



Gannett Fleming

GANNETT FLEMING, INC
Foster Plaza III
Suite 200
601 Holiday Drive
Pittsburgh, PA 15220
Office: (412) 922-5575
Fax: (412) 922-3717
www.gannettfleming.com

October 6, 2008

Mr. Chuck Bowman, Buyer
WVDEP, Purchasing Division
2019 Washington Street, East
Charleston, WV 25305-0130

RE: Coaldale/Bramwell Hill Waterline Design
Services – Req#DEP14381

Dear Mr. Bowman:

Please find enclosed our expression of interest and qualifications for the referenced project. Gannett Fleming maintains approximately 40 offices around the country, including significant presence in Morgantown, WV and Pittsburgh, PA. Our proposed project manager for this project, **Mr. Samer Petro**, is based in our Morgantown, WV office. We would support Mr. Petro with design personnel and QA/QC from our full-service Pittsburgh, PA office.

We have performed many similar assignments for our long-term clients including the Clarksburg Water Board and the City of Wheeling. We appreciate this opportunity and look forward to the possibility of providing professional engineering services to the WVDEP. If you should have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,
Gannett Fleming, Inc.

Rulison Evans, P.E.,
Senior Project Manager

Enclosures

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2008 OCT -7 A 10: 11

PURCHASING DIVISION
STATE OF WV





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

Request for Quotation

RFQ NUMBER

DEP14381

PAGE

1

ADDRESS CORRESPONDENCE TO ATTENTION OF

CHUCK BOWMAN

304-558-2157

RFQ COPY

TYPE NAME/ADDRESS HERE

ENVIRONMENTAL PROTECTION

DEPARTMENT OF

OFFICE OF AML&R

601 57TH STREET SE

CHARLESTON, WV

25304

304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
09/04/2008				

BID OPENING DATE: 10/07/2008

BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-94		
COALDALE/BRAMWELL HILL WATERLINE DESIGN SVC						
EXPRESSION OF INTEREST						
THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE COALDALE/BRAMWELL HILL WATERLINE EXTENSION PROJECT IN MERCER COUNTY, WEST VIRGINIA, PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS.						
BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID AND IS TERMINATED WITHOUT FURTHER ORDER.						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

RFQ No. DEP 14381STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT****VENDOR OWING A DEBT TO THE STATE:**

West Virginia Code §5A-3-10a provides that: 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.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

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 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 is in compliance with the requirements as stated.

Vendor's Name: Gannett Fleming, Inc.
Authorized Signature: K. J. Egan, P.E. Date: 10/6/08

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
AML CONSULTANT CONFIDENTIAL QUALIFICATION QUESTIONNAIRE Attachment "B"**

PROJECT NAME Coaldale/Bramwell Hill Waterline Ext		DATE (DAY, MONTH, YEAR) 07 October 2008	FEIN 25-1613591
1. FIRM NAME Gannett Fleming, Inc.	2. HOME OFFICE BUSINESS ADDRESS PO Box 67100 Harrisburg, PA 17106-7100	3. FORMER FIRM NAME N/A	
4. HOME OFFICE TELEPHONE (717) 763-7212	5. ESTABLISHED (YEAR) 1915	6. TYPE OWNERSHIP Individual Corporation Partnership Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES NO X
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE Gannett Fleming, Inc., 601 Holiday Drive, Pittsburgh, PA 15220, (412) 922-5575, John W. Kovacs, PE, VP and Regional Office Manager, .			

8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM	8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS
Please see attached sheets for additional response.	
Please see attached sheets for response.	

9. PERSONNEL BY DISCIPLINE (Pittsburgh Office - Municipal Services Group in Parenthesis)	
113 ADMINISTRATIVE (1) 23 ARCHITECTS 8 BIOLOGIST 118 CADD OPERATORS (3) 5 CHEMICAL ENGINEERS 71 CIVIL ENGINEERS (9) 84 CONSTRUCTION INSPECTORS 0 DESIGNERS (2) 13 DRAFTSMEN	2 LANDSCAPE ARCHITECTS 20 MECHANICAL ENGINEERS 0 MINING ENGINEERS 0 PHOTOGRAMMETRISTS 56 PLANNERS: URBAN/REGIONAL 43 SANITARY ENGINEERS 51 SOILS ENGINEERING 3 SPECIFICATION WRITERS 116 STRUCTURAL ENGINEERS 16 SURVEYORS 118 TRAFFIC ENGINEERS 715 OTHER 1864 TOTAL PERSONNEL

TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 3
***RPES other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.**

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE?	☐ YES	☐ NO	☐ N/A
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8. Names of Principal Officers or Members of Firm

William M. Stout, Chairman of the Board and Chief Executive Officer
* Robert J. Dietz, Vice Chairman, President and Chief Operating Officer
* Chester L. Allen, Senior Vice President and Secretary
* Roger J. Banks, Senior Vice President
* John G. Diviney, Senior Vice President
* John R. Kenny, Senior Vice President

8a. Name, Title, & Telephone Number - Other Principals

Martha J. Averso, Vice President, 717-763-7211
Warren A. Barrett II, Vice President, 410-585-1460
Charles H. Beauuy, Vice President, 717-763-7211
William B. Bingham, Vice President, 717-763-7211
R. Edwin Blair, Jr., Vice President, 757-873-0768
Joseph G. Botchie, Vice President, 717-763-7211
John A. Buchheit, Vice President, 407-514-2691
Edward C. Burk, Jr., Vice President, 734-753-5880
Carlos M. Cajas, Vice President, 786-845-9540
Keith M. Chase, Vice President, 717-763-7211
R. Tom Clark, Vice President, 813-882-4366
John W. Cook, Jr., Vice President, 717-763-7211
Rodney J. Dawson, Vice President, 213-624-0347
John A. Derr, Vice President, 602-553-8817
Bruce P. DeVito, Vice President, 212-967-9833
John V. Dougherty, Vice President, 904-998-9809
Trent L. Dreese, Vice President, 717-763-7211
Dean B. Durkee, Vice President, 602-553-8817
James C. Elliott, Vice President, 717-763-7211
Stephen B. Gerlach, Vice President, 410-585-1460
Susan R. Gibbons, Vice President, 215-557-0106
Dale R. Glatfelter, Vice President, 717-763-7211
Peter A. Golonka, Vice President, 617-527-7822
Naldo Gonzalez, Vice President, 786-845-9540
William T. Guy, Vice President, 717-763-7211
Stephen Hadjiyane, Vice President, 516-671-8066
Glen L. Hair, Vice President, 717-763-7211
David E. Hassrick, Vice President, 609-584-9592
Richard Hergenroeder, Vice President, 717-763-7211
Jesse G. Hite, Jr., Vice President, 704-375-2438
Arthur G. Hoffmann, Jr., Vice President, 412-922-5575
Raymond L. Hofass, Vice President, 610-650-8101
Rodney E. Holderbaum, Vice President and Assistant Secretary, 717-763-7211
Judy L. Hricak, Vice President, 717-763-7211
Frederick H. Inyard, Vice President, 516-671-8066
Mark D. Johnson, Vice President, 978-687-7292
Robert C. Keller, Vice President, 212-967-9833
Aaron D. Keno, Vice President, 703-222-3704
John W. Kovacs, Vice President, 412-922-5575
Dennis F. Kugle, Vice President, 608-836-1500
James A. Langer, Vice President, 904-998-9809
James R. Laurita, Vice President, 212-967-9833
Michael T. Lee, Vice President and Assistant Secretary, 717-763-7211
Richard K. Lee, Vice President, 610-917-9100

Lynn E. Knepp Senior Vice President and Treasurer
* Gene C. Koontz, Senior Vice President
* Paul D. Nowicki, Senior Vice President
Robert E. Ragan, Senior Vice President
* Robert M. Scaer, Senior Vice President
* Director

Thomas G. Leech, Vice President, 412-922-5575
Ronald N. Leins, Vice President, 813-882-4366
Paul J. Lewis, Vice President, 717-763-7211
George S. Link, Vice President, 856-802-9930
Richard D. Lutz, Vice President, 757-873-0768
Michael Wm. Malloy, Vice President, 505-265-8468
Samuel Mayman, Vice President, 213-624-0347
Esther M. McGinnis, Vice President, 610-650-8101
Barbara R. McLeomore, Vice President, 717-763-7211
Gregory Milakovic, Vice President, 856-802-9930
Lawrence E. Miller, Vice President, 602-553-8817
Donald G. Morosky, Vice President, 717-763-7211
Marlene A. Myers, Vice President, 717-763-7211
Donald B. Nicholas, Vice President and Assistant Secretary, 781-380-7750
Charles R. Norrish, III Vice President, 212-967-9833
Paul L. O'Neal, Vice President, 717-763-7211
Fotios Papamichael, Vice President, 516-671-8066
Marlay B. Price, Vice President, 614-794-9424
Richard A. Pugh, Vice President and Assistant Secretary, 717-763-7211
John D. Purdy, Vice President, 212-967-9833
Thomas M. Rachford, Vice President, 717-763-7211
Jeffrey L. Raffensperger, Vice President, 717-763-7211
Jeffrey J. Ream, Vice President, 814-765-4320
Russell L. Ricker, III Vice President, 717-763-7211
Joseph Rikk, Jr., Vice President, 614-794-9424
John D. Romano, Vice President, 814-644-6822
Steven G. Rowley, Vice President, 717-537-4115
Gary A. Rozmus, Vice President, 516-671-8066
Roderick A. Savidge, Vice President, 717-763-7211
Ronald D. Schreier, Vice President, 602-553-8817
Ralph H. Schwartz, Vice President, 717-763-7211
Kambiz F. Shadan, Vice President, 415-384-0822
Scott W. Sibley, Vice President, 610-650-8101
Dennis W. Silbaugh, Vice President, 717-763-7211
John R. Snodgrass, Vice President, 602-553-8817
Myung-Hak Sung, Vice President, 813-882-4366
D. Eric Veydt, Vice President, 412-922-5575
Patrick J. Welch, Vice President, 717-763-7211
David B. Wilson, Vice President, 717-763-7211
Edward L. Woyden, Vice President, 610-650-8101
Chen-yu Yen, Vice President, 410-585-1460
Laurence S. Zimmermann, Vice President, 717-763-7211
Robert K. Rumbaugh, Jr., Assistant Controller, 717-763-7211
Ruby L. Ile, Assistant Secretary, 717-763-7211

12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES Description and Number of Projects: _____

Yes. In addition, Gannett Fleming is experienced in waterline, pumping station and storage tank planning and design. The number of such projects completed by our firm are too numerous to count. Several examples are cited below.

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: _____

Yes. Gannett Fleming maintains an in-house geotechnical engineering group that supports all our projects, including water/waste water projects.

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: _____

Yes. Gannett Fleming has several staff members that are trained and highly experienced in planning and design of water systems using WaterCAD and other computer modeling software applications. The number of such projects completed by our firm are too numerous to count. Several examples are cited below.

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES Description and Number of Projects: _____

NO

No. These services are routinely provided by Gannett Fleming through subconsultants.

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: _____

Yes. Gannett Fleming has performed groundwater contamination assessments at more than 100 facilities, including being the CERCLA (Superfund) contractor for U.S. EPA Region 3 for 20 years.

NO

F. Is Your firm experienced in Acid Mine Drainage
Evaluation and Abatement Design?

YES Description and Number of Projects:

Yes. Gannett Fleming has provided landfill closure cost estimates for many of the closure designs that have been performed.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.) Rulison Evans, PE		RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
YEARS OF AML DESIGN EXPERIENCE: 0		YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 0	
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 21			
Brief Explanation of Responsibilities: Associate and Senior Project Manager responsible for studies and design of water and wastewater treatment plants, pumping stations and pipelines, and distribution and collection systems. Also serves as Primary Client Contact for several municipal authorities, municipalities, and private clients. Experience includes process and hydraulic design for numerous treatment, pumping, storage, and pipeline projects; project management from conceptual design phase through construction; and membrane filtration studies and designs.			
EDUCATION (Degree, Year, Specialization) B.S., 1987, Chemical Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Water Environment Federation (WEF) American Water Works Association (AWWA) American Membrane Technology Association (WETA)		REGISTRATION (Type, Year, State) Professional Engineer, 2002, PA-059410	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.) F. John L. Schauder, PE		RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
YEARS OF AML DESIGN EXPERIENCE: 0		YEARS OF EXPERIENCE YEARS OF AML RELATED DESIGN EXPERIENCE: 0	
YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 29			
Brief Explanation of Responsibilities: Chief Engineer and Manager of the Municipal Services Technical Group responsible for developing contract documents for bidding the installation of water line and sewer projects, pump stations, water and wastewater treatment plants, water storage tanks, painting of water storage tanks, and purchase of process equipment.			
EDUCATION (Degree, Year, Specialization) B.S., 1977, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Water Environment Federation (WEF) American Water Works Association (AWWA)		REGISTRATION (Type, Year, State) Professional Engineer; 1982, PA-031728E; 1993, WV-012008; 1993, OH-057138	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES		RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
David R. Knapton, P.E.		YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: 0
Brief Explanation of Responsibilities			
Project Engineer and assistant project manager responsible for water and waste water system planning, modeling, design and construction phase services.			
EDUCATION (Degree, Year, Specialization)			
B.S., 1994, Civil Engineering			
M.S., 1996, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
American Water Works Association (AWWA)			
American Society of Civil Engineers (ASCE)			
REGISTRATION (Type, Year, State)		Professional Engineer, 2002, PA-061080	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Saner H. Petro, PE		YEARS OF AML DESIGN EXPERIENCE: 0	YEARS OF AML RELATED DESIGN EXPERIENCE: N/A
Brief Explanation of Responsibilities			
Project Manager and Senior Structural Engineer responsible for designing and analyzing highway bridges and other transportation-related structures.			
EDUCATION (Degree, Year, Specialization)			
B.S.C.E., Structural Engineering, 1987			
M.S.C.E., Structural Engineering, 1993			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS			
American Society of Civil Engineers			
Association for Bridge Construction and Design			
Steering Committee Member, National Conference on Integral Abutment and Jointless Bridges, 2005. Conference sponsored by FHWA and WVDOT.			
REGISTRATION (Type, Year, State)		P.E.: Ohio - No. 66132 (2001) West Virginia - No. 15710 (2003)	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES				RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)	
NAME & TITLE (Last, First, Middle Int.)		YEARS OF AML DESIGN EXPERIENCE:		YEARS OF EXPERIENCE	
Gene A. Janero, PE		13		YEARS OF AML RELATED DESIGN EXPERIENCE: 13	
				YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: N/A	
Brief Explanation of Responsibilities					
Geotechnical Project Engineer responsible for design on various geotechnical and environmental projects, including layout and implementation of field exploration programs, site reconnaissance, drilling inspection, soil and water sampling, and design activities. Also develops and prepares geotechnical reports, technical specifications, and cost estimates.					
EDUCATION (Degree, Year, Specialization)					
B.S., Civil Engineering, 1995					
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS				REGISTRATION (Type, Year, State)	
Society of American Military Engineers Secretary, Pittsburgh Post American Society of Civil Engineers Deep Foundations Institute				P.E.: Pennsylvania - No. PE060736 (2004)	

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES

Please see attached response(s).

EQUIPMENT

Gannett Fleming, Inc. (Gannett Fleming), maintains state-of-the-art computer equipment to support many specific disciplines including: CADD; GIS; Global Positioning System (GPS) and Precision Surveying; Engineering Design and Numerical Analyses; Desktop Publishing; and Multimedia and Graphic Services. Computer resources within each office are linked together with a Windows Local Area Network and corporate wide by a Wide Area Network. Our network of computer resources consists of more than 1,200 desktop PCs and 100 notebooks, Internet e-mail, direct PC Faxing, a full T-3 line that can transmit data at a speed of 44.7 MB per second, World Wide Web (WWW) Internet access, and our own FTP site.

COMPUTER SERVICES

Much of the equipment we maintain is devoted toward providing computer services of all kinds. Central to this system is our IBM ES/9000 System featuring 64 megabytes of internal memory, which operates the VM/ESA and VSE/ESA Operating Systems and supports remote communications from microcomputers and terminals across the continental U.S. This equipment is complemented by auxiliary equipment and software for other specific tasks. In addition to these, we currently maintain and use PCs and 66 laser printers companywide.

Detailed Listing of Computer Hardware

	Quantity
IBM ES/9000 model 9221-170 with 64 MB of real storage	1
IBM 3390 22.7 GB disk drives for a total of 68.1 GB of online storage	1
STK 4480 cartridge tape drives	6
STK 4600 9-track tape drives	2
XEROX 4090 92 PPM laser printer	1
Oce 2140 136 PPM laser printer	5
STK 5000 impact printers	2

Sharing and Delivering Digital Files - Gannett Fleming shares and delivers digital files with other users and clients using a variety of methods. We have our own FTP site, Internet e-mail, a network database server, and standard and specialized hardware for writing digital data to disks, CD-ROMs, Zip Drives, and a variety of tape formats. Brief descriptions of each method follow:

- **FTP:** Gannett Fleming has its own FTP site on the WWW at ftp.gfnet.com. Using the FTP utility, a user can post files directly to our public FTP site. This facilitates downloading large digital files for our clients and between our offices.
- **Internet e-mail:** Gannett Fleming engineers and other employees who regularly work with computers are provided with their own Internet e-mail address. Our e-mail software enables users to send and receive text messages and attached files.
- **Writing Data to Disks, CDs, Zip Drives, and Various Tape Formats:** Gannett Fleming can read, store, and archive digital data in almost any format and medium available. Besides standard floppy disks and high-density diskettes, we have a good mix of WORM and Rewritable Drives for permanently writing large data files to writeable CDs. We also provide and support a wide range of tape storage formats ranging from small 4-mm and 8-mm tape cartridges to large 9-track tape drives for substantial mainframe databases.

CADD SYSTEM

Gannett Fleming uses the latest technologies in CADD systems to increase the efficiency of our designers and engineers. We have more than 23 years of direct CADD experience using purchased design software, as well as design software developed in house. Our CADD system provides our engineers with the ability to design directly within the CADD environment. Currently, Gannett Fleming has 264 Bentley MicroStation stations and approximately 217 AutoCAD stations company-wide. Versions of CADD software that Gannett Fleming supports include MicroStation Version 8 and

AutoCAD 2005. CADD workstations and engineering PCs are cached to a Windows network to provide a "state-of-the-art" distributed processing environment.

Experience

Gannett Fleming has significant CADD experience in the design of bridges, tunnels, heavy rail subway systems, highways, buildings, water treatment plants, bus facilities, mapping, and site development. With more than 23 years of experience, Gannett Fleming has learned to effectively manage and control a CADD-oriented design approach on our projects.

Gannett Fleming has emerged as a leader of GIS as well as CADD. Our firm has significant experience integrating CADD and GIS capabilities on our engineering projects. Our GIS services include siting, mapping, information management, and facilities management. Our GIS software includes ArcCAD, ArcInfo, Intergraph MGE, and Atlas; as well as many others.

CADD Proficiency and Training

Gannett Fleming's "CADD Central" group is responsible for ensuring that our CADD and computer operations are being effectively used and coordinated for projects throughout the company. CADD Central is composed of professional engineers, programmers, graphic specialists, and experienced technicians. Their function is to make certain that Gannett Fleming's CADD, engineering, and graphic applications remain on the leading edge of technology.

Our own in-house training programs instruct operators to effectively implement our CADD/GIS systems in an engineering environment. The training incorporates the latest procedures, software, and programming necessary for maximizing the productivity of our operations. More than 23 years of CADD experience provides us with the knowledge necessary to develop sound, functional training programs. Our training programs cover MicroStation, AutoCAD, and various design software, including InRoads and GEOPAK.

In addition to experience using purchased software, our programming staff has developed in-house CADD software. Programs have been written to link engineering design software with the generation of design drawings, streamline MicroStation user commands, and create AutoCAD LISP routines and MDL applications.

Final CADD output can be plotted on a wide selection of plotters and laser printers. Our plotting capabilities include Océ electrostatic color plotters, large-format Hewlett-Packard InkJet plotters, and a high-end Atlas color plotter. High-speed laser printers available for printing CADD output include various black-and-white, and color laserjet printers. All of our plotters and printers, regardless of their location, are accessible to all Gannett Fleming CADD operators.

The CADD Central group also provides a supplemental training program to keep our more than 300 trained operators current on the latest software and procedures. This additional training ensures that our CADD operators are using the CADD system to its maximum potential.

INFORMATION TECHNOLOGY/WEB SERVICES

Gannett Fleming's Information Technology division is comprised of GeoDecisions®, Information Technology (IT) Services, and GANCOM®. Our staff of more than 250 dedicated IT professionals leverage state-of-the-art technology to support our internal operations as well to provide award-winning solutions to our federal, state, local government, and private-sector clients. Gannett Fleming's IT group is ISO 9001:2000 certified.

GeoDecisions, a national leader in geospatial IT, and the IT Services group combine to provide a one-stop-shop for any client's IT needs. GANCOM is one of the few businesses to offer true "concept to completion" design, production, and fulfillment of copy, print, and direct mail products and services. The combination of human talent,

advanced technology, and our state-of-the-art facilities gives us the unique ability to handle entire projects at a single location.

Gannett Fleming has completed numerous award-winning, Internet-based solutions for public and private clients across the country, including more than 400 IT and GIS-related projects, and more than 50 GIS systems installed nationwide. The main Web services that Gannett Fleming provides for its clients include: GIS-driven data or mapping Web sites; Web-based applications; public relations/project Web sites; secure project collaboration Web sites (i.e., extranets); Web site enhancement services; Web site maintenance; and Web site hosting. We are experienced in developing and hosting any type of Web system that our clients require.

All types of Web sites can be hosted on one of Gannett Fleming's in-house Web servers. We are currently hosting 25 different Web sites that we have completed and/or maintain for our clients. Recent high-end information management projects include enterprise-wide infrastructure management and system integration projects, Web portals, and Internet and intranet Web server solutions. Our commitment to research and development makes certain that we provide cutting-edge solutions that are tailored to our clients' needs.

Our general approach is to develop Web sites that are easy to use, as well as easy to upgrade and maintain. Gannett Fleming's database and programming staff are extremely proficient in Oracle, Microsoft SQL, Microsoft Access, ASP, ASP.NET, JAVA, JavaScript, XML, and VBScript programming, to name just a few. We have the knowledge and experience to provide any type of database Internet solution that is required to complete an assignment. Gannett Fleming's extensive staff of Web developers, designers, multimedia specialists, programmers, and database developers is at our clients' disposal.

PROJECT WEB SITES

Because many of our clients are publicly-funded entities, the Internet provides a fast and easy way to keep the public updated and involved throughout the life of a project. Project Web Sites can provide project updates, schedule information, team information, site photos, and even live construction feeds and video. This is also a valuable way to gather feedback from the public in the form of online surveys, message boards, and other interactive methods of communication. We utilize our designers and programming knowledge to provide sites that are informative, interesting, and interactive. Project Web sites can be broken into two different categories, public information and project collaboration sites. Gannett Fleming has extensive experience in developing and hosting both types of project Web sites.

The first category, public information transfer sites, are Web sites available to the general public that contain information about a particular project that would be of interest to those who are affected by the project in some way. An example of this type of Web site would be a bridge construction project. The Web site would contain general information such as the extent of the project, project schedule, photos at different stages of construction, detours and associated alternate routes, as well as links to other related Web sites that may be of interest to the public.

The second category is a project collaboration site. This type of site is not available to the general public. Access is restricted to those individuals who are working on the project. These Web sites provide features such as task assignment, archiving and exchange of CAD or document files, tracked requests for information, message boards, e-mail notification for updates, and custom applications as needed. Collaborative sites can also be used very effectively in conjunction with public or GIS Web sites to provide a secure area for team and agency communications. Collaborative sites can provide different levels of security for different users or team members. On large projects with multiple contractors, access to documents and areas of the Web site can be restricted to only those areas that the contractor has a need to see. The Project Collaboration system is available 24 hours a day, 365 days a year, anywhere that you can access the Internet.

GPS AND PRECISION SURVEYING

Gannett Fleming currently owns Leica System 500 RTK GPS Surveying System. This equipment is capable of performing sub-centimeter precision positioning surveys. We use our Trimble GPS (Pathfinder Professional) equipment as a survey tool to navigate, determine base points, x-y locations, and log feature attribute information with submeter accuracy. This system is used to map natural and man-made features; establish the initial traverse for corridor planning activities; and for locating feature points (manholes), monitoring points (air samples), and pollutant sources. We can plot GPS data on maps using AutoCAD, MicroStation, or GIS ArcInfo. Feature attribute data such as wetland data can be logged in the field and printed on a customized data form. Digital data from an external source such as a noise meter can be imported into GPS and presented on a map or form in conjunction with a feature. To complement GPS, Gannett Fleming also has surveying crews with total station capabilities with first order accuracy. A list of key GPS and conventional survey equipment follows:

	Quantity
Trimble Pathfinder ProXL units (with submeter accuracy)	2
Theodolites and Total Stations	28
Transits	1
Electronic Distance Measuring (EDM)	25
Levels	4
Automatic Levels	27
Boats with Motors	2
Bucket Truck	1
Fathometer	2
Trimble GeoXT	1

DATA CONVERSION

Gannett Fleming has extensive experience in data conversion and output. We have developed efficient procedures for converting hardcopy pre-existing maps and drawings to digital format. Through the use of several large-format 800-dpi scanners, raster editing software, and interactive vectorization software products, we are capable of providing a total package of services.

The hardware that we are currently using for our scanning operations consists of a Vidar truScan 800, and an Ideal FSS8300; both are state-of-the-art 800-dpi E-size scanners. The scanners convert line and text features from the original hardcopy into a raster image, the resolution of which is determined by the quality of the hardcopy and scanner settings.

Once the raster image is created in one of many acceptable formats, (Intergraph .CIT, AutoCAD .RLE, .TIF, .BMP, etc.) we process the raster image with one of our raster editing tools. We use I/RAS C and I/RAS B software products to process either black-and-white or greyscale scanned raster images. Both products have the capability for an affine transformation so that raster images can be georeferenced to any desired datum and projection.

For vectorization purposes, our primary tool is I/GEOVEC software by Intergraph. I/GEOVEC is an interactive vectorization software product that generates vector graphics for CADD or GIS. User-identified parameters define the line work to be vectorized. While the operator must still provide direction cues, this procedure has proven cost-effective over hand-digitizing or current automatic vectorization solutions. Feature fields can also be linked with attributes so that data input can be layered and linked with databases later in the mapping procedure.

PLOTTING

Gannett Fleming has a significant selection of plotters from which to choose. Our plotting capabilities consist of a Versatec 8636 electrostatic plotter, a Versatec 8944 color electrostatic plotter, and several large-format Hewlett-Packard Inkjet plotters. All of our plotters, regardless of their location, are accessible to any Gannett Fleming operator through the network. This capability provides our regional offices with high-volume plotting capabilities.

1 Detailed Description of CADD, GIS, and Programming Systems Hardware Quantity

Pentium-based CADD Workstations	293
Sun Sparc 20 Workstations	1
Versatec 8944 Color Electrostatic Plotter	1
Versatec 8636 HRE Electrostatic 400 DPI	1
Hewlett-Packard 1055 CM DesignJet Color Plotters	2
Hewlett-Packard 755 CM DesignJet Color Plotters	5
Hewlett-Packard 650C DesignJet Color Plotters	5
Hewlett-Packard InkJet Plotters	10
Hewlett-Packard 4M+ PCL/PostScript LaserJet	1
QMS 860 Laser Plotters, 11x17 Size	8
Hewlett-Packard 4MV Laser Plotters, 11x17 Size	4
Hewlett-Packard LaserJet III and LaserJet 4 Printers	40
CD Writers	5
Vidar truScan Large-Format (E size) Scanner	1
Ideal Large-Format (E size) Scanner	1
Data Digitizers	5
(current specifications include 700MHz Pentium III, 256 MB RAM, 18 GB hard drive, and dual monitors; one 19 inch and one 17 inch)	

Novell LAN

Main Network server Dual 300MHz Pentium II with 250 GB on line Hard Drive Space and 1 GB RAM

23 Additional Application servers including 6 Internet servers.

Software

Bentley MicroStation V8	Bentley MicroStation/J
Auto CAD 2005 I	Autodesk 3D Studio
Bentley InRoads	Bentley FieldWorks
GEOPAK	Intergraph InFlow
Intergraph Project Architect	Terra Model
GWN DTM	GWN COGO
Descartes	I/GEOVEC
Intergraph MGE	Crystal Reports
Microsoft Visual Basic	Microsoft Visual FoxPro
Microsoft Access	Protogent Client Server
Development Suite	Borland C/C++
Informix-SQL	Intergraph Interplot
MicroSIF SIF Translator	AXIOM Filefixer
AXIOM Spellchecker	I/RAS/C
I/RAS/B	PCIPLOT
MicroStation Masterpiece	QuickView PRO
Arc/Info	Intergraph MGE
Atlas GIS	Byers Plot Station
DM/DBA ADM Toolkit	Exceed
ArcCAD	ARC TIN
ARC NETWORK	ARC COGO
GeoMedia	MapInfo
MGE Grid Analyst	MGE Grid Generation
MGE Network	MGE Projection Manager
MGE Section Manager	MGE Terrain Analyst
ARC/INFO Grid	ERDAS
ArcView 3.0a	ArcView Network Analyst

View Spatial Analyst
MrSID
Oracle
Oracle Spatial DBASE
Oracle Spatial Paradox
GeoMedia Web MapObjects
ArcIMS

Vista Map
MapObjects
Oracle Spatial Sybase
Oracle Spatial Access
GeoMedia
ArcSDE
Maptitude.

IN-HOUSE PROGRAMS AND SOFTWARE DEVELOPMENT

Gannett Fleming is committed to continuously increasing the efficiency with which our CADD drawings are generated. Our programming staff has extensive experience developing programs and procedures for our CADD/GIS system. These programs make possible the automated generation of design drawings from our engineering applications. Gannett Fleming developed programs include MDL applications, MicroStation User Commands, AutoCAD LISP routines, Fortran, and C programs. These programs supplement the various proprietary engineering design software that we have purchased.

Our in-house-developed programs reduce the possibility of error and the labor required to complete design drawings. An added benefit is that our engineers can immediately evaluate their designs and quickly implement changes. Our staff has recently completed the following programs:

- A computer application to automate the process of generating PENNDOT required Item Tabulation Sheets. The application was developed using Microsoft's Visual FoxPro. The program allows users to input standard and non-standard tab items into a database, which in turn creates required cost reports and items as ASCII files. The ASCII output files are then imported into MicroStation using TABz MDL program.
- A highway sign computer program developed for the Arizona Department of Transportation. This traffic engineering MDL program adds highway sign character, sign panels, and arrows, all with proper spacing and witness line dimension labels. The user needs only to provide the character string to be placed into the sign panel, and select any number of predefined character heights.
- A Bridge Analysis computer program developed for MicroStation CADD for Gannett Fleming's Transportation Division. The program analyzes PENNDOT design criteria for multi-span steel girder and multi-span prestressed girder highway bridges and calculates values of shear and moment at each tenth point. The program uses the results of calculations generated from the application and graphs the shear and moment at the tenth points, at user-definable scale, and generates and fills in a PENNDOT-required table suitable for submission with project drawings.
- A relational database with a text-based Graphical Users Interface that assists dam operators and engineers in estimating the cost of upgrading nonfederal earth embankment dams. The program features an input template for data entry, interactive filter-building dialogue boxes, database record display either editing capabilities, and printing utilities.
- A program that generates sewer profiles along roadway alignments from engineering design data files.
- A user-friendly relational database for estimating costs associated with dam rehabilitation.
- A "C" program that can reduce cross section data from electronic survey or engineering design software and create finished, formatted drawings, complete with existing ground links and associated text in a CADD design file.
- An interactive CADD program that calculates and labels the stations and offsets of any point with reference to an identified baseline. The text is oriented to the final drawing and is in the required format. This is ideal for right-of-way work and property plats.

- A program that reduces survey data produced from a local station. This data is then processed with loads software to produce finished graphics for contract drawings.
- Two in-house programs that can be applied to produce soil profile drawings. The first of these interactive programs generates a boring log complete with title, layer depths, blow counts, and graphics using very simplified operator input for maximum speed and efficiency. The second program transfers the soil descriptions into the design file from another word processing device. The boring data can be loaded into a three-dimensional or two-dimensional design file. In three-dimensional design files, cross sections that contain complete boring log information can be taken anywhere on the project.
- Graphical database for recording structural inspection findings. This software is used in the field by the inspector to graphically record the defects of structural components on a drawing while physically looking at the same component. The same graphical interface is then used in the office to review and analyze findings. This software has been applied to both buildings and bridges.

MANAGEMENT COMPUTER PROGRAMS

- Primavera SureTrak - Project management software for complex design/production projects with integration/construction management. Compatible to Primavera Project Planner.
- Primavera Project Planner - Project management software to schedule either I-J or precedence-type networks. Provides control of costs and resources.
- Welcom OpenPlan - Desktop and professional versions with full integration of PENNDOT Template.
- Microsoft Project - Microsoft's version of project management software.

GEOTECHNICAL LABORATORY

Gannett Fleming operates a fully equipped 2,000-square-foot soils laboratory. Its facilities and personnel are capable of performing a full range of soil tests as required to analyze and design cut slopes, embankments, landfills, earth barriers, impervious linings, earth covers, and structural foundations.

Equipment is available to perform soil classification, Atterberg limits, unconfined compression, direct shear, triaxial shear, compactions, California Bearing Ratio, permeability, pH, ion exchange capacity, conductivity, and other soil tests. Engineers and geotechnicians experienced in soil engineering and soil testing staff the facility. Tests are performed under the direction of senior professionals who specialize in geotechnical engineering.

The company also has the capacity and equipment to perform field tests of soil density, compaction, permeability, percolation, settlement, slope movement, groundwater elevation, pore pressures, groundwater quality, and other quantitative and qualitative factors. Through the use of our own in house drilling crews or in association with drilling companies, complete subsurface exploration projects can be performed under the firm's professional direction.

The soils testing laboratory is accredited by the AASHTO. The AASHTO Accreditation Program, established in June 1988, is the only program that certifies laboratories for the full complement of basic soil tests.

Personnel have completed 40-hour health and safety training in accordance with OSHA Regulation 29 CFR 1910.120 and are enrolled in a medical monitoring program allowing the laboratory to handle and test potentially contaminated materials.

Tests performed

Permeability	Unconfined compression
Direct shear	Triaxial shear
Residual shear	Compaction
California bearing ratio	Consolidation
Soil classifications	Sieve analysis
Hydrometer	Atterberg limits
Specific gravity	Organic content
Resistivity of soils	Slake durability
Point load testing of rock	pH, ion exchange capacity

Equipment

	Quantity
Flexible wall permeability cells.....	3
Constant head perm cells.....	1
Triaxial cells.....	2
Consolidometers.....	3
Direct shear machine.....	1
Sieve shakers.....	2
Electronic balances.....	5
Ovens.....	6
Slake durability apparatus.....	1
Muffle furnace.....	1
Point load apparatus.....	1

Geotechnical Field Equipment

Vertical and horizontal inclinometers	Digital data loggers
Nuclear density gauges	Piezometers
Sand cones	Pocket penetrometers
Resistivity meters	Double ring infiltrometers
Settlement plates	Turbidimeters
Water level indicators	Soil gas probes
Seismograph	

GEOTECHNICAL SOFTWARE

Our library of geotechnical software includes programs for pile driving, analyzing inclinometer data, performing finite element analyses of embankment construction, seepage analysis, slope stability, aquifer analysis, sheet pile wall design, foundation analysis, earthquake analysis, settlement, retaining structures, and evaluating sliding stability of concrete structures. The following programs are used regularly by our geotechnical engineers:

CANDE89	CRSP	3DSAD	CSLIDE
MIRASLOPE	PCSTABL6	PASTABLE	PASTABLM
ROCKPACKIII	REAME3D	SLOPE/W	SNAIL
WESHAK	SHAKE	COM624G	GRLWEAP
PILEDG	LPILE	CBEAR	FEECON
SIGMA	ABUT4	CCELL	CTWALL
CTSHORING	CWALSHT	SPW911	SEEP
ROCKGROUT	LOGDRAFTIII	STEREO	DIGIPRO
GEOSYSTEM	DARWIN	LPILE	PLAXIS

DRILL EQUIPMENT

Gannett Fleming, through its affiliate L.G. Hetager Drilling, Inc., offers complete drilling capabilities. Hetager Drilling has been providing drilling services since 1952 in support of engineering design and construction projects. Our capabilities include diamond core, air rotary, hammer, reverse air circulation, and auger drilling. We perform pressure testing and pressure grouting; instrumentation; monitoring well installation; land and water drilling; and split spoon, undisturbed and rock core sampling.

Our drilling operations are based in Punxsutawney, Pennsylvania with a regional office in Columbus, Ohio. We employ an experienced staff of nearly 40 drilling personnel and machinists. We operate 19 rigs with a wide range of capabilities and a fully staffed machine shop. By manufacturing our own equipment, parts, and supplies, we are able to adapt standard equipment for special applications.

<u>Equipment</u>	<u>Quantity</u>
Track mount drill rigs.....	7
Truck mount drill rigs.....	6
Skid mount drill rigs.....	3
ATV drill rigs.....	3
Dozers.....	1
Lowboys.....	2
Steam jennys.....	6
ATV waterbuggies.....	2
4WD water tracks.....	6
150 to 750 CFM air compressors.....	2
Generators.....	2
Welders.....	5
Supply pumps.....	9
Trash pumps.....	16
Grout plants.....	3
Barge.....	1
Geo probe.....	1

ENVIRONMENTAL LABORATORY

Gannett Fleming is associated with an environmental laboratory that is located in our facility and is capable of performing a vast range of water quality, solid waste and environmental testing. The laboratory is nationally accredited under the guidelines of the NELAP program. Analytical equipment includes an autoanalyzer, flame and flameless atomic absorption spectrophotometers, an X-ray diffraction spectrophotometer, a mass spectrograph, gas chromatographs, an infrared analyzer, and the normal array of laboratory facilities. A comprehensive list of our environmental equipment is listed below.

The Environmental Laboratory contains sophisticated, state of the art instrumentation and data processing equipment capable of performing most organic and inorganic analyses.

<u>Organics Equipment</u>	<u>Quantity</u>
INCO's 50 mass spectrograph with auto sampler#1, ID# MLCH-1	1
LCS 2000 tekmar	1
ALS 2016 tekmar	1
Varian 3400 gas chromatograph	1
Tracor gas chromatograph with dual ECD detectors	1
Tracor gas chromatograph with FID/ECD detectors	1
INCO's 50 mass spectrograph with auto sampler#1, ID# MLCH-4	1

1	2000 tekmar	1
ALS 2016 tekmar		1
Varian 3400 gas chromatograph		1
Dynatech auto-injectors for gas chromatographs		1
Tekmar sonic disruptor probe		1
Internal floor centrifuge		1
International bench top centrifuge		1
Labline multi-temp block digester		1
Baker 6 place disc extraction manifold		1
VWR vortex genie		1
Varian CP - 3800 GC (in-service 9/04)		1
Varian 3300 - GC (in-service 9/04)		1
Varian archon purge and trap auto sampler (in-service 9/04)		1
Varian saturn 3 GC/MS (in-service 9/04)		1
Varian star 3400CX (in-service 9/04)		1
Tekmar 3000 model 14-30V0-000 (in-service 9/04)		1
Varian star 3400CX GC (in-service 9/04)		1
Varian saturn 2000 GC/MS (in-service 9/04)		1

Metals and Wet Chemistry Equipment

Quantity

Spectro flame modula ICP	1
Perkin elmer mercury analysis with PE 2380	1
Pump for mercury analyzer	1
Spectrophysics strip recorder	1
Varian 8000 zeeman graphite furnace AA	1
Blue M magniwhirl water bath	1
Dionex SX 500 ion chromatograph	1
Dionex IC, ID# MLCH-18A	1
Dionex IC, ID# MLCH-18B	1
Dionex auto sampler	1
Dohrman total organic carbon analyzer with auto sampler	1
Beckman DU-64 UV-VIS spectrophotometer	1
Labconco kjeldahl rapid still	1
Labconco kjeldahl digester	1
2 place zero-headspace extractor	1
6 place TCLP extractor	1
TCLP filtration unit	1
HACH 2100A turbidity meter	1
YSI model 58 oxygen analyzer	1
Orion EA940 pH/specific ion meter	1
Constant temperature oven 104°C	1
Constant temperature oven 180°C	1
Dubuque muffle furnace	1
American scientific products 2 decimal place balance	1
American scientific products 4 decimal place balance	1
Mettler analytical balance	1
Ohaus analytical balance	1
Class "S" calibration weights	1
HACH DR/4000U	1
HACH COD digester	1
SCP science hot block	1

ement AR25 pH/ion meter1

Microbiology Equipment

	Quantity
IDEXX colilert system	1
Millipore MF-incubator#2	1
Market forge stericomatic model STM-E autoclave	1
Millipore 3 place filtration manifold	1
Millipore MF incubator #1	1
SteroMasterII fisher model SPT-ITH	1
UV lamp model UVGL-25	1
Millipore UV sterilizer	1
Precision incubator #2 model 805	1
Precision incubator #1 model 805	1
10mL fixed volume micropipettor	1
Millipore 6 place filtration manifold	1
Steward stomacher 400	1
Precision incubator	1
Drummond pipet aid	1
3M 1.0mL pipettor	1
3M 5.0 mL pipettor, ID# MLCH-72	1
3M 5.0 mL pipettor, ID# MLCH-73	1
VWR dual stir/hotplate	1
Colony counter	1
Micromaster microscope	1
Evawe refrigerator/freezer #1	1
Whirlpool refrigerator/freezer #2	1
Whirlpool refrigerator/freezer #3	1
Precision science model 4 incubator	1
Precision science thelco model 6	1

Miscellaneous Equipment

	Quantity
Kenmore refrigerator/freezer	1
Jewitt double-door refrigerator	1
Jordon double-door refrigerator	1
Precision water bath	1
Bockel steam bath	1
Class A pipets and graduated cylinders	40
Assorted pyrex beakers and flasks	65
Automated pipettors	1
NIST reference thermometer	1
Miscellaneous thermometers	4
Personal computer work stations	11
Software to support GC/MS, GC, IC, ICP, and GFAA	1

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Water System Improvements: 60,000 LF waterlines, and WTP and booster station upgrades, St. Thomas, PA	Bear Valley Water Authority, 218 Schoolhouse Road, Saint Thomas, PA 17252	Planning, design and construction phase engineering services.	\$10,000,000	95%
Waterline Replacements: 7,000 LF waterline replacements (12-inch and 24-inch), Meadville, PA	Meadville Area Water Authority, 18160 Rogers Ferry Road, Meadville, PA 16335	Planning, design and construction phase engineering services.	\$1,500,000	10%
Elizabeth Township Tank: new 1.5 MG hydropillar water storage tank, Elizabeth Twp., PA	PA-American Water Company, 300 Galley Road, McMurray, PA 15317	Planning, design and construction phase engineering services.	\$3,500,000	20%
North Spring Branch Landfill Wyoming County, WV	Georgia Pacific, LLC James Holmes, PG, CHHM 133 Peach St. PO Box 105605 Atlanta, GA 30348-5605	Design, construction mgt., permitting, monitoring, and reporting for AMD passive treatment system	\$2,000,000	Construction completed in 2001. On-going monitoring and NPDES reporting.
Dents Run 3893 Retrofit	Bennett Branch Watershed Association	Design of recycling Alkaline Addition module for Vertical Flow Wetland Ponds	\$25,000	95%
May Hollow 49 passive Treatment System	Cameron County Conservation District	Design of Passive Treatment System for a Deep Mine Discharge	\$250,000	95%
Ryerson Station State Park Dam, Greene County, PA	Commonwealth of Pennsylvania, Dept of Conservation and Natural Resources	Evaluate Potential Causes of Dam Failure in an Area of Permitted Longwall Mining	\$2,000,000 Study Cost	95%

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD		THE DESIGNATED ENGINEER OF RECORD		
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Fall Brook - active AMD treatment system Tioga County, PA	Tioga County Concerned Citizens Committee	\$1,000,000	2007	No
Farr Tipple AMD Passive Treatment System Tuscarawas & Coshocton Counties, OH	Ohio Department of Natural Resources		2003	Yes
Dents Run - Site 3888 AMD Passive Treatment for two underground mine discharges Elk County, PA	U.S. Army Corps of Engineers	\$300,000	2003	Yes
Dents Run - Site 3893 AMD Passive Treatment System Elk County, PA	U.S. Army Corps of Engineers	\$600,000	2006	Yes
Fairmount City AML/AMD Reclamation Clarion County, PA	PADEP - Bureau of Abandoned Mine Reclamation		2004	No
Mosquito Creek Acid Abatement Clearfield County, PA	Mosquito Creek Sportsman Association	\$250,000	2003	Yes
Arnot #2 Passive Treatment System Arnot, PA	Babb Creek Watershed Association	\$200,000	2004	Yes
Osage Mine Complex	West Virginia Department of Environmental Protection 105 South Railroad Street Philippi, WV 26416	\$206,000	2005	Yes
Mine Fire Investigation	Borough of Throop, Sanderson Street, Throop, PA	\$20,000 Study Cost	2004	No

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Mine Subsidence Investigation	Environmental and Recycling Services Inc.	\$300,000 Study and Litigation	2003	Yes
Marjol Battery Site AML/Subsidence Investigation	Borough of Throop, Sanderson Street, Throop, PA	\$250,000 Study and Litigation	2006	No
S.R. 3028 Presto-Sygan Road Landslide Remediation & Deep Mine Grouting	PennDOT District 11-0 45 Thoms Run Road Bridgeville, PA 15017	\$750,000	2008	No
S.R. 837 Landslide Stabilization & AMD Remediation	PennDOT District 12-0 825 North Gallatin Ave Ext. Uniontown, PA 15401	\$2,000,000	2006	Yes
Comprehensive Water Supply Planning Studies for five counties and/or watersheds in WV (incl. McDowell, Fayette and Randolph Counties)	USDA/NRCS with funding by numerous state and federal agencies, including WVJIDC	N/A	1995 thru 2000	partial

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)					
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
N/A					
19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.					
Please see attached response.					

20. The foregoing is a statement of facts.	
Signature: <u>John W. Kovacs</u>	Title: <u>Vice President and Regional Office Manager</u>
Printed Name: <u>John W. Kovacs, PE</u>	
Date: <u>October 6, 2008</u>	

19. Us this space to provide any additional informat. or description of resources supporting your .rm's qualifications to perform work for the WV Department of Environmental Protection.

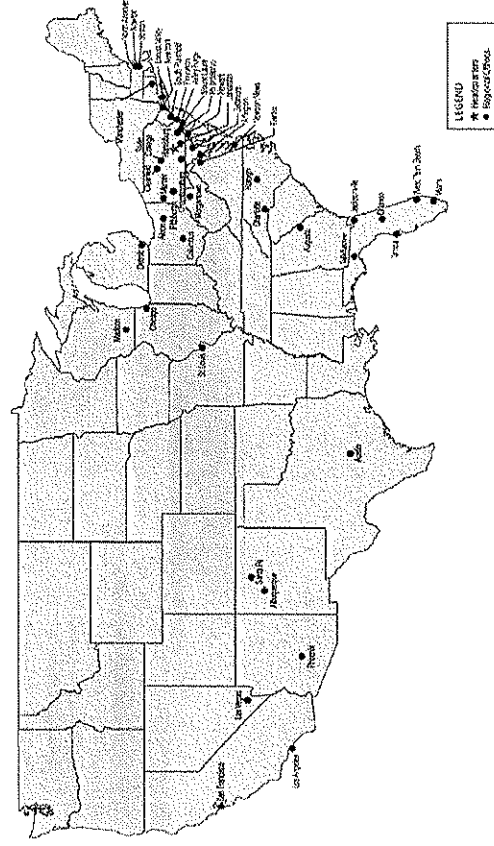
INTRODUCTION

Gannett Fleming, Inc. is an international, multi-disciplinary engineering, environmental, and planning firm with over 92 years experience successfully serving clients worldwide. Since its founding in 1915, we have continuously demonstrated a sensitivity and commitment to the needs and expectations of our clients. Our firm is consistently listed among the nation's most prestigious consulting firms. The *Engineering News Record* has ranked Gannett Fleming 55th among nearly Top 500 Design Firms.

Gannett Fleming provides our clients with creative business solutions to environmental challenges. We promote sustainable approaches that conserve energy and reduce project life cycle costs. We bring to each new assignment the experience and insight gained from working with a broad spectrum of clients. Gannett Fleming's technical expertise, diversity, and breadth of experience allow it to be a sole source consulting firm for many clients. Our broad-based capabilities facilitate project coordination, staff continuity, and efficient project management, and help us maintain quality and budgetary control by determining and implementing cost-effective solutions in a timely manner. This ultimately reduces overall project costs. Gannett Fleming is a pioneer in the environmental field and we have a solid performance record of innovation and advanced technology that works.

Our firm has 1,864 employees, including a full line of professional engineers (chemical, civil, environmental, geotechnical), professional geologists and hydrogeologists, environmental scientists, chemists, terrestrial and aquatic biologists, wetlands specialists, toxicologists, risk assessors, geophysicists, economists, statisticians, GIS specialists, computer system analysts and programmers, transportation and land planners, and field and construction technicians. The firm is solely owned by employee stockholders with no outside financial interests to interfere with our goal of providing quality services to our clients on time and within budget. Our leadership in the environmental field is clearly based on the technical, scientific, regulatory, and management expertise of our employees. Staff members not only maintain active memberships in leading professional and academic associations but also chair and present at national and international conferences. As a result, we keep abreast of current environmental regulations and management practices.

GANNETT FLEMING OFFICES



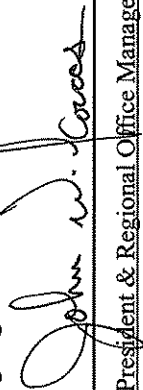
EXPERIENCE

Gannett Fleming is a recognized leader in providing environmental, geologic, hydrogeologic, and engineering services for the mining and reclamation industry. We know the mining and reclamation industry, and we work with our clients to rapidly identify the unique aspects of each project early in the planning process. Our firm's reputation and excellent working relationship with both Federal and State regulatory and reclamation agencies has enabled us to develop environmentally sensitive, cost effective AMR reclamation and AMD abatement and treatment strategies for our reclamation clients. We also work with various private individuals/organizations and government agencies to investigate abandoned mine sites relative to watershed assessments, reclamation of abandoned minelands (AML), the abatement of acid mine drainage (AMD) by passive or active treatment technologies, the assessment and rehabilitation of existing treatment systems, and the extension of public water supply systems in AMD/AML affected areas.

20. The foregoing is a statement of facts

Date: 10/6/08

Signature: _____



Title: Vice President & Regional Office Manager

Printed

Name: John W. Kovacs, P.E.

Owner/Location	WATER MAIN PROJECT LINEAL FEET/TYPE																36"	42"	48"	54"	60"	72"	78"	84"	96"
	3"	10"	12"	16"	20"	22"	24"	30"	32"	36"	42"	48"	54"	60"	72"	78"	84"	96"							

Arlington County Department of Public Works Arlington, VA												6,000 Pre- stressed Concrete													
Augusta Utilities Department Augusta, GA				14,000 DIP																					
Bear Valley, Franklin County, PA Joint Authority St. Thomas, PA	4,800 PVC	7,800 PVC (R)	26,400 PVC																						
Bethlehem, City of Bethlehem, PA												20,000 Steel	18,000 Steel	15,000 Steel											
Chambersburg, Borough of Chambersburg, PA			2,230 DIP																						
Chester Water Authority Chester, PA					17,500 DIP							24,000 Pre- stressed Concrete			710 Pre- stressed Concrete										
Clarksburg WV Water Board Clarksburg, WV				6,120 DIP	1,052 DIP																				
Cornwall Borough Municipal Authority Cornwall, PA	4,284 DIP		4,592 DIP 8,400 DIP	4,190 DIP																					
Danville Municipal Authority Danville, PA	6,000 PVC 1,000 DIP		12,000 PVC																						
District of Columbia Washington, DC																									
Doylestown, Borough of Doylestown, PA	500 DIP	2,700 DIP																							
Easton Suburban Water Authority Easton, PA			10,740 DIP	31,700 DIP																					
Easton, City of Easton, PA				6,850 DIP																					
Empresa de Agua Potable Quito, Ecuador,							44,000 Steel	30,000 Steel	22,500 Steel	7,100 Steel		1,200 Steel													
Ephrata Area Joint Authority Ephrata, PA			2,300 DIP																						
Fairfax County Water Authority Merrifield, VA				11,000 DIP			500 DIP			36,000 DIP	1,800 Steel	13,200 Steel	2,400 Steel	25,000 Pre- stressed concrete										2,500 Steel	
Fairfax, City of Fairfax, VA							19,000 DIP			17,700 DIP		1,150 Steel													

WATER MAIN PROJECT - LINEAL FEET/TYPE

Owner / Location	8"	10"	12"	16"	20"	22"	24"	30"	32"	36"	42"	48"	54"	60"	72"	78"	84"	96"
Falls Church, City of Falls Church, VA			3,500 DIP															
Gettysburg Municipal Authority Gettysburg, PA	8,000 DIP																	
Greater Johnstown Water Authority Johnstown, PA	1,120 DIP																	
	2,100 DIP																	
	4,284 DIP	3,200 DIP		1,750 DIP														
	17,635 DIP						215 Steel 450 DIP											
Greencastle Area, Franklin County Water Authority Greencastle, PA	3,200 DIP																	
			8,000 DIP (R)															
Isle of Wight County Isle of Wight County, VA																		
JEA Jacksonville, FL					8,600 PVC 11,000 DIP		15,000 PVC			4,000 DIP								
Keystone Water Company Phillipsburg, PA				1,500 DIP														
Lancaster Authority, City of Lancaster, PA			3,200 DIP	8,000 DIP														
Latrobe Municipal Authority Latrobe, PA							17,000 DIP											
Lebanon Authority, City of Lebanon, PA	2,200 DIP																	
	16,500 DIP				13,250 DIP		6,000 DIP	13,000 DIP										
				2,250 DIP														
				25,250 DIP														
Lehigh County Authority Allentown, PA				13,000 DIP														
Lehigh County Authority Lehigh, PA			2,000 DIP	10,800 DIP														
Lehigh County Authority Lehigh, PA			2,400 DIP (R)	3,800 DIP														

WATER MAIN PROJECT - LINEAL FEET/TYPE																		
Owner / Location	8'	10'	12'	16'	20'	22'	24'	30'	32'	36'	42'	48'	54'	60'	72'	78'	84'	96'
Mahanoy Township Authority Mahanoy, PA	3,000 DIP	2,000 DIP																
McConnellsburg Borough Municipal Authority McConnellsburg, PA			1,425 DIP															
Millersburg Area Authority Millersburg, PA	2,830 DIP																	
Mt. Holly Springs Borough Authority Mt. Holly Springs, PA	34,000 PVC		12,700 PVC															
Muhlenberg Township Authority Reading, PA	1,300 DIP		6,830 DIP 3,100 DIP	4,300 DIP														
Municipal Authority of the Borough of Shenandoah Shenandoah, PA					1,600 DIP													
New York, City of New York, NY												14,500 Pre-stressed Concrete 2,500 Steel			16,500 Steel			
Newport Borough Water Authority Newport, PA			3,000 DIP 2,525 Poly-ethylene															
Newport News Newport News, VA												50,000 Pre-stressed Concrete						
Norfolk, City of, Dept. of Utilities Norfolk, VA											6,000 Pre-stressed Concrete	63,400 Pre-stressed Concrete						
North Penn/North Wales Water Authority North Wales, PA										4,750 DIP	5,400 DIP							
North Wales Water Authority North Wales, PA								15,400 DIP		6,300 DIP								
Northampton Borough Municipal Authority Northampton, PA	7,200 DIP		7,200 DIP	3,000 DIP														

WATER MAIN PROJECT - LINEAL FEET TYPE																		
Owner / Location	3'	10'	12'	16'	20'	22'	24'	30'	32'	36'	42'	48'	54'	60'	72'	78'	84'	96'
Pennsylvania Gas and Water Company Wilkes-Barre, PA				35,000 DIP		9,337 DIP	12,000 DIP	16,500 DIP			28,230 DIP	2,400 DIP						
Pennsylvania-American Water Company Scranton, PA				37,300 DIP			12,000 DIP	14,500 DIP			28,230 DIP	2,400 DIP						
Petersburg, City of Petersburg, VA			7,000 DIP															
Prince William County Service Authority Woodbridge, VA											30,000 Pre-stressed Concrete							
Schuylkill County Municipal Authority Pottsville, PA			9,000 DIP															
Selinsgrove Municipal Authority Selinsgrove, PA	600 DIP																	
Shamokin Dam Borough Shamokin, PA	9,000 DIP																	
Shippensburg Borough and Authority Shippensburg, PA			17,400 DIP	700 DIP														
Shippensburg, PA County Fredericksburg, VA							11,000 DIP	7,000 DIP										
Tamaqua Area Water Authority Tamaqua, VA	4,100 PVC	2,850 DIP																
Virginia Beach, City of Virginia Beach, VA								11,150 Pre-stressed Concrete										6,000 Pre-stressed Concrete
Washington Suburban Sanitary Commission Hyattsville, MD																		
West Virginia-American Water Company Charleston, WV					25,000 Pre-stressed Concrete		11,000 Pre-stressed Concrete	32,000 Pre-stressed Concrete			52,000 Pre-stressed Concrete	5,000 Pre-stressed Concrete						
Westmoreland County, Municipal Authority of Greensburg, PA					29,000 DIP		26,000 DIP				30,000 Pre-stressed Concrete	4,000 DIP						

WATER STORAGE TANK DESIGN Tank Type and Capacity																	
Client Project Location	Year	Reinforced Concrete Reservoir						Elevated Steel Tank				Steel Standpipe		Steel Reservoir		Design	Construction Cost
		Quantity	Capacity (Gallons)	Prestressed	Post-Tensioned	Quantity	Capacity (Gallons)	Hydropillar	Leg	Quantity	Capacity (Gallons)	Quantity	Capacity (Gallons)				

Adams County, Board of Commissioners Adams County, PA	2001					1	400,000	●					●	\$625,000
Arlington County Department of Public Works Arlington County, VA	1997	2	3,000,000										●	
Atlantic City Municipal Utilities Authority Atlantic City, NJ	1997									1	6,000,000		●	\$4,600,000
Baltimore County DPW North East Baltimore County, MD	2002	2	20,000,000	●									●	
Baltimore County DPW Baltimore, MD	2001	1	6,000,000										●	\$12,000,000
Bear Valley, Franklin County, Joint Water Authority St. Thomas, PA	1995									2	500,000			\$1,881,000
Bethlehem, City of Bethlehem, PA	1995											1	5,000,000	\$1,557,579
Bridgeport Hydraulic Company Bridgeport, CT	1993											1	220,000	\$225,000
Chambersburg Borough Chambersburg, PA	2001					1	2,000,000						●	\$1,750,000
Chester Water Authority Chester, PA	1996	1	10,000,000	●										\$4,000,000
Clarksburg WV Water Board Clarksburg, WV	2001	1	2,000,000	●										\$1,911,149
Coatesville Authority, City of Coatesville, PA	1997					1	250,000							\$194,700
Columbia Water Company Columbia, PA	1991	1	2,000,000	●										\$1,250,000

NOTE: \$0 Cost = Currently not under construction

WATER STORAGE TANK DESIGN Tank Type and Capacity

Client Project Location	Year	Reinforced Concrete Reservoir				Elevated Steel Tank				Steel Standpipe		Steel Reservoir		Design	Construction Cost
		Quantity	Capacity (Gallons)	Prestressed	Post- Tensioned	Quantity	Capacity (Gallons)	Hydropillar	Leg	Quantity	Capacity (Gallons)	Quantity	Capacity (Gallons)		

East Hempfield, Municipal Authority of the Township of Landisville, PA	1989								1	3,500,000					\$2,100,000
Easton Suburban Water Authority Easton, PA	1996								1	500,000	1	600,000			\$3,957,400
Easton Suburban Water Authority Easton, PA	2004								2	1,500,000	1	1,500,000			
Easton Suburban Water Authority Easton, PA	2004								1	2,000,000					\$344,000
Ephrata Area Joint Authority Ephrata, PA	1992								1	500,000					\$475,000
Ephrata Area Joint Authority Ephrata, PA	2000										1	250,000			\$385,000
Falls Church, City of Fairfax County, VA	2001								1	2,200,000					\$3,500,000
Gettysburg Municipal Authority Gettysburg, PA	1984								2	1,000,000					\$345,000
Gettysburg Municipal Authority Gettysburg, PA	2000								1	600,000					\$455,000
Greater Cincinnati Water Works Cincinnati, OH	2004	1	2,000,000												\$3,100,000
Greater Johnstown Water Authority Johnstown, PA	1994											2	2,000,000		\$2,300,000
Greencastle Area, Franklin County, Water Authority Greencastle, PA	1992											1	3,000,000		
Greencastle Area, Franklin County, Water Authority Greencastle, PA	2001														\$900,000
Grove City, Borough of Grove City, PA	2000	1	1,500,000						1	1,000,000					
Hampstead, Town of Hampstead, MD	2000								1	750,000					\$1,009,431
										400,000					\$755,000

NOTE: \$0 Cost = Currently not under construction

WATER STORAGE TANK DESIGN Tank Type and Capacity															
Client Project Location	Year	Reinforced Concrete Reservoir				Elevated Steel Tank				Steel Standpipe		Steel Reservoir		Design	Construction Cost
		Quantity	Capacity (Gallons)	Prestressed	Post-Tensioned	Quantity	Capacity (Gallons)	Hydropillar	Leg	Quantity	Capacity (Gallons)	Quantity	Capacity (Gallons)		

Isle of Wight County Isle of Wight County, VA	2003					1	750,000							\$2,000,000
James City Service Authority James City County, VA	2005					2	2,250,000							
Lebanon Authority, City of Lebanon, PA	1987 2001	1	3,000,000			1	1,000,000			1	1,750,000	1	3,000,000	\$7,000,000
Lebanon County Municipal Authority Cornwall Borough, PA	2001											1	200,000	\$336,000
Lebanon County Municipal Authority	2005					1	250,000							\$165,000
Lehigh County Authority Allentown, PA	1989									1	1,000,000			\$750,000
Lehighon Water Authority Lehighon, PA	1994									1	750,000			\$600,000
Mahanoy Township Authority Mahanoy City, PA	1994											1	750,000	\$550,000
Maryland Department of General Services St. Mary's County, MD	2004					1	500,000							
Millersburg Water Authority Millersburg, PA	1995									1	500,000			\$370,000
Muhlenberg Township Authority Reading, PA	1989					1	1,000,000							\$1,100,000
New Holland Borough Authority New Holland, PA	1992					1	500,000							\$860,000
New Jersey-American Water Company Shrewsbury, NJ	1992									1	5,800,000			\$3,500,000

NOTE: \$0 Cost = Currently not under construction

WATER STORAGE TANK DESIGN Tank Type and Capacity															
Client Project Location	Year	Reinforced Concrete Reservoir				Elevated Steel Tank				Steel Standpipe		Steel Reservoir		Design	Construction Cost
		Quantity	Capacity (Gallons)	Prestressed	Post-Tensioned	Quantity	Capacity (Gallons)	Hydropillar	Leg	Quantity	Capacity (Gallons)	Quantity	Capacity (Gallons)		

Newport Borough Municipal Authority Newport, PA	1980 1992											2 1	250,000 250,000	\$650,000
Newville Water and Sewer Authority Newville, PA	1994					1	250,000		●					\$300,000
Norfolk, City of, Dept. of Utilities Norfolk, VA	2000											1 1	8,000,000 4,000,000	
North Wales Water Authority North Wales, PA	1998					1 1	1,500,000 4,100,000	● ●						\$1,045,000 \$5,081,000
Northampton Borough Municipal Authority Northampton, PA	1997									1	1,000,000			\$465,000
Ohio American Water, Lake White District Waverly, OH	2007									1	120,000			\$200,000
Pennsylvania American Water Bigler and West Decatur, PA	2000									2	100,000		●	\$2,400,000
Pennsylvania American Water Coatesville, PA	2001					1	250,000							\$135,500
Pennsylvania American Water Elwood City, PA	1997					1	300,000	●						\$475,000
PennsylvaniaAmerican Water Harrisburg, PA	1998											1	750,000	
Pennsylvania American Water Mechanicsburg, PA	2005	1	1,500,000	●										
Pennsylvania American Water Mechanicsburg, PA	2000											1	750,000	
Pennsylvania American Water Milton, PA	1999					1	1,000,000	●						\$987,500
Pennsylvania American Water Milton, PA	2000											1	600,000	\$770,000

NOTE: \$0 Cost = Currently not under construction

WATER STORAGE TANK DESIGN Tank Type and Capacity

Client Project Location	Year	Reinforced Concrete Reservoir				Elevated Steel Tank				Steel Standpipe		Steel Reservoir		Design	Construction Cost	
		Quantity	Capacity (Gallons)	Prestressed	Post- Tensioned	Quantity	Capacity (Gallons)	Hydropillar	Leg	Quantity	Capacity (Gallons)	Quantity	Capacity (Gallons)			
Pennsylvania American Water Company Mt. Pocono, PA	1998					1	500,000	●							\$614,665	
Pennsylvania American Water West Norriton, PA	2000											1	500,000		\$471,805	
Pennsylvania American Water Wilkes-Barre, PA	1988 1994											3	750,000		\$8,000,000	
												2	780,000			
												12	1,000,000			
												3	1,600,000			
												1	2,000,000			
												2	2,500,000			
Petersburg (City of) Department of Utilities Petersburg, VA	1997											1	2,800,000			
												1	2,900,000			
												1	5,000,000			
						1	1,500,000	●						●		
Pittsburgh Water and Sewer Authority Pittsburgh, PA	1988											2	5,500,000		\$2,000,000	
Schuylkill County Municipal Authority Pottsville, PA	1993										3 1	1,000,000 5,000,000	1	1,000,000		\$1,800,000
Shamokin Dam Borough Shamokin, PA	1999					1	250,000								\$587,600	
Shenandoah, Municipal Authority of the Borough of Shenandoah, PA	1990												1	800,000		\$1,200,000
												1	1,100,000			
Shippensburg Borough and Authority Shippensburg, PA	1989										1	250,000	1	500,000		\$550,000
Suffolk, City of Department of Public Utilities Suffolk, VA	2005					1	200,000								●	
Tamaqua Area Water Authority Tamaqua, PA	1996 2002											1	1,000,000	2	1,000,000	\$4,060,000
												1	1,500,000	2	500,000	

NOTE: \$0 Cost = Currently not under construction

WATER STORAGE TANK DESIGN Tank Type and Capacity															
Client Project Location	Year	Reinforced Concrete Reservoir				Elevated Steel Tank				Steel Standpipe		Steel Reservoir		Design	Construction Cost
		Quantity	Capacity (Gallons)	Pressressed	Post-Tensioned	Quantity	Capacity (Gallons)	Hydropillar	Leg	Quantity	Capacity (Gallons)	Quantity	Capacity (Gallons)		

U.S. Navy, Northern Div. Naval Base Philadelphia, PA	1988				1	750,000 1,250,000		• •							\$1,900,000
Uwchlan Township Municipal Authority Reading, PA	1991	1	2,000,000	•											\$1,000,000
Virginia-American Water Company Hopewell, VA	1989												1	2,500,000	\$1,500,000
Waynesboro Borough Authority Waynesboro, PA	1988												1	3,500,000	\$2,000,000
West Virginia-American Water Company Hopewell, WV													1	2,500,000	
Western Berks Water Authority Sinking Spring, PA	1995	1 1	3,000,000 1,000,000	• •											\$1,925,000
Westmoreland County, Municipal Authority of Greensburg, PA	1988												1 1 3	1,000,000 2,000,000 5,000,000	\$3,500,000
Wilkesburg-Penn Joint Water Authority Wilkesburg, PA	1989				1	250,000							2	6,000,000	\$3,250,000

NOTE: \$0 Cost = Currently not under construction

INTAKES AND PUMPING STATIONS FOR WATER SUPPLY PROJECTS

Client Project Project Location	Year	Intake		Raw Water Pumps			High Service Pumps			Booster Pumps				
		Type	Source	Capacity	Ultimate Capacity	Comments	Type	Qty	GPM	HP	Type	Qty	GPM	HP
Danville Municipal Authority Water Supply System Improvements Danville, PA			North Branch Susquehanna River 4 6			Dual intake pipes with trash racks and stationary screen	Vertical Turbine	1 1 1	1,400 2,100 2,800	20 30 40	Vertical Turbine	1 1 1	1,150 1,700 2,350	100 150 200
East Hempfield Township, Municipal Authority of Well No. 6 & 7 East Hempfield Township, PA							Vertical Turbine	1	200	25				
Easton Suburban Water Authority Knox Avenue and North High Distribution System Improvements Easton, PA							Submersible Turbine	1	80	15				
Fairfax County Water Authority Raw Water Pumping Station and Pipeline Fairfax County, VA			Potomac River 150 200 Trash racks, trash boom & traveling screens				Vertical Turbine	1 2 2	14,000 21,000 42,000	1,00 0 1,50 0 3,00 0				
Fairfax, City of Renovation of Water Treatment Renovation of Distribution System Facilities Fairfax, VA			Goose Creek Reservoir 18 27 Submerged intake, stationary screens and remote control				Vertical Turbine	1 1	9,200 8,330	700 700	Vertical Turbine	1	12,500	1,750 0
Gettysburg Municipal Authority Modifications to Water Supply System Gettysburg, PA							Horizontal Centrifugal	1	1,150	15	Horizontal Centrifugal	1	700	100

INTAKES AND PUMPING STATIONS FOR WATER SUPPLY PROJECTS

Client Project Project Location	Intake		Raw Water Pumps				High Service Pumps				Booster Pumps			
	Year	Type Source Capacity Ultimate Capacity Comments	Type	Qty	GPM	HP	Type	Qty	GPM	HP	Type	Qty	GPM	HP
Greater Johnstown Water Authority Water System Improvements Johnstown, PA							Vertical Turbine	3	5,200	150	VFD	2	200	30
								3	3,700	200		2	250	
								1	2,900	125				
								2	2,800	200				
Greencastle Area, Franklin County, Water Authority Greencastle WTP Greencastle, PA		Existing Intakes (no modifications)	Vertical Turbine Can	2	250	5	Horizontal Split Case	1	1,120	40	Vertical Turbine	2	1,12	20
								1	840	30		2	0	30
								1	350	15		2,80	0	
Hagerstown, City of Smithburg/Edgemont Water Filtration Plant Smithburg, MD								2	1,670	30				
Kentucky-American Water Company Newton Booster Station Lexington, KY											Horizontal Centrifugal	1	1,14	60
												2	0	60
												2,10	0	
Keystone Water Company Pumping Station/Storage Tank Philipsburg, PA			Horizontal Centrifugal	3	460	75								
Lebanon Authority, City of Water System Improvements Lebanon County, PA		Swatara Creek 6 12 Trash rack, traveling screen, desilting basin, emergency generator, remote control	Vertical Turbine	1	4,400	300	Vertical Turbine	1	5,600	250	Indiantown Gap Booster Station	2	1,74	100
				1	3,600	250		1	4,200	200		0		
				1	3,500	250		1	2,800	125				
				1	2,625	250								
Lehigh County Authority Well Development Wells No. 17 and 18 Wescosville, PA			Vertical Turbine	1	1,000	30	Vertical Turbine	1	1,050	60	Vertical Turbine	1	800	50
				1	1,000	50		1	1,050	100		1	600	40
Lehighon Water Authority Pumping Station Lehighon, PA		Lehigh River 2 Infiltration gallery									End Suction	2	250	25

INTAKES AND PUMPING STATIONS FOR WATER SUPPLY PROJECTS

Client Project Project Location	Year	Intake		Raw Water Pumps			High Service Pumps			Booster Pumps					
		Type	Source	Type	Qty	GPM	HP	Type	Qty	GPM	HP	Type	Qty	GPM	HP
North Penn/North Wales Water Authority Forest Park WTP Chalfont, PA			North Branch Neshaminy Creek, Pine Run 40 40 Pine Run initial capacity 3.2 mgd. Infiltration gallery with water and air backwash capability. Inflatable dam stream bank intake.	Vertical Turbine w/VFDs	2	8,700	125	Vertical Turbine (North Penn) 800 w/VFD	1	7,000	800	Horizontal Centrifugal Recirculation	2	2,000	60
		2			10,410	150	1		5,210	800	1		4,275	500	
						1	7,000		800						
						1	7,000		800						
				Vertical Turbine (North Wales) 800 w/VFD				1	7,000	800					
								1	6,050	900					
								1	4,700	700					
								1	7,000	800					
								GAC Transfer w/VFD	3	13,900	200				
North Wales Water Authority North Wales (Route 202) North Wales, PA												3 - 0.5 mgd pumps			
Northampton Borough Municipal Authority Clearview High Service Northampton, PA												Horizontal Centrifugal	2	500	75
												Multi-stage Diffuser	2	150	15
Northampton Borough Municipal Authority Lehigh River Intake Lehigh County, PA			Streambank Lehigh River 6 12 Bar racks, stationary screens with provisions for future traveling screens	Vertical Turbine	1 1	2,370 3,400	40 65								
Pennsylvania Gas and Water Company Brownell WTP Wilkes-Barre, PA			Existing reservoir intake(s)	Horizontal Centrifugal, Var. Frequency Drives	2	3,500	60								
Pennsylvania Gas and Water Company Fallbrook WTP Wilkes-Barre and Scranton, PA			Existing reservoir intake(s)	Vertical Turbine Can, Variable Frequency Drive	2	2,100	40								

INTAKES AND PUMPING STATIONS FOR WATER SUPPLY PROJECTS

Client Project Project Location	Year	Intake		Raw Water Pumps			High Service Pumps			Booster Pumps		
		Type Source Capacity Ultimate Capacity Comments		Type	Qty	GPM	HP	Type	Qty	GPM	HP	HP
Pennsylvania Gas and Water Company Mill Creek/Gardner- Watres WTP Wilkes-Barre, PA		Existing reservoir intake(s) Mill Creek and Watres Reservoirs		Horizontal Centrifugal Gardner Creek Reservoir	2 1	2,850 1,725	150 100					
Pennsylvania Gas and Water Company Scranton WTP Scranton, PA		Gravity sources Existing reservoir intake(s)		Vertical Turbine In-line, Variable Frequency Drive	3	20,900	500					
Pennsylvania American Water Becks Run WTP Pittsburgh, PA		Streambank Monongahela River 60 mgd 75 mgd Feasibility study for intake and raw water pump station replacement										
Pennsylvania American Water Ceasetown WTP Wilkes-Barre, PA		Two boxes w/truck racks and 1 tee-type well screen Pikes Creek Reservoir 16										
Pennsylvania American Water Ceasetown WTP Wilkes-Barre, PA		Streambank Harvey Creek 20 Trash racks, trash booms, deicing system, traveling screen and remote control		Vertical Turbine In-line	3	10,000	125					
Pennsylvania American Water Hershey WTP Hershey, PA		Streambank Swatara Creek 9 13.5 Bar rack - one traveling screen and one stationary screen		Vertical Turbine	2 1	4,200 2,100	150 60	Vertical Turbine	2 1	4,200 2,100	450 250	

INTAKES AND PUMPING STATIONS FOR WATER SUPPLY PROJECTS

Client Project Project Location	Year	Intake		Raw Water Pumps			High Service Pumps			Booster Pumps		
		Type	Source	Type	Qty	GPM	HP	Type	Qty	GPM	HP	HP
Pennsylvania American Water Hershey WTP Hershey, PA		Screened bank intake	Manada Creek	Submersible	2	2,100	60					
Pennsylvania- American Water Norristown WTP Norristown, PA		Renovated existing intake crib	Schuylkill River 18	3 - 9 mgd/VFD, 100 HP				Transfer 3 - 9 mgd pumps/VFD, 60 HP; 2 - 6 mgd, 350 HP; 2 - 8 mgd, 400 HP				
Pennsylvania American Water West Shore WTP Fairview Township, PA		Streambank intake w/submerged wedgewire screens	Yellow Breeches Creek 12 16 Two redundant intakes	Vertical Turbine w/VFDs	3	4,164	500	Vertical Turbine w/VFDs	3	4,164	350	
PSEG Waterford Energy Waterford, OH	2001	Power Plant		Vertical Turbine	2	7,000	200					
Schuylkill County Municipal Authority Broad Mountain WTPs Pottsville/St. Clair, PA		Existing reservoir intake(s) (no modifications)										60 10
Schuylkill County Municipal Authority Indian Run WTP Pottsville, PA		Existing reservoir intake(s) (no modifications)						Vertical Turbine	1 1 1	1,100 1,700 2,500	200 300 400	300

INTAKES AND PUMPING STATIONS FOR WATER SUPPLY PROJECTS

Client Project Project Location	Year	Intake Type Source Capacity Ultimate Capacity Comments	Raw Water Pumps				High Service Pumps				Booster Pumps			
			Type	Qty	GPM	HP	Type	Qty	GPM	HP	Type	Qty	GPM	HP
Schuylkill County Municipal Authority Mount Laurel WTP Frackville, PA		Existing reservoir intake(s) (no modifications) 0.8 2	Horizontal End Suction	3	400	75	Vertical Turbine	3	400	50	Vertical Turbine (washwater)	1	2,500	40
Selinsgrove Municipal Authority Water Supply System Well No. 3 Improvements Selinsgrove, PA							Vertical Turbine	1	400	40				
Selinsgrove Municipal Authority Well No. 4 Facilities Selinsgrove, PA			Vertical Turbine	1	700	25	Vertical Turbine	1	750	50				
Shamokin Dam Borough Water Treatment Modifications Shamokin Dam, PA		Susquehanna River 0.8 Modifications to existing streambank intake.	Vertical Turbine	1	1,000	40	Vertical Turbine	1	950	125				
Shippensburg Borough and Authority Water Treatment Plant Shippensburg, PA							Vertical Turbine	2	1,400	60	Vertical Turbine	3	100	10
Spotsylvania County Hunting Run Water Supply Fredericksburg, VA		Rapidan River 24												

INTAKES AND PUMPING STATIONS FOR WATER SUPPLY PROJECTS

Client Project Project Location	Year	Intake Type Source Capacity Ultimate Capacity Comments	Raw Water Pumps				High Service Pumps				Booster Pumps			
			Type	Qty	GPM	HP	Type	Qty	GPM	HP	Type	Qty	GPM	HP
Westmoreland County, Municipal Authority of Indian Creek WTP Westmoreland County, PA		Youghiogheny River 40 60 Ultimate capacity: 60 Rash racks, traveling screen, deicing system, and remote control	Vertical Turbine	1	11,100	250	Vertical Turbine	1	17,350	2,00	Horizontal Centrifugal	1	10,6	600
				1	8,300	150		1	15,260	0		1	00	400
				1	5,600	100		1	11,100	1,75		1	8,50	250
				1	18,300	450		1	8,300	0		1	0	350
				1	16,200	325		1	5,600	1,25			6,35	
Westmoreland County, Municipal Authority of McKeesport WTP Improvements System Improvements McKeesport, PA			Vertical Turbine				Vertical Turbine			1,00			3,50	
										0			0	
										700			0	
			Vertical Turbine	1	6,950	800	Vertical Turbine	1	6,950	800				
				1	6,950	800		1	6,950	800				
				2	2,100	400		2	2,100	400				