



## EXPRESSION OF INTEREST

### Denmar Correctional Center and Jail Water Treatment Plant

Division of Corrections and Rehabilitation

AE01 0608 DCR2400000002



May 10, 2024



Mr. Philip K. Farley  
c/o WV Division of Administrative Services  
1124 Smith Street, Suite 2100  
Charleston, WV 25301

**Re: Denmark Correctional Center and Jail  
Water Treatment Plant**

Dear Mr. Farley:

Chapman Technical Group (CTG) is extremely interested in providing professional engineering services to the WV Division of Corrections and Rehabilitation. We are an employee-owned engineering and architectural consulting firm with the ability to perform all the required work with our current experienced in-house staff.

In 2013, Chapman Technical Group joined GRW, a Lexington, KY-based A/E firm with eight (8) offices in four (4) states with nearly 200 professionals committed to serving our client's needs. GRW also has extensive experience in the water and wastewater fields, and this allows CTG to bring additional resources to our clients here in West Virginia.

For forty (40) years, CTG has provided design and construction services of public water and wastewater system improvements projects throughout West Virginia. Our experience with water systems includes new construction and renovation and rehabilitation of existing facilities in size from very small systems to larger systems supplying nearly 100,000 people.

It is also worth noting that we are currently under construction on the largest USDA Rural Development funded project ever in WV for the City of Lewisburg. This \$63 million project includes a new raw water intake on the Greenbrier River, a completely renovated water treatment plant, new storage tanks, and an upgraded distribution system. Please note this project in our experience section of this submission for more information.

We are very familiar with the Denmark Correctional Center and Jail water plant as we were asked to assist the state with getting the plant back on-line in the early 1990's when the facility was re-opened for its current use. It is also worth noting that both CTG and GRW have extensive experience with correctional facilities, including several locations in WV. For additional information on our firm, please visit our website at [www.chaptech.com](http://www.chaptech.com), or GRW at [www.grwinc.com](http://www.grwinc.com).

Chapman Technical Group has the experience, technical qualifications, and commitment to client satisfaction needed to assist you with the successful completion of your project. Now being a part of GRW, we offer the resources of a national firm with the same local familiarity and personalized service we have provided for decades. We would welcome the opportunity to personally present our firm's capabilities to your selection committee.

Very truly yours,

**CHAPMAN TECHNICAL GROUP**

Robert G. Belcher, P.E.  
Senior Vice President

200 Sixth Avenue  
Saint Albans, WV 25177

304.727.5501

Buckhannon, WV  
Lexington, KY

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







State of West Virginia  
Agency Expression of Interest

Proc Folder: 1409617

Doc Description: EOI - Water Treatment Plant

Reason for Modification:

Addendum No. 1:

Proc Type: Agency Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2024-05-04	2024-05-10 10:30	AEOI 0608 DCR2400000002	2

**RID RECEIVING LOCATION**

**VENDOR**

Vendor Customer Code: 000000207246

Vendor Name : Chapman Technical Group

Address : 200

Street : Sixth Avenue

City : St. Albans

State : West Virginia

Country : USA

Zip : 25177

Principal Contact : Robert G. Belcher

Vendor Contact Phone: (304)727-5501

Extension: 3125

**FOR INFORMATION CONTACT THE BUYER**

Philip K Farley

(304) 549-1050

philip.k.farley@wv.gov

Vendor

Signature X *Robert G. Belcher* FEIN# 550704766

DATE *5-9-24*

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

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

Robert G. Belcher, Sr. Vice-President

(Name, Title)

Robert G. Belcher, Senior Vice President

(Printed Name and Title)

200 Sixth Avenue

(Address)

(304) 727-5501/NA

(Phone Number) / (Fax Number)

gbelcher@chaptech.com

(Email address)

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

Chapman Technical Group

(Company)

Robert G. Belcher, Sr. Vice-President

(Authorized Signature) (Representative Name, Title)

Robert G. Belcher, Senior Vice President

(Printed Name and Title of Authorized Representative) (Date)

5-9-24

(Date)

(304) 727-5501/NA

(Phone Number) (Fax Number)

gbelcher@chaptech.com

(Email Address)

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.: AEOI 0608 DCR2400000002

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

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

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

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

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

Chapman Technical Group  
Company

Robert G. Belcher  
Authorized Signature

5-9-24  
Date

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

STATE OF WEST VIRGINIA  
**PURCHASING AFFIDAVIT**

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

**ALL CONTRACTS:** Under W. Va. Code §15A-3-14, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

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

**DEFINITIONS:**

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

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

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

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Chapman Technical Group

Authorized Signature: [Signature] Date: 5-9-24

State of West Virginia

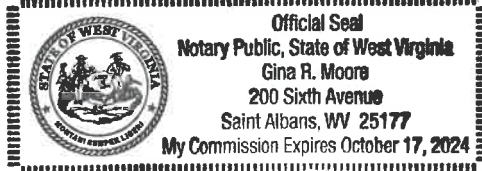
County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 9th day of May, 2024

My Commission expires October 17th, 2024  
[Signature]

**AFFIX SEAL HERE**

**NOTARY PUBLIC**





**State of West Virginia  
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT  
West Virginia Code §21-1D-5**

**STATE OF WEST VIRGINIA,**

**COUNTY OF** Kanawha, **TO-WIT:**

I, Robert G. Belcher, after being first duly sworn, depose and state as follows:

1. I am an employee of Chapman Technical Group; and,  
(Company Name)
2. I do hereby attest that Chapman Technical Group  
(Company Name)

maintains a written plan for a drug-free workplace policy and that such plan and policy are in compliance with **West Virginia Code** §21-1D.

The above statements are sworn to under the penalty of perjury.

Printed Name: Robert G. Belcher

Signature: *Robert G. Belcher*

Title: Senior Vice President

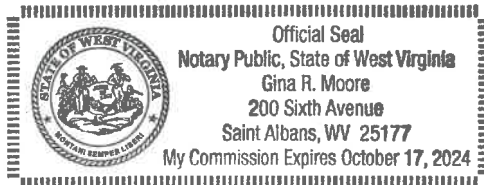
Company Name: Chapman Technical Group

Date: 5-9-24

Taken, subscribed and sworn to before me this 9th day of May, 2024.

By Commission expires October 17, 2024

(Seal)



*Gina R. Moore*  
(Notary Public)

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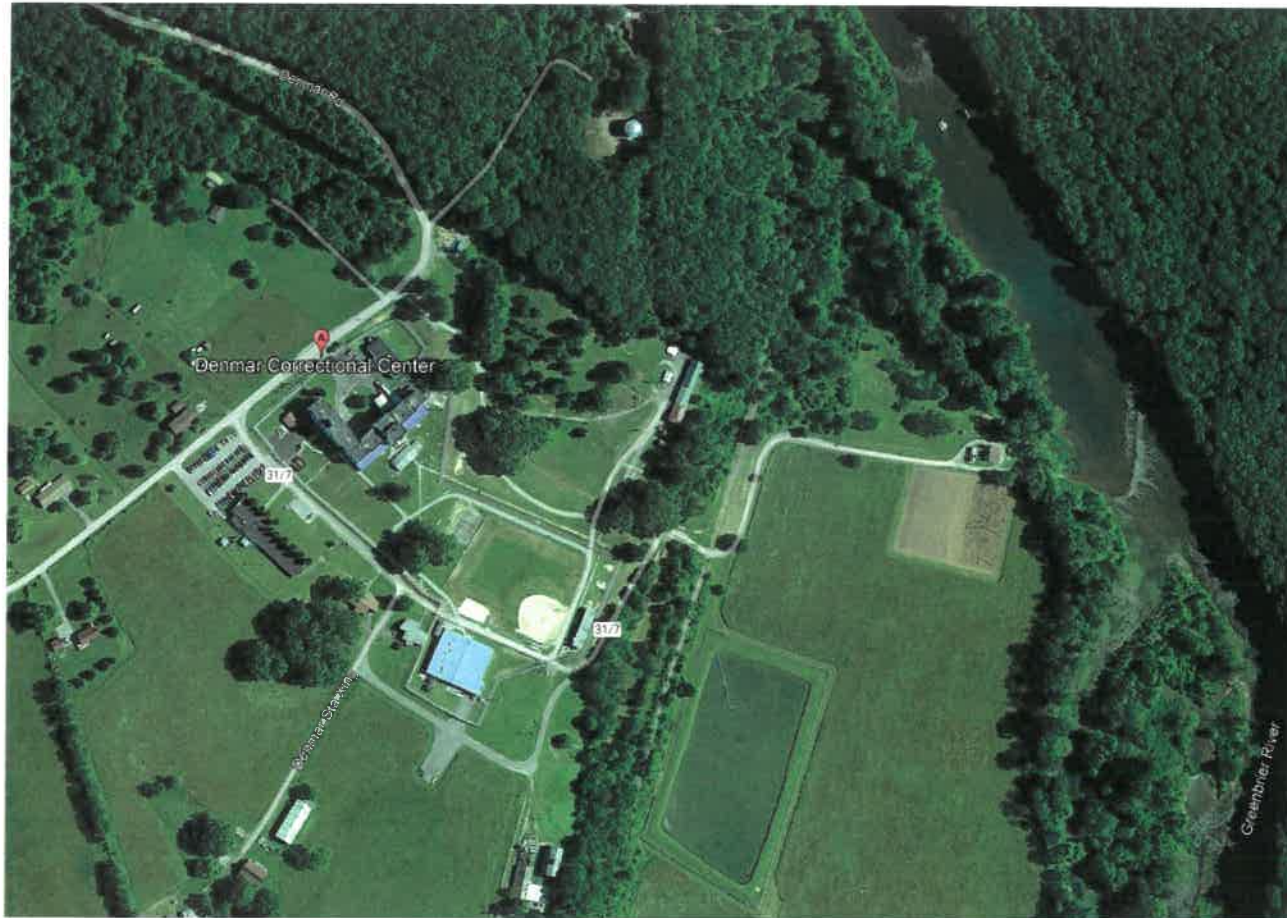
Section 7.0 - Ability to Meet Budgets and Deadlines







### Anticipated Concepts



Chapman Technical Group/GRW has extensive experience designing water treatment plants throughout WV, KY, IN, and TN, including those serving correctional/detention facilities. We currently have a water plant upgrade project under construction in Lewisburg, WV. This state-of-the-art facility, which will cost just under \$30 mil., also uses the Greenbrier River as its source of supply and is rated at 4,000 gallons/minute.

For this project, the construction schedule would need to be properly coordinated to minimize service interruptions to the facility. Since the facility will remain open during construction, the new treatment plant will need to be constructed and on-line prior to decommissioning of the existing facility. The best option often is to construct the new treatment plant adjacent to the existing treatment plant.

There appears to be ample free space for a new water treatment plant as shown in the photo above. In addition to the benefit of a smaller footprint, precast concrete tanks and packaged filters are ideal for expedited construction periods as compared to conventional construction. This modular construction is also often cheaper than conventional construction.

The life cycle cost of the replacement facility should be considered when designing the plant. Consideration should be given to minimizing the potential for corrosion thereby extending the life of the new facility. This can be accomplished by using alternate materials and keeping equipment from being exposed to the elements and the effects from corrosive chemicals.



## Plan of Approach

### Planning and Design Phase:

- Meet with Owner and tour existing treatment facility.
- Evaluate the existing facility and distribution and storage system and make a recommendation for future use.
- Meet with the WVDEP/BPH on design and operating requirements for the proposed new facility.
- Present findings to the Owner with recommendations, costs (construction and total cost), and a schedule for completion.
- Obtain mapping of the site, survey if necessary.
- Prepare design set for the new treatment plant and demolition/removal of existing plant including plans, specifications, and bidding documents.
- Present plan set to the Owner, DEP and other agencies for approval.
- Design shall include the shutdown, decommissioning, removal, and disposal of the existing water treatment plant if desired.
- Design considerations for minimizing the effects of corrosion on the plant by considering alternate materials and locating equipment such that exposure to elements and harmful chemicals are minimized to increase the useful life of the replacement plant.

### Permits, fees, and licenses as required:

- Assist with obtaining a Stormwater NPDES permit as required.
- Assist with WV BPH for Permit to Construct.
- Initiate work order request for relocating/upgrading electrical service if needed.

### Bidding Process:

- Preparation of bid documents and assisting in the bidding process.
- Attend Pre-Bid Conference and provide any needed additional information for addenda as required.
- Assist with evaluation of bids submitted if required.

## Denmar Correctional Center Water Treatment Plant Replacement



### Construction Administration:

- Construction time is usually established by the Owner and Engineer and can vary based on the complexity of the project and the time of year of award.
- Assist the Owner with coordinating electrical service relocation/upgrading if needed.
- A preconstruction meeting is held with the selected contractor to go over all aspects of the construction. This meeting can include the Owner, Engineer, existing utility reps, others.
- Prepare responses to Contractor questions (RFI process)
- Review Contractor submittals, process pay requests, etc.
- Conduct monthly progress meetings on-site.
- Our team would strongly encourage allowing the Engineer to provide full-time construction observation services during construction to provide greater assurance that the Contractor is performing the work in general conformance with all the requirements for the projects, including being the liaison between the Owner and Engineer to assist with resolving problems on site during construction, witness start-up and testing of the completed system and assisting with preparation of punch list items for any remaining work.
- Provide the Owner with operations and maintenance manuals for all equipment.
- When the project is functional, a Notice of Substantial Completion is issued to the Contractor which sets forth the beginning and end of the specified warranty period.

### Post Construction:

- Final walk through is made of the newly constructed project and a punch list of incomplete work is established and provided to the Contractor.
- Project design and construction is under warranty for one year unless Owner desires additional warranty.
- Construction red-line drawings prepared during construction are turned into Record Drawings (As-Builts) and presented to the Owner. This information will be provided in both hard copy and electronic format.



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## Denmar Correctional Center Water Treatment Plant Replacement



### **Project Management**

The key to Chapman Technical Group's project control is the management of the entire project, from the first scope meeting to project closeout, by a single Project Manager. The Project Manager is the leader of the design team and is the single point of contact for the Division of Corrections. The Project Manager is most often the lead designer for the project.

During design, the Project Manager will document all design meetings and distribute meeting notes to all parties. During construction, the Project Manager will receive, document, process, and distribute submittals and shop drawings, as well as test results and construction observation reports. At the end of the project, the Project Manager will be responsible for coordinating all closeout requirements such as as-built drawings, operations and maintenance manuals, and project warranties.

### **Quality Control**

Chapman Technical Group's quality control strategy is two-fold. As noted previously we rely on a strong Project Manager to have a detailed level of knowledge of the project and act as a single point of contact for everyone involved in the project. This provides a clear line of communication among all parties that is crucial to the success of the project.

We provide all needed services, except geotechnical engineering, in-house with our highly experienced staff of civil, mechanical, and electrical engineers, as well as architects, surveyors, and technicians.

We also implement a peer review system for all work and all disciplines to ensure all design documents are as complete as reasonably possible. We are constantly exchanging ideas about projects to find the optimal solutions to various design challenges.

We have an outstanding reputation among contractors for developing complete and accurate construction documents which results in consistent bids and limited change orders.



## EXECUTIVE SUMMARY



Selecting a firm to provide professional services can be difficult in today's market. Many firms offer computer services and technical skills; however, Chapman Technical Group offers qualities that other firms may lack. Summarized below are the benefits of selecting Chapman Technical Group:

Since 1984, Chapman Technical Group has been responsible for the planning, administration, design, and construction of over \$500 million of water, wastewater, and stormwater system improvements projects throughout West Virginia involving both new construction and rehabilitation/renovation of existing facilities.

Chapman Technical Group's staff of nearly 30 personnel, including environmental, civil, structural, and electrical engineers, as well as architects, landscape architects, surveyors, technicians, and construction representatives are available to begin work immediately.

In late 2013, Chapman Technical Group joined GRW, a Lexington, KY based A/E firm with extensive resources in the municipal water and wastewater fields, an additional asset for Chapman Technical Group and our clients.

We are a true West Virginia firm, and our personnel have a wealth of experience in the potable water, wastewater, and stormwater fields in West Virginia, and are adept at dealing with the many challenges our unique terrain presents.

Most Chapman Technical Group employees are natives of West Virginia and are graduates of West Virginia colleges and universities.

Preparation of preliminary engineering reports and feasibility studies are frequent tasks that Chapman Technical Group regularly provides. Our experience in the water, wastewater, and stormwater engineering fields, our knowledge and experience with all funding agencies, and our working relationship with regulatory agencies all provide invaluable resources towards the successful development of any project.

Our reputation for providing innovative and cost-effective design solutions, our commitment to client satisfaction, and our proven track record in meeting schedules and budgets have all combined to make Chapman Technical Group the clear leader in the environmental engineering consulting field in West Virginia.





## COMPANY OVERVIEW



Established in 1984, Chapman Technical Group has steadily grown to a diverse firm of professionals, many of who were educated in West Virginia colleges and universities. We have achieved an outstanding reputation for providing high-quality design projects, while meeting client schedules and budgets and have received numerous awards for our work. In late 2013, Chapman Technical Group was acquired by GRW, a Lexington, KY based A/E firm, allowing us to provide a wider range of services while expanding our resources. We remain Chapman Technical Group, a wholly owned subsidiary of GRW, with offices in St. Albans and Buckhannon, West Virginia offering an extensive range of professional services.



*Chapman Technical Group offers a broad range of professional services.*

- Airport Design
- Architecture
- Civil Engineering
- Interior Design
- Landscape Architecture
- Recreational Facilities
- Roads, Highways, & Bridges
- Site Development
- Space Planning
- Surveying
- Water & Wastewater Systems
- Geospatial

## AWARDS



- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 2018, First Place Water Resources Category for the City of Elkins Water Treatment Plant and Distribution Upgrade Project.
- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 2012, Gold Award - Water & Wastewater Category for the Corporation of Shepherdstown Wastewater Treatment Plant Project.
- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 2012, Gold Award - Transportation Category for the Appalachian Regional Airport Project, Mingo County.
- WINNER - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD", WVDOT - DIVISION OF HIGHWAYS - 2017, Large Roadway Category for WV 10 So. Madison Branch to Gyandotte Bridge; 2014, Large Roadway Category for WV10 Rum Creek to Stollings; 2013, Small Roadway Category for Corridor H Paving WV 42/93 Interchange to 2.8 miles east WV 42/93; 2011, Large Roadway Category for WV10 North Davy Branch to Rum Creek; 2000: Large Bridge Category for WV10 Buffalo Creek Bridge, Logan County, West Virginia.
- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 2009, Gold Award - Special Projects Category for the Mercer County Airport Runway Safety Area Project
- AMERICAN SOCIETY OF CIVIL ENGINEERS, 2009, National Superior Employer in the Private Sector Award.
- WV CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS - HONOR AWARD FOR EXCELLENCE IN ARCHITECTURE, 2008 - Upshur County Courthouse Restoration and Renovations.
- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 2008, Bronze Award - Wastewater Category for the Spring Run State Fish Hatchery Improvements.
- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 2007, Silver Award - Structures Category for the Mercer County Airport Runway Safety Area Project.
- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 2003, Gold Award - Water Treatment Category for the City of Fairmont Water Treatment Plant Project.
- FINALIST - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD", WVDOT - DIVISION OF HIGHWAYS - 1999: Large Roadway Category for WV10 Buffalo Creek - Taplin Project; 2000: WV10 Buffalo Creek - Huff Junction Project, both in Logan County, West Virginia.
- WV CHAPTER, AMERICAN COUNCIL OF ENGINEERING COMPANIES - ENGINEERING EXCELLENCE AWARD, 1999, Silver Award - Water and Wastewater Category, for the City of Beckley Piney Creek Wastewater Treatment Plant Project.
- ENTREPRENEUR OF THE YEAR AWARD - FINALIST, 1999 and 2000, Sharon L. Chapman, President, was named one of twenty finalists in the West Virginia Area Entrepreneur of the Year Award. Sharon was recognized for leading Chapman Technical Group to become one of the most highly regarded engineering firms in the state after the death of her husband and company founder, Harvey R. Chapman.
- "EXPECT THE BEST FROM WEST VIRGINIA AWARD", 1998, Charleston Regional Chamber of Commerce.
- "GOVERNOR'S AWARD FOR ENGINEERING EXCELLENCE", 1990, The West Virginia Chapter of the American Public Works Association, in recognition of outstanding Public Works Engineering and Design of Projects within West Virginia.
- "GEORGE WARREN FULLER AWARD", Harvey R. Chapman, P.E., 1984, Robert G. Belcher, P.E., 2001, and Sharon L. Chapman, 2005, American Water Works Association, for distinguished service in the water supply field in the State of West Virginia.





# ENVIRONMENTAL ENGINEERING



Chapman Technical Group readily provides water and wastewater system analysis, planning, design, construction administration, and construction observation services for all aspects of municipal and commercial/industrial projects. Our vast experience in these areas has enabled our firm to become one of the clear leaders in the fields of water, wastewater, and stormwater engineering. This enables the development and betterment of our communities by improving our environment and providing for the public's health, safety, welfare, and convenience.

## Water Engineering

Chapman Technical Group's experience with water systems projects has encompassed both new construction and renovations and rehabilitation of existing treatment, storage, pumping, and distribution facilities ranging in size from small on-site systems supplying only a handful of people to larger systems supply entire service territories. Our firm also provides in-depth comprehensive planning studies, including source of supply studies relating specifically to record and recurring droughts, as well as detailed computerized hydraulic analyses of entire systems in order to identify and eliminate any significant flow and pressure constraints within those systems.



## Wastewater Engineering

Chapman Technical Group's experience with wastewater system has encompassed new construction as well as renovations and rehabilitation of existing treatment, pumping, and collection facilities ranging in sizes from small on-site systems to larger systems serving approximately 100,000 people. Our firm also provides in-depth comprehensive facility planning studies, including extensive field investigations for performing detailed infiltration/inflow analysis and subsequent sanitary sewer system evaluation surveys.



## Overall Capabilities

- Funding and Regulatory Assistance
- Feasibility Studies/Facility Plans
- Water and Wastewater Treatment Design
- Water Distribution and Storage
- Wastewater Collection and Pumping
- Computerized Hydraulic Network Analysis
- I/I Analysis/SSES Studies/CSO Plans
- Management Programs





**City of Lewisburg Public Works**  
**Water Treatment Plant**  
531 Feamster Road  
Lewisburg, West Virginia

This is the first phase of replacing the City of Lewisburg's existing water treatment plant. This project consisted of the construction of a new 600,000 gallon factory-coated tank with clarification equipment and renovation of the City's existing concrete pre-sedimentation basin. The renovation of the pre-sed basin included concrete rehabilitation, construction of new walls to partition the basin, installation of horizontal flocculation equipment and stainless steel baffle walls, stainless steel plate settlers, sludge removal equipment and grating. This first phase will enable the City to meet the West Virginia Bureau of Public Health requirements of 30 minutes of flocculation and four hours of sedimentation. All piping associated with this first phase was sized to accommodate the new plants capacity of 4,000 GPM.





## WATER ENGINEERING



**City of Elkins**  
**Water System Improvements**  
401 Davis Avenue  
Elkins, West Virginia 26241

Chapman Technical Group provided design and construction phase services for a \$37 million water system improvements project which included a new 6.0 MGD water treatment plant featuring membrane filtration. The membranes are preceded by a conventional pre-treatment system consisting of an in-line static mixer, 3-stage tapered flocculation, and inclined plate sedimentation basins. The plant also includes an emergency generator, a backwash tank equipped with two backwash recovery system filters, a wastewater process tank equipped with a rate of flow control valve, and a new 3.0 MG baffled precast prestressed concrete tank serving as the clearwell for the plant.

The project also consisted of a new raw water intake with two 500 HP vertical turbine pumps and intake screens with air backwash system and emergency generator. Also included was over 3,000 LF of 24" DIP raw water line, and nearly \$5 million of distribution system improvements to improve water quality and reduce unaccounted for water. Three booster stations were included on the project in order to overcome low pressure problems to one area of the City's system as well as to provide service to two resale customers.



# WATER ENGINEERING



**Beckley Water Company**  
**Glade Creek Water Treatment Plant**  
119 South Heber Street  
Beckley, West Virginia



Design and construction phase services for upgrade of the Glade Creek Water Plant consisting of retrofitting the existing concrete settling basin with two parallel Dissolved Air Flotation (DAF) clarification systems each equipped with two-stage flocculation units, and converting the remainder of the basin to provide adequate chlorine contact time after clarification. Prior to these improvements, this plant suffered from moderate to high levels of Disinfection By-Products (DBP's) on the finished water, thus resulting in non-compliance with the Stage 1 D/DBP Rule. The design capacity of the plant is 5500 gpm, with a peak capacity of 7300 gpm. The project also included design to allow the plant to operate under gravity flow conditions when adequate storage of raw water is available, resulting in a significant operating cost savings. Additional improvements consisted of a new emergency power generator and switchgear, and installation of sludge and backwash handling pumps.





### Kentucky Department of Corrections Water Towers Painting and Repairs Various Locations, KY

Kentucky's Department of Engineering and Contract Administration (DECA) and the Department of Corrections (DOC) selected GRW to perform to provide engineering, field inspections/evaluation and design services for improvements for five DOC elevated water storage tanks:

- Bell County Forestry Camp – 150,000 gallons
- Eastern Kentucky Correctional Complex – 1,500,000 gallons
- Kentucky Correctional Institution for Women – 100,000 gallons
- Kentucky State Penitentiary – 300,000 gallons (see also below)
- Kentucky State Reformatory – 1,000,000 gallons

The evaluation included inspection of both the interior and exterior coatings, lead sampling, adhesion testing, removal of sediment and debris in the tank, structural integrity of the tank systems, and updates to comply with OSHA standards at each facility.

Additionally, GRW was asked to review methods for keeping both domestic water and fire flow protection to each prison while each of the tanks are out of service for rehabilitation.

Following the initial evaluation of KSP's 300,000-gallon, elevated storage tank, the state asked GRW to evaluate two options: rehabilitating the existing tank or building a new tank. The existing tank is located within the yard of a 150+-year-old maximum security prison. This presents a unique set of challenges if the tank is taken out of service for rehab, including additional security fences, temporary guard towers, and bringing equipment through antiquated sallyports. GRW is coordinating with prison staff, the local fire department, and the local water department to present a plan that satisfies the prison's strenuous security requirements while meeting the prison's water demand. The biggest challenge in building a new tank for the prison is selecting a new more accessible site for workers to safely perform tank maintenance.





## Beckley Water Company New Water Treatment Plant

119 South Heber Street  
Beckley, West Virginia

Design and construction observation services for A new 3,500 gallon-per-minute (5 MGD) water treatment plant expandable to 7,000 gallon-perminute (10 MGD) with a cost effective expansion scheme. The plant obtains source water from the extensive abandoned deep mines underlying the Beckley area. The plant was designed around an existing dewatering shaft located on the site which is over 280 feet deep and has a static water depth of 52 feet. The process design includes an innovative vortex aeration system at the plant headworks to oxidize the high iron levels to allow precipitation. The application of this aeration equipment is the first known application of this technology in a potable water treatment facility in the nation. The process follows with tapered flocculation, inclined plate high-rate lamella sedimentation units, and mixed media filtration. The raw water pump and high service pump for this facility are 350 HP and 700 HP respectively. Discharge pressure from the plant is in excess of 280 psi due to the plant's location.

# WATER ENGINEERING



## City of St. Albans Municipal Utility Commission Water Treatment Plant Improvements

Post Office Box 1270  
St. Albans, West Virginia 25177

In 2007, the St. Albans MUC recognized the need to undergo a major renovation project at the treatment plant, as well as replace a significant portion of their aged and deteriorated distribution system.

Today, the treatment plant has undergone a major restoration project to preserve this valuable investment, which is capable of producing nearly 3 million gallons per day of safe drinking water to the MUC's over 6,000 customers. The treatment plant today produces an average of 1.2 million gallons per day. This Phase I project was completed at a cost of \$2.7 million, and included not only the improvements to the treatment plant, but the restoration and painting of the Dry Ridge and Lakewood water storage tanks, as well as improvements to the raw water intake station on Coal River.



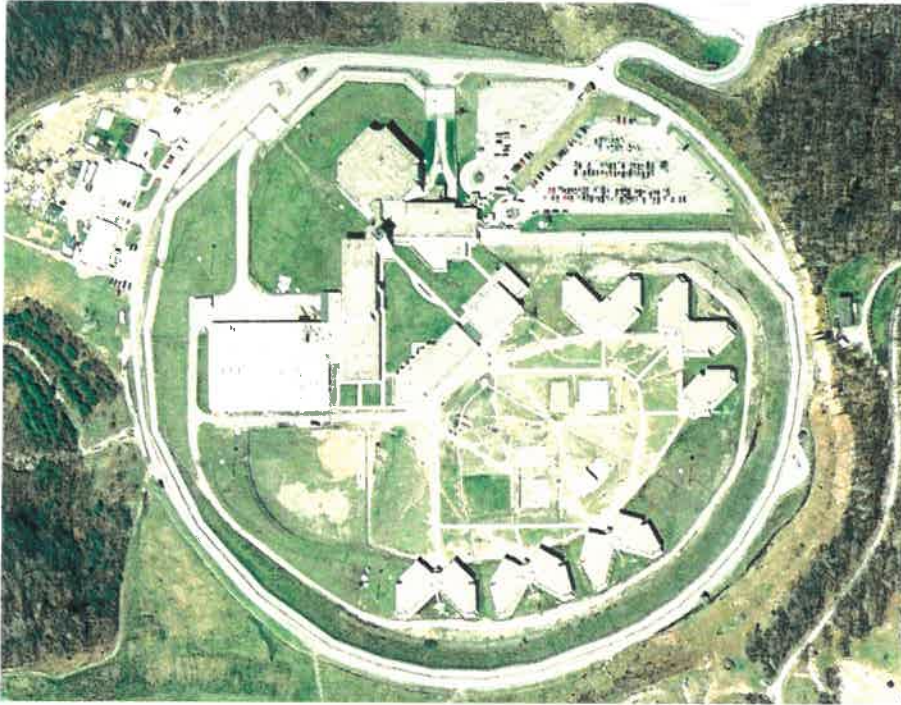
*(After)*



*(Before)*







### WV Regional Jail and Correctional Authority Mount Olive Correctional Facility Charleston, WV

Design and construction inspection services for all site development project elements for a new 792 bed maximum and medium security state-of-the-art correctional center. Firm's responsibility encompasses all on-site (within the property boundaries of 110-acre site) project civil engineering and landscape architectural design including site grading and drainage, storm sewers, sanitary sewerage, potable and fire water supplies, roads and parking facilities, outdoor recreational facilities, and the interfacing and coordination with engineering consultants providing design of utilities to the property boundaries and with various regulatory agencies.



**Silling Associates**  
**Huttonsville Correctional Center**  
**Wastewater Treatment Plant**  
405 Capitol Street

Design and periodic construction observation services for a new 200,000 GPD wastewater treatment facility and a new main interceptor sewer to serve the Huttonsville Correctional Center including stormwater separation and infiltration/inflow reduction. Project included the renovation of portions of the existing primary treatment plant and incorporating these units in the new plant design to provide a cost savings to the owner. Responsibilities also included the interfacing and coordination with all regulatory agencies having jurisdiction.

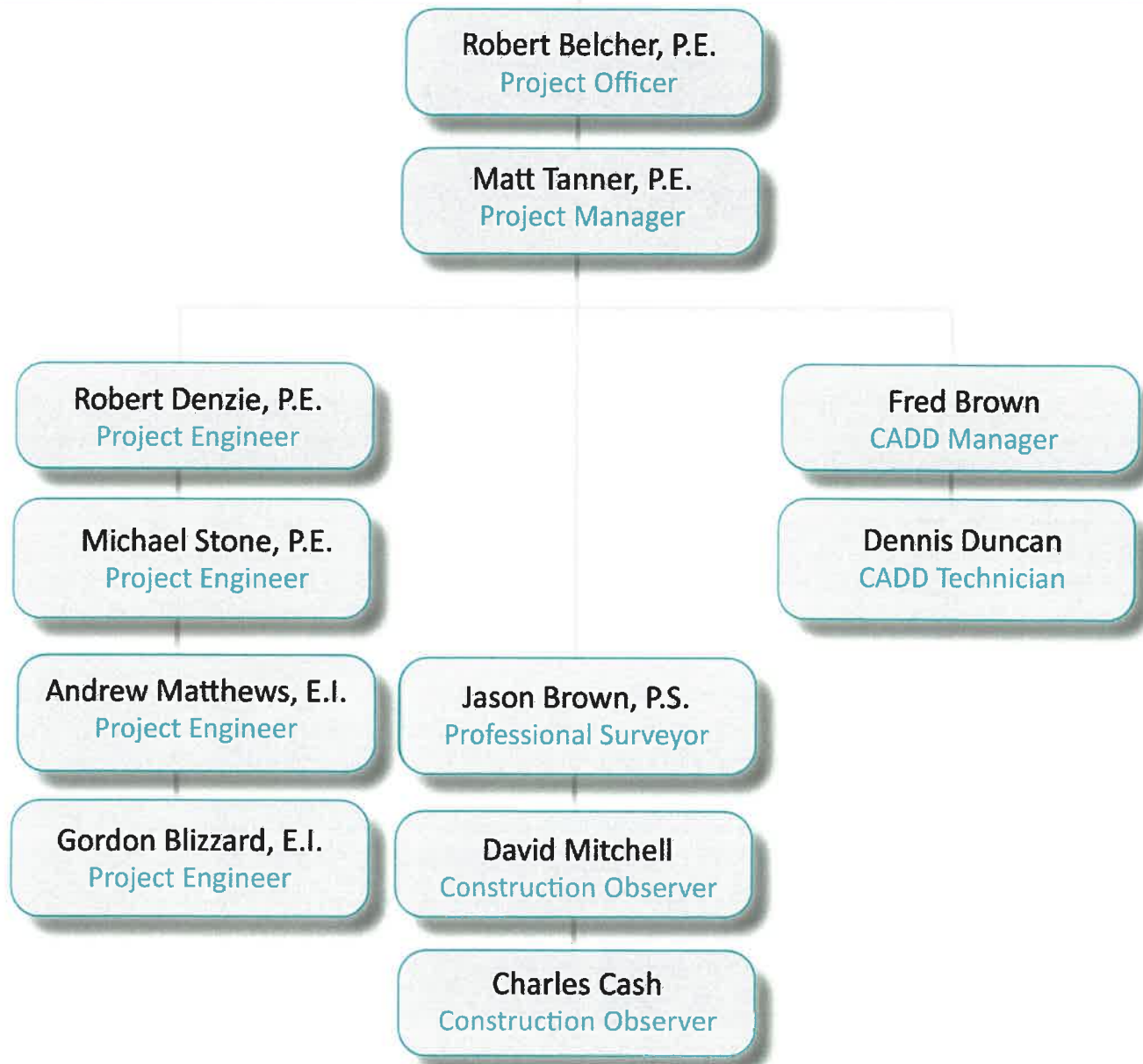




# PROJECT TEAM



## *Division of Corrections and Rehabilitaton*





## Robert G. Belcher, P.E.

Senior Vice President  
Project Officer

Years of Experience: 40  
Years with Chapman: 37

### Education

B.S., Civil Engineering, 1983,  
West Virginia Institute of  
Technology

### Registration

Civil Engineer: WV, OH, VA

### Affiliations

WV Water Environment  
Association

Contractor's Association of  
WV

WV American Water Works  
Association

WV Society of Professional  
Engineers

WV American Council of  
Engineering Companies

WVUIT Civil Engineering Ad-  
visory Board

WV Qualifications Based  
Selection Council

### Awards

George Warren Fuller  
Award, 2001

## Experience

### Water Systems

Design and project management for numerous water systems for both public and private water companies. Projects include new water treatment plants as large as 6.0 MGD, improvements to existing plants, water mains and distribution systems. Water storage projects include glass-lined steel tanks, welded high-strength steel tanks, elevated pedestal tanks, and pre-stressed concrete tanks.

### Wastewater Systems

Design and project management for numerous wastewater systems throughout West Virginia. Projects include new, secondary and tertiary wastewater treatment plants as large as 4.5 MGD, improvements to existing plants, small-flow treatment plants, new and rehabilitation of wastewater collection systems, CSO compliance, SSES Reports and I/I Studies, and facility plan updates.

### Miscellaneous

Design and project management for large highway and bridge projects, airport improvements projects, large stormwater management projects including assistance with MS4 compliance, as well as potable water and wastewater system design for site development projects throughout West Virginia, and Virginia.



## Matthew T. Tanner, P.E.

### Civil/Environmental Engineer

Years of Experience: 18  
Years with Chapman: 5

#### Education

MSE, Civil and Environmental  
Engineering, 2021  
Marshall University

BS, Engineering Mechanics 2005,  
Lipscomb University

#### Registration

Professional Engineer: WV, OH, PA,  
KY, MD, TN

#### Affiliations

Member, Water Environment  
Federation  
Member, American Water Works  
Association  
Infrastructure Chair, WV American  
Council of Engineering Companies

#### Projects Include:

City of Saint Albans Municipal  
Utility Commission WWTP  
Improvements  
(Saint Albans, WV)

Culloden Public Service District  
Virginia Avenue Sewer  
Replacement and  
Lift Station Relocation  
(Culloden, WV)

City of Lewisburg  
Water System Improvements  
(Lewisburg, WV)

Sanitary Board of Bluefield  
Westside Wastewater Treatment  
Plant Improvements  
(Bluefield, WV)

Sanitary Board of Bluefield  
College Avenue Sewer  
Replacement Phase II  
(Bluefield, WV)

## Experience

#### Water Systems

Overall project experience includes design, permitting, bidding, and construction management of public and private water system projects. Specific project experience includes permitting, design, and construction administration of distribution system extensions, water storage tanks, and water treatment system modifications for public water system compliance.

#### Wastewater Systems

Overall experience includes design, permitting, bidding, construction administration and management of various municipal and industrial wastewater systems. Specific project experience includes gravity collection systems, forcemain transmission systems, stream crossings, industrial wastewater treatability studies, onsite wastewater treatment systems, and municipal and industrial wastewater treatment facility improvements.

#### Storm Water Systems

Overall experience includes stormwater control and management design and permitting in West Virginia, Kentucky, Ohio, and Tennessee. Specific project examples include NPDES construction stormwater permitting, NPDES Multi-Sector Stormwater permitting, SWPPP preparation, and design of stormwater controls and management best management practices.





## Robert C. Denzie, P.E

### Civil Engineer

Years of Experience: 10  
Years with Chapman: 10

#### Education

B.S., Civil Engineering, 2014  
Marshall University

#### Registration

Professional Engineer: WV

#### Affiliations

Member, American Water  
Works Association Member,  
Water Environment Federation

#### Projects Include:

City of Elkins  
Water System Improvements  
(Elkins, WV)

Clay County Public Service  
District  
Water System Improvements  
(Lizemore, WV)

West Virginia American Water  
Company Wastewater System  
Improvements  
(Fayetteville, WV)

City of Buckhannon  
SCADA System  
(Buckhannon, WV)

West Virginia DNR  
Town of Cass Copper Removal  
(Cass, WV)(Ellenboro, WV)

Charleston Sanitary Board  
Emerald Heights and Sherwood  
Forest Pump Stations Project  
(Charleston, WV)

City of Lewisburg  
Water System Improvements  
(Lewisburg, WV)

## Experience

#### Water Systems

Overall experience includes planning and design of various public water system projects throughout West Virginia. Specific project experience includes distribution system design, treatment plant design, existing system analysis, construction management, and observation.

#### Wastewater Systems

Overall experience includes design of various public wastewater system projects throughout West Virginia. Specific project experience includes design of gravity and force main transmission systems, lift stations, and existing system rehabilitation.

#### Storm Water Systems

Overall experience includes planning and design of various public and private stormwater system projects throughout West Virginia. Specific project experience includes, stormwater collection system design and stormwater management plan preparation.



## Michael Stone, P.E.

Civil/Environmental Engineer

Years of Experience: 10  
Years with Chapman: 3

### Education

ME, Environmental Engineering  
Colorado State University; 2012

BS, Civil Engineering WV  
University Institute of  
Technology; 2012

### Registration

Professional Engineer: WV

### Affiliations

Water Environment Federation

### Projects with Chapman:

Southern Jackson County PSD  
Wastewater Treatment  
Improvements  
(Fairplain/Kenna, WV)

City of Lewisburg  
Water System  
Improvements  
(Lewisburg, WV)

### Projects with other firms included:

Oak Hill Sanitary Board  
Sewer System Improvements  
(Oak Hill, WV)

Union Public Service District  
Rock Fork Sewer Extension  
Project  
(Cross Lanes, WV)

Ravencliff-McGras-Saulsville  
Public Service District  
New Richmond Water System  
Rehabilitation  
(Glen Fork, WV)

Ellenboro-Lamberton Public  
Service District Union and  
Victory Ridges Waterline  
Extension Project

## Experience

### Wastewater Systems

Overall experience includes planning, design, permitting, bidding, and construction management of municipal wastewater system projects. Specific project experience includes gravity collection systems, pump and forcemain transmission system, and wastewater treatment facilities.

### Water Systems

Overall project experience includes planning, design, permitting, bidding and construction management of potable water systems. Specific project experience includes distribution and storage systems and water treatment facilities.

### Storm Water Systems

Overall experience includes stormwater control and management design and permitting in West Virginia. Specific project examples include NPDES construction stormwater permitting, SWPPP preparation, and design of stormwater control and management best management practices.



## Andrew Matthews, EI

Civil Engineer

Years of Experience: 7  
Years with Chapman: 7

### Education

B.S., Civil Engineering, 2018  
West Virginia University

### Registration

Engineering Intern: WV

### Projects Include

WV American Water  
Garden Farms WST  
Replacement; Cabell  
County, WV

Elkins Road PSD  
Water Distribution System  
Extensions; Upshur County,  
WV

City of Buckhannon  
Water System  
Improvements; Buckhannon,  
WV

WV American Water  
Company Weston  
to Webster Springs  
Interconnection; Webster  
County, WV

City of Lewisburg  
Water System  
Improvements; Lewisburg,  
WV

## Experience

### Water Systems

Overall experience includes planning and design of various public water system projects throughout West Virginia. Specific project experience includes distribution system design, treatment plant design, existing system analysis, construction management, and observation.

### Wastewater Systems

Overall experience includes design of various public wastewater system projects throughout West Virginia. Specific project experience includes design of gravity and force main transmission systems, lift stations, and existing system rehabilitation.

### Stormwater Systems

Overall experience includes planning and design of various public and private stormwater system projects throughout West Virginia. Specific project experience includes, stormwater collection system design and stormwater management plan preparation.



## Gordon W. Blizzard, EI

Civil Engineer

Years of Experience: 16  
Years with Chapman: 2

### Education

B.S., Civil Engineering, 2022  
Marshall University

B.A., History, 2012  
West Virginia State University

### Registration

Engineer Intern, WV

### Projects include:

Chesapeake Storm Sewer  
Evaluation Survey  
Chesapeake, WV

### Projects with other firms:

Palazzo Del Luna  
Miami, FL

FIU Pedestrian Bridge  
Miami, FL

Tampa International Airport  
Parking Garage  
Tampa, FL

## Experience

### Water Systems

Overall experience includes planning and design of various public water system projects throughout West Virginia. Specific project experience includes distribution system design, treatment plant design, existing system analysis, construction management, and observation.

### Wastewater Systems

Overall experience includes design of various public wastewater system projects throughout West Virginia. Specific project experience includes design of gravity and force main transmission systems, lift stations, and existing system rehabilitation.

### Storm Water Systems

Overall experience includes planning and design of various public and private stormwater system projects throughout West Virginia. Specific project experience includes, stormwater collection system design and stormwater management plan preparation.

### Project Coordination/CADD

Overall experience includes production and coordination of post-tensioning shop drawings in mono- and multi-strand applications, as well as project coordination.





**Fred L. Brown**  
CADD Manager

Years of Experience: 25  
Years with Chapman: 25

#### Education

Drafting/Cadd Degree,  
1997, Carver Career Center,  
WV

#### Affiliations

Member, National  
Vocational Technical Honor  
Society

#### Achievements

Winner, 1996, Carver  
Career Center VICA Skills  
Competition for Technical  
Drafting

Judge, 2001, State VICA  
Skills Competition for  
Technical Drafting

## Experience

#### Bridge and Highway

Responsible for CADD drafting on base map, site development, construction plan sheets, signal plans, super elevation plans, existing and proposed utilities, utility relocation plans, lighting plans, boring construction plans, typical sections and details, mainline cross sections, bridge plans and details, attenuator details, guardrail plan layout and details, geometric plans, station and offsets of mainline centerline, stationing and curve geometric information, survey reference and control plans, point dump creations.

#### Architectural and Structural

Responsible for CADD drafting on existing and proposed building plans, structural framing plans and details, foundation plans and details, structural scheduling.

#### Water and Wastewater

Responsible for CADD drafting on treatment plants, improvements on existing and new facilities, stormwater plans and profiles, booster stations, meter vaults, water system updates for public and private sectors, PRV plans and details.

#### Site Design

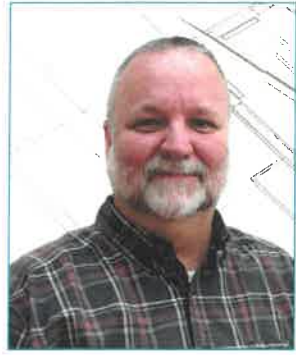
Responsible for CADD drafting on proposed site layouts, site details and cross sections.

#### Airport

Responsible for CADD drafting on existing and proposed taxiways and runways, taxiway signage, hangar layout, and airport master plans.

#### Mapping

Responsible for CADD drafting for city, street, and zoning maps.



## Dennis N. Duncan

### CADD Technician

Years of Experience: 30  
Years with Chapman: 25

#### Education

EDSI REVIT, 2014  
Mountain CAD, 1996  
West Virginia State College,  
1996  
AS, Computer Aided Drafting  
and Design Putnam County  
Vocational School, 1992

#### Projects Include

State Road Commission  
Building Renovation  
(Charleston, WV)

New WV DOH Rest Areas  
and Welcome Centers  
(21 Locations throughout  
WV)

WV Division of Natural  
Resources:  
Beech Fork State Park  
Cabins  
Blackwater Falls State Park  
Cabins

New Canaan Valley State  
Park Ski Lodge  
(Canaan Valley, WV)

New Pocahontas County  
Community Center  
(Marlinton, WV)

Eastern WV Regional Airport  
Terminal Bldg  
(Martinsburg, WV)

Upshur County Courthouse  
Projects  
(Buckhannon, WV)

## Experience

#### Bridge and Highway

Responsible for CADD drafting on mainline and side road profiles, maintenance of traffic, signing and marking plans, intersection details, survey reference and control plans, typical roadway sections, stormline profiles, bridge sections and details.

#### Architectural and Structural

Responsible for CADD drafting on recreational and commercial floor plans, building cross sections and details, structural framing plans, foundation plans and details, and building renovations.

#### Water and Wastewater

Responsible for CADD drafting on treatment plants, improvements on existing and new facilities, stormwater plans and profiles, booster stations, meter vaults, water system updates for both public and private sectors, PRV plans and details.



## Jason Brown, P.S.

### Professional Surveyor

Years of Experience: 28  
Years with Chapman: 13

#### Education

A.S., Land Surveying, 2002  
Glennville State College, WV

#### Registration

Professional Surveyor: WV,  
KY, VA, PA

#### Affiliations

WV Society of Professional  
Surveyors

## Experience

Jason leads the Chapman Technical Group survey team and is experienced in topographical and boundary surveys, as well as flood plain mapping, ALTA surveys, and construction layout. Jason also coordinates aerial mapping and LiDAR services with GRW, the parent company of Chapman Technical Group.

#### Highways

Established control, site surveying, topographic surveying, courthouse research, drawing production, Right-of-Way Questionnaires, bore hole stake out, and all surveying associated with the initial and final design of WV highways.

#### Site Development

Experienced in all types of surveying associated with site development, to include control, topographic boundaries, research, and drawing production. Projects include military complexes, public housing, commercial development, industrial and institutional complexes, churches, resorts and public facilities throughout the state.

#### Schools

Associated surveying for new schools, additions, athletic fields, and sidewalks projects.

#### Parks and Recreation

Associated surveying for projects including swimming pools, bathhouses, cabins and support facilities for the West Virginia Division of Natural Resources and similar facilities for county and municipal park systems.

#### Water/Wastewater/Stormwater Systems

Associated surveying for the design of water systems, sanitary sewer systems, and stormwater systems, including treatment facilities for both private and public systems throughout the state. Also, field experience in the inventory and collection of attribute data using GPS equipment for uploading to GIS databases.





## David R. Mitchell

### Construction Representative

Years of Experience: 25  
Years with Chapman: 25

#### Education

A.S., Applied Science, 1998  
Lee College  
LA Wilson Technological Center,  
1982

#### Projects Include

Mercer County Airport, WV:  
Runway Safety Area and Piling  
Wall

Raleigh County Airport, WV:  
Runway Paving

Eastern WV Regional Airport, WV:  
Taxiway Paving

Bluefield Sanitary Board, VA/WV:  
Westside Sewer Plant Upgrade  
and  
ADA Wastewater Plant Upgrade

Elkins-Randolph County Airport,  
WV:  
Runway Re-Paving, Lighting, PAPI  
System

City of St. Albans, WV:  
Water System Improvements

City of Elkins  
Water Treatment Plant  
3.0 MG Water Storage Tank  
(Elkins, WV)

## Experience

#### Construction Observation

Responsibilities include all aspects of field construction and observation from commencement of construction through project start-up. Maintains field diaries and construction log books; monitors shop drawing approvals and fabrication schedules; observes field testing of completed work; verifies contractor's periodic payment requests; verifies completed site work for as-built drawings; attends construction progress meetings; and updates clients on project progress.

#### Water and Wastewater

Construction observation for water/sewer line and wastewater treatment plant upgrades.

#### Airport

Construction observation for runway, taxiway light installation, paving taxiway and runway, runway safety area, AWOS installation, piling wall, and PAPI installation.

#### Surveying

Assists with various types of field surveying for all types of projects.



**Charles D. Cash, Jr.**  
Construction Representative

Years of Experience: 32  
Years with Chapman: 30

#### Education

WV DOH Portland Cement  
Concrete Course, 1998  
WVDOH Hot-Mix Asphalt Course,  
2022

#### Registration

WV Bureau of Public Health,  
Authorized Sample Collector for  
New Water Mains, 2018-2020

#### Projects include:

Corporation of Shepherdstown,  
WV: Wastewater Treatment Plant  
Improvements

Corporation of Shepherdstown,  
WV: Water Storage Tanks

West Virginia American Water  
Co., WV: Coal River Road Main  
Line Replacement

West Virginia American Water  
Co., WV: Fayetteville Waste  
Water System Improvements

West Virginia American Water  
Co., WV: Amandaville, WV:  
8.0 MG Water Storage Tank

Town of New Haven,  
WV: Wastewater System  
Improvements

City of Belington, WV:  
Water System Tank Improvements

West Virginia American Water  
Co., WV: Huntington Water  
Treatment Plant Grit Removal  
Tank

## Experience

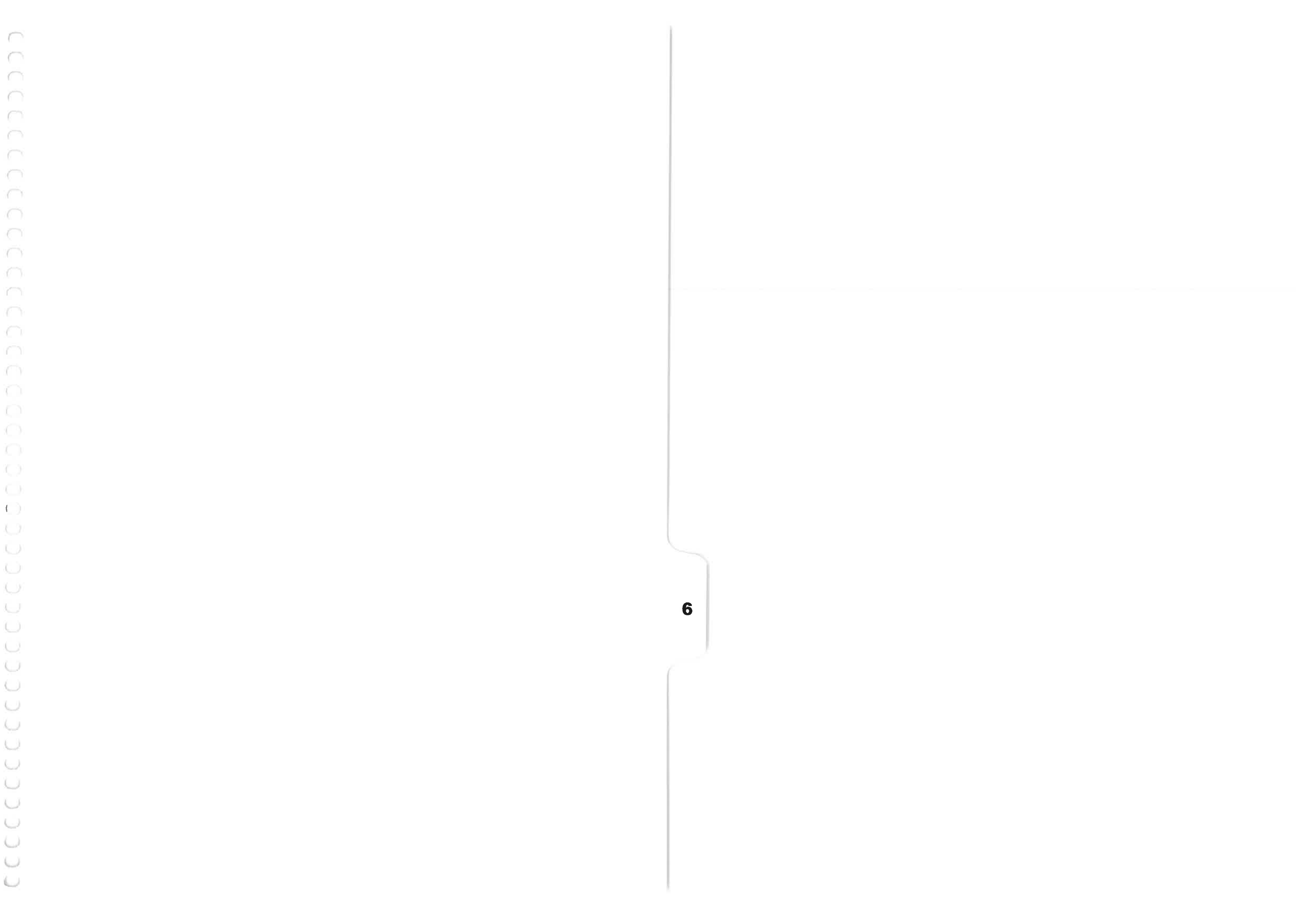
#### Construction Observation

Responsibilities include all aspects of field construction and observation from commencement of construction through project start-up.

Maintains field diaries and construction log books; monitors shop drawing approvals and fabrication schedules; observes field testing of completed work; verifies contractor's periodic payment requests; verifies completed site work for as-built drawings; attends construction progress meetings; and updates clients on project progress.

#### Water and Wastewater

Construction observation for water/sewer line and wastewater treatment plant upgrades.





## REFERENCES



1. Honorable Scott James  
Mayor  
City of Saint Albans  
1499 MacCorkle Avenue  
Saint Albans, WV 25177  
(304) 722-3355
2. Mr. Shannon Bailey, PE  
Executive Director  
Sanitary Board of Bluefield  
100 Rogers Street  
Bluefield, WV 24701  
(304) 325-3681
3. Ms. Misty Hill  
City Manager  
City of Lewisburg  
942 Washington Street, West  
Lewisburg, WV 24901  
(304) 645-2080
4. Mr. David Carovillano, PS, PE  
Senior Project Manager  
WV American Water  
1600 Pennsylvania Avenue  
Charleston, WV 25302  
(304) 340-2018



# ABILITY TO MEET BUDGETS & DEADLINES



## Representative Project Budgets

1.	City of St. Albans Water Distribution System Improvements	
	* Estimated Cost	\$6,000,000.00
	* Actual Bid	\$4,853,711.00
	* 19.10% Under Engineer's Estimate	
2.	Bluefield Sanitary Board - Weside WWTP Improvements	
	* Estimated Cost	\$11,100,000.00
	* Actual Bid	\$9,985,000.00
	* 8.10% Under Engineer's Estimate	
3.	City of Davis Water System Improvements	
	* Estimated Cost	\$1,560,000.00
	* Actual Bid	\$1,480,000.00
	* 0.051% Under Engineer's Estimate	
4.	Elkins Road PSD Water System Improvements	
	* Estimated Cost	\$4,560,000.00
	* Actual Bid	\$4,580,000.00
	* 0.0044 % Over Engineer's Estimate	
5.	Culloden PSD Wastewater System Improvements	
	* Estimated Cost	\$1,660,000.00
	* Actual Bid	\$1,480,000.00
	* 10.8% Under Engineer's Estimate	

## Representative Project Schedules

		Project Cost	Scheduled Completion	Actual Completion
1.	Corporation of Shepherdstown Lowes Bypass (Green Reserve)	\$376,000	60 days	45 days
2.	St. Albans 1.5 MG Steel Water Tank	\$335,000	90 days	30 days
3.	Culloden PSD Water Storage Tank	\$250,000	90 days	30 days
4.	Elkins Road PSD Water System Improvements	\$3,500,000	120 days	120 days
5.	Greater St. Albans PSD Sewer System	\$3,838,000	270 days	180 days
6.	Town of Davis Stormwater System Improvements (Green Reserve)	\$271,000	60 days	30 days
7.	Clay - Roane PSD Water System	\$274,000	120 days	45 days



