



**Statement of Qualifications**  
**for**  
**Professional Engineering Services**  
**to the**  
**West Virginia Division of Natural Resources**  
**for a**  
**Main Water Line Replacement**  
**at**  
**Bluestone State Park**

**October 7, 2008**

200 Sixth Avenue  
St Albans, WV 25177  
304 727.5501  
FAX 304 727.5580

Buckhannon, WV  
Martinsburg, WV

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

October 7, 2008



Mr. Frank Whittaker  
Purchasing Division  
2019 Washington Street, East  
Post Office Box 50130  
Charleston, West Virginia 25305-0130

**Re: RFQ# DNR209036  
Bluestone State Park  
Main Water Line Replacement**

Dear Mr. Whittaker:

Chapman Technical Group is extremely interested in providing professional engineering services to the West Virginia Division of Natural Resources for your Bluestone State Park Main Water Line Replacement Project. We are a full-service engineering and architectural consulting firm with offices located in St. Albans and Buckhannon, West Virginia, with the ability to perform all of your required work with our current in-house staff of over 40 personnel.

Since 1984, Chapman Technical Group has been responsible for the planning, administration, design and construction of over \$300 million of water and wastewater system improvements projects throughout West Virginia. Our experience with water system improvements projects has encompassed new construction as well as renovation and rehabilitation of existing treatment, storage, pumping, and distribution facilities ranging in sizes from small on-site systems supplying only a handful of people, to larger systems supplying nearly 100,000 people.

I am enclosing three (3) copies of our Statement of Qualifications outlining our capabilities, representative project experience listings, resumes on the professionals in our firm, and other information regarding our ability to provide professional engineering services in a timely manner and within budget. For references, we encourage you to contact representatives involved with any of the projects listed in the Project Experience or References sections of this proposal. For additional information on our firm, please visit our website at [www.chaptech.com](http://www.chaptech.com).

Chapman Technical Group has the experience, technical qualifications, and commitment to client satisfaction needed to assist you with the successful completion of yet another project. We would welcome the opportunity to personally present our firm's capabilities to your selection committee and look forward to hearing from you.

Very truly yours,

**CHAPMAN TECHNICAL GROUP**

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

200 Sixth Avenue  
St Albans, WV 25177  
304 727.5501  
FAX 304 727.5580

Buckhannon, WV  
Martinsburg, WV

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

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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 exceeds 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.

**LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

**CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit [www.state.wv.us/admin/purchase/privacy](http://www.state.wv.us/admin/purchase/privacy) for the Notice of Agency Confidentiality Policies.

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

Vendor's Name: Chapman Technical Group

Authorized Signature: Robert C. Belcher

Date: October 7, 2008



**Chapman  
Technical  
Group**

**1**

**Executive Summary**

**2**

**Company Overview & Awards**

**3**

**Project Experience**

**4**

**Project Team**

**5**

**Resumes**

**6**

**Ability to Meet Budgets and Deadlines**

**7**

**References**

**8**

**Technology Resources**

# Executive Summary



**S**electing 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 \$300 million of water, wastewater, and stormwater system improvements projects throughout West Virginia involving both new construction and rehabilitation/renovation of existing facilities.

■ 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.

■ Chapman Technical Group's staff of nearly 40 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.

■ Computer Aided Design and Drafting (CADD) is our primary means of production. Most of our design work is completed by design professionals working directly on CADD workstations, supported by qualified CADD technicians and designers.

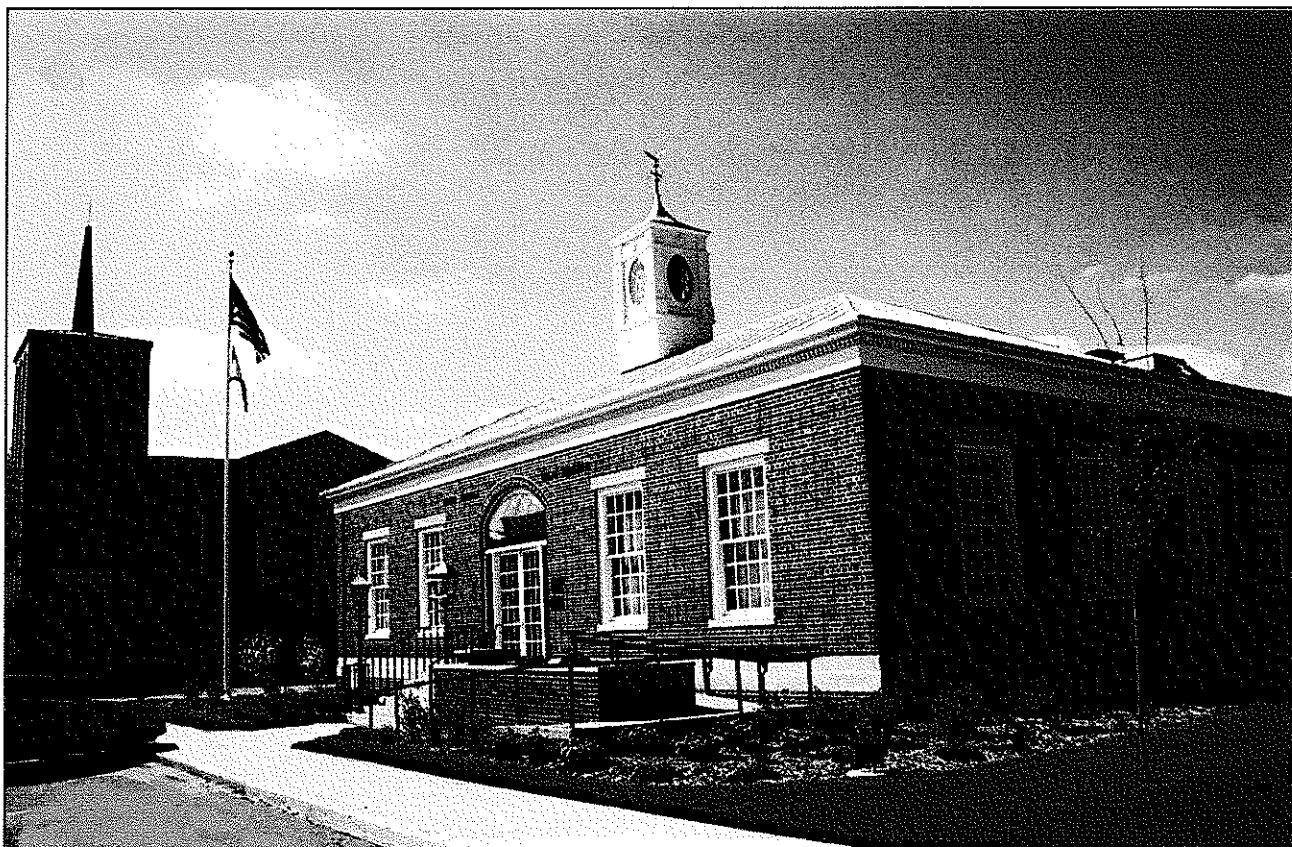
■ With offices in north, south and central West Virginia and a corporate airplane on hand, Chapman Technical Group can access the entire state on short notice.

■ 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



*Chapman Technical Group's St. Albans Office*

**C**hapman Technical Group is a full-service consulting firm with offices in St. Albans, Buckhannon, and Martinsburg, West Virginia offering an extensive range of professional architectural, engineering, interior design and landscape architectural services. Established in 1984, Chapman Technical Group has steadily grown to a diverse firm of professionals, many of whom 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.

Our facilities are both state-of-the-art and architecturally significant. Our St. Albans office is a former post office and is now on the National Register of Historic Places. We also have a corporate airplane to better access our project sites.

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

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

# Awards



**AMERICAN INSTITUTE OF ARCHITECTS - HONOR AWARD FOR EXCELLENCE IN ARCHITECTURE,** 2008 - Upshur County Courthouse Restoration and Renovations

**AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD,** 2007, Silver Award - Structures Category for the Mercer County Airport Runway Safety Area Project.

**GARY KING COMMUNITY SERVICE AWARD,** 2006

**GOOD SCOUT RECIPIENT,** 2005.

**AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD,** 2003, Gold Award - Water Treatment Category for the City of Fairmont Water Treatment Plant Project.

**AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD,** 2002, Gold Award - Transportation Category for the Raleigh County Memorial Airport Runway Rehabilitation Project.

**WINNER - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD",** 2000, The WV DOT - Division of Highways - Large Bridge Category for WV10 Buffalo Creek Bridge, Logan County, West Virginia.

**FINALIST - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD",** 1999, The WV DOT - Division of Highways - Large Roadway Category for WV10 Buffalo Creek - Taplin Project and 2000 for WV10 Buffalo Creek - Huff Junction Project, both in Logan County, West Virginia.

**AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - 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. The Expect the Best program was created to recognize West Virginia businesses and organizations that promote quality of life at home, work, and in the community so that individuals and organizations will implement quality principles and practices leading to unprecedented pride and economic growth in West Virginia.

**HONOR AWARD,** West Virginia Chapter of the American Society of Landscape Architects, 1994, Shrewsbury Street Area Redevelopment Plan, for excellence in planning and design projects. Joseph E. Bird, ASLA, Project Manager.

**"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.

**DUNDEE CEMENT COMPANY ANNUAL DESIGN AWARD,** 1988, Yeager Airport Taxiway Overlay Project. Harvey R. Chapman, P.E., Project Manager.

**AUSTIN C. PALMER "OUTSTANDING FACILITY DESIGN AWARD",** 1988, City of Bridgeport Swimming Pool Complex. Harvey R. Chapman, P.E., Project Manager.

**"GEORGE WARREN FULLER AWARD",** Harvey R. Chapman, 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



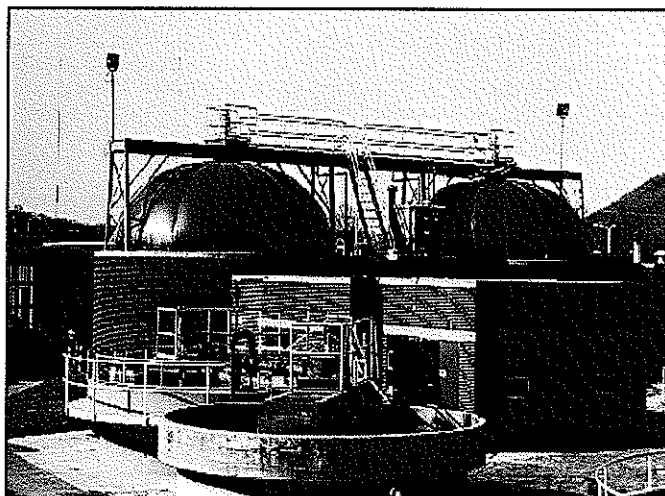
**E**nvironmental engineering at Chapman Technical Group primarily involves water and wastewater system analysis, planning, design, construction administration, and construction observation services for all aspects of municipal and commercial/industrial projects. Our vast experience in these areas has 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.

- Feasibility Studies/Facility Plans
- Water and Wastewater Treatment Design
- Water Distribution and Storage
- Wastewater Collection and Pumping
- Computerized Hydraulic Network Analysis
- I/I Analysis/SSS Studies/CSO Plans
- Stormwater Management Programs



## Water Engineering

Chapman Technical Group's experience with water system projects has encompassed new construction as well as 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 supplying approximately 100,000 people. 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 projects 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 supplying 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.

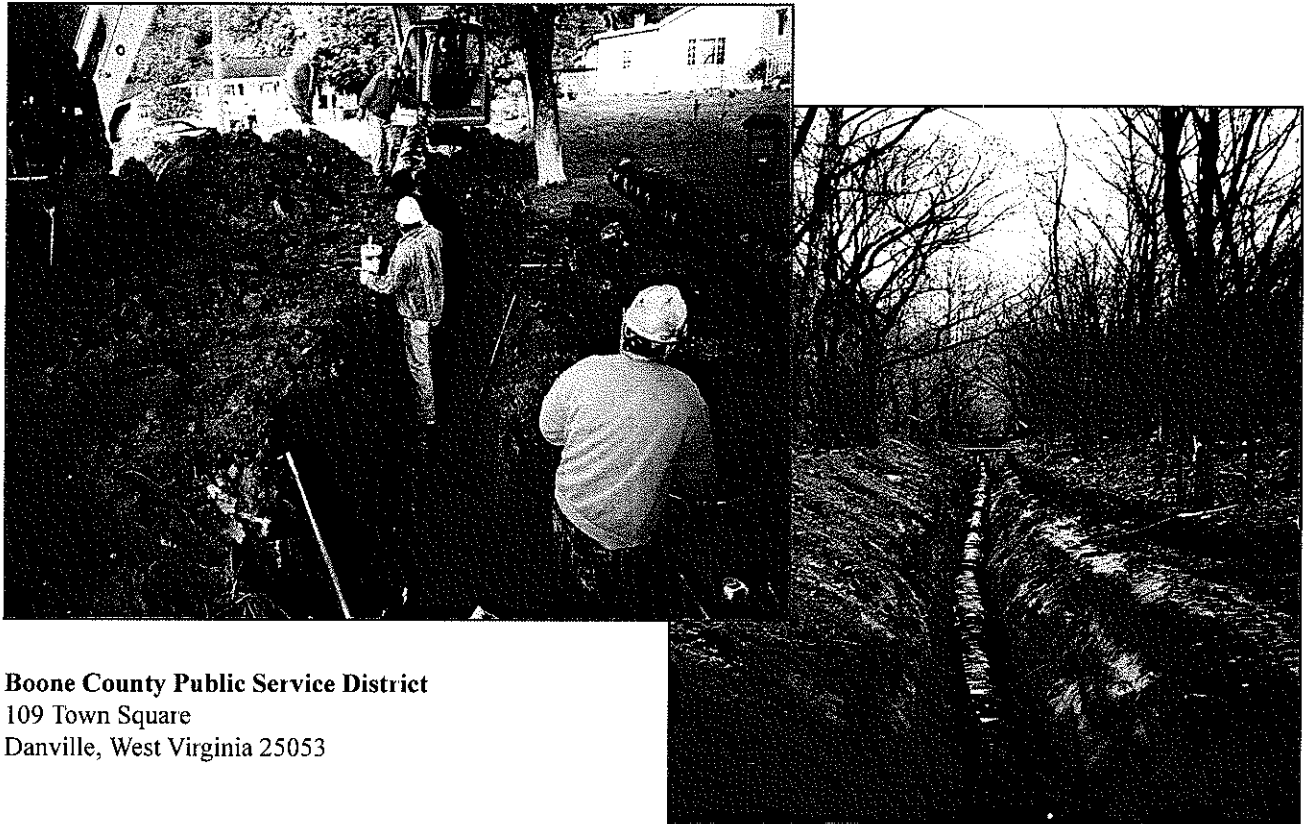


# Water Storage and Distribution



## Julian Waterline Extension

02013



**Boone County Public Service District**  
109 Town Square  
Danville, West Virginia 25053

Design and construction phase services for the Julian Waterline Extension project was completed in 2004. The project included approximately 133,260 feet of primarily 2", 6", 8" and 12" water mains, fire hydrants and connections to existing water system. The project provided water service to approximately 207 customers located in Julian and Hill Valley. The project was funded in part by West Virginia-American Water Company, Boone County Commission, Small Cities Block Grant (SCBG) and Appalachian Regional Commission (ARC) Grant. The project was designed and construction completed in two (2) years and the construction was approximately \$591,400 lower than budgeted.

# Water Storage and Distribution



## Ivydale Water System Improvements

90049



**Clay County Public Service District**  
Post Office Box 130  
Clay, West Virginia 25043

Design and construction observation services for a water system improvements project which included 53,100 linear feet of water mains, fire hydrants, a 100,000 gallon water storage tank, two booster stations, and tank level/booster control telemetry system with remote control ability from the existing water treatment plant.

# Water Storage and Distribution



## Triplett Ridge/Hartland Water System Improvements

92004



**Clay County Public Service District**  
Post Office Box 130  
Clay, West Virginia 25043

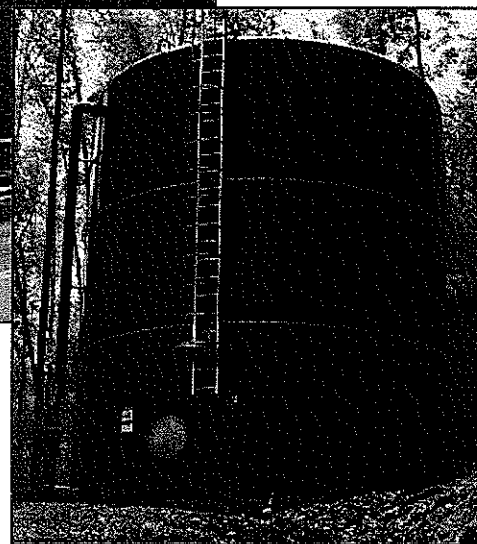
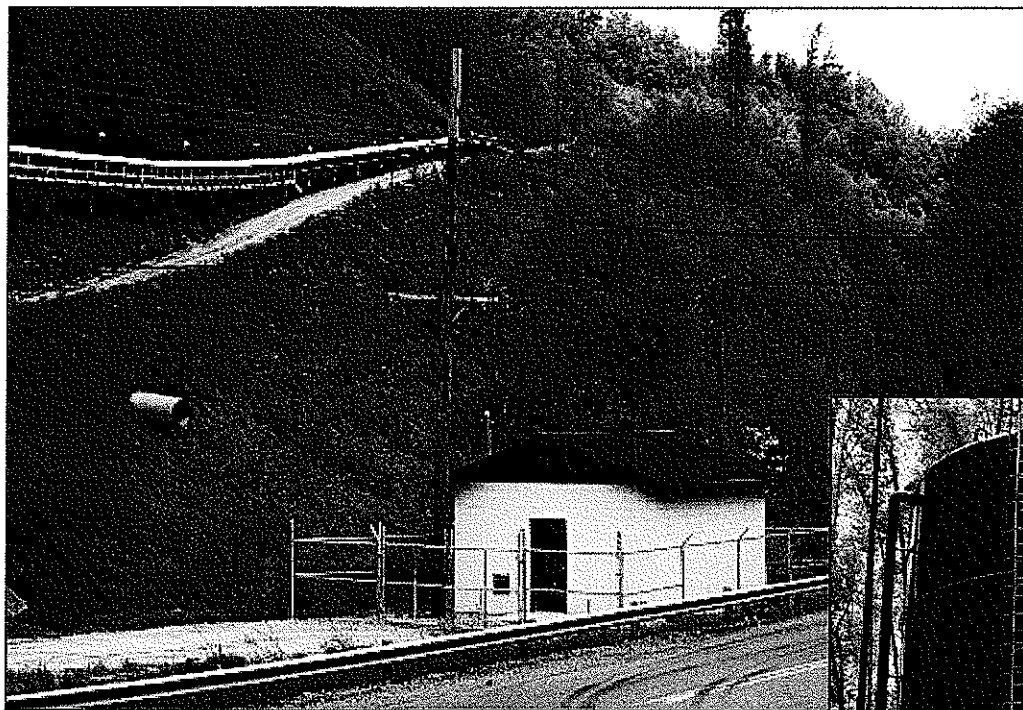
Design and construction observation services for a water system improvements project which included 60,500 linear feet of water mains, 2 booster stations, a 76,000 gallon water storage tank and a 55,000 gallon water storage tank, and one river crossing. Also included was a tank level/booster control telemetry system with central controls at the existing water treatment plant.

# Water Storage and Distribution



## West Fork Water System Improvements

91015



**Van Public Service District**  
Post Office Box 451  
Van, West Virginia 25206

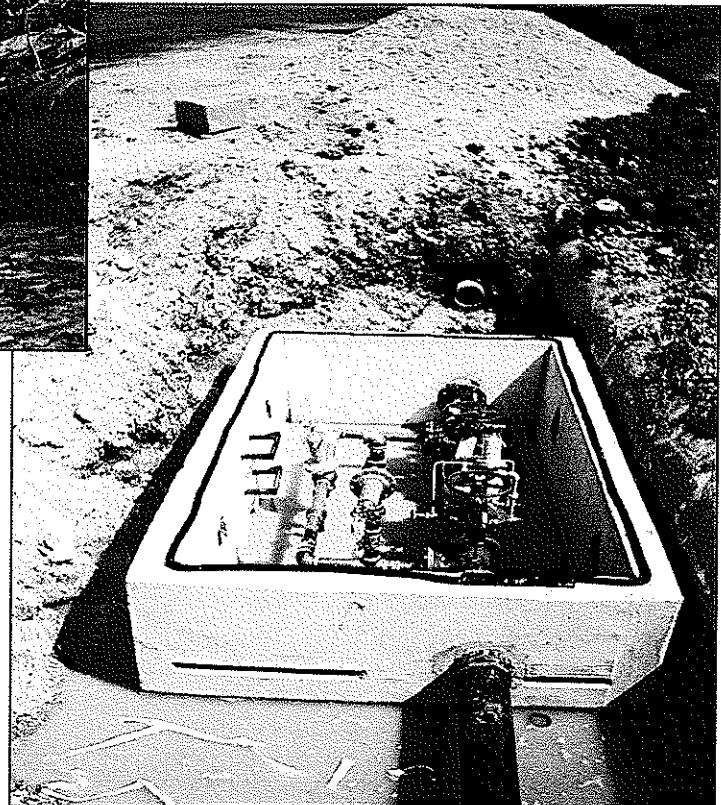
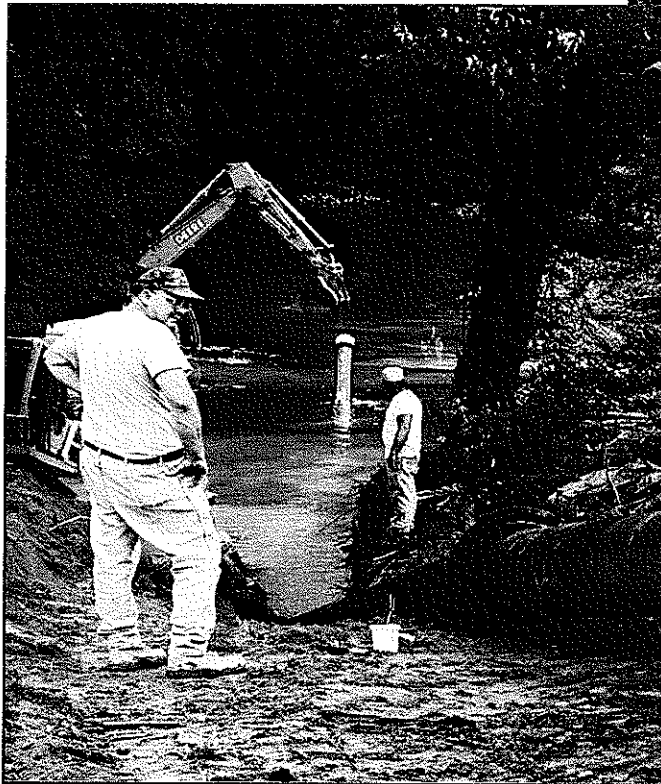
Project included complete design and construction observation services for the \$1.56 million expansion of the existing Van Public Service District system along the West Fork of Pond Fork including the construction of approximately 65,700 LF of water mains, 11 fire hydrants, 220 meter assemblies, one 150 gallon per minute and one 75 gallon per minute booster station, one 105,000 gallon and one 74,000 gallon factory-coated bolted steel water storage tank, along with tank level/booster control telemetry system with central controls at the existing water treatment plant.

# Water Storage and Distribution



## Fairmont Water Distribution and Transmission System

97024



City of Fairmont  
Post Office Box 1428  
Fairmont, West Virginia 26555

# Water Storage and Distribution



## Walnut Street and Route 250 Water System Improvements

92016

**City of Philippi**  
108 North Main Street  
Philippi, West Virginia 26416

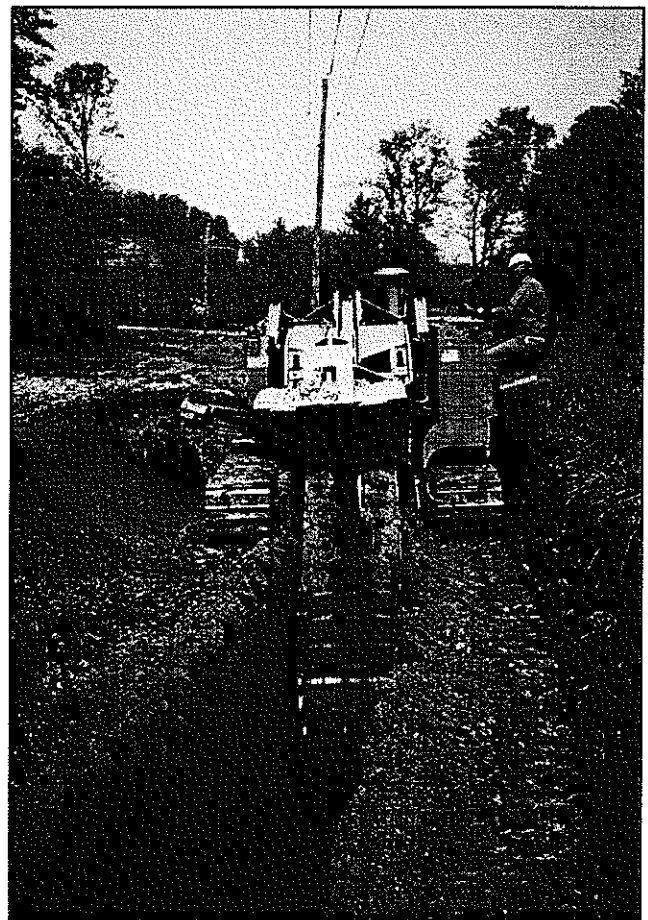
Design and construction observation services for a water system improvements project which included approximately 11,000 linear feet of 12" and 8" water main, renovation of two existing booster pumping stations and a new 244,000 gallon factory-coated bolted steel water storage tank.

## Beckley Water System Improvements

91032

**Beckley Water Company**  
Post Office Drawer U  
Beckley, West Virginia 25801

In the fall of 1993, construction was completed on nearly five miles of 18" and 24" ductile iron water transmission lines for the Beckley Water Company as a part of an \$8.8 million dollar water system improvements project. Over 9,500 feet of 24" ductile iron pipeline was installed from the new 5.0 MGD water treatment plant in order to connect this alternate source into the existing distribution system. Due to extremely high pressures within portions of this pipeline (over 280 psi), a restrained joint piping system was utilized in lieu of conventional thrust restraint devices. The use of concrete thrust blocking was prohibitive on this pipeline due to its large diameter, remote location, and physical constraints. An additional 14,000 feet of 18" ductile iron pipe was installed in order to transport this flow into the main distribution system which is allocated by a remote-controlled 14" rate-of-flow control valve located in a separate reinforced concrete vault. This construction included boring and jacking 350 LF of 36" casing under I-77 at the Beckley Plaza. Included in this project was a complete hydraulic analysis of the entire water system to ensure the recommended improvements would eliminate the most serious flow and pressure problems within the existing system.



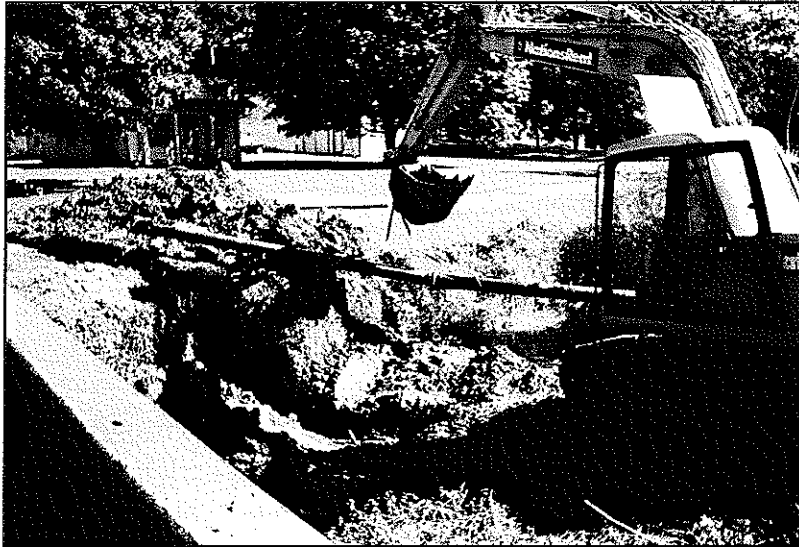


# Water Storage and Distribution

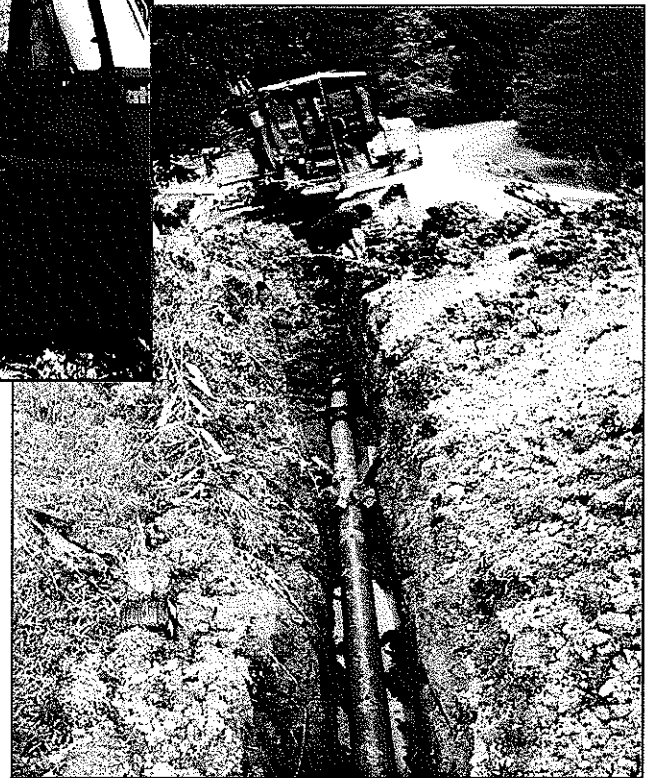


## Cabell County Waterline Extensions

99039



**West Virginia - American Water Company**  
1600 Pennsylvania Avenue  
Charleston, West Virginia 25302



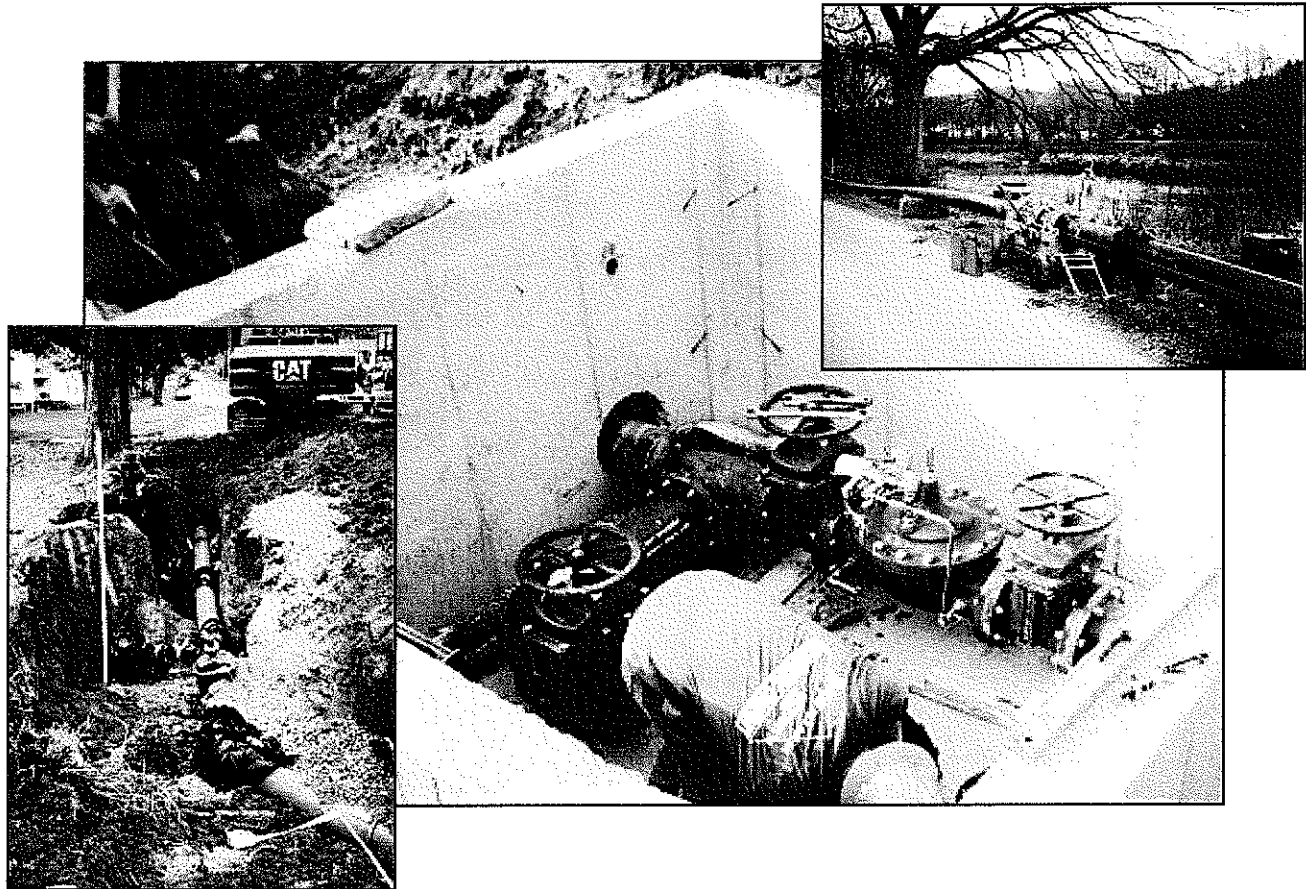
Design and construction phase services for the waterline extensions project was completed in 2001. The project included approximately 86,560 feet of primarily 2", 6" and 8" water mains, gate valves, and connections to the existing water system. The project provided water service to Charleys Creek/Hudson Hollow/Wolfpen Hollow, Little Ridges Creek, Ridges Creek to Suzannah, Cavill Creek, Tyler Creek at Bells Gap, Hinchman-Bend/Donald Gue, Toler/Trace Creek, Childress Hollow Road, and Little Two Mile in Cabell County and Upper Bear Creek in Lincoln County.

# Water Storage and Distribution



## Belington Water System Improvements

97065



**City of Belington**  
Post Office Box 926  
Belington, West Virginia 26201

Chapman Technical Group provided design and construction observation services for the City of Belington's water distribution system improvements project. The project consisted of upgrading undersized waterlines to increase fire protection, reducing unaccounted for water losses by replacing deteriorated waterlines, and to improve water quality in the distribution system. The improvements consisted of the construction of approximately 3,500 L.F. of 10" PVC C-900 waterline; 440 L.F. of 10" PE directional bore river crossing pipe; 12,500 L.F. of 8" PVC C-900 waterline; 6,300 L.F. of 6" PVC C-900 waterline; 60 L.F. of 6" DIP restrained joint stream crossing; 275 L.F. of 4" PVC C-900 waterline; 1,030 L.F. of 2" PVC SDR-21 waterline; 58 connections to the existing distribution system; 80 gate valves; and 28 fire hydrants. Other improvements consisted of the installation of 6' perimeter chain link fences around the City's existing two (2) water storage tanks and the installation of tank level monitoring system that was incorporated into the City's new water treatment plant SCADA system.



# Water Storage and Distribution

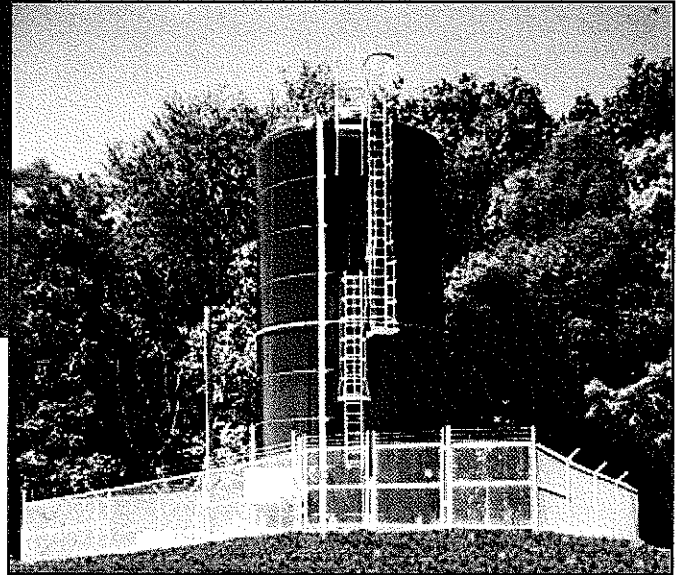


## Elkins Water System Improvements

96026



**Elkins Road Public Service District**  
Route 2, Box 105  
Buckhannon, West Virginia 26201



Design and construction phase services for the Phase I Water System Improvements project completed in 1999. The project included over 106,000 feet of primarily 6" and 8" water mains, fire hydrants, an 86,000 gallon water storage tank, a 75 gpm duplex water booster station, and radio telemetry for the new tank and booster station as well as the District's existing tanks and booster stations with central controls at the City of Buckhannon Water Treatment Plant. The project initially served approximately 180 customers and due to an underrun in budgeted construction funds, an extension was added to the project to provide service to an additional 20 customers involving an additional 10,000 feet of water main and a constant-run recirculating duplex water booster station.

## Waterline Extension and Booster Station

97063

**Buckhannon-Upshur Airport Authority**  
38 West Main Street  
Buckhannon, West Virginia 26201

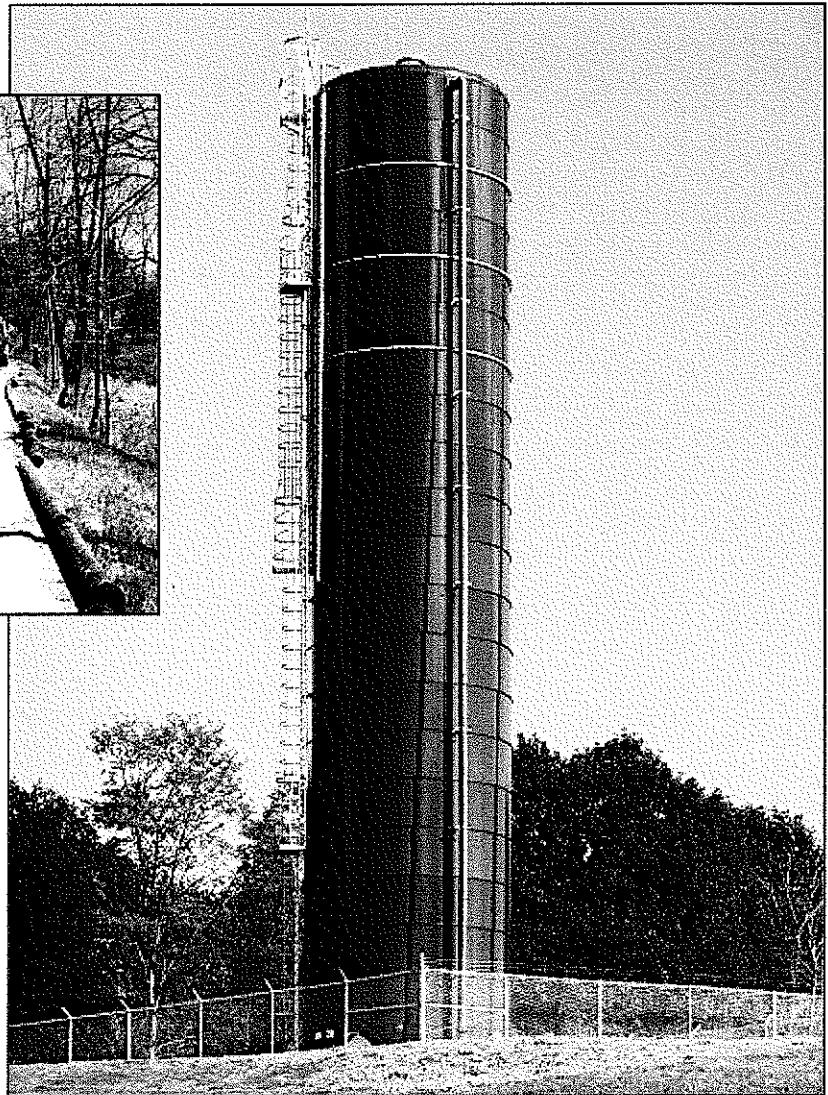
Planning, design, and construction phase services for an extension of the City of Buckhannon's water system to serve the recently re-opened airport located on Brushy Fork Road. The project includes over 3,600 linear feet of 8" waterline, and a combination domestic and fire pumping booster station to serve future development at the airport and surrounding area.

# Water Storage and Distribution



## Elkins Water System Improvements

97067



**Elkins Road Public Service District**  
Route 2, Box 105  
Buckhannon, West Virginia 26555

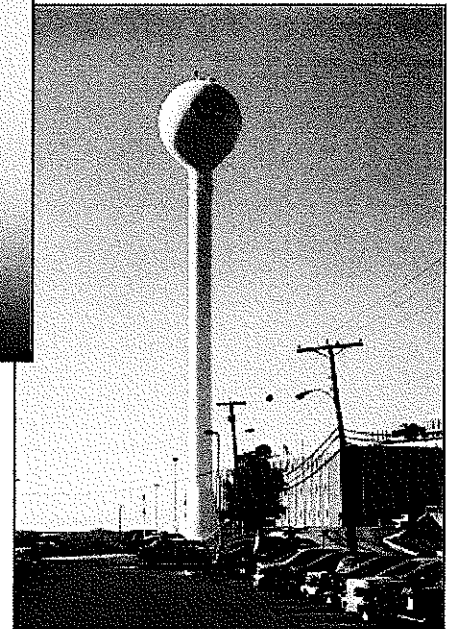
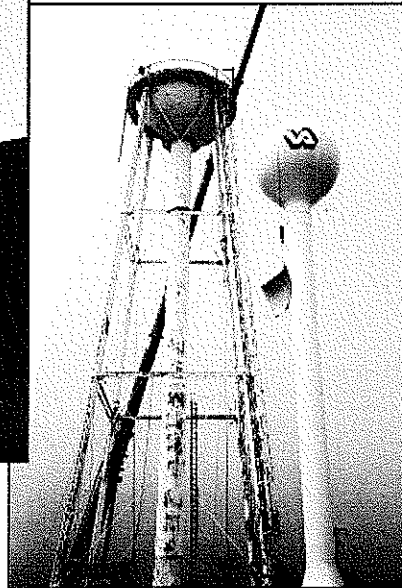
Design and construction phase services for the Phase II Water System Improvements project completed in 2006. The project included over 160,000 feet of primarily 6", 8", and 12" water mains, fire hydrants, a 218,000 gallon water storage tank, a 200 gpm duplex water booster station, and new SCADA system for control and monitoring of the District's tanks and booster stations.

# Water Engineering Storage



## Huntington VA Water System Improvements

96065



**Huntington VA Medical Center**  
1540 Spring Valley Drive  
Huntington, West Virginia 25704

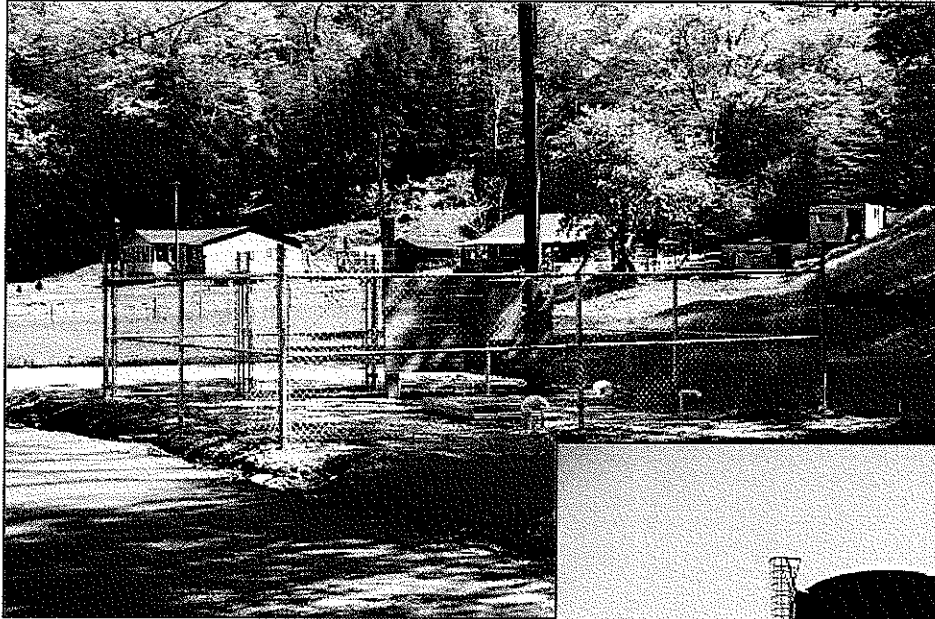
Project included design and periodic construction site visits for demolition of existing 100,000 gallon elevated water tank including lead-paint abatement, new 150,000 gallon single pedestal spherical water storage tank (150 feet low-water level) to provide increased pressure and storage volume, renovation of 500,000 gallon in-ground reservoir, installation of approximately 3,300 feet of polyethylene water main, miscellaneous improvements to existing booster pump house, site work for construction of an additional parking lot, and radio telemetry system with central controls for monitoring of tank levels and remote control of booster pump station, including alarm functions.

# Water Storage and Distribution



## Fola/Lizemore/Independence Waterline Extensions

95005



**Clay County Public Service District**  
Post Office Box 130  
Clay, West Virginia 25043

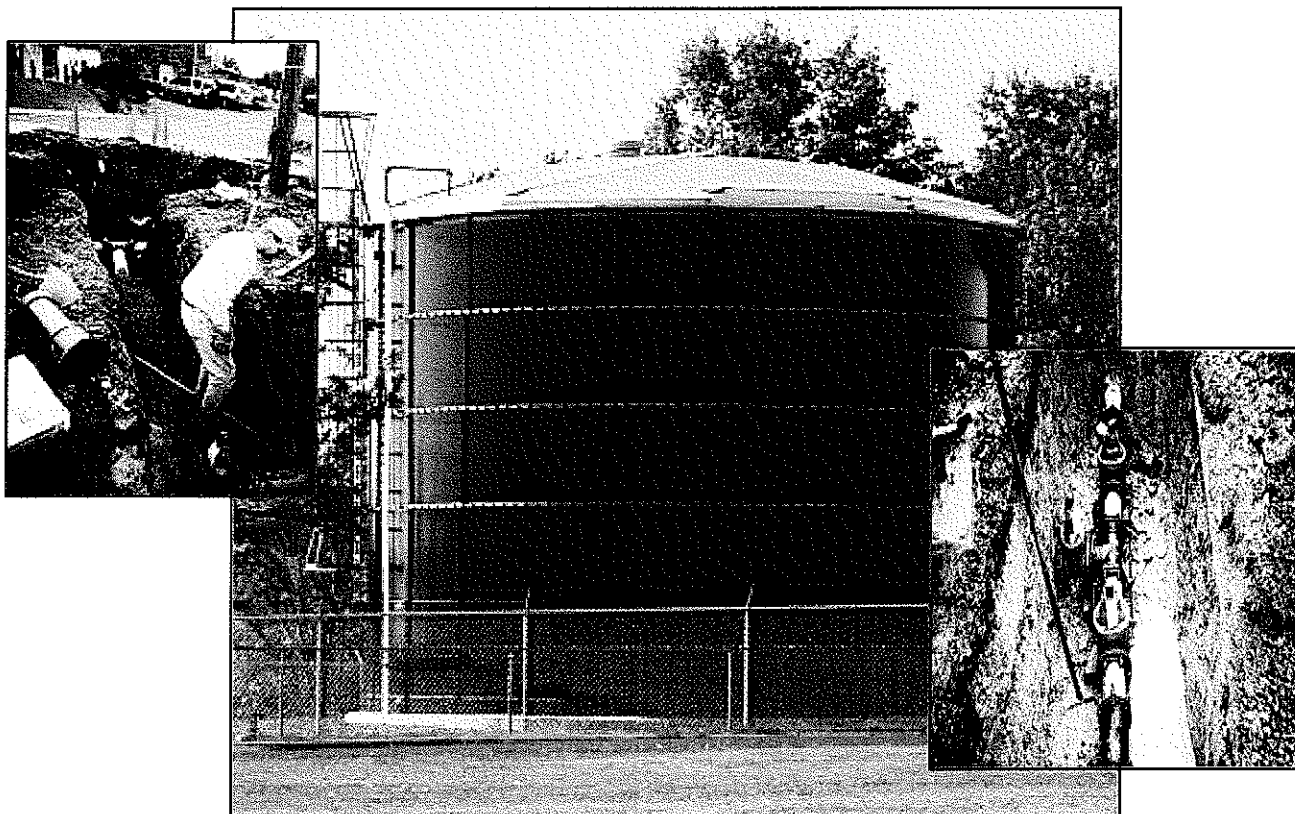
Design and construction observation services for a waterline system extension project which included 101,000 linear feet of water mains, three (3) booster stations (30 gpm, 85 gpm and 90 gpm), one (1) 65,000 gallon water storage tank, one (1) 108,000 gallon water storage tank, and one (1) 137,000 gallon water storage tank. Also included was a tank level/booster control telemetry system with central controls at the Public Service District office.

# Water Storage and Distribution



## Thomas Water System Improvements

95087



**City of Thomas**  
Post Office Box 248  
Thomas, West Virginia 26250

Chapman Technical Group provided design and construction observation services for this water system improvements project. The water system improvements project consisted of improvements to the water distribution system, water storage tanks and water treatment plant. The project was undertaken in two distinct phases, namely Phase I and Phase II. Phase I improvements consists of upgrading undersized waterlines to increase fire protection, removal of existing fire hydrants on existing 4" waterlines and installation of new fire hydrants on new 6" and 8" waterlines, reducing unaccounted for water losses by replacing deteriorated waterlines, replacement of the City's main water storage tank with a new 157,000 gallon storage tank, and to improve water quality in the distribution system. Approximately 19,000 LF of 6", 8" and 10" waterlines were installed in the distribution system.

Phase II of this project consisted of the renovation of the City's existing 200 GPM package water treatment system with a new 200 GPM package pressure filter system featuring Macrolite ceramic media installed in pressure tanks. Phase II construction cost was \$1.1 million

# Project Team



## WV Division of Natural Resources Bluestone State Park

**Robert G. Belcher, PE**  
Project Officer

**Jeffery D. Ekstrom, PE**  
Project Manager

**William B. Keaton, MA, PE**  
Project Engineer

**Kennon T. Chambers, PE**  
Project Engineer

**Shawn C. Stewart, PE**  
Project Engineer

**Shelley D. Watkins, EI**  
Project Engineer

**Fred L. Brown**  
CADD Manager

**John R. Farnham**  
CADD Technician

**Lisa D. Acord**  
CADD Technician

**Brian W. Lawrence, PS**  
Professional Land Surveyor

**Charles D. Cash**  
Sr Construction Observer

**Anthony C. Jackson**  
Construction Observer



**ROBERT G. BELCHER, P.E.**  
**Senior Vice President, Engineering**  
**and Project Officer**

**EDUCATION**

West Virginia Institute of Technology, BSCE, 1983

**REGISTRATION**

Civil Engineering, West Virginia, 1996  
Civil Engineering, Ohio, 2006

**PROFESSIONAL  
HISTORY**

**January 1987 to Present: Chapman Technical Group**  
Senior Vice President and Project Officer.

**June 1984 to January 1987: Regional Intergovernmental Council**  
Planning and Development Council for West Virginia Region III - Metropolitan  
Planning Organization for Charleston, WV, MSA.

24 years professional experience.

**PROJECT  
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 10 MGD, improvements to existing plants, water mains and distribution systems. Water storage projects include glass-lined steel tanks, welded high-strength steel tanks, and elevated pedestal tanks

**Wastewater Systems:** Design and project management for numerous wastewater systems throughout West Virginia. Projects include new tertiary wastewater treatment plants as large as 4.5 MGD, improvements to existing plants, small-flow treatment plants, extensive wastewater collection systems, and facility plan updates.

**Miscellaneous:** Design and project management for large highway and bridge projects, airport improvements projects, large stormwater management projects, as well as potable water and wastewater system design for many site development projects throughout West Virginia.

**AFFILIATIONS**

Water Environment Association - WV Section  
Contractor's Association of West Virginia - Associate Member  
American Water Works Association - WV Section  
WV Society of Professional Engineers  
American Council of Engineering Companies - ACEC/WV  
WVUIT Civil Engineering Advisory Board

**AWARDS**

George Warren Fuller Award, 2001



**JEFFERY D. EKSTROM, P.E.**  
**Manager, Environmental Engineering**  
**and Project Manager**

**EDUCATION**

West Virginia Institute of Technology, BSCE, 1990

**REGISTRATION**

Civil Engineering, West Virginia, 1996

**PROFESSIONAL  
HISTORY**

**April 1991 to Present: Chapman Technical Group**  
Manager, Environmental Engineering and Project Manager.

**October 1990 to March 1991: City of Charleston, South Carolina**  
Civil Engineer.

**June 1990 to September 1990: Bechtel Savannah River Inc.**  
Civil Engineer for Reactor Restart Group

18 years of professional experience.

**PROJECT  
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 10 MGD utilizing ultrafiltration membrane treatment technology, improvements to existing plants, water mains and distribution systems. Water storage projects include precast-prestressed concrete tanks, glass-lined steel tanks, welded high-strength steel tanks, and elevated pedestal tanks. Hydraulic analysis of water distribution/transmission systems utilizing water CAD by Haestad methods.

**Wastewater Systems:** Design and project management for numerous wastewater systems throughout West Virginia. Projects include new tertiary wastewater treatment plants as large as 4.5 MGD, improvements to existing plants, small-flow treatment plants, extensive wastewater collection systems, wastewater treatment facility and raceways for fish hatcheries, and facility plan updates.

**Miscellaneous:** Design and project management for large stormwater management projects, as well as potable water and wastewater system design for many site development projects throughout West Virginia

**AFFILIATIONS**

Water Environment Federation (West Virginia)  
American Water Works Association





**WILLIAM B. KEATON, M.A., P.E.**  
**Manager, Civil Engineering/Project Manager**

**EDUCATION**

West Virginia Institute of Technology, BA, 1987  
Webster University, MA, 1992  
West Virginia Institute of Technology, BSCE, 1993

**REGISTRATION**

Civil Engineering, West Virginia, 1999

**PROFESSIONAL  
HISTORY**

**March 2007 to Present: Chapman Technical Group**  
Project Manager/Senior Engineer.

**December 2005 to March 2007 and January 1997 to April 2000:**  
**HNTB Corporation.**  
Section Leader, Senior Engineer, Business Manager

**May 2001 to September 2005: Buchart-Horn, Inc.**  
Regional Manager

**April 2000 to May 2001: Environmental Design Group**  
Section Leader, Project Manager, Senior Engineer.

**June 1993 to January 1999: Kelley, Gidley, Blair and Wolfe, Inc.**  
Project Manager, Project Engineer.

16 years professional experience.

**PROJECT  
EXPERIENCE**

**Water Systems:** Design and project management for numerous water systems for both public and private water companies. Projects include new water treatment plants from 0.5 MGD to 2.5 MGD, improvements to existing plants, water mains and distribution systems, and water system modeling. Water storage systems have included bolted glass-lined tanks, concrete storage tanks, welded steel tanks and elevated tanks.

**Wastewater Systems:** Design and project management for numerous wastewater systems throughout WV and Ohio. Projects include SBR plants to serve large industry, conventional secondary treatment plants, anaerobic digesters, packaged treatment plant operation and maintenance, wastewater treatment plant lagoons, upgrades to head-works structures, pump station rehabilitation, Long Term Control Plan preparation, facility plan updates and SSES plans.

**Stormwater Systems:** Design and project management on NPDES permit application, SWPPP preparation, SWM preparation, stormwater utility development and management. Projects include stormwater management detention/retention pond design, stormwater conveyance design, stormwater treatment options and erosion/sedimentation control options.

**Miscellaneous:** Project Manager on numerous large highway and bridge projects in WV and design of retaining wall projects consisting of soldier piles and MSE walls.

**AFFILIATIONS**

Water Environment Association - WV Section  
Society of Military Engineers  
American Water Works Association  
National Society of Professional Engineers  
West Virginia Society of Professional Engineers  
American Council of Engineering Companies - ACEC/WV



**KENNON T. CHAMBERS, P.E.**  
**Civil Engineer**

**EDUCATION**

West Virginia Institute of Technology, BSCE, 1998

**REGISTRATION**

Civil Engineering, West Virginia, 2003

**PROFESSIONAL  
HISTORY**

**October 2007 to Present: Chapman Technical Group**  
Civil Engineer, Environmental Engineering Department.

**March 2007 to October 2007: National Radio Astronomy Observatory**  
Facilities Engineer

**February 2002 to February 2007: Chapman Technical Group**  
Civil Engineer, Environmental Engineering Department.

**July 1998 to February 2002: Taylor and Striegel, Inc.**  
Project Engineer for underground utility construction company in West Virginia.

**Summers 1994 to 1996: West Virginia Division of Highways**  
Co-op Engineer - Materials Control, Soils and Testing Division.

10 years professional experience.

**PROJECT  
EXPERIENCE**

**Water Systems:** Design, construction and construction administration/management of various public and private water system projects including line work, river crossings, and booster stations throughout West Virginia.

**Wastewater Systems:** Design, construction and construction administration/management of various public and private wastewater system projects throughout West Virginia.

**AFFILIATIONS**

Water Environment Association  
American Water Works Association  
West Virginia Rural Water Association

**MISCELLANEOUS**

Class A Commercial Drivers License with Hazardous Materials Endorsement  
PADI Certified Scuba Diver



**SHAWN C. STEWART, P.E.**  
**Civil/Environmental Engineer**

**EDUCATION**

Glenville State College, Associate in Arts in Administrative Science, 1996  
Fairmont State College, Associate in Civil Engineering Technology, 1999  
Fairmont State College, BSCE, 2000

**REGISTRATION**

E I , West Virginia, 2002  
P E., West Virginia, 2007

**PROFESSIONAL  
HISTORY**

**May 2000 to Present: Chapman Technical Group**  
Civil/Environmental Engineer.

8 years professional experience

**PROJECT  
EXPERIENCE**

**Bridge and Highways:** Roadway projects include design of new four-lane high speed corridor in mountainous terrain. Bridge projects include bridge deck drainage design for a three-span bridge

**Airports:** Project Engineer/Project Manager for several airport projects involving new airport design, runway extension, pavement rehabilitation, new apron and taxiway design, runway safety area improvements, automated weather observing stations (AWOS), obstruction removal, perimeter fencing, approach aids, fuel storage facilities, airfield lighting and marking, drainage improvements, property maps, and airport layout plans.

**Wastewater Systems:** Design/upgrades of existing Collection Systems.

**Structural:** Structural projects include layout, assistant design and construction management of retaining wall systems including mechanically stabilized earth (MSE) wall and soldier pile and lagging wall with tieback anchors.

**AFFILIATIONS**

American Society of Civil Engineers



**SHELLEY D. WATKINS, E.I.**  
**Civil Engineer**

**EDUCATION**

West Virginia University Institute of Technology, BSCE, 2006

**REGISTRATION**

E I , West Virginia, 2006

**EXPERIENCE**

**December 2006 to Present: Chapman Technical Group**  
Civil Engineer

**Summers (2003, 2005, 2006):** WV Division of Highways (District 2) -  
Environmental compliance, bridge design, bridge inspection, drainage design  
and inspection.

1 year professional experience.

**PROJECT  
EXPERIENCE**

**Water Systems:** Design, construction, and construction administration/  
management of various public and private water system projects including line  
work, river crossings, treatment facilities, storage tanks, SCADA systems, and  
booster stations throughout West Virginia. Troubleshoot problems in existing  
systems. Evaluate proposed treatment systems. Distribution system modeling.

**Wastewater Systems:** Design, inspection, of various public and private  
wastewater system projects throughout West Virginia. Smoke testing existing  
collection systems, lift station design, infiltration/inflow analysis, and CSO  
compliance

**AFFILIATIONS**

American Society of Civil Engineers  
American Water Works Association  
Order of the Engineer



**FRED L. BROWN**  
**CADD Manager**

**EDUCATION**

Carver Career Center, Two Year Drafting/Cad Degree, 1997  
Glenville State College, 20 Hours Toward Forestry Degree, 1988  
Attended AUTOCAD14 Training Class Provided By Digital Graphics

**PROFESSIONAL  
HISTORY**

**2002 to Present: Chapman Technical Group**  
CADD Manager.

**1997 to 2002: Chapman Technical Group**  
Engineering Technician and CADD Designer.

11 years professional experience.

**PROJECT  
EXPERIENCE**

**Bridge and Highway:** Responsible for CADD drafting on basemap, site development, construction plan sheets, signal plans, superelevation 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 center line, stationing and curve geometric information, survey reference and control plans, point dump creations.

**Architectural/Structural:** Responsible for CADD drafting on existing and proposed building plans, structural framing plans and details, foundation plans and details, structural scheduling

**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.

**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.

**AFFILIATIONS**

Member, National Vocational-Technical Honor Society (NV-THS)

**ACHIEVEMENTS**

First place winner in Carver Career Center VICA skills competition and represented Carver at the state VICA competition for technical drafting

Judge in 2001 State VICA skills competition for technical drafting



**JOHN R. FARNHAM**  
**CADD Technician**

**EDUCATION**

Center College, Two Year Drafting Degree  
Ben Franklin Career Center, AutoCad Course, 1995

**PROFESSIONAL  
HISTORY**

**July 1996 to Present: Chapman Technical Group**  
Architectural Technician and CADD Designer.

**1986 to 1995: Jerry Goff Architecture**  
Draftsman.

**1976 to 1986: Gandee, Thomas & Sprouse - Architects**  
Draftsman.

**1974 to 1976: Don Moses - Architecture**  
Draftsman

35 years professional experience

**PROJECT  
EXPERIENCE**

**Bridge and Highway:** Responsible for CADD drafting on right-of-way plans, maintenance of traffic plans, signing and marking plans, boring plans and boring cross sections, typical sections and details

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

**Architectural/Structural:** Responsible for CADD drafting on schedules, details, floor plan designs, framing plans and details, foundation plans and details, renovation of buildings, reflected ceiling plans, cross sections, building interior and exterior elevations, roof plans and details, plumbing plans and details, HVAC plans and details, and building code implementation.



**LISA D. ACORD**  
**CADD Technician**

**EDUCATION**

West Virginia University Institute of Technology, BS, Industrial Technology, 1997

West Virginia Institute of Technology, AS, Drafting and Design Engineering Technology, 1995

**PROFESSIONAL HISTORY**

**November 1998 to Present: Chapman Technical Group**  
Engineering Technician and CADD Designer

**January 1998 to November 1998: GAI Consultants, Inc.**  
CADD Designer

**May 1997 to November 1997: Commercial Welding & Fabrication**  
Design Engineer.

11 years professional experience.

**PROJECT EXPERIENCE**

**Bridge and Highway:** Responsible for CADD drafting of design and preparation of construction plans and details for roadway and bridge work. Involvement includes final design drawings for bridges, signing, pavement marking plans, maintenance of traffic plans, lighting plans, right-of-way plans, geotechnical boring logs and cross-sections.

**Site Design:** Drafting for site layout and proposed grading, including site access and parking areas. Also, assisted in construction documents for lake dredging projects, including dredging scheme, disposal site design, and a sediment control plan for both the dredging operations and the disposal site. Performed several presubsidence surveys in conjunction with a deep mines operation.

**Water and Wastewater:** Responsible for drafting profiles, site layout and proposed grading, booster stations, PRV's, master meter vaults, septic systems, plant valve pit, chemical feed vault, raw water intake and details, and various miscellaneous water treatment plant details.

**Mining:** Drafting for surface and deep mining permits, construction documents, and many detailed plans. Extensive research and drafting of property lines and ownership. Assisted with 100+ presubsidence surveys in West Virginia and Ohio.



**BRIAN W. LAWRENCE, P.S.**  
**Professional Land Surveyor**

**EDUCATION**

Glenville State College, AS, Land Surveying, 1995

**REGISTRATION**

Professional Surveyor, West Virginia, 2002, P.S. No. 2056

**PROFESSIONAL  
HISTORY**

**August 2004 to Present: Chapman Technical Group**  
Professional Surveyor, Project Manager, Crew Chief, Draftsman

**December 2003 to August 2004: Point Surveying & Mapping**  
Professional Surveyor/Project Manager.

**December 1999 to November 2003: Terradon Corporation**  
Surveyor/Draftsman

**January 1996 to December 1999: Board Land Surveying**  
Project Manager/Surveyor/Draftsman

**May 1995 to December 1995: Smith Land Surveying**  
Crew Chief/Rodman.

13 years professional experience.

**PROJECT  
EXPERIENCE**

**Site Development:** Asbuilt/existing condition surveys and design surveys for numerous projects including water tank sites, cellular tower sites, water and sewer lines, subdivisions and commercial sites.

**Highways:** Provide preliminary site surveys of areas to be developed for highway construction. Set/layout points on the ground for the placement and/or construction of roadway surfaces, utility relocation, drainage structures, etc. Determine and set cut/fill stakes during the construction process.

**Boundary:** Numerous boundary surveys and ALTA/ACSM Land Title Surveys for commercial, residential clients on sites ranging from small lots to large commercial sites, and highway projects.

**AFFILIATIONS**

14 Year Member of the West Virginia Society of Professional Surveyors





**CHARLES DAVID CASH, JR.**  
**Construction Representative**

**EDUCATION**

South Charleston High School , 1983

Attended WV DOH Portland Cement Concrete Refresher Course, 1998

Attended WV DOH Hot-Mix Asphalt Refresher Course, 1998

Authorized Sample Collector for new water mains - WV Bureau of Public Health, 1997

**PROFESSIONAL  
HISTORY**

**November 1992 to Present: Chapman Technical Group**  
Construction Representative.

**June 1992 to October 1992: Business and Industrial Development Corporation (BIDCO).**  
Construction Representative.

**August 1990 to May 1992: Dunn Engineers, Inc.**  
Construction Representative

18 years of professional experience

**PROJECT  
EXPERIENCE**

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.



**ANTHONY C. JACKSON**  
**Construction Representative**

**EDUCATION**

Carver Career and Technical Education Center, 2 Year Drafting Technology Degree, 1998

**PROFESSIONAL HISTORY**

**June 1998 to Present: Chapman Technical Group**  
Construction Representative.

**May 1988 to August 1993: West Virginia Division of Highways**  
Highway Maintenance Foreman.

**May 1985 to August 1988: Shook of West Virginia**  
Operating Engineer, Form Carpenter, Pipe Fitter, Lead Operator, Crew Leader.

**May 1976 to May 1985: Valley Development**  
Operating Engineer, Bore Jack Foreman, Foreman, Pipe Fitter,

10 years professional experience.

**PROJECT EXPERIENCE**

Responsibilities include all aspects of field construction coordination 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

**AWARDS**

Member of VICA - Vocational Industrial Clubs of America  
Member of the National Vocational Technical Honor Society  
Carver Passport - Shows Excellence in Training Area

**CERTIFICATIONS**

NICET - Level 2

# Ability to Meet Budgets & Deadlines



## Representative Project Budgets

1. City of Beckley Sanitary Board - Pinecrest Sewer Line Replacement	
* Estimated Cost	\$517,550.00
* Actual Bid	\$435,922.00
* 15.77% Under Engineer's Estimate	
2. VA Medical Center, Huntington West Virginia Water Storage Tank Replacement and Water System Improvements	
* Estimated Cost	\$935,000.00
* Actual Bid	\$895,000.00
* 4.28% Under Engineer's Estimate	
3. Van Public Service District - West Fork Water System Improvements	
* Estimated Cost	\$1,433,251.00
* Actual Bid	\$1,389,105.00
* 3.08% Under Engineer's Estimate	
4. Greater St. Albans Regional Wastewater Project	
* Estimated Cost	\$3,900,000.00
* Actual Bid	\$3,838,180.58
* 1.59% Under Engineer's Estimate	
5. Huttonsville Correctional Center 150,000 GPD Wastewater Treatment Plant	
* Estimated Cost	\$1,290,000.00
* Actual Bid	\$1,249,360.00
* 3.15% Under Engineer's Estimate	

## Representative Project Schedules

	Project Cost	Scheduled Completion	Actual Completion
1. Van PSD West Fork Water System Improvements	\$1,389,000	120 days	120 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. Cabell County Commission T-Shirts International Water & Sewer Ext.	\$124,000	60 days	60 days
7. Clay - Roane PSD Water System Improvements, Varneytown Extension	\$274,000	120 days	45 days

# References



1. Honorable Dick Callaway  
Mayor  
City of St. Albans  
1488 MacCorkle Avenue  
St. Albans, WV 25177  
(304) 727-2971
2. Honorable Joe Drenning  
Mayor  
Town of Davis  
Post Office Box 207  
Davis, WV 26260  
(304) 259-5302
3. Honorable Damron Bradshaw  
Mayor  
City of Chesapeake  
12404 MacCorkle Avenue  
Chesapeake, WV 25315  
(304) 949-1496
4. Mr Greg Fitzwater  
Chairman  
Clay County Public Service District  
Post Office Box 550  
Clay, WV 25043  
(304) 587-7579
5. Honorable Jerry Teter  
Mayor  
Town of Harman  
Post Office Box 125  
Harman, WV 26270  
(304) 227-4715

# Technology Resources



**T**o better serve the growing needs of the contemporary client, Chapman Technical Group has the following hardware and software selections available to its staff:

## Hardware

- **Backbone**
  - St Albans Local Area Network (LAN)**
  - 96 Node Category 5 Twisted Pair Ethernet
  - 4 Hewlett Packard Gigabit Ethernet Managed Hubs
  - Buckhannon Local Area Network (LAN)**
  - 24 Node Category 5 Pair Ethernet
  - 1 Hewlett Packard Gigabit Ethernet Hub
  - Martinsburg Local Area Network (LAN)**
  - 12 Node Category 5 Twisted Pair Ethernet
  - 1 Hewlett Packard Gigabit Ethernet Hub
  - Corporate Wide Area Network (WAN)**
  - T1/Frame Relay Digital Communications Link
  - 3-1.1 Megabit SDSL Lines
- 2 Cisco 1750 Routers
- 2 Sonicwall firewalls
- Voice over IP Telecommunications links between the St Albans and Buckhannon offices
- **Servers**
  - Sun Fire V-240 - UNIX based file server (St Albans)
  - Sun Ultra 10 - UNIX based file server (Buckhannon)
  - Sun SPARC Station 10 - UNIX based e-mail server (Corporate)
- **Peripherals**
  - 2 Oce' IDS 400 Digital Wide Format Printers
  - 2 Hewlett Packard Designjet Plotters
  - 5 Hewlett Packard Laserjet Printers
  - Summagraphics 36" x 48" Digitizer
- **Workstations and Personal Computers**
  - 20 Pentium Systems with a minimum 1 GB ram and 21" monitors
  - 26 Pentium Systems with a minimum 512 MB ram and 17" monitors
  - 4 Notebook Computers
- **Hardware Surveying**
  - GPS - Leica SR20 survey grade, single frequency units with onboard data collection
  - Topcon GTS-300 total station, 1 second accuracy/0.5 second display
  - Topcon AT-G3 auto level
  - Carlson Explorer II data collector
  - HP48GX calculator/data collector

## Software

### Office/Business Administration

- **Accounting**
  - Delttek Systems/Advantage v 9.1
  - CCH Electronic Tax Library
  - Microsoft Access 2003
- **Operating Systems**
  - Sun Solaris v 10
  - Microsoft Windows XP Professional
  - Microsoft Windows 2000
  - Samba 3.0.10 Network Operating System
- **Marketing**
  - Adobe In Design E53
  - Adobe Pagemaker v 7
  - Adobe Photoshop v 7
  - Adobe Acrobat v 7
  - Microsoft PowerPoint 2003



- **Spreadsheets/Word Processing**
  - Microsoft Office 2007
  - Microsoft Office 2000
- **Transportation Engineering**
  - PCAPAV - Concrete Thickness Design
  - Comp Air - Life-Cycle Cost Comparison for Airports
  - Airport - Thickness Design of Asphalt Pavements
  - FAA Airport Design - Geometric Design of Airports
  - FAA Pavement Design - Thickness Design of Rigid and Flexible Pavements for Airports
  - Airport - Concrete Thickness Design
  - Autodesk Civil 3D 2008
- **Environmental Engineering**
  - Haestad Methods WaterCAD with AutoCAD
  - Haestad Methods StormCAD v 4.1.1
  - Haestad Methods Flowmaster PE v 6.1
  - Haestad Methods Culvert Master v 2.0
  - Haestad Methods NWS - Dam Breach Wave Analysis
  - KYPipe3 - 4,000 Pipe Version
  - Sigma Flow Analysis and Data Collection Equipment
  - Uni-flange - Pipe Thrust Restraint Design Program
  - CIPP Designer 2.0
- **Structural Engineering**
  - Enercalc Structural Engineering Library v 5.1
  - Merlin Dash - Straight Girder Bridge Design v 3.0
  - Leap - CONSPAN - AASHTO Standard & LRFD v 3.1.0
  - DESCUS I - Curved Girder Bridge Design v 3.1
  - DESCON - Design of Structural Steel Connections v 2.0
  - GL Sizer - AISC Glulam Member Design
  - American Institute of Architects Masterspec Specifications System
- **Site Design, Civil Engineering and Landscape Architecture**
  - Autodesk Civil 3D 2008
  - Autodesk Raster Design 2008
  - Carlson SurvCADD 2000
  - Carlson SurvCE V 1.64
- **Architectural**
  - AutoCAD Architecture 2008
  - Autodesk Rvlt Building 9.1
  - American Institute of Architects Masterspec Specifications System
  - Herman Miller - CAD Symbol Libraries
  - Steelcase CAD Furniture Symbol Library
  - Anderson Window - CAD Symbol Library
  - Butler Manufacturing - CAD Details
- **CAD Production**
  - AutoCAD 2008
  - Bentley MicroStation J
- **Surveying Software**
  - Carlson SurvCE data collection software
  - SMI version 7 data collection software
  - GPS - Leica SR20 post-processing software