilities including new 23kV/12kV switchyard
and grounding plain layout.

CMA
ENGINEERING

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www.cmawv.com

P R O F I L E

James A. Kerns
Mechanical/Electrical Designer

(304) 343-0316
jkerns@cmawv.com

EDUCATION

West Virginia State College
Institute, West Virginia
Degree: Bachelor of Science in Industrial
Technology/Building Construction

REGISTRATIONS/PROFESSIONAL AFFILIATIONS

Member of ASHRAE

EXPERIENCE

Mr. James A. Kerns has over 32 years experience in Mechanical and Electrical engineering design. He has been responsible for design projects in the educational, commercial, and health care fields.

Mr. Kerns has been a great asset to Clingenpeel/McBrayer & Associates. His knowledge and experience enables him to complete project designs in a clear and concise manner and in a timely fashion.

PROJECTS

Kanawha County Schools

George Washington High School-HVAC Renovations
George Washington High School-Classroom Additions
Horace Mann Middle School-HVAC Renovations
Elkview Middle School-Classroom Additions
Elkview Middle School-Fire Alarm System
Ruffner Elementary School-Classroom Additions
Point Harmony Elementary School-Activity Building

Concord College

Athens, West Virginia — various renovation projects throughout the campus, which include Twin Towers Fire Alarm, Twin Towers Elevator Renovation, and Alexander Arts Center Chiller Replacement.

U.S. Postal Service

Open End Contract Since 1993, which encompasses numerous Post Office Renovations, new Post Offices, and new Postal Maintenance Facilities. Mr. Kerns has been Project Manager for over 65 projects for the U.S. Postal Service.

Yeager Airport

New Parking Garage
New Emergency Generator
Electrical Upgrades
Fire Alarm System Upgrade
Security Upgrade
Fire Sprinkler Renovations

CMA
ENGINEERING

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P R O F I L E

Matthew Corathers, E.I
Mechanical Designer

(304) 598-2558
mcoratherss@cmawv.com

EDUCATION

West Virginia University
Bachelor of Science -Mechanical Engineering

PROFESSIONAL DEVELOPMENT

Successfully passed Fundamentals of Engineering Exam

EXPERIENCE

Matt is a recent addition to CMA Engineering having previously worked for Whitman, Requardt and Associates in Baltimore, MD.

PROJECTS

West Virginia University

Mechanical design for new two-story child care facility

University High School, Morgantown, WV

Mechanical design for renovations/ upgrades to the HVAC systems

Randolph County Building

- Mechanical design for completion of two story addition and modifications of the existing second floor to be used by the Family Court

Monongalia County Family Court

Mechanical design for renovations to 4,850sf in existing court facility

University of Maryland Field House

Mechanical design for the replacement of two heat exchangers and a domestic use-hot water generator

Vilotteville Elementary School, Maryland

Mechanical design for the addition of 24 new classrooms



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www.cmawv.com

P R O F I L E

Jeremy R. Perry, E.I.
Mechanical Designer

(304) 343-0316
jperry@cmawv.com

EDUCATION

San Jose University
San Jose, CA
Degree: Mechanical Engineering B.S.

PROFESSIONAL DEVELOPMENT

Successfully passed Fundamentals of Engineering Exam
WV Society of Healthcare Engineers
Various ASHRAE, HVAC and LEED design courses

EXPERIENCE

Jeremy is a recent addition to CMA Engineering having previously worked for MKK Consulting Engineers, Billings, Mt.

PROJECTS

WVANG Elkins Readiness Center-HVAC design, load calculations, LEED Analysis

Gassaway Armory- HVAC Design, load calculations

Pikeview Middle School-HVAC Design, load calculations, LEED analysis, comparative cost analysis, hydronic layout

Holley Grove Mansion- HVAC design, hydronic design, load calculations

Sissonville Middle School- HVAC design and load calculation

Amos-Caravelli Funeral Home-HVAC design and load calculations

Grey Bull Elementary, Wyoming- LEED analysis,

Warren Miller Lodge, Big Sky, MT

Sheridan Bank, Sheridan, WY

Bighorn County Historical Museum, Hardin, MT



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www.cmawv.com

P R O F I L E

Jerry F. Betarie
Electrical Designer
(304) 598-2558
jbetarie@cmawv.com

EDUCATION

Penn State, University Park, PA
Degree: B.S. Electrical Engineering.

EXPERIENCE

Mr. Betarie has 19 years experience in Project Management, Electrical Design and Project Estimating.

PROJECTS

University High School, Morgantown, WV
Electrical design services for the renovations to the electrical system

Ridgedale Elementary School
Electrical design for renovations/ upgrades to electrical system

Fairfield Inn, Morgantown, WV
Electrical design for new 50,000sf hotel

Barbour County Bank, Philippi, WV
Electrical design for renovations of existing facility and the addition of A two-story, 3,500sf, building

Fairmont Federal Credit Union
Electrical design for tenant fit-out of the second floor space



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www.cmawv.com

P R O F I L E

Larry Weese
Mechanical/Plumbing Designer

(304) 343-0316
lweese@cmawv.com

EDUCATION

West Virginia University
Morgantown, West Virginia
Degree: Division of Forestry BS,MS

PROFESSIONAL DEVELOPMENT

Various seminars and technical sessions

EXPERIENCE

Mr. Larry Weese, Mechanical Designer for Clingenpeel/McBrayer & Associates, Inc. brings 18 years of mechanical design and project management experience to our clients.

PROJECTS

Emergency Response Facilities

Raleigh County 911-New Facility
Mason County 911-New Facility
Randolph County 911-New Facility
Orchard Manor Fire Station-New Facility

Military Experience

Elkins Readiness Center-New Facility
Lewisburg Readiness Center-New Facility
Summersville Readiness Center-New Facility
St. Albans Armory-Renovations

Primary/Secondary Educational Experience

South Charleston Middle School Toilet Renovations
Shady Springs High School Classroom Additions
Clear Fork Elementary School HVAC Renovations
New Sissonville Middle School
Nitro High School Toilet Renovations
Fairdale Elementary School

Higher Educational Experience

Marshall University-Band Practice Facility
Marshall University-Morrow Library Renovations
Fairmont State University-New Student Union
WVU Institute of Technology-
Old Main Fire Sprinkler
Engineering Building Fire Alarm/Sprinkler

Commercial Experience

Verizon-Various projects including 1500 MacCorkle
Office Building Renovations
Public Service Commission- New Parking Garage
and Office Renovations



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Gregory D. Fox, ASLA, LEED

Landscape Architect

TERRADON'S Landscape Architect services are managed by Gregory D. Fox, ASLA, LEED. Mr. Fox, a native of West Virginia and a graduate of West Virginia University with a Bachelor of Science in Landscape Architecture and a Bachelor of Arts in Geography (Planning) has gained a wide range of experience with a variety of project types.

Education

- B.S. Landscape Architecture, West Virginia University
- B.A. Geography (Planning) West Virginia University

Work Experience

- 2000 - Present
TERRADON Corporation
- 1996-2000
Martin Boal Anthony & Johnson Architects
- 1993-1996
Site Design
- 1989-1993
E.G. & G. Inc., OH
- 1988-1989
PSC Engineers, PA

Registration

- Landscape Architect: West Virginia, Ohio, North Carolina, South Carolina, Pennsylvania, Virginia

Recent Project Experience Highlights

Mr. Fox has been responsible for a number of notable recreation, commercial and educational site development projects since joining TERRADON in February of 2000. His group earned a 2011 Engineering Excellence Award from the West Virginia Association of Consulting Engineers for the master planning of an outdoor sports park at WVU in Montgomery.

They also earned a 2003 Engineering Excellence Award from the West Virginia Association of Consulting Engineers and a Gold Medal Award from the American Society of Landscape Architects for the City of Fairmont Riverfront Master plan project. Most recently, the 2005 Gold Award from the American Council of Engineering Companies was presented to the firm for the site design of the new West Virginia Division of Environmental Protection Headquarters Building.

Other notable projects include the Marshall University Parking Garage, the West Virginia Public Service Commission Parking Facility, the Home Depot development at Southridge Center and over 25 new schools located throughout West Virginia.

Mr. Fox has managed over 30 West Virginia parks and recreation projects since joining TERRADON in 2000.

- National Council on Landscape Architectural Registration Board
- American Society of Landscape Architects
- West Virginia Chapter of American Society of Landscape Architects

Robert Thaw, P5

Surveying Professional

Mr. Thaw is Manager of Surveying Services for TERRADON. He organizes and supervises survey crews, drafting commercial sites for drainage, building set locations, parking and utility easements; reviews project plans, and creates base mapping. Mr. Thaw has more than 32 years of experience in a wide range of land surveying applications. He is experienced with the day-to-day operation of the business and management of personnel.

Education

- B.A., Survey Technology, 1981, West Virginia Institute of Technology
- B.S., Surveying, 1985, West Virginia Institute of Technology

Work Experience

- TERRADON Corporation
1994-Present
- Bowman Land Surveying
1992-1994
- Dunn Engineers
1990-1992
- Kelley Gidley Blair and Wolf
1988-1990
- Pierson & Whitman Architects and Engineers
1984-1988

Registration

- Professional Surveyor, West Virginia

Recent Project Experience Highlights

- Control Surveys - Conventional and GPS
- Topographic Surveys
 - Commercial Sites under ALTA Standards
 - Abandoned Mine Lands
- Waste Management Facilities
- Boundary Surveys
- Right of Way Plans (Highways and Utilities)
- Site Setup (Commercial and Urban Development)
- Gas Well Locations and Permitting
- Construction Stakout
 - Commercial Buildings
 - Sanitary Sewer
 - State and Federal Highways

John W. James, PE

Senior Geotechnical Engineer

Senior engineer for various geotechnical, environmental and mining projects. Prior to joining TERRADON in 2004, Mr. James was the proprietor of JAMES ENGINEERING, a one man consulting engineering company with projects in geotechnical, hydrological, environmental, foundation, structural and general civil engineering, as well as transit engineering. Mr. James specializes in innovative and cost saving concepts for his projects. Typical projects include numerous foundation investigations, studies and designs for facilities and environmental facilities, surface and ground water studies and remediation, foundation investigations and designs ranging in size from houses to major industrial complexes, roads, highways and bridges, earth and rock fill dams, storm drainage facilities, airport facilities, landslide analysis and correction, and forensic engineering.

Education

- B. S. Civil Engineering, 1968,
West Virginia Institute of
Technology
- 30 Post-Graduate Hours in
Civil and Environmental
Engineering

Work Experience

- 1997 – Present
TERRADON Corporation
- 1990 – 1997
Kelley, Gidley, Blair, and Wolfe
- 1982 – 1989
Dunn Engineers
- 1979 – 1982
West Virginia Department of
Highways

Registration

- Professional Engineer: West
Virginia

Affiliations

- American Society of Civil
Engineers
- Past President of Charleston
Branch and West Virginia
Section
- National and West Virginia
Society of Professional
Engineers

Recent Project Experience Highlights

- Geotechnical investigation and design of numerous water and wastewater treatment plants, including Charleston Wastewater Treatment Plant, North Bayley Wastewater Treatment Plant, Richwood Water & Wastewater Treatment Plant, Elkins Water & Wastewater Treatment Plant, Berkeley Spring Water Treatment Plant, Morgantown Wastewater Treatment Plant, Elk Run Wastewater Treatment Plant, Petersburg Wastewater Treatment Plant, St. Albans Water Treatment Plant.
- Design and upgrade of water supply dams including Upper & Lower Dog Run water supply dams, Salem, West Virginia, Coy Dam, Blackford, West Virginia, Chatham Lake Dam (rehabilitation), Upper Shady Springs, West Virginia (rehabilitated with geotechnical report including excavation with process and structure aspects and structural design of many components).

Resume



Douglas R. Richardson, P.E.
President/Structural Engineer

Education

North Carolina State University, (8/87-5/89).

Masters of Science in Civil Engineering, major in structures and minor in construction.

GPA 4.0/4.0.

West Virginia University, (8/83-8/87)

Bachelors of Science in Civil Engineering.

Ranking: 1st out of approximately 450 College of Engineering graduates. GPA 3.98/4.0.

Professional Registration

Professional Engineer - WV #11699, MS #12349

Maintains active record with NCEES to facilitate prompt registration in additional states as required.

Professional Affiliations

American Society of Civil Engineers

American Concrete Institute

American Institute of Architects, Professional Affiliate

Structural Engineering Institute

Timber Framers Guild

US Green Building Council



WINFIELD H. STROCK

PO Box 4382
Marathon, FL 33050

304.550.2318
win@moongold.com

PERSONAL INFORMATION

Birth date: August 17, 1941
Height: 6'4"
Weight: 215
Marital Status: Married – two children

EDUCATION

1959 – 1963 King College
➤ BA - Business

MILITARY EXPERIENCE

1963 – 1964 U.S Army - Medical Corps
➤ Honorable Discharge

WORK EXPERIENCE

1964 – 1966 Thomas B. Punshon Engineering Company
Cincinnati, Ohio

Instrument man- survey crew

- Operated transit, theodolite and level for survey crew. Types of work included boundary surveys, infrastructure layout and building layout.

1966 – 1978 Frank Messer & Sons Construction Corporation
Cincinnati, Ohio

Field Engineer – 2 years

- Provided layout for all phases of building construction, assisted superintendent with coordination of subcontractors and ordering materials. Maintained on-site cost reporting data.

Estimator – 2 years

- Quantity survey of site work, excavation, concrete, masonry, carpentry, millwork, roofing, doors, hardware, windows, drywall, plaster, carpet, cabinetry, specialties. Received bids from subcontractors. Maintained recap (bid) sheet on day of bid or proposal.

Chief Estimator – 3 years

- Responsible for all functions of seven person staff estimating 50 – 60 projects per year in three to twenty five million dollar range. Projects included commercial, industrial, institutional, multi-family residential, and parking structures. Personally estimated ten to fifteen projects per year. Responsible for pricing of quantity surveys and submitting estimate or proposal. Established cost codes and cost reporting system for project managers.

Project Manager – 5 years

- Responsible for all administrative and managerial duties from date of bid or proposal to project closeout. Duties included contract negotiation, purchasing, scheduling, personnel placement, conducting project meetings, monthly cost reporting and owner/architect liaison. Workload was two to four projects with aggregate value of fifteen to thirty million dollars annually.

1978 – 1995 Kenhill Construction Company
Charleston, West Virginia

Owner/President/Consultant – 17 years

- Owned and managed commercial and institutional construction company with annual volume of fifteen to twenty million dollars. Specialized in construction management with guaranteed maximum price (GMP) and design/build contracts. Personally estimated and managed all major contracts. Sold business to Danis Industries, Dayton Ohio in 1991. Remained as President until 1993 and was retained as consultant for a major hospital project until 1995.

1995 – Present W.H. Strock Consulting
Marathon, Florida

Principal

- Provide estimating, scheduling and value engineering services to architects, engineers, owners and developers. On-site project analysis and scheduling. Expert witness and consultant in construction litigation. Business, estimating and cost accounting plans for construction related companies. Operates and maintains latest in conceptual estimating and scheduling technology systems.

SUMMARY OF QUALIFICATIONS

- Experienced in all phases of construction estimating, scheduling, purchasing and project management.
- When the West Virginia Contractor Licensing Act was passed in 1990, Mr. Strock was selected as Chairman of the Contractor Licensing Board and served in that capacity until his resignation in 1995.
- Mr. Strock has lectured (in conjunction with the Cambridge Institute) on the use of arbitration in construction contract disputes.
- Mr. Strock is a licensed West Virginia Contractor – WV 000010

INDUSTRY MEMBERSHIPS

Associated General Contractors of America
Past Director

Contractors Association of West Virginia
Past President, Director

Kanawha Valley Builders Association
Past President

American Arbitration Association
Panel of Arbitrators
Association of Contractor Licensing Boards

REFERENCES

Developers

Dudley Webb
The Webb Corporation
Lexington, Kentucky
859.253.0000

Brooks McCabe
McCabe • Henley, LLC
Charleston, West Virginia
304.347.7500

Owners

Karen Seim
Charleston Area Medical Center
Charleston, West Virginia
304.348.9740

Thomas E. Potter, Esq.
Jackson & Kelly
Charleston, West Virginia
304.340.1324

Architects

Donald Altemeyer
BSA Design
Indianapolis, Indiana
317.819.7878

Charles Barnhart
Sherman • Carter • Barnhart
Lexington, Kentucky
859.224.1351

SIGNIFICANT CONSTRUCTION MANAGEMENT PROJECTS

<u>Project</u>	<u>Const. Cost</u>	<u>Architect</u>
Laidley Tower Charleston, WV	\$18,500,000	Charles Barnhart Sherman • Carter • Barnhart Lexington, Kentucky 859.224.1351
Summers Square Office Bldg. Charleston, WV	\$4,000,000	Lloyd Miller N Visions Architects Charleston, WV 304.744.3654
WV High Tech Consortium Incubator & Innovation Bldgs. Fairmont, WV	\$8,300,000	Richard Forren The Omni Associates Fairmont, WV 304.367.1417
CASCI (Blue Cross) Bldg. Kanawha Boulevard Charleston, WV	\$6,750,000	Steve Branner ZMM, Inc. Charleston, WV 304.342.0159

CONSTRUCTION ANALYST PROJECTS

<u>Project</u>	<u>Const. Cost</u>	<u>Architect</u>
Mineral County High School	\$13,000,000	Greg Williamson Williamson • Shriver Charleston, WV 304.345.1060
Lenore K-8 School	\$7,600,000	Ted Shriver Williamson • Shriver Charleston, WV 304.345.1060
Morgan County Middle School	\$5,500,000	Ted Shriver Williamson • Shriver Charleston, WV 304.345.1060
Musselman High School	\$13,200,000	Greg Williamson Williamson • Shriver Charleston, WV 304.345.1060

FEASIBILITY STUDIES

<u>Project</u>	<u>Est. Cost</u>	<u>Owner</u>
Sears department store – Parkersburg conversion to office space	\$5,320,000	Larry Morehead
Sears department store – Charleston conversion to Blue Cross headquarters	\$6,750,000	Blue Cross of West Virginia
Kanawha Hotel upgrade and additions to first-class hotel	\$13,670,000	McCabe – Henley, LLC
Key West Steam Plant conversion to condominiums	\$12,200,000	Historic Tours of America
Stone & Thomas Building conversion to office space	\$8,100,000	State of West Virginia

CURRENT CONSULTING PROJECTS

<u>Project</u>	<u>Project Cost</u>	<u>Owner</u>
McDowell County school replacement and flood mitigation	\$62,300,000	McDowell County Board of Education
Robert C. Byrd Clinical Teaching Center	\$56,300,000	Charleston Area Medical Center
West Virginia University Biotech Research Park – Phase I	\$12,680,000	WVU Research Foundation