

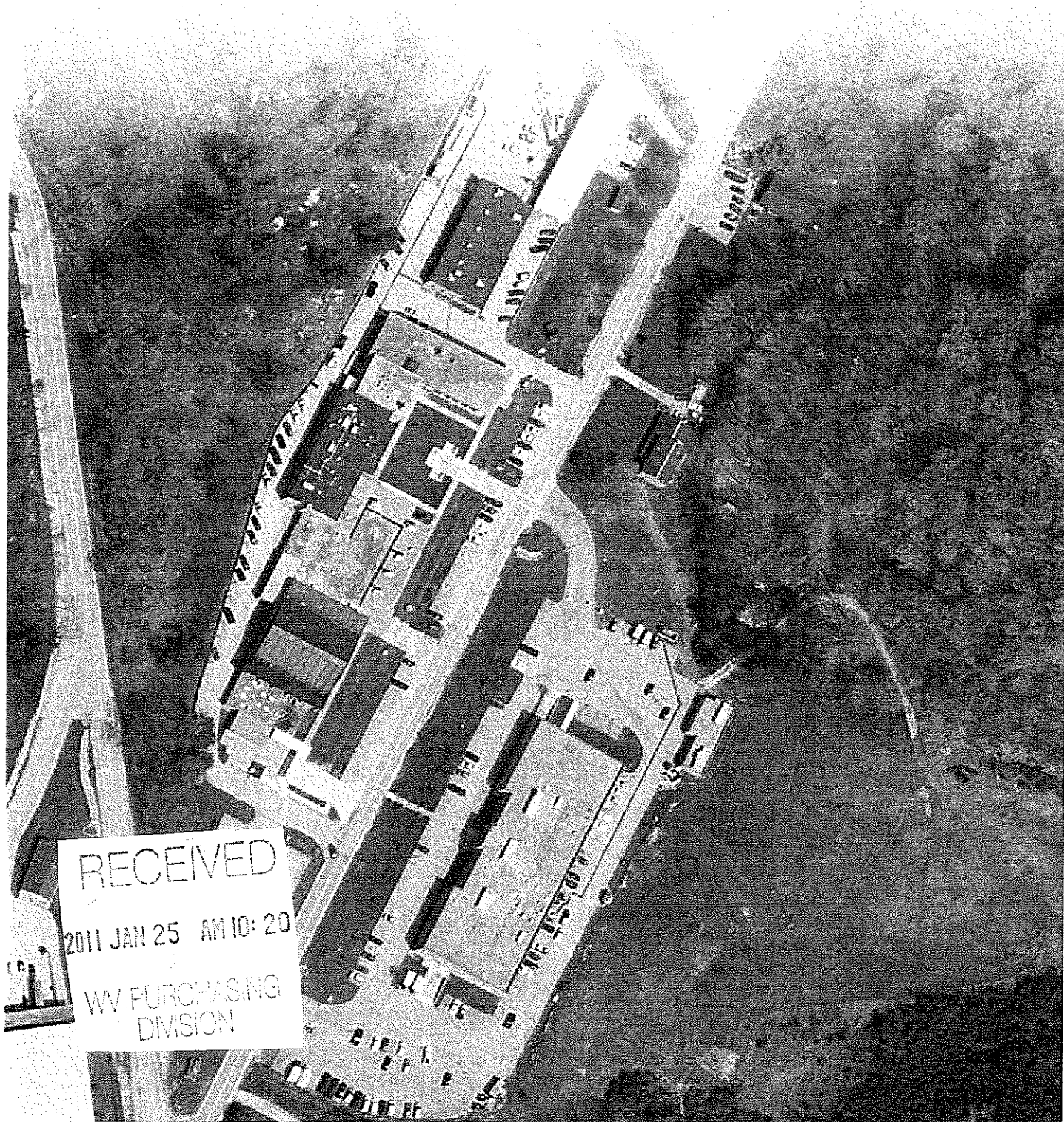
Expression of Interest for the
Division of Engineering & Facilities,
WV Army National Guard for the
Charleston Complex Access Road and Utility Upgrades
Charleston, WV

RFQ DEFK11024

January 25, 2011



Chapman
Technical
Group



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WV PURCHASING
DIVISION



January 25, 2011

Ms. Tara Lyle
Department of Administration
Purchasing Division
Building 15
Post Office Box 50130
2019 Washington Street, East
Charleston, West Virginia 25305-0130

**Re: WV Army National Guard
Joint Forces Headquarters
Access Road and Site Grading
RFQ# DEFK11024**

Dear Ms. Lyle:

Chapman Technical Group is extremely interested in providing professional engineering services to the West Virginia Army National Guard for the proposed access road and site grading project. We are a full-service engineering and architectural consulting firm with offices located in St. Albans, Martinsburg, and Buckhannon, West Virginia, with the ability to perform all of the required work with our current in-house staff of over 40 personnel, with the exceptional of geotechnical engineering services.

Since 1984, Chapman Technical Group has been responsible for the planning, administration, design and construction of hundreds of millions of dollars of civil engineering projects throughout West Virginia. As with many projects involving earthwork, we have teamed with H.C. Nutting, a Terracon Company, to provide all necessary geotechnical engineering services for the project.

The Chapman Technical Group and H.C. Nutting team have considerable experience with these type projects, and this same team provided all the civil engineering and site work associated with the WV Air National Guard Complex, also located along Coonskin Drive. We are keenly aware of the challenges not only the topography of the area will present, but are also experienced in dealing with the challenges the subsurface materials may present.

I am enclosing two (2) copies, and a CD, of our Statement of Qualifications outlining our team's capabilities, representative project experience listings, resumes on the professionals in both 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 concerning our performance on past or present projects. For additional information on our firm, please visit our website at www.chaptech.com.

200 Sixth Avenue
St. Albans, WV 25177
304.727.5501
FAX 304.727.5580
Buckhannon, WV
Martinsburg, WV

www.chaptech.com



Ms. Tara Lyle
January 25, 2011
Page Two

The Chapman Technical Group and H. C. Nutting/Terracon team has the experience, technical qualifications, and commitment to client satisfaction needed to assist the WV Army National Guard with the successful completion of this 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

RFQ No. DEFK11024

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

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

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

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

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

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: Chapman Technical Group

Authorized Signature: Robert G. Belike Date: 1/25/11

State of West Virginia

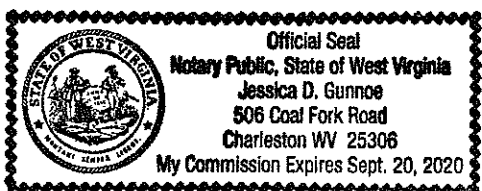
County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 25th day of January, 2011.

My Commission expires September 20, 2020

AFFIX SEAL HERE

NOTARY PUBLIC Jessica D. Gunnoe





1

**Overview of Chapman Technical Group
and H.C. Nutting/Terracon**

2

Project Team Resumes

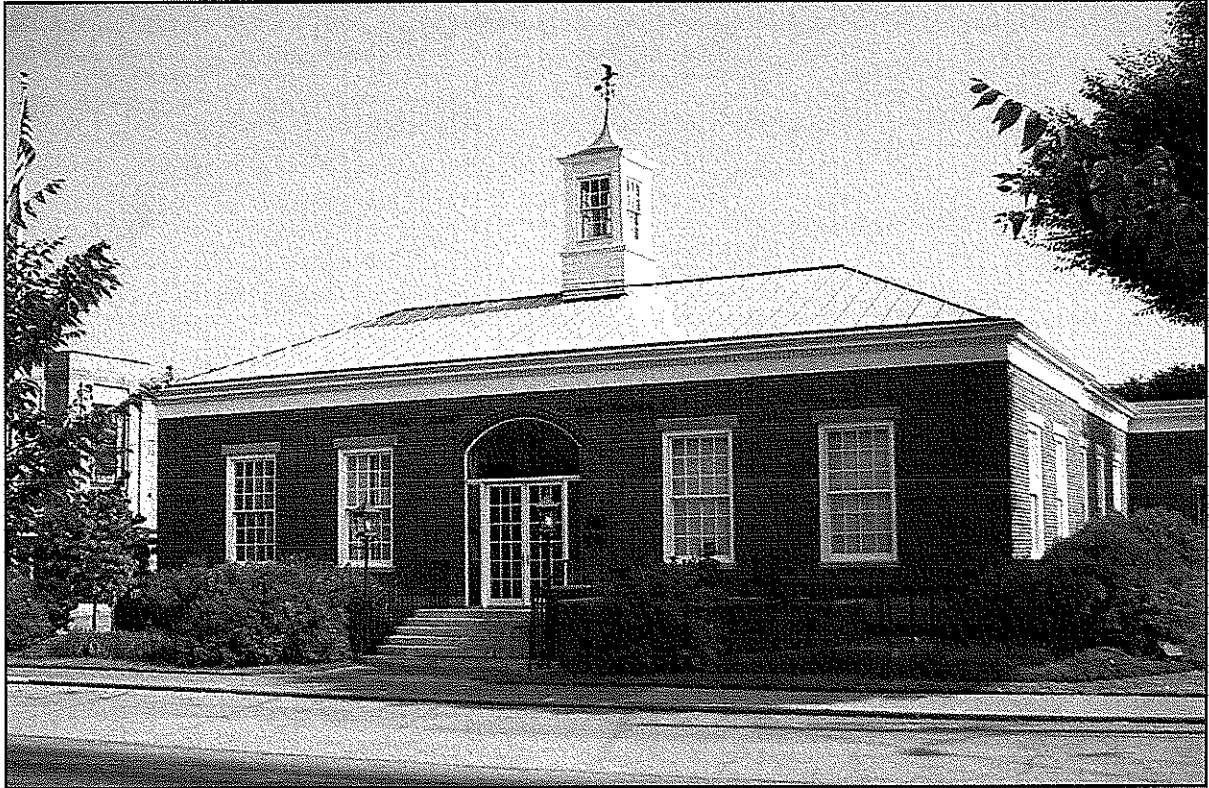
3

Project Experience

4

References

Company Overview



Chapman Technical Group's St. Albans Office

Chapman 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.

Chapman Technical Group offers a broad range of professional services.

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

Awards



AMERICAN INSTITUTE OF ARCHITECTS - MERIT AWARD FOR EXCELLENCE IN ARCHITECTURE, 2009 - Interstate 79 Rest Areas.

AMERICAN SOCIETY OF CIVIL ENGINEERS - NATIONAL - SUPERIOR EMPLOYER AWARD, 2009, Support of Young Professionals in the Private Sector.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2009, Gold Award - Special Projects Category for the Mercer County Airport Runway Safety Area Project.

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, 2008, Bronze Award - Wastewater Category for the Spring Run State Fish Hatchery Improvements.

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 WVDOT - Division of Highways - Large Bridge Category for WV10 Buffalo Creek Bridge, Logan County, West Virginia.

FINALIST - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD", 1999, The WVDOT - 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, P.E., 1984, Robert G. Belcher, P.E., 2001, and Sharon L. Chapman, 2005, Jeffery D. Ekstrom, P.E., 2010, American Water Works Association, for distinguished service in the water supply field in the State of West Virginia.

Company Profile

Known in the Marketplace as

Reliable
Responsive
Innovative
Convenient

Our Vision

We continue to view our company as a vital and growing consulting firm of engineers and scientists, providing multiple related service lines to clients at local, regional, and national levels. All of our services are delivered on a timely basis with consistently high value and attention to client needs.

H.C. Nutting Company (HCN) joined Terracon in 2007 after operating in Ohio, Indiana, Kentucky, and West Virginia since 1921. Terracon is a dynamic and growing consulting firm providing multiple related service lines to clients at local, regional, and national levels. Our services are delivered on a timely basis with consistently high value and attention to client needs. Services include:

- Geotechnical
- Environmental
- Construction Materials
- Facilities

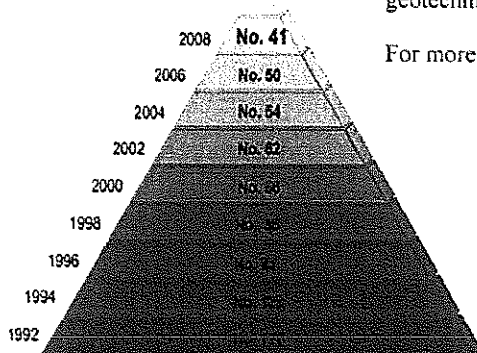
Since 1965, our employee-owned firm has *delivered success for clients and employees*. We help our clients succeed in their business ventures by effectively executing projects, controlling costs, and managing risk. Our clients appreciate this approach, and they know that we intend to be with them for the long term. HCN shares the same philosophy.

Terracon provides services on thousands of projects each year. Our culture, systems, and structure enable us to excel at both small and large projects. By combining our national resources with specific local area expertise, we consistently overcome obstacles and deliver the results our clients expect.

Whether you do business down the street or across the country, we offer a variety of related services through a national network of nearly 100 offices to meet your single- or multi-site needs. Our responsiveness, high quality deliverables, practical solutions, and competitive fees afford clients with an easier way of doing business that saves time and money.

HCN/Terracon maintains a staff of qualified and experienced engineers and scientists drawn from within the company. The HCN/Terracon team is highly qualified and experienced and has successfully completed a wide variety of geotechnical, environmental, and construction engineering and testing projects.

For more information, please contact HCN's Cincinnati, Ohio office:



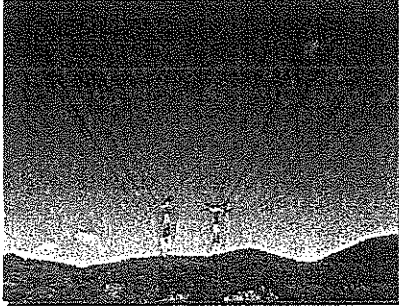
ENR Top 500 Design Firms
Source: Engineering News-Record

H.C. Nutting Company / A Terracon Company

John T. Blair – Operations Manager
Appalachian Region
912 Morris Street
Charleston, West Virginia 25301
Phone 304-344-0821
Fax 304-342-4711
jtblair@terracon.com
www.hcnutting.com
www.terracon.com



Geotechnical Services



Terracon has provided geotechnical services to many transmission line clients including, but not limited to, American Electric Power, CenterPoint Energy, and Omaha Public Power District.

Design and construction of functional, cost-effective structures require a thorough understanding of local soil, rock, and groundwater conditions. Terracon provides a wide range of services to support all phases of a project, from preliminary design through completion of the building process.

Each local Terracon office, with access to the extensive geotechnical experience and expertise of engineers, geologists, and soils technicians throughout our company, can help to assess the risks associated with subsurface conditions. We participate as a vital member of the project team, focusing on project objectives and using innovative technologies to provide practical design recommendations. Our culture, systems, and structure enable us to excel at both small and large projects.

Our geotechnical services include:

- Subsurface exploration and testing
- Foundation analysis and design
- In-situ testing and performance monitoring
- Earth structures, slopes, and retention systems
- Dynamic analysis and evaluation
- Soil stabilization and ground improvement
- Groundwater control
- Pavement design and subgrade evaluation

With more than 250 geotechnical engineers and one of the largest drilling fleets in the country, Terracon is well positioned to deliver quality, responsive, and cost-effective geotechnical engineering services, regardless of project size.

Terracon



Geotechnical Services Laboratory Analysis



Terracon operates geotechnical laboratories nationwide that are equipped to perform a wide variety of tests on soil and bedrock materials. Laboratories include equipment for triaxial shear, direct shear, resilient modulus, consolidation, and permeability, as well as routine and special testing for soil and rock.

Laboratory testing at Terracon is conducted in accordance with our in-house Laboratory Quality Control Manual and in general accordance with industry recognized laboratory standards and practices.

Our laboratories are inspected by the Cement and Concrete Reference Laboratory (CCRL), the American Association for Laboratory Accreditation (A2LA), AASHTO Materials Reference Laboratory (AMRL), the U.S. Bureau of Reclamation, the U.S. Forest Service, and through Terracon in-house audits. Laboratories participate in several sample reference programs sponsored by the National Bureau of Standards.

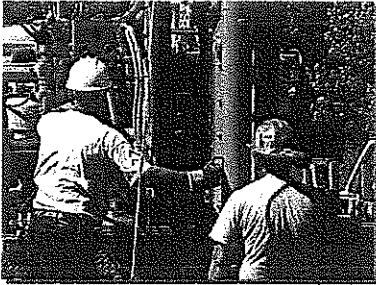
Laboratory testing services include:

- Soil
- Bituminous Materials
- Concrete
- Aggregate
- Asphalt Concrete
- Masonry

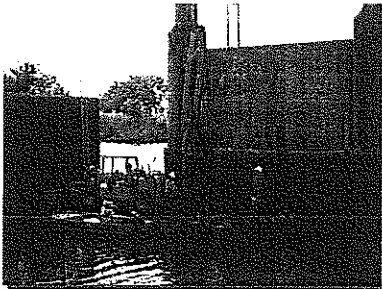


Geotechnical Services

Drilling Services



Terracon has conducted subsurface exploration for geotechnical and environmental engineering projects since 1965. The company's large fleet of drilling equipment is geographically dispersed to provide prompt service to clients. In addition to conventional truck-mounted rigs, the fleet includes skid and all-terrain rigs for accessing difficult sites.



Terracon maintains a fleet of approximately 80 drill rigs that can be mobilized from many locations throughout the United States. All drilling supervisors and drill crew members are trained in drill rig operation, safe operating procedures, and basic first aid. Drill crew members who participate in hazardous waste site operations projects are also trained in accordance with the OSHA Hazardous Waste Site Operations and Emergency Response standard (OSHA 29 CFR 1910.120) which requires an initial 40-hour safety training course and annual safety refresher training. Baseline and annual medical surveillance examinations are also required for such personnel.

Drill rigs mounted on trucks and all-terrain vehicles are available to perform subsurface exploration borings and sampling. Terracon offers many methods of subsurface sampling and data acquisition to meet client needs. Our services include many types of specialized field testing, including pressuremeter, borehole shear, and packer testing.

Terracon recently added experience and coverage to its drilling fleet through the acquisition of two drilling companies. AquaDrill, Inc., a drilling service provider in Swisher, Iowa, specializes in subsurface environmental soil sampling and monitoring well installation. The company also performs specialty geotechnical drilling, a variety of environmental drilling services, and water well construction.

High Plains Drilling joined Terracon in September 2008. Located in Denver, High Plains Drilling has provided drilling services in Colorado for more than 11 years. They specialize in solid stem auger/hollow stem auger drilling, fluid rotary drilling (mud and air), and hard and soft rock coring. Soil sample collection includes the use of split spoon samplers, California samplers, Shelby tubes, and CME continuous samplers.

Environmental Capabilities

Terracon provides a full range of environmental drilling capabilities, including sampling of contaminated soils and installation of monitoring wells. Terracon personnel are trained for, and are prepared to provide, drilling services on sites containing chemical contamination. Installation of wells and piezometers and sampling for analytical testing are performed routinely at less stringent safety levels D and C with capability to upgrade to more stringent levels B and A if necessary.

Terracon





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.

27 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, secondary and tertiary wastewater treatment plants as large as 4.5 MGD, improvements to existing plants, small-flow treatment plants, new and rehabilitation of wastewater collection systems, 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 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
WV Qualifications Based Selection (QBS) Council

AWARDS

George Warren Fuller Award, 2001



JOSEPH E. BIRD, ASLA
Senior Vice President
Project Manager

EDUCATION

West Virginia University, BSLA, 1978

REGISTRATION

Landscape Architect, West Virginia, 1981

**PROFESSIONAL
HISTORY**

August 1985 to Present: Chapman Technical Group
Senior Vice President and Project Manager.

May 1978 to August 1985: Kelley, Gidley, Blair & Wolfe, Inc.
Landscape Architect and Project Manager.

Mr. Bird is a project manager and registered landscape architect. His experience ranges from large site development projects to the management of multi-discipline and architectural projects.

33 years professional experience.

**PROJECT
EXPERIENCE**

Site Development: Site planning and project management for numerous projects throughout West Virginia ranging from small campus sites to large sites for commercial, government, industrial, and institutional development. Projects include military complexes, campuses, public housing developments and other public facilities.

Parks and Recreation: Projects include swimming pools, bathhouses, cabins and support facilities for the West Virginia Division of Natural Resources and similar facilities for county and municipal park systems. Also involved in the design of facilities such as softball fields, fishing access facilities, recreation facilities for prisons, as well as passive recreation areas for public and private clients.

Miscellaneous: Other project experience includes the urban planning and development, streetscape design, roadway and storm drainage projects, as well as the project management of numerous major architectural projects throughout West Virginia.

AFFILIATIONS

West Virginia Chapter of the American Society of Landscape Architects

AWARDS

Honor Award for Shrewsbury St. Redevelopment Plan
West Virginia Chapter of American Society of Landscape Architects



ROGER J. KENNEDY, ASLA
Landscape Architect
and Project Manager

EDUCATION

West Virginia University, BSLA, 1990
Natural Stream Training Courses I - III, West Virginia University, 2000-2002.

REGISTRATION

Landscape Architect, West Virginia, 1993

**PROFESSIONAL
HISTORY**

June 1990 to Present: Chapman Technical Group

Landscape Architect, Project Manager and Computer Network Manager.

May 1989 to May 1990: WVU and the National Park Service

Inventoried and analyzed abandoned mine sites along the New River Gorge National River utilizing PC ArcInfo.

22 years professional experience.

**PROJECT
EXPERIENCE**

Site Development: Responsibilities include grading design, site planning and layout, analysis of existing features and services, storm water design and management, erosion control, as well as project management. Projects include prisons, landfills, military complexes, banks, airports, subdivisions, gas stations and other public facilities.

Bridge and Highway: Responsibilities include the design of horizontal and vertical road alignments, superelevation design, intersection layout, slope design and quality control review. Projects include several multi-lane highways and bridges throughout West Virginia.

Miscellaneous: Other experience includes the use of various civil design software packages for use in site development and road design, digital terrain modeling, hydraulic analysis and related computer aided design tools. Additional responsibilities include the development and management of the computing resources of the company. This includes the management of software and hardware inventories, as well as the development and management of all local area networks in each office and the wide area network which links them.

AFFILIATIONS

Member of the West Virginia State Board of Landscape Architects
Member of the Sigma Lambda Alpha Honor Society of Landscape Architects
President of St. Albans Riverfest, Inc.



JEFFERY D. EKSTROM, P.E.
Group Manager
Civil/Environmental Engineering

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.

21 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, EPA Net and KY Pipe.

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, MBR treatment plants to meet Chesapeake Bay treatment requirements, improvements to existing plants, small-flow treatment plants, wastewater collection systems and lift stations, wastewater treatment facility and raceways for fish hatcheries, facility plan updates, and CSO long term control 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, Secretary-Treasurer/WV Section

AWARDS

AWWA George Warren Fuller Award, 2010



KENNON T. CHAMBERS, P.E.
Group Manager
Civil/Environmental Engineering

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.

13 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. Hydraulic analysis of water distribution/transmission systems using WaterCAD. Design bidding and construction administration of automatic meter reading (AMR) systems.

Wastewater Systems: Design, construction and construction administration/management of various public and private wastewater system projects throughout West Virginia. Hydraulic analysis of wastewater transmission systems including lift stations using WaterCAD.

AFFILIATIONS

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

MISCELLANEOUS

Class A Commercial Drivers License
PADI Certified Scuba Diver



STEPHEN M. JOHNSON, PE
Group Manager
Civil/Environmental Engineering

EDUCATION

West Virginia Institute of Technology, BSCE, 2004

REGISTRATION

Civil Engineering, West Virginia, 2009
Civil Engineering, North Carolina, 2008
Civil Engineering, Virginia, 2011

EXPERIENCE

January 2009 to Present: Chapman Technical Group
Civil Engineer

October 2006 to January 2009: McKim and Creed
Civil Engineer

May 2004 to October 2006: Chapman Technical Group
Civil Engineer

June 2001 to May 2004: Allegheny Power
Gas Support Technician/Intern

7 years professional experience.

**PROJECT
EXPERIENCE**

Water Systems: Overall experience includes planning, design, bidding, and construction administration/management of various public and private water system projects throughout West Virginia, Virginia, and North Carolina. Specific project experience includes distribution systems, river crossings, horizontal directional drills, booster stations, treatment plants, ground and elevated water storage tanks, SCADA systems computer modeling, treatment process evaluation, and problem troubleshooting in existing systems.

Wastewater Systems: Overall experience includes comprehensive system master plans, design, bidding, construction administration/management of various public and private wastewater system projects throughout West Virginia, Virginia, and North Carolina. Specific project experience includes gravity and low-pressure collection systems, pump stations and force main transmission systems, treatment plant process evaluation and design, trenchless pipeline rehabilitation, bypass pump system design, odor and corrosion control, effluent infiltration ponds, decentralized and alternative on-site disposal systems, and SCADA systems.

Stormwater Systems: Overall experience includes comprehensive system master plans, design, bidding, construction administration/management of various public and private stormwater system projects throughout West Virginia, Virginia, and North Carolina. Specific project experience includes drainage basin hydraulic analysis, stormwater collection, detention and BMP system design, construction stormwater management plan preparation, and MS4 permit guidance.



JASON E. BROWN, PS
Professional Surveyor

EDUCATION

West Virginia State College, General Studies, 1991 to 2002
West Virginia Institute of Technology, Paramedic Science, May 1994
Glennville State College, A.S. Land Surveying, 1997 to 2002

REGISTRATION

Professional Surveyor, West Virginia, 2009.

**PROFESSIONAL
HISTORY**

January 2010 to Present: Chapman Technical Group
Professional Surveyor/Survey Project Manager.

January 2008 to January 2010: S&S Engineers
Surveyor Assistant/CADD Technician.

July 2005 to January 2008: Brown Drafting
Owner/Operator.

September 2003 to July 2005: Garcelon Surveying
Surveyor Assistant/CADD Technician.

May 2002 to September 2003: Triad Engineering
Survey Party Chief.

January 1995 to December 2001: Chapman Technical Group
Survey Technician/Junior Construction Representative.

16 years professional experience.

**PROJECT
EXPERIENCE**

Highways: Established control, site surveying, topographic surveying, courthouse research, drawing production, Right-of-Way Questionnaires, bore hole stake out, and all surveying associated with the initial design of West Virginia highways for numerous highway projects throughout the state.

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

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

Water and Wastewater Systems: Associated surveying for the design of water systems, sewer systems and water and wastewater facilities for private and public water companies. Projects include water treatment plants, water mains and distribution systems, and collection systems throughout the state.

Airports: Associated surveying for the design of runways, airport facilities, lighting, and asphalt design for holding pads for small and large airport facilities throughout the state.

Boundary Surveys: Provided full boundary surveys and ALTA surveys for military complexes, private residences, prison facilities, commercial sites, and all boundaries associated with various engineering projects throughout the state.

Construction Observation: Provided construction observation, field engineering and testing for numerous water, wastewater and airport projects throughout the state.

AFFILIATIONS

West Virginia Society of Professional Surveyors.



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.

14 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 centerline, 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.

KAMAL R. SHAAR

SENIOR GEOTECHNICAL CONSULTANT

EDUCATION

*Bachelor of Science, Geology,
1965, Marshall University*

PROFESSIONAL EXPERIENCE

After retiring from the W. Va. Division of Highways (WVDOH) with 38 years of service, Mr. Shaar joined H. C. Nutting/ A Terracon Company, as a Senior Geotechnical Consultant. For the last 30 years, Mr. Shaar has worked as the W. Va. Department of Transportation's Principal Geotechnical Project Manager for the western part of W. Va. He has unparalleled experience in the planning, design and construction supervision of consultants. He has extensive involvement with the geotechnical engineering of almost every major roadway and bridge structure built in the last 30 years in the western part of W. Va. His work experience includes geotechnical design and construction of such major projects as the I-64 Tunnel/Cut, completed in 1987, the largest single earthwork project in WVDOH history. He was involved with all of the bridge and approach structures constructed over the Ohio and Kanawha rivers since 1974. In addition, he has been the Geotechnical Project Manager for Corridor 'G', the upgrading of US Route 52, and the ongoing design and construction of Corridor 'D', WV Route 10, King Coal Highway, WV State Route 2, and US Route 35.

Mr. Shaar has had the opportunity to work with some of West Virginia's most experienced engineers in the development and upgrading of the major and secondary roads in the state. In addition to the design of roadway cut slopes and embankment construction, he has been involved with the implementation of new construction methods and technology that have been developed not only to improve the roadway system, but also provide significant cost savings and still maintain the safety and integrity of the roadways. The functional use of MSE wall systems, reinforced soil slopes, Geogrid™ stabilization, soil nailing, lightweight backfill, dynamic compaction, wick drains, rock fall systems, geophysical instrumentation, and mine void grouting are some of the methodology in which Mr. Shaar has had experience.

PROJECT EXPERIENCE

- **White Oaks Business Park – Clarksburg, West Virginia**
- **Old Clendenin Middle School- Foundation Underpinn,
Clendenin, West Virginia**
- **Hazelton Prison Waste Water Treatment Plant Upgrade,
Hazelton, West Virginia**
- **Corridor G – Logan County, West Virginia**
- **The Wheeling Interchange, Interstate 75 & 470 – Ohio County, West Virginia**
- **Interstate 79 – FBI Interchange – Harrison County, West Virginia**
- **Blennerhassett Bridge – West Virginia**
- **U.S. 35 Project – West Virginia**

H.C. Nutting, A Terracon Company 912 Morris Street Charleston, WV 25301
P [304] 344 0821 F [304] 342 4711 terracon.com

TODD A. GRIFFITH, E.I.

STAFF GEOTECHNICAL ENGINEER

PROFESSIONAL EXPERIENCE

Mr. Griffith is located in our Charleston, West Virginia office and serves as a Staff Geotechnical Engineer. He graduated from Virginia Tech in December 2005, where he worked as a graduate teaching and research assistant during his studies. His research involved strength testing on standard gradation aggregates using triaxial testing. During graduate school he studied topics such as shallow and deep foundations, design of earth dams and seepage, soil strength and slope stability, soil and site improvement, geotechnical earthquake engineering, environmental geotechnics and advanced laboratory testing.

His experience with H. C. Nutting Company includes surveying, site and subsurface investigations, slope and excavation stability analyses, retaining wall and foundation design, field engineering, and laboratory testing. He is responsible for planning and developing field exploration and laboratory testing programs and prepares project reports, proposals, and cost estimates. His areas of expertise include foundation engineering studies, slope stability investigations, soil classification and laboratory testing, planning and preparation of subsurface studies.

PROJECT EXPERIENCE

Mr. Griffith has performed engineering analyses for a variety of projects in West Virginia, Kentucky, Indiana, Maryland, Pennsylvania, and Ohio.

- **Site Geotechnical Engineering**
Mr. Griffith supervised all inspection of earthwork during the initial construction phase of the 400 acre McDowell County Federal Prison in Welch, West Virginia. He also worked on the analysis and report preparation for the geotechnical phase of the project.
- **Deep Foundation Static Capacity Testing**
Mr. Griffith performed supervision and direction of static axial compression, static axial tensile, and static lateral load testing on deep foundations in Cincinnati and Breman, Ohio, as well as in South Charleston and Scott Depot, West Virginia.
- **Drilling Inspection – Field Engineering**
Mr Griffith directed drilling activities and performed packer testing for bedrock permeability for American Electric Power, Muskingum River Plant, Beverly, Ohio and John Amos Plant, Winfield, West Virginia. He also performed drilling inspection for the West Virginia Department of Highways for U.S. route 35 in Winfield, West Virginia and for the Coalfields Expressway in Beckley, West Virginia.
- **Subsurface Culvert Evaluation**
Mr. Griffith analyzed the integrity and suitability of an existing, 30 year old, 14.5 foot diameter steel culvert that runs beneath Interstate 471 in Newport, Kentucky for placement of a proposed 30 foot structural fill above the culvert for a commercial development.
- **Site Suitability Analysis**
Mr. Griffith analyzed subsurface information obtained from drilling

EDUCATION

*Master of Science, Civil
Engineering, Geotechnical
Specialization, 2005, Virginia
Tech*

*Bachelor of Science, Civil
Engineering, 2004, West Virginia
University*

REGISTRATIONS

Engineer Intern: West Virginia

CERTIFICATIONS

*OSHA 30-Hour Occupational
Safety and Health Training*

activities at three potential sites for a Waste Water Treatment Plant in Slaty Fork, Pocahontas County, West Virginia. This information was used to select the most suitable site for development and to analyze foundation options and to develop design recommendations for the WWTP.

- **Field and Laboratory Testing**

Mr. Griffith is experienced with performing triaxial testing on various size samples, sieve analysis, in-situ density tests, plastic and liquid limit tests, moisture content tests, and inclinometer testing.

He is also experienced in logging soil samples in accordance with U. S. Army Corps of Engineers specifications.

SHANNON P. STEPHENS

CMT TECHNICIAN IV

PROFESSIONAL EXPERIENCE

Mr. Stephens serves as a Senior Construction Materials Testing Technician, and has over 9 years of experience in this field. He has performed the following duties:

Asphalt

Mr. Stephens is experienced in Quality Control testing of Asphalt compaction on Private, WVDOH, and FAA projects. Mr. Stephens also has experience in laboratory testing.

Augercast Pile Inspections

Identification of equipment (size and type), identification of specific locations, identifying plumbness, stroke calibration, calculating volumes and elevations, reinforcing steel inspections, calculating percentages. Quality control tests including performing flow tests and fabrication of cubes for compressive testing.

Concrete

Mr. Stephens's field experience includes testing freshly mixed concrete for Slump, Unit Weight/Yield, and Air Entrainment, as well as the fabrication of test cylinders. He has extensive experience with concrete placement, testing of concrete, and various construction techniques.

Mr. Stephens has extensive experience in drilling and obtaining a variety of different diameter concrete core specimens both vertically and horizontally. He also has extensive experience with the measurement of floor slab vapor emission rates utilizing anhydrous calcium chloride test kits.

Foundation Observations

As a field technician, Mr. Stephens has routinely performed observations and testing to determine the suitability of proposed bearing soils for various types of footings. Such work includes both visual observations and physical evaluation including use of pocket penetrometers to classify soil types and cone penetrometers to estimate bearing capacities in order to compare such soils with site specific geotechnical recommendations.

Mr. Stephens is experienced with the observation of reinforcing steel placement for footings and walls, and determination of the proper size, type, and spacing of these items.

Soils and Soils Remediation

As a field technician, Mr. Stephens is routinely assigned to quality control testing of soil compaction on projects of varying size, and working primarily with traditional sands, silts, and clays. He is trained and experienced in the determination of the in-place density of material utilizing Troxler and Humboldt nuclear density/moisture gauges, and performing field roller pass evaluations as per the WVDOH roller pass method. Mr. Stephens is trained and experienced in the various methods of moisture determination as well as material identification by visual appearance and texture.

He has extensive experience with mechanical soil stabilization during undercutting and fill operations including stone/rip-rap applications as well as various grades of geotextiles. He also has experience with the

CERTIFICATIONS

*ACI Concrete Field Testing
Technician Grade I*

*WVDOH Certified Aggregate
Inspector*

*WVDOH Certified Aggregate
Sampling Inspector*

WVDOH Certified PCC Inspector

*WVDOH Certified Hot-Mix Asphalt
Technician*

*WVDOH Certified Compaction
Inspector*

*OSHA 10-Hour Construction
Safety & Health*

Nuclear Radiation Safety

*FAA Eastern Regional
Laboratories List*

*AWS Certified Welding Inspector
(06030961)*

ASNT Level II VT (163204)

NICET Level I Asphalt

NICET Level II Concrete

NICET Level II Soils

*ICC Spray-Applied Fireproofing
Special Inspector*

Humboldt RSO Certification

AFFILIATIONS

*The Society of Military Engineers –
Member*

*American Welding Society –
Member*

*Contractors Association of West
Virginia – Member*

*Joint Concrete Committee, CAWV
– Member*

*American Society of Certified
Engineering - Member*

PROFESSIONAL EXPERIENCE (CONTINUED)

placement of under drains for various types of building projects.

Steel

Mr. Stephens has performed quality assurance inspection of construction and testing of high-strength connections in steel structures including direct-tension indicators and torque inspections. He has performed weld inspections and field testing of high strength fasteners.

Mr. Stephens steel experience includes routine inspection of reinforcing steel for square and continuous footings, and large mat foundations. Additionally, he has performed extensive testing and inspection of spray-applied fire resistive materials within building structures, including remediation strategies for sub-standard applications. This work includes traditional cementitious and high-strength cementitious fireproofing material.

Structural Masonry

Mr. Stephens has gained extensive experience performing observations and testing during placement of unit masonry. This work includes inspection and testing during placement of mortar, grout, and various types of reinforcement to help ensure proper placement and consolidation of grout, and alignment and type/size of reinforcing. He has sampled and tested mortar and grout and fabricated cubes and prisms for compressive strength testing.

Laboratory Testing

Mr. Stephens has extensive experience in our in-house laboratory including, but not limited to, Modified and Standard proctors, Atterberg Limits, Sieve Analysis, Moisture Content determination, and Compressive Strength testing of cylinders, cubes, and cores. He has also performed Hydrometer Analyses, Unconfined Compression tests, Specific Gravity Analysis, pH Analysis, Slake Durability Analysis, and Classification of Soils.

PROJECT EXPERIENCE

- Thomas Memorial Hospital, South Charleston, WV – Structural Steel. (*Foundation Observations, Structural Steel*)
- Kings Daughters Medical Center – Portsmouth, Ohio – Scioto Trail Expansion – Auger cast pile inspection. (*Foundation Observations*).
- Ironton High School and Ironton Elementary/Middle School, Ironton, Ohio – served as the lead and primary technician during construction of both new schools. (*Soils, Structural Concrete, Structural Steel, Structural Masonry, and Spray-applied Fireproofing*).
- Raleigh General Hospital - Beckley, West Virginia-Hospital Expansion – (*Structural Steel, and Spray-applied Fireproofing*).
- Kings Daughters Medical Center - Ashland, Kentucky – Heart and Vascular Center – (*Deep Foundations-Auger cast pile, Structural Steel, Structural Masonry, and Spray-applied Fireproofing*)

Stephens, Shannon P.

- Kings Daughters Medical Center, Ashland, Kentucky – Medical Plaza B Addition - (*Deep Foundations-Auger cast pile, Structural Steel, Structural Masonry, and Spray-applied Fireproofing*)
- Kings Daughters Medical Center, Ashland, Kentucky – Data Center - (*Structural Steel, Structural Masonry, and Spray-applied Fireproofing*)
- AEP John Amos Power Plant, FGD Upgrade - Winfield, West Virginia – Auger cast pile inspection and supervisor for all field technicians during placement of over 6,000 auger cast piles and over 125,000 cy of structural concrete. *Structural concrete* included placement of two mat foundations in excess of 6,000 cy, and several in excess of 1,000 cy.
- Buckhannon-Upshur Regional Airport, Buckhannon, West Virginia – FAA P401 HMA testing and inspection
- Benedum Airport, Clarksburg, West Virginia - FAA P401 HMA testing and inspection
- Bluestone Dam Access Road, Hinton, West Virginia – Field CBR determination
- Blennerhassett Bridge - Washington, West Virginia – provided quality control testing during various deck pours, performed overlay bond testing, and served as project manager/supervisor for all facets of construction as HCN provided all quality control testing for the prime contractor.
- Anchor Bolt Testing – Kings Daughters Medical Center, Ashland, Kentucky
- I-64 Hubbards Branch Bridge – Huntington, WV – Quality control technician
- I-64 Edgewood Branch Bridge – Huntington, WV – Quality control technician
- I-64 Crossroads Overpass over Norwood Avenue – Huntington, WV – Quality control technician
- Man Bridge, WV 10 – Man, WV – Quality control technician, soils and concrete
- Cabella's Distribution Center – Wheeling, WV – *Structural Steel* and site special inspections for remedial work on a 1.2 million square feet facility

JOHN R. BARCLAY JR., P.G.

PROJECT GEOLOGIST

PROFESSIONAL EXPERIENCE

Mr. Barclay serves as a Project Geologist for the Charleston, WV office. He has over 10 years experience in the geotechnical field. His duties include serving as project manager for multiple geotechnical projects, as well as supervision and training of WVDOH project boring inspectors, geotechnical report preparation, field investigation, geologic field mapping, and assisting with the evaluation of lab test data and quality assurance/quality control specification. He has been involved in every facet of geotechnical engineering investigations for WVDOT roadway and bridge design projects. Mr. Barclay also serves as Program Manager for H.C. Nutting Company's Indefinite Delivery Contract for the U. S. Army Corps of Engineers, Huntington District drilling services for the Great Lakes and Ohio River Division.

In addition to his management duties, Mr. Barclay is responsible for design of roadway cut slopes and embankment construction, as well as cut slope and embankment slope stability evaluations. He has experience with the mapping of geologic structures including faults, anticlines, synclines, karst related features and other geologic structures. He is also experienced in the preparation of sub-surface cross-sections of models derived from surface data. Mr. Barclay has also performed numerous underground coal mine and karst evaluations for determination of subsidence potential on federal, state and commercial projects

Mr. Barclay has experience in various other inspection duties such as performing concrete, grout testing, footing inspection, gauging and sampling monitoring wells, slope inclinometer reading and interpretation and determining ground water flow direction. He is also experienced in logging soil and rock core samples in accordance with U.S. Army Corps of Engineers specifications.

PROJECT EXPERIENCE

Performed geotechnical engineering investigations for WVDOT roadway design projects throughout state, which have included projects within steep, mountainous terrain, karst landform terrain, as well as areas underlain by deep deposit of alluvial and lacustrine deposits. He has also performed geotechnical investigations for major bridge structures crossing rivers including Ohio, Kanawha, Monogahela, Potomac, Little Kanawha, South Branch of Potomac and others. Roadway projects Mr. Barclay has include:

- Corridor H, Bismarck to Forman—Sections 1, 4, and 8

Geotechnical services for these projects was performed under three contracts. Overall the projects consisted of approximately 6 miles of 4-lane roadway with numerous retaining walls, 2 major bridge and 1 minor bridge structures in karst landform area of northeastern West Virginia. Deep soil deposits and erratic bedrock profiles made this a challenging project.

- Corridor H, Forman to Moorefield—Section 6

This project was approximately 6 miles of 4-lane roadway with 6 major bridge structures founded on drilled shafts and H-piles. Numerous retaining walls, MSE, pile and lagging and Soil Nail Walls were required for this project. Project is located in Moorefield, West

EDUCATION

*Bachelor of Science, Geology,
1999, Marshall University*

REGISTRATIONS

Professional Geologist: Tennessee

Virginia area.

- Corridor H, Elkins Bypass – Elkins, West Virginia

This project consisted of design of approximately 8 miles of roadway, including 2.5 miles of mainline 4-lane roadway and 5.5 miles of other 2-lane roadways. Six major bridge structures were also included with design of this roadway, as well as one tiedback retaining wall at the toe of a bridge abutment. Numerous, challenging geotechnical issues were addressed during completion of this project.

- Corridor D, Sections 3, 4, and 6 – Parkersburg, West Virginia

Geotechnical services for these projects was performed under three contracts. Overall the projects consisted of approximately 7 miles of 4-lane mainline Corridor D roadway, 4.5 miles of access ramps, and 5.5 miles of additional 2-lane roadways. In addition, a total of 13 bridges were designed along with numerous retaining walls, reinforced concrete box culverts and high-mast light post structures. The project is located in Parkersburg, West Virginia along the Ohio River Valley.

- U.S. 35 / I-64 Interchange – Putnam County, West Virginia

This project consisted of design of approximately 1.1 miles of mainline 4-lane roadway, including 2.5 miles of mainline 4-lane roadway and 6.4 miles of other 2-lane roadways. Two major bridge structures were also included with design of this roadway, including a 1.1 mile flyover ramp. MSE breast and wing walls are designed at each bridge abutment. The project is located within the ancient Teays River Valley and is underlain by thick deposits of fat clays and other soft, compressible lacustrine deposits.

- U.S. 35 / WV 34 Interchange – Putnam County, West Virginia

This project consisted of design of approximately 5.5 miles of roadway, including 2 miles of mainline 4-lane roadway and 3.5 miles of other 2-lane roadways. Cut slope recommendations for large rock cuts were the key geotechnical issue addressed for this project.

- U.S. 35 / WV 34 to Hurricane Ck. Road – Putnam County, West Virginia

This project consisted of preliminary design of approximately 6 miles of 4-lane in Putnam County, West Virginia to aid in development of West Virginia's pilot Design/Build roadway project. Mr. Barclay was the lead geologist for all preliminary field related geotechnical activities.

- RHL Boulevard Connector – South Charleston, West Virginia

This project consisted of design of approximately 0.5 miles of 2-lane mainline connector roadway, 2 steel pile and concrete lagging retaining walls, and 1 large bridge structure with 3 MSE walls. Cut slope recommendations and retaining wall designs were the key geotechnical issue addressed for this project.

PROJECT EXPERIENCE (CONTINUED)

WVDOT bridge design geotechnical projects Mr. Barclay has managed include:

- Blennerhassett Bridge – Wood County, West Virginia and Washington County, Ohio
- James Rumsey Bridge Replacement – Jefferson County, West Virginia and Washington County, Maryland
- Star City Bridge – Monongalia County, West Virginia
- I-64 Kanawha River Bridge Caisson Evaluation – South Charleston, West Virginia
- Pleasant Valley Road Overpass Bridge – Marion County, West Virginia
- Etam Bridge – Preston County, West Virginia
- Littleton Tunnel Bridge – Wetzel County, West Virginia

Examples of Mr. Barclay's U.S. Corps of Engineers experience include:

- North Branch of Kokosing Dam – Warsaw, Ohio
- Alum Creek Dam – Lewis Center, Ohio
- Wills Creek Dam – Wills Creek, Ohio
- Bolivar Dam – Bolivar, Ohio
- Marmet Locks and Dam – Marmet, West Virginia
- Summersville Dam – Summersville, West Virginia
- Town of Martin – Martin, Kentucky

Mr. Barclay has also provided geotechnical engineering services for many commercial geotechnical projects including:

- Beech Ridge Wind Farm – Greenbrier and Nicholas Counties, West Virginia
- Laurel Mountain Wind Farm Project – Elkins, West Virginia
- Buffalo Wild Wings Restaurant – South Charleston, West Virginia
- Horizons Church Addition – Lost Creek, West Virginia
- Tug Fork and Lewis River HDD Pipelines – West Virginia & Kentucky
- XMV Mine Conveyor Crossing – Gary, West Virginia
- Proposed Warehouse Facility – Haverhill, Ohio
- Bishop Hodges Bridge Replacement – Huttonsville, West Virginia
- Equitable Office Building – Wyoming County, West Virginia

PUBLICATIONS

- Scott, Jack, P.G.; Barclay, Bob, P.G.; et al, **“West Virginia Geology Demands Complex Bridge Foundations”**, Web Exclusive, CE News, December 2009 Issue

YOGESH S. REGE, P.E.
DEPARTMENT MANAGER
GEOTECHNICAL SERVICES

PROFESSIONAL EXPERIENCE

Mr. Rege has over 13 years of experience in the geotechnical engineering discipline. He manages the geotechnical engineering department in Charleston, West Virginia office. Mr. Rege performs geotechnical engineering work to include: Project management of geotechnical projects, correlation, development and analysis of geotechnical engineering data in accordance with established professional standards; preparation of detailed reports based on geotechnical engineering principles and laboratory test results incorporating these principles into the design and analysis of shallow and deep foundations; slope stability and settlement analysis; landslide evaluation and correction measures; design of temporary and permanent earth retention wall systems and design of flexible and rigid pavement systems; soil-structure interaction; analysis of groundwater and seepage related problems; geotechnical applications with geosynthetics.

Also performs coordination and management of construction testing and inspection projects.

PROJECT EXPERIENCE

Representative projects on which Mr. Rege has performed geotechnical subsurface investigation include the following:

- Mr. Rege performed the preliminary geotechnical study for the VA Medical Center Parking Garage project in Beckley, West Virginia. Mr. Rege was Senior Geotechnical Engineer for the project.
- Mr. Rege performed the geotechnical study for the VA Medical Center Mental Health Building project in Beckley, West Virginia. Mr. Rege was Senior Geotechnical Engineer for the project.
- Responsible for foundation analysis, design and geotechnical report preparation for the Beckley Intermodal Gateway project. This project comprised of a new parking facility, small cultural center, new city hall, new police department building and other facilities on a 5 acre area site.
- Responsible for foundation analysis, design and geotechnical report preparation for the proposed FedEx Ground Distribution facility project in Pulaski County, Virginia.
- Responsible for foundation analysis, design and geotechnical report preparation for the Muncy Plant project in Mingo County, West Virginia. Various deep foundation options consisting of micropiles, pipe piles, etc. were recommended.
- Project manager and engineer for an Abandoned Mine Lands (AML) project in McComas, West Virginia. Project involved borings, analyses, laboratory testing and report

EDUCATION

*M.S., Geotechnical Engineering,
University of Cincinnati,
Cincinnati, Ohio, 1997*
*B.S., Civil Engineering /
Geotechnical Major, University
of Bombay, India, 1994*

REGISTRATIONS

*Professional Engineer:
West Virginia, Ohio & Virginia*

CERTIFICATIONS

*Nuclear Density/Moisture Gauge
Operation*
*OSHA 10-Hour Occupational
Safety and Health Training*
ODOT Bridge Inspection (Level 1)

- preparation for remediation of the mine spoils.
- Responsible for the analysis of the deep foundation (auger cast piles) for the OSU Stadium renovations exterior buildout project.
 - Assisted in mine subsidence assessment of the proposed Melody Mountain commercial development project in Ashland, Kentucky.
 - Project manager for a project involving underground mine subsidence mitigation for a bank site in Beckley, WV. Project involved pre and post mine grouting test borings, preparation of mine grouting specifications, preparation of bid package, solicitation of bids and assistance in selection of mine grouting contractor and inspection and support during the grouting process.
 - Responsible for analysis, design and geotechnical report preparation of several projects for the West Virginia Department of Highways (WVDOH).
 - Project manager for a project in Inez, KY consisting of deep strip mine fill material. Remediation involved dynamic compaction of the fill to create a site suitable for development.
 - Project manager and engineer for a substation project in northern West Virginia consisting of deep strip mine fill material. Remediation involved dynamic compaction of the fill to create a site suitable for development.
 - Project manager for a switchyard, substation and transmission line project in southern Pennsylvania northern West Virginia consisting of deep strip mine fill material. Remediation involved dynamic compaction of the fill to create a site suitable for development.
 - Provided deep foundation analyses, recommendations and reports for several Ohio Department of Transportation (ODOT) projects including single and multi-span bridges.
 - Responsible for foundation analysis, design and geotechnical report preparation of several above ground storage tanks at refinery in Canton, Ohio.
 - Responsible for foundation analysis, design and geotechnical report preparation of several waste water treatment plants and sanitary sewer lines in the state of Ohio.
 - Responsible for foundation analysis, design and geotechnical report preparation of several new schools for the Ohio School Facility Commission.

Representative projects on which Mr. Rege has provided materials testing and inspection services include the following:

Auger Cast Pile Inspection

- Ford Motor Company, 7 Bay Expansion- Sharonville, Ohio
- Cincinnati Enquirer Production Facility Expansion-Cincinnati, Ohio
- OSU Stadium exterior buildout, Columbus, Ohio

Drilled Pier Inspection

- OSU Fisher College of Business-Columbus, Ohio
- International Paper-Cincinnati, Ohio
- University of Cincinnati Pedestrian Bridge-Cincinnati, Ohio

Load Test Inspection

- OSU Stadium exterior buildout, Columbus, Ohio
- Science and Technology Building, Ohio University, Athens, Ohio
- U.S. 33 Realignment project, Bridge over Hocking River, Lancaster, Ohio

SCOTT W. MELTON

PROJECT MANAGER

PROFESSIONAL EXPERIENCE

Mr. Melton serves as a Project Manager in the Construction Materials Engineering and Testing (CMET) group located in our Charleston, West Virginia office. Mr. Melton is a retired Master Sergeant from the US Air Force with over 22 years as an Engineering Assistant. He has over 25 years of CMET related experience including serving as Superintendent of the US Air Force, Airfield Pavements Evaluation Section, during which his team performed structural evaluations and pavement condition surveys on airfields around the world. Mr. Melton performed over 50 structural evaluations using the Dynatest Heavy Weight Deflectometer and the Corp of Engineers PCASE program including an emergency evaluation of the runway at Tule AB, Greenland, following a major flood.

He currently manages a variety of CMET projects, including WVDOH projects as well as commercial and industrial projects. Mr. Melton has served as the primary project manager during the construction of four new schools being constructed in SE Ohio.

Aside from being the primary client contact for his projects, his duties include oversight of technicians assigned to his projects, scheduling, budget establishment and maintenance, and review of field records and reports. Mr. Melton continues to routinely perform technical field functions as well, by augmenting the technician group when needed to meet project demands.

PROJECT EXPERIENCE

Construction Management related:

- Served as a PM during the construction of 22 Tractor Supply stores located throughout the Northeastern United States
- Served as the PM during construction of the Gilmer County, WV, local sports complex. This complex included construction of softball/baseball fields for NCAA regulations and for Little League regulations
- Served as the PM during construction of a new addition to the Hampton Inn located along US 119 in South Charleston, WV

Materials testing and inspection related:

- AEP Mountaineer Plant – New Haven, WV – served as lead technician during a 1200 cubic yard pour for a new coal stacker pad. Also has assisted with other tasks during construction of a new urea tank.
- I-64/I-77 Bridge in Charleston, WV – Lead technician for a night pour during application of Latex Concrete overlay.
- I-64 Overpass – Milton, WV – Quality control testing of concrete and soils
- US 35 Interchange – Winfield, WV – served as quality control technician during placement of structural fill and for backfill of median drain systems along the route for a new section of US 35.

EDUCATION

*AS Construction Technology, 1999,
Community College of the Air
Force*

*USACOE – Pavements Computer
Assisted Structural Engineering
(PCASE)*

*USACOE – Micro Paver,
Pavements Management and
Inspection*

*Air Force Institute of Technology –
Airfield Pavement Maintenance
and Rehabilitation*

*Air Force Institute of Technology –
Airfield Pavement Construction
Inspection*

*Air Force Institute of Technology –
Roof Design and Management*

*Air Force Institute of Technology –
Computer Aided Design and
Drafting Systems Course*

*Air Force Construction Materials
Testing Course*

*Air Force Engineering Assistance
Specialist Course*

*Air Force Construction Surveying
Course*

CERTIFICATIONS

*Nuclear Radiation Safety
Certification*

*OSHA 30-Hour Occupational
Safety and Health Supervisor*

*American Concrete Institute
Concrete Field Testing
Technician – Grade I*

WVDOH Certified PCC Inspector

*WVDOH Certified Compaction
Inspector*



CHRISTOPHER L. MORRIS

CMT TECHNICIAN IV

PROFESSIONAL EXPERIENCE

Mr. Morris serves as a CMT Technician IV and has over 15 years of experience in the area of construction materials testing. He has performed the following duties:

Asphalt

Mr. Morris is experienced in Quality Control and Quality Assurance testing of HMA compaction on public and private projects including multiple WVDOH projects and several FAA projects. He has implemented control strip evaluations for determination of nuclear gauge correction factors for QA purposes and performed QC during plant operations.

Concrete

Mr. Morris' field experience includes testing freshly mixed concrete for Slump, Unit Weight/Yield, and Air Entrainment, as well as the fabrication of test cylinders. He has extensive experience with concrete placement, testing of concrete, and various construction techniques for small pours and mass foundation pours.

Auger Cast Piles

Mr. Morris has extensive experience observing the installation of auger cast piles, including performing flow tests, fabricating cubes, identifying and calculating elevations, reinforcing steel inspections, identifying plumbness, and determining neat line and actual volumes.

Soils

Mr. Morris is routinely assigned to quality control testing of soil compaction and observations of cut and fill operations on projects of varying size. He has extensive experience with large fill operations including grade and lift control. His work has also included observations and testing during dynamic compaction operations for both test strips and production work. He is also trained and experienced in the determination of the in-place density of material performing sand cone tests and utilizing Troxler and Humbolt nuclear density/moisture gauges, completing field one point proctors, and execution of the WVDOH roller pass.

Laboratory Testing

Mr. Morris is experienced in preparation and strength testing of concrete cylinders, grout prisms, and mortar cubes, and has also performed unit weight and compressive testing of rock cores. He has extensive experience executing Sodium Sulfate Soundness testing, and numerous Standard and Modified Proctor Compaction tests, Sieve and Hydrometer Analyses, Relative Density, Moisture Content, and Classification of granular and cohesive soils.

SPECIAL PROJECTS

- Mingo County Airport-Williamson, WV-has served as the primary QA technician during construction of a new airport runway and associated aprons and taxiways. This work has included extensive dynamic

CERTIFICATIONS

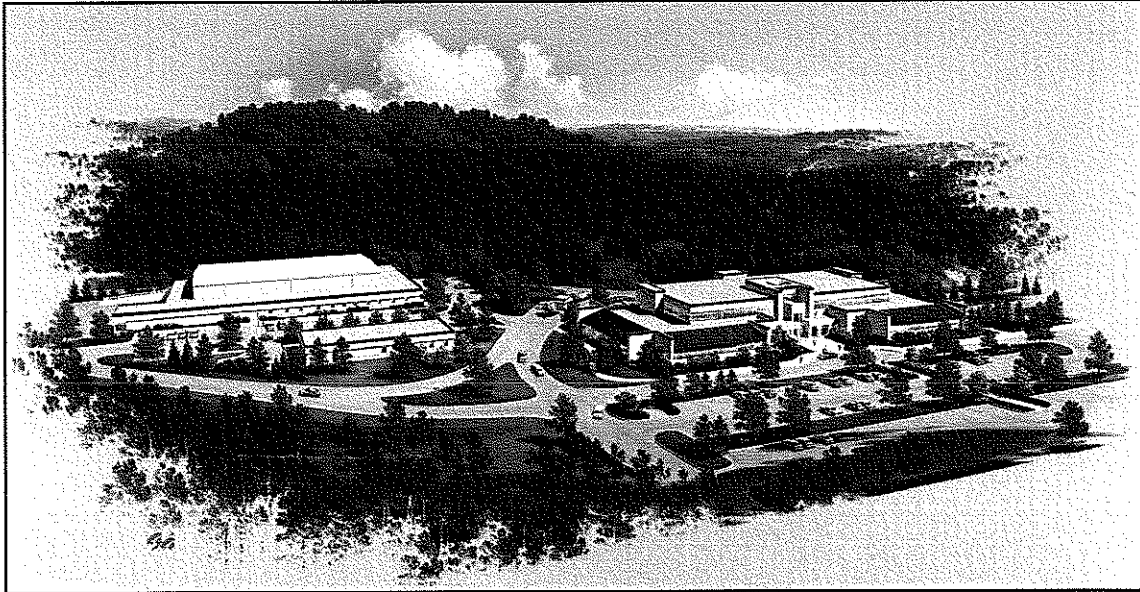
Nuclear Radiation Safety
FAA Eastern Regional Laboratories List
WVDOH- Aggregate Inspector
WVDOH- Compaction Inspector
WVDOH- Portland Cement Concrete Technician
WVDOH- Hot-Mix Asphalt Technician
WVDOH- Portland Cement Concrete Inspector
WVDOH - Asphalt Field Technician
PTI - Post-Tensioning Institute, Level 2 #4270821
OSHA 10-Hour Construction Safety & Health

- compaction operations to mitigate soft soils with large voids.
- Western Regional Jail-Barboursville, WV-Owner's QA of auger cast pile installation.
 - AEP John Amos Power Plant, FGD Upgrade-Winfield, WV-site observations of mass concrete pours for large mat foundations (6,500 cy) and contractor's QC of controlled fill and various concrete placement.
 - AEP Glen Lynn Power Plant, Glen Lynn, VA-site observations and density control of structural fill for construction of landfill cells.
 - Sycamore Landfill – Hurricane, WV-site observations and density control of structural fill and clay liners including cell caps.
 - Charleston Landfill – Charleston, WV-site observations and density control of structural fill for cells.
 - Raleigh Memorial Airport – Beckley, WV – site observations and density control of in-place cement-stabilized granular subgrade for runway rehabilitation. P401 observations and testing.
 - Winfield Locks and Dam - Winfield, WV-site observations and density control of structural fill and clay liner for construction of large temporary storage buildings containing PCB contaminated soil.
 - Blennerhassett Bridge – Parkersburg, WV-contractor's quality control of structural fill and concrete for all facets of construction of a new bridge along US 50 from Parkersburg to Ohio. This contract was the largest highway contract awarded in WV history as of 2005.
 - AEP Kyger Creek Power Plant, FGD Upgrade-Cheshire, OH-site observations and density control of bottom ash fill for plant expansion and contractor's QC of fill and concrete placement. HCN helped developed fill specifications by testing during the building of test pads using full scale construction equipment in order to expedite construction of the fill. Density control was done primarily using sand cone testing.
 - AEP Kyger Creek Power Plant, FGD Upgrade-Cheshire, OH-site observations and density control of random material and bottom ash fill for construction of the building pad supporting the new WWTP as a part of the FGD upgrade.



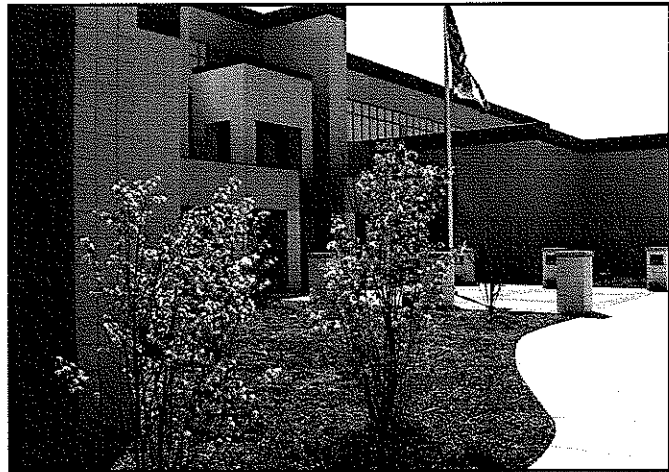
Composite Support Complex Site Preparation

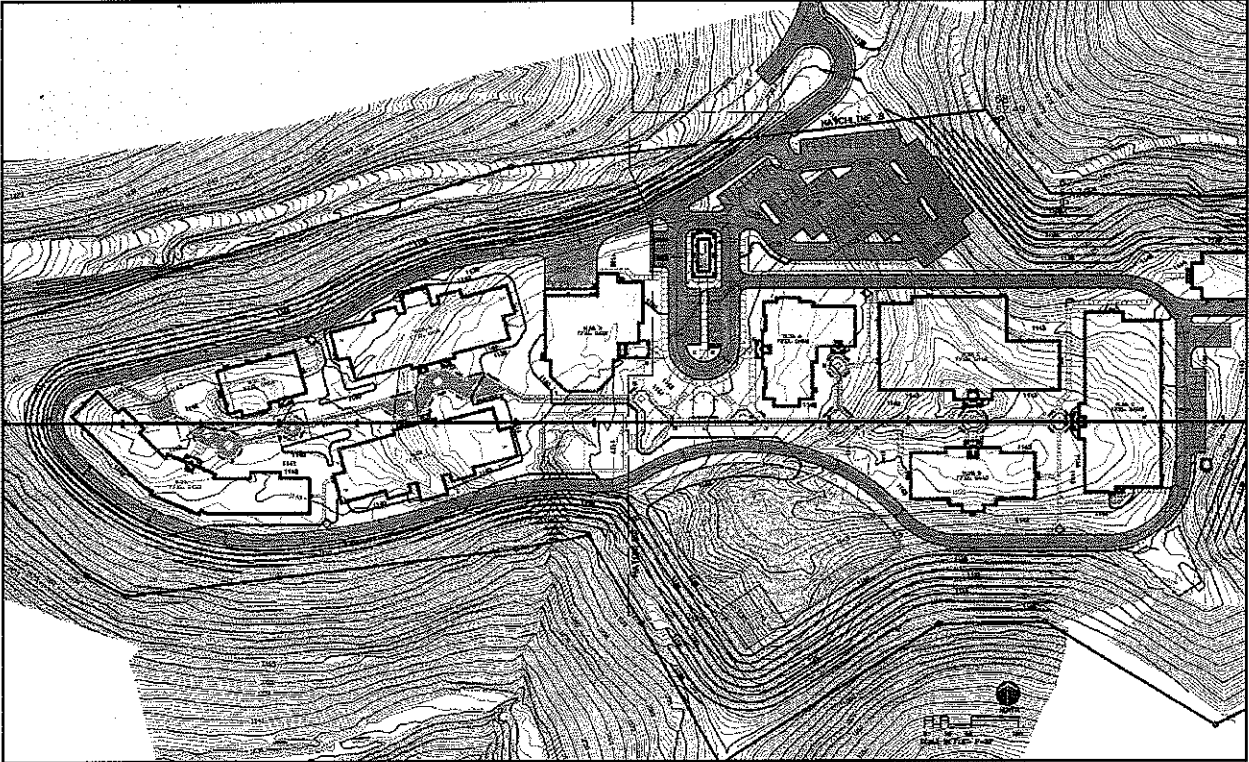
90001



West Virginia Air National Guard
Yeager Airport
Charleston, West Virginia 25311

Design and construction inspection services for all site development project elements for a new complex of buildings for the 130th Airlift Group, West Virginia Air National Guard to include a new Headquarters Building, Consolidated Base Supply, and Security Police Headquarters. Firm's responsibility encompasses all site civil engineering and landscape architectural design including site grading and drainage, storm sewers, sanitary sewers, underground electric, base-wide underground communications system, natural gas supply, potable and fire water supplies, roads and parking facilities, and pedestrian circulation.





ZMM, Inc.

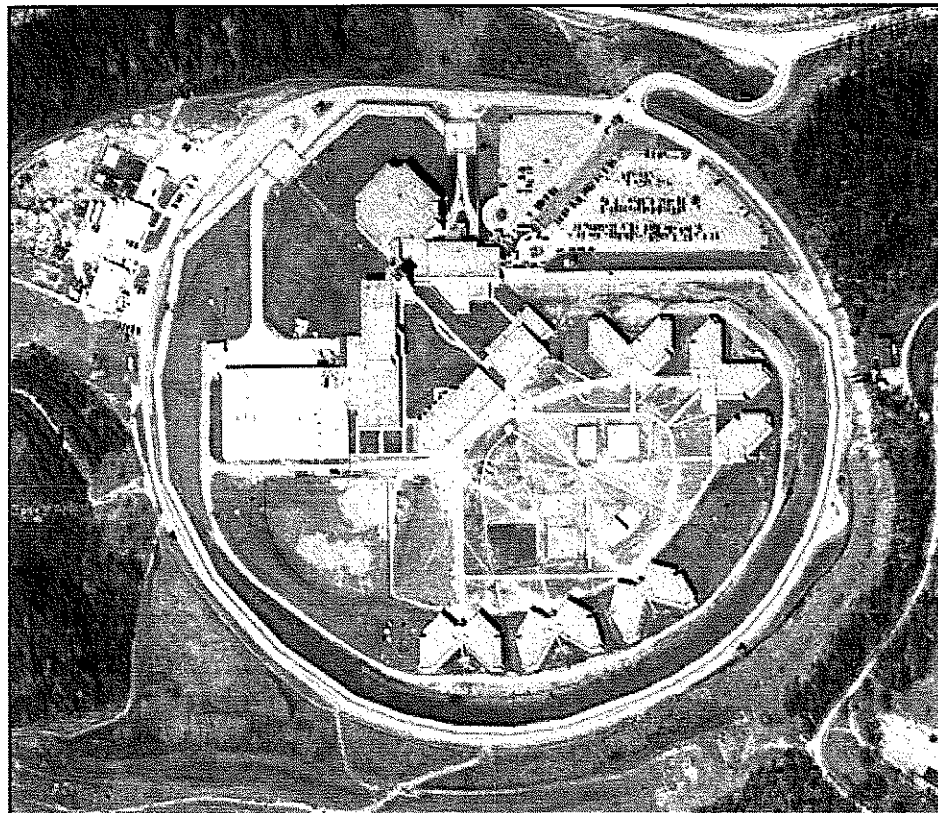
222 Lee Street, West
Charleston, West Virginia 25302

Site design and structural engineering for an 11-building complex located on a 24 acre site. Site design included earthwork and grading, all utilities including storm and sanitary sewers, domestic and fire protection water systems, site lighting and electrical distribution, and pavement and roadway design. Structural engineering included design and drafting for the structural systems of all buildings.



Mount Olive Correctional Facility

90027



West Virginia Regional Jail and Correctional Authority

1325 Virginia Street, East
Charleston, West Virginia 25301

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



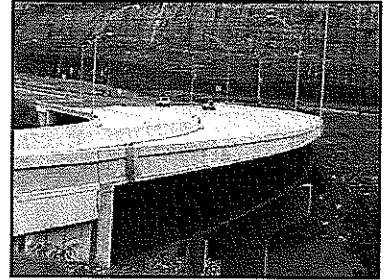
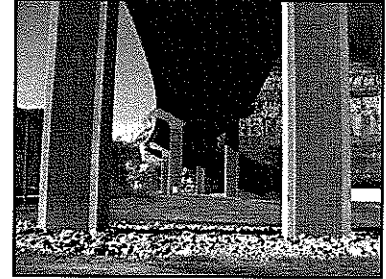
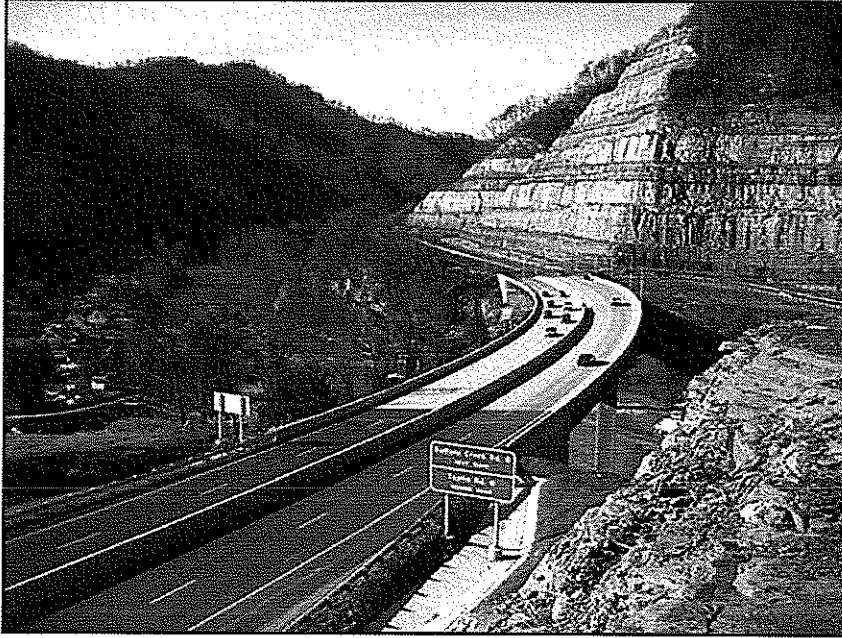
West Virginia Department of Transportation
Division of Highways
Building Five, Room A-416
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0430

This project involved the design and preparation of construction contract plans and related documents for the expansion of four and one-half miles of US Route 19 at Birch River to four-lane highway. The design of this project was completed in August 1995. Metric units were required for this project.



West Virginia State Route 10

98015a



West Virginia Department of Transportation
Division of Highways
1900 Kanawha Boulevard, East
Building 5, Room A-317
Charleston, WV 25305-0430

West Virginia State Route 10, once considered by some the state's most dangerous highway, was upgraded from Logan to Man. Chapman Technical Group was responsible for the study, design and preparation of construction documents for two sections of the new four-lane highway.

The first section, approximately 1.8 miles long, included two bridges. Chapman Technical Group completed the preliminary design of a new 2,000-foot bridge across the Guyandotte River and construction documents for a new 800-foot bridge across Buffalo Creek (pictured above).

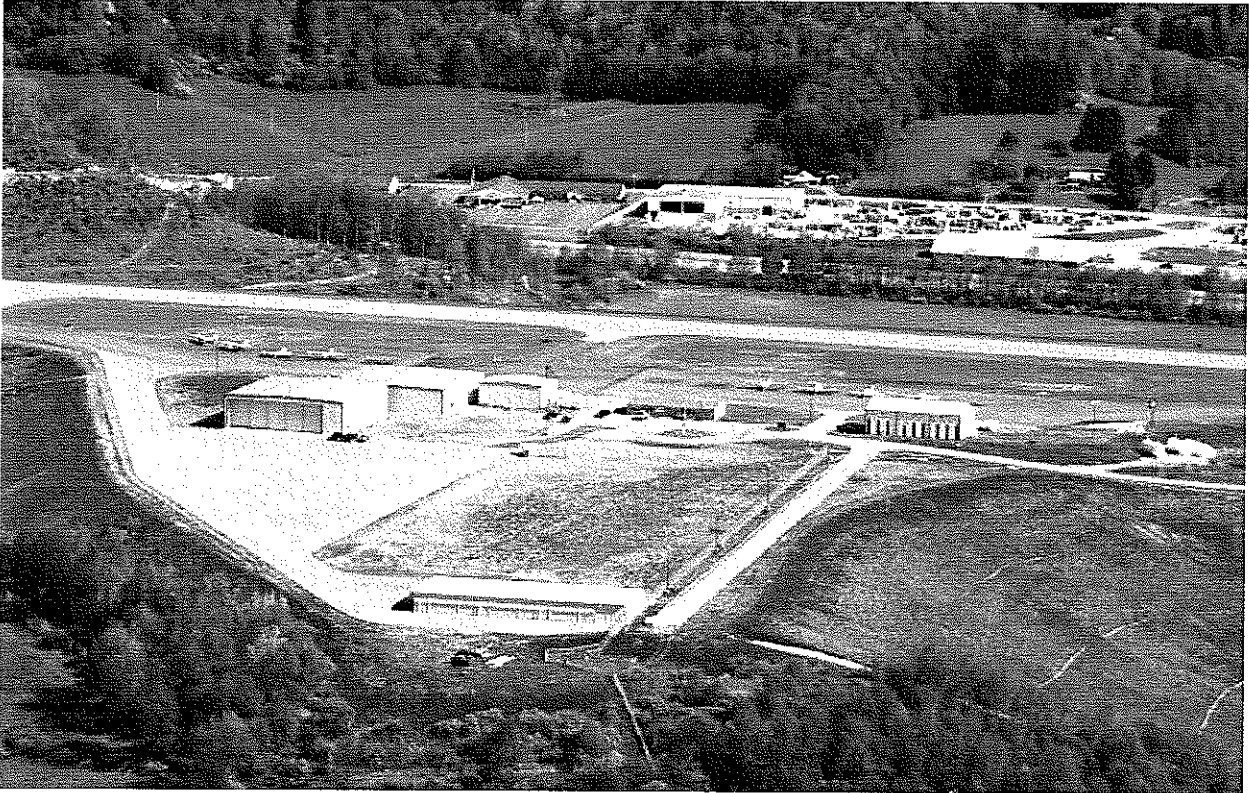
The second section included approximately 4 miles of four-lane WV 10, and 0.75 miles of two-lane connector highway. Two two-lane bridges, one across Rum Creek and one across the Guyandotte River, as well as nine major box culverts, were part of the project.

The mountainous terrain of Logan County presented design and construction challenges. Developing mapping and providing the associated field surveying for the existing two-lane highway was particularly difficult, as was the geotechnical investigation. Drill rigs were flown in by helicopter and lowered to bore hole locations due to the inaccessibility of the site.

Chapman Technical Group was awarded the Commissioner's 2000 Engineering Achievement Award for the Large Roadway Category by the West Virginia Department of Transportation - Division of Highways on one construction contract and was a finalist in the Large Bridge and Large Roadway categories on two other construction contracts.



Upshur County Airport



Upshur County Airport
40 West Main Street
Buckhannon, West Virginia 26201

At the Upshur County Regional Airport, Chapman Technical Group designed two apron extensions on either side of the original aircraft parking apron (darker portion of pavement), tying each end of the combined apron to the runway with two exit taxiways. Shortly thereafter, CTG designed and provided construction services for the development of an 11-acre plateau upon which another apron was constructed along with a taxiway to join the main apron. Six T-hangars and one 10,000 sq. ft. hangar designed by Chapman Technical Group now front this "South Apron".



Upshur County Airport



Upshur County Airport
40 West Main Street
Buckhannon, West Virginia 26201

In addition to repairing two major landslides that protruded into both sides of the mid-field RSA at the Upshur County Regional Airport, Chapman Technical Group designed and provided construction services for a 700-foot runway extension and an associated RSA end area measuring 150 ft. (W) x 300 ft. (L). The project involved removing a mountainous obstruction in the approach to Runway 11 and placing some 454,000 CY of engineered fill to bring the extended airfield surface to grade.



King's River Church

777 Mallory Lane
St. Albans, West Virginia 25177

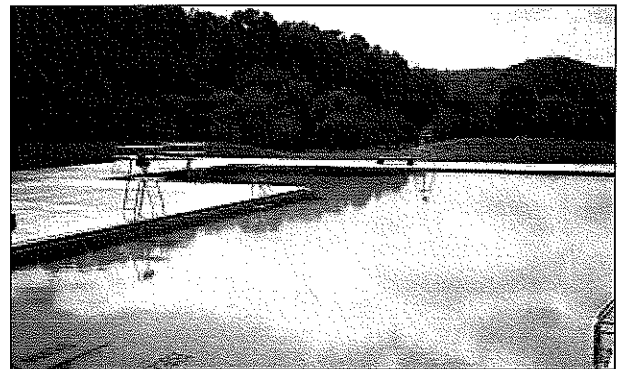
Chapman Technical Group provided site design services for a new church for the King's River Worship Center (formerly the First Assembly of God). The project included building siting, parking layout, grading and drainage design, utility design, and design of erosion and sediment control. The project also included the analysis, relocation design and permit application for a stream tributary within the Kanawha River Basin.



West Virginia Division of Natural Resources

State Capitol, Building 3, Room 669
1900 Kanawha Boulevard,
Charleston, West Virginia 25305

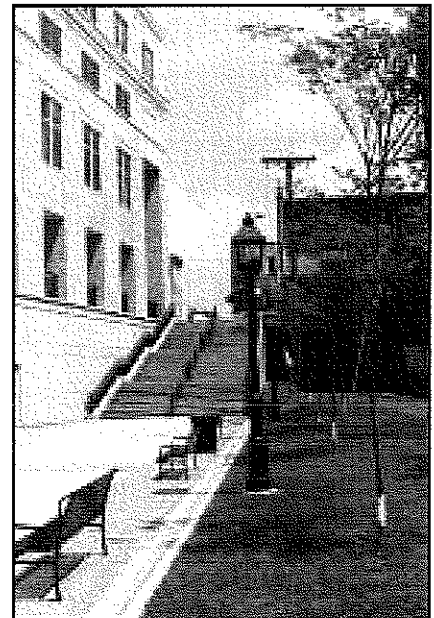
Chapman Technical Group designed \$4.5 million worth of improvements at the state park near Barboursville including a 50-meter swimming pool, bathhouse, six modern cabins, and campground upgrades. The pool and bathhouse were constructed on 12 feet of fill, artfully designed by our landscape architects to blend naturally with the surrounding terrain. A one-half mile access road to the cabins was also designed by our landscape architects. They also provided the storm water management of the project, as well as all of the landscaping.





Einhorn Yaffee Prescott
The Flower Mill
1000 Potomac Street, N.W.
Washington DC 20007-3238

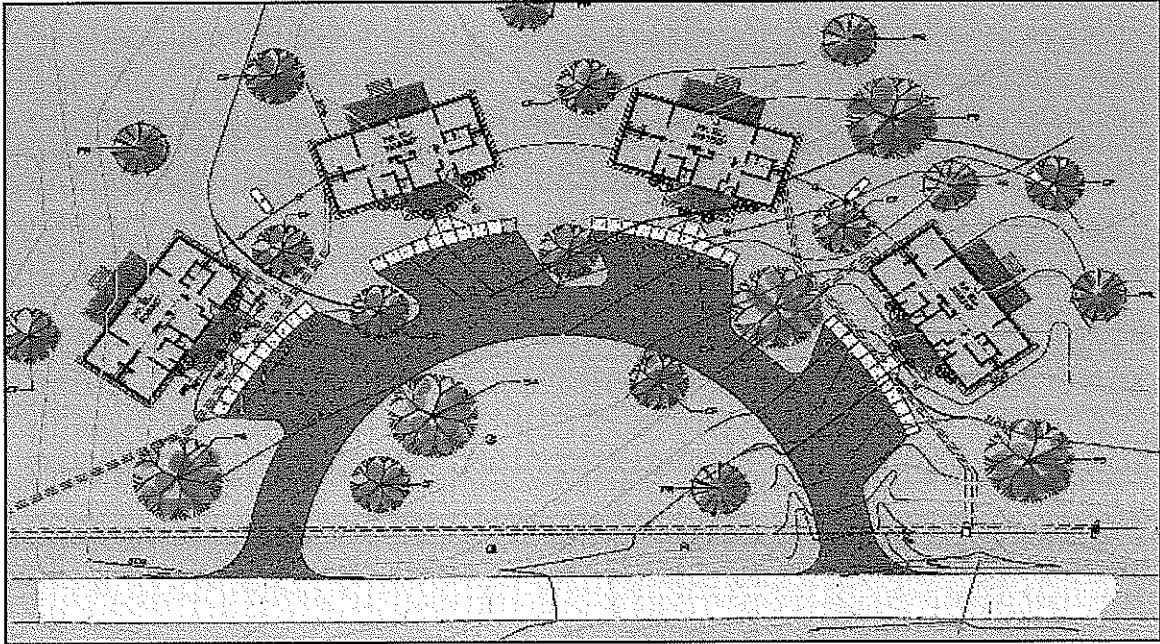
Working with Project Architect Robert A. M. Stern of New York and Einhorn Yaffee and Prescott of Washington, D.C., Chapman Technical Group provided the design and construction services for Phase I excavation, shoring and existing utility relocations in support of Phase II building construction. Phase II design and construction services included all site civil and site structural engineering and landscape architectural design including site grading and drainage, storm and sanitary sewage systems, retaining walls, underground electric and communication systems, natural gas supply, potable water and fire services, roads, parking facilities, pedestrian circulation, and site security enhancements.





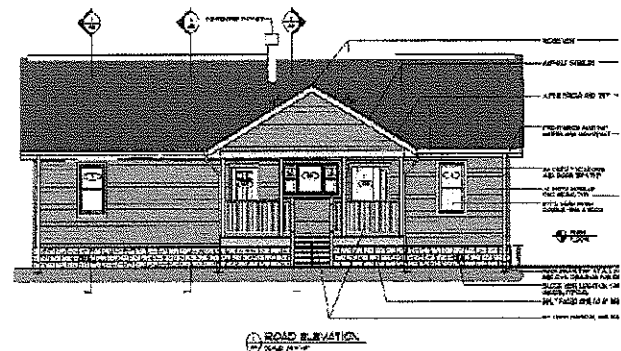
Blackwater Falls Cabins

07069



Blackwater Falls Cabins WV DNR Parks and Recreation Davis, West Virginia

Chapman Technical Group was selected to provide the architectural, civil engineering, and landscape architectural design to construct 13 new cabins in the environmentally-sensitive Blackwater Falls State Park, including site development and utility system upgrades. Originally the Owner wanted to expand the existing cabin area in the park, but utility issues proved too costly at that location, so alternative sites were evaluated and a seldom used picnic area was determined to be the optimum site. One of the goals in developing the project was to have as little environmental site impact as possible. The selection of the picnic area site meant that a new access road would not be required. A plan to cluster the cabins was developed that would further minimize the footprint of the cabin development. As much as possible, the existing grade remained



unchanged to preserve the natural vegetation. A natural planting plan was developed using indigenous or naturalized plant species, with a special effort made to provide habitat vegetation for endangered animal species in the area. Ground water recharge was investigated but was deemed unfeasible due to clay soils and shallow bedrock. As part of the project, a low-impact wastewater treatment plant was designed and will result in water clean enough to discharge into the natural waterways of the park. More than a mile of potable water line was also upgraded, which will benefit other areas of the park as well.

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. Ms. Bonnie Osburn
Office Manager
Culloden Public Service District
100 Spanish Oak Drive
Culloden, WV 25510
(304) 743-6349
6. Honorable Jerry Teter
Mayor
Town of Harman
Post Office Box 125
Harman, WV 26270
(304) 227-4715
7. Mark Carver
Director of Public Works
City of Lewisburg
500 Feamster Road
Lewisburg, WV 24901