

APPENDIX G
Qualifications

I. General Description of Firm

A. Introduction

Anderson & Associates is a civil and environmental engineering, surveying, planning, and landscape architecture firm. The firm specializes in the planning, design, and construction administration of private and public works projects primarily in Virginia, West Virginia, North Carolina, and Tennessee.

The range of activities for the firm includes institutional, municipal, state, industrial, and recreational projects including water, wastewater, stormwater, transportation, and site development. We also provide non-traditional engineering services in the areas of Geographic Information Systems and database development, and computer modeling and simulations. Offices in Blacksburg, Middletown, and Richmond, Virginia, Greensboro, North Carolina, and Tri-Cities, Tennessee, provide depth in responding to fast track assignments and strengthen our ability to maintain contact with state agencies.

A major factor in our ability to absorb increased workloads is our extensive investment in automation. Since 1980, we have invested heavily in all aspects of computerization for both design and drafting functions. This involves not only the purchase of equipment, but more importantly, the development of techniques and positive attitudes towards automation.

Each office is connected electronically and shares data daily to better respond to our clients' needs. Personnel resources are effectively shared between offices. Our automation has fine tuned our ability to reduce the delays experienced in communicating effectively with regulatory agencies and clients. In many cases we reduce the response and approval time from days to just minutes.

Every employee/owner at our company can be reached through the phone, fax or the Internet via email. Anderson & Associates, one of the first engineering firms to establish a presence on the World Wide Web (WWW), has an extensive web site, which includes further information on the company, our philosophy, and our monthly newsletter, "Ampersand." It can be viewed at the WWW address-- **<http://www.andassoc.com>**.

We are also set up for video conferencing and for electronic collaboration. We have also worked with clients to set them up with these technologies.

The success of any organization is dependent on the quality of its people. A&A values its employees for their abilities and their contribution but also feels life-long learning is important. We are also driven to provide highly competent personnel to our clients. A&A spent approximately \$275,000 on training in 1997.

All full-time employees of Anderson & Associates are eligible to become owners through an Employee Stock Ownership Plan. Work will be performed by these owners who are particularly concerned about upholding the firm's good reputation and keeping you as a satisfied client. By maintaining a strong staff, we are able to provide continuity to a project, resulting in higher overall efficiency and quality design.

II. Environmental Experience

A. Related Experience

Anderson & Associates, Inc. has been involved with environmental projects for many years. Our services have, and continue to evolve, to meet the ever changing needs in the environmental engineering and services field. Our personnel remain abreast of the rapidly changing regulations and compliance dates by attending conferences, reviewing technical literature, and working directly with regulatory agency personnel. Anderson & Associates has worked with the Virginia Department of Environmental Quality (DEQ), the Virginia Department of Health (VDH), and the Virginia Department of Transportation on many conventional and innovative projects. We maintain a working relationship based on frequent communication with these officials.

Many environmental projects involve permitting and resolution of compliance issues. For our clients, we have prepared successful permit applications to the Virginia Marine Resources Commission (VMRC), the DEQ, the, VDH, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the Virginia Department of Game and Inland Fisheries.

Site development planning and design, deed research, and computer database searches are related services that Anderson & Associates provides on a routine basis. These are all services that are also typically associated with Environmental Site Assessments.

Anderson & Associates, Inc. has worked for many years in both the municipal solid waste and the industrial waste fields. These projects require an ongoing familiarity with solid waste regulations and policies of the Waste Management Division of the Virginia Department of Environmental Quality (DEQ). Our services have included the following: design of solid waste landfills, preparation of operating and closure plans, and construction administration and quality assurance certification for landfill closure activities.

We have also provided services for abatement studies and site characterization reports required by the DEQ for leaking underground storage tanks. For storage containment areas, we have provided site reviews, subsurface investigations, and coordinated soil and groundwater sampling. Other environmental experience includes wetlands impact assessments and design of mitigation measures under the guidelines of the Army Corps of Engineers. In addition, we have extensive experience in development and application of models that predict transport and fate of environmental pollutants in groundwater and surface water.

B. Environmental Assessments

Anderson & Associates has completed numerous Phase I Environmental Site Assessments (ESAs) in general compliance with the ASTM E-1527 standards. Prior to the development of the ASTM standard, Anderson & Associates, Inc. personnel were involved with the National Groundwater Association in developing a standard for the completion of Phase I assessments. Many of our ESAs are performed as part of infrastructure design and construction for governmental entities such as public services authorities and universities. For example, we have performed numerous ESAs for Radford University. We have also worked with private developers and private agencies and companies such as industrial development authorities, the Celanese Acetate Corporation, Lowe's Companies, and GTE Mobilnet.

Environmental Assessments in general conformance with National Environmental Policy Act (NEPA) standards are an important part of maintaining state and federal regulatory compliance. The Commonwealth of Virginia and some funding agencies also require the preparation of Environmental Impact Reports (EIRs) for proposed projects. These reviews consider the impact that a proposed project may have on the natural and manmade environment. We have prepared EIRs for many clients, including Virginia Commonwealth University, Radford University, Virginia State University and the Virginia Community College System. We have experience in performing environmental assessments for water and wastewater projects, site development, coal mine reclamation projects, and stone quarry operations.

Following is a list of representative Environmental Site Assessments and Environmental Assessments that Anderson & Associates has worked on.

Representative Environmental Site Assessment Projects

Project Name & Location	Firm's Responsibility	Owner's Name and Address	Date	Construction Cost
Environmental Site Assessment Proposed Bastian Waste Water Treatment Plant Property Bland County, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Land use consisted of agricultural and rural residential.	Bland County Main Street – County Courthouse P.O. Box 510 Bland, VA 24315 Mr. Gary Cutlip (540) 688 4622	2000	N/A
Environmental Site Assessment Citizens Telephone Buildings Town of Floyd, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Land use consisted of former Citizens Telephone Cooperative office buildings and switching station.	Floyd County P.O. Box 218 Floyd, VA 24091 Mr. George Nester (540) 745-9300	2000	N/A
Environmental Site Assessment 177 Acre Parcel, North Main Montgomery County, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Land use consisted of working agricultural with several abandoned residential dwellings and outbuildings.	Mr. Sterling Nichols DMI Corporation 1111 Old Colony Road Williamsburg, VA 23185-3801 Mr. Sterling Nichols (757) 253-1692	2000	N/A
Environmental Site Assessment Golf Development in Rock Creek Center Guilford County, NC	Performed Phase I ESA in accordance with ASTM standard 1527. Land use consisted of forest and former agricultural fields returning to brush. A meeting hall building and appurtenances occupied the property.	Greensboro Jaycees c/o Sam Snead Course Design 4070 Butler Pike, Suite 800 Plymouth Meeting, PA 19462 Mr. Ron Coruzzi (610) 834-0317	2000	N/A
Environmental Site Assessment Hart House and Property Petersburg, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Land use consisted of agricultural fields and a single historic residential dwelling and newer outbuildings.	Pamplin Historical Park 6523 Duncan Road Petersburg, VA 23803 Mr. Churchill G. Drake, Jr. (804) 861-2408	2000	N/A
Environmental Site Assessment Remainder of Dogwood Farms Pearsburg, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Land use consisted of forest, recently logged slash and hay fields. Several farm buildings and the ruins of a residential dwelling occupied the property.	Mountain Investments 204 Woodland Drive Mr. Ted Johnson (540) 626-9725	1999	N/A

Environmental Site Assessment Plum Creek Area Montgomery County, VA	Completion of a Phase I ESA of site in Plum Creek Area for a Waste Collection and Recreational Facility. Services included a visual olfactory inspection of site and "windshield survey" of surrounding area within a .5 mile radius.	Montgomery County P.O. Box 6126 Christiansburg, VA 24068-6126 Steve Phillips 540-382-5793	1999	N/A
Environmental Assessment Winston Lakes Antenna Site Pittsylvania County, VA	Prepared NEPA review for proposed new communication antenna on existing communications tower, utilizing Federal Communications Commission (FCC) guidelines.	GTE Wireless 6501 Weston Parkway Suite 100 Cary, NC 27513 Mr. Scott B. Smith	1999	N/A
Environmental Assessment Ringgold Antenna Site Winston Lakes, NC	Prepared NEPA review for proposed new communication antenna on existing communications tower, utilizing Federal Communications Commission (FCC) guidelines.	GTE Wireless 6501 Weston Parkway Suite 100 Cary, NC 27513 Mr. Scott B. Smith	1999	N/A
Environmental Site Assessment Falling Branch Industrial Park, Lot 6 Lafayette, Virginia	Preparation of Phase I ESA in accordance with ASTM Standard E 1527. Property consisted of agricultural fields with a residential dwelling, barns and sheds.	Montgomery County IDA 1 East Main Street, Suite 213 Christiansburg, VA 24073-3027 Mr. Bob Isner 540-382-5732	1999	N/A
Environmental Site Assessment Proposed Library Property Montgomery County, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Property consisted of an open field.	Montgomery County Public Facilities 400 County Drive Christiansburg, VA 24073 Mr. Steve Phillips 540-382-6954	1999	N/A
Environmental Site Assessment Richmond and Danville Trail Pittsylvania County, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Property consisted of abandoned section of Norfolk Southern right of way.	Pittsylvania County P.O. Box 426 Chatham, VA 24531 Mr. Otis T. Hawker (804) 432-2041	1999	N/A
Environmental Site Assessment LKM Industries Site Allegheny County, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Land use consisted of former forest being replaced by commercial industrial park.	LKM Industries, Inc. 44 Sixth Road Woburn, MA 01801 Mr. John P. Miersma, CFO (781) 935-2910	1999	N/A

Environmental Assessment Bluff City Improvements Pearisburg, VA	Prepared NEPA review for proposed infrastructure improvements utilizing both Department of Community Development (DHCD) and Rural Development (RD) formats.	Moseley, Harris & McClintock 780 Lynnhaven Parkway The Windwood Centre, Suite 200 Virginia Beach, VA 23452 George Nasis (757) 368-2800	1999	N/A
Environmental Assessment Agriculture/Forestry Building Virginia Tech, Blacksburg, VA	Prepared NEPA review for proposed building utilizing the format outlined in "Procedures for Environmental Impact Review of Major State Facilities" by the Virginia Department of Environmental Quality (DEQ).	Moseley, Harris & McClintock 780 Lynnhaven Parkway The Windwood Centre, Suite 200 Virginia Beach, VA 23452 George Nasis (757) 368-2800	1999	N/A
Environmental Assessment Student Services Buildings Virginia Tech, Blacksburg, VA	Prepared NEPA review for two proposed building improvements utilizing the format outlined in "Procedures for Environmental Impact Review of Major State Facilities" by the Virginia Department of Environmental Quality (DEQ).	Worley Associates 3021 West Broad Street Richmond, VA 23230 Mr. Ron Worley (804) 353-2635	1999	N/A
Environmental Site Assessment and Feasibility Study Proposed Virginia Envirotechnology Center Rockbridge County, VA	Performed Phase I ESA in accordance with ASTM standard 1527. Also performed NEPA review including consultation with regulatory agencies and subcontracting an archeological consultant. Followed Rural Development Form FMHA 1940-20 format for report.	The Rockbridge Partnership 6 South Randolph Street Lexington, VA 243450 Mr. Dave Kleppinger (540) 463 7346	1999	N/A
Environmental Site Assessment 614 Howe Street and 615 Fairfax Street Radford University Radford, Virginia	Preparation of Phase I ESA in accordance with ASTM standard 1527. Two separate properties were investigated. Each property consisted of a small lot and single family home.	Radford University Physical Plant- Construction and Planning P.O. Box 6909 Radford, Virginia 24142-6909 Mr. Roy Saville 540-831-6014	1998	N/A
Environmental Site Assessment Proposed Chestnut Knob Water Storage Tank Site Horse Pasture, Virginia	Preparation of Phase I ESA in accordance with ASTM Standard E 1527. Property consisted of 5-acres of formerly agricultural land, now a wooded lot.	Henry County Public Service Authority P.O. Box 69 Collinsville, VA 24078-0069 Mr. Steve Plante, PE 540-634-2525	1998	N/A

Environmental Site Assessment Proposed Merrimac Greenbox Site Merrimac, Virginia	Preparation of Phase I ESA in accordance with ASTM Standard E 1527. Property consisted of 1.9-acre proposed greenbox site and an additional 17-acre site. Both sites occupied land influenced by a former coal mine.	Montgomery County Public Facilities P.O. Box 6126 Christiansburg, VA 24073 Mr. Steve Phillips 540-382-6954	1998	N/A
Environmental Assessment Proposed Tom Creek Interceptor Blacksburg, Virginia	Prepared Environmental Assessment of potential impacts of proposed wastewater alignments using the guidelines specified in the application for the Virginia Department of Environmental Quality Revolving Loan Fund.	Town of Blacksburg 300 South Main Street P.O. Box 90003 Blacksburg, VA 24062-9003 Mr. Randy Formica	1998	N/A
Environmental Site Assessment Proposed Elliston-Lafayette Industrial Park, Phase II Lafayette, Virginia	Preparation of Phase I ESA in accordance with ASTM Standard E 1527. Property consisted of 50-acres of agricultural and rural residential land.	Montgomery County IDA 1 East Main Street, Suite 213 Christiansburg, VA 24073-3027 Mr. Bob Isner 540-382-5732	1998	N/A
Extended Environmental Site Assessment and Environmental Assessment Proposed Industrial Park Montvale, Virginia	Phase I ESA report preparation for two undeveloped parcels totaling 183 acres. Coordination of soil and groundwater sampling and analysis for petroleum hydrocarbon contamination. Prepared Environmental Assessment of potential impacts of proposed industrial park using Rural Development Form FMHA 1940-20 for guidance.	Bedford County Industrial Development Authority Suite 202, 122 East Main St. Bedford, VA 24523-2000 Sue Gilbert 540-586-7601	1998	N/A
Environmental Site Assessment Collegiate Suites Property Blacksburg, VA 24060	Preparation of Phase IESA for a five and one-half acre parcel.	DMI Corporation 1111 Old Colony Lane Williamsburg, VA 23185-3801 Mr. Sterling Nichols 757-253-1692	1998	N/A
Environmental Site Assessment Sonshine Apartments Radford University	Preparation of Phase IESA in accordance with ASTM standard 1527. Property consisted of two apartment buildings situated on 2 acre site.	Radford University Physical Plant P.O.Box 6909 Radford, VA 24142-6909 Mr. Roy Saville 540-831-6014	1998	N/A
Environmental Assessment Proposed Water and Wastewater Imp. Floyd, Virginia	Prepared Environmental Assessment of potential impacts of proposed water and wastewater alignments using Rural Development Form FMHA 1940-20 for guidance.	Floyd-Floyd County PSA P.O. Box 407 Floyd, VA 24901-0407 Mr. Elwood Holden, PSA Dir. 540-745-4444	1998	N/A

Environmental Assessment Proposed Water New Castle, Virginia	Prepared Environmental Assessment of potential impacts of proposed water alignments using Rural Development Form FMHA 1940-20 for guidance.	Craig-New Castle PSA Court and Main Street P.O. Box 128 New Castle, VA 24127-0128 Mr. Donald Jones, PSA Dir. 540-864-6368	1998	N/A
Environmental Site Assessment and Environmental Assessment Proposed Industrial Park Pulaski, Virginia	Phase I ESA report preparation for an undeveloped 132-acre parcel. Prepared Environmental Assessment of potential impacts of proposed industrial park using Rural Development Form FMHA 1940-20 for guidance.	Town of Pulaski P.O. Box 660 Pulaski, VA 24301-0660 Mr. Tom Combiths, Town manager 540-994-8601	1998	N/A
Extended Environmental Site Assessment Norfolk Southern Office Building and Passenger Station Roanoke, Virginia	Preparation of Phase I ESA in accordance with ASTM Standard 1527. Coordination of soil and groundwater sampling and analysis for petroleum hydrocarbon and RCRA metals contamination.	Roanoke Foundation for Downtown, Inc. 310 First Street, SW Roanoke, VA 24011 Mr. R. Matt Kennell, President 540-342-2028	1997	N/A
Environmental Site Assessment Pinkard's Court Roanoke County, Virginia	Site inspection of approximately 25 buildings, data collection, and report preparation for Phase I assessment for Lowe's Companies, Inc.	Lowe's Companies, Inc. Real Estate Department P.O. Box 111 North Wilkesboro, NC 28656-0001 Mr. Donald E. Winn, PE 910-658-2616	1997	N/A
Site Development Virginia State University Petersburg, Virginia	Provided topographic survey of the site and produced an Environmental Impact Report. Project included the design of storm sewer relocation, sanitary sewer extension, domestic water and fire flow lines, grading, sidewalk rehabilitation, Erosion and Sediment Control plan. Prepared the plans and specifications and provided construction administration services in accordance with BCOM requirements.	Virginia State University PO Box 9408 Petersburg, VA 23806 Mr. Alfonzye Chisholm, Jr. 804-520-5707	1997	\$1,279,700 (A&A responsible for \$57,500)

Site Development, Master Plan Glade Highlands Industrial Park Washington County, Virginia	Preparation of preliminary engineering report, and reviewing potential wastewater service options to a proposed 436 acre industrial park. PER prepared in accordance with Rural Economic Community Development guidelines and included an environmental impact report (EIR). Responsibilities included: master plan of lot layout, roads, utilities, review of funding options, marketing materials and site placed on Internet, and coordination of geotechnical work. Proceeding with construction plans.	Washington County Industrial Development Authority 179 East Main Street Abingdon, VA 24210-2838 Mr. Russell Owens 540-676-5471	1996 - 1998	Construction starts not available until PER is done. Total project fees about \$48,000. Our fees about \$25,000.
Environmental Impact Report VCU Fine Arts Center Richmond, Virginia	Complete an Environmental Impact Report for VCU's Fine Arts Center.	Virginia Commonwealth University 909 West Franklin Street Box 842502 Richmond, VA 23298 Mr. Carl Purdin, AIA 804-828-0391	1996	N/A
Wye Track Connector Dahlgren Junction, Virginia	Feasibility study, environmental report, P-lines, field surveys and design for .75 mile connector track.	CSX Transportation 1610 Forest Avenue, Suite 120 Richmond, VA 23229 Mr. Earl Daniels 804-266-7745	1995	\$3,500,000
Industrial Expansion Hollingsworth & Vose Floyd, Virginia	Engineering services including site preparation and the construction of storm drainage facilities, loading dock, and access road for the expansion. Also provided phase I environmental site assessment.	Floyd County 100 East Main Street Floyd, VA 24091 Mr. Roy M. Crawford 540-745-9300	1995	N/A
Industrial Development Franklin County Commerce Center Franklin County, Virginia	300 acre site for new commerce center. Phase I: developed 3 layout plans of lots & roadways, including preliminary site & utility plan. Prepared ESA & advise on restrictive covenants. Phase II- includes cut & fill analysis, detailed cost estimates & a 3-D model of site. Proceeding with construction plans.	Franklin County 108 East Court Street Rocky Mount, VA 24151 Mr. Macon Sammons 540-483-3030	1994 - 1998	\$4,000,000
Site Development Virginia State University Petersburg, Virginia	Site design and environmental impact report for addition to School of Business Science. Sub to Architect	Virginia State University PO Box 9408 Petersburg, VA 23806 Mr. Alfonzye Chisholm, Jr. 804-520-5707	1994 - 1995	Construction \$1.3 million; A&A's \$60,000

Environmental Site Assessment Harvey Pulaski Site Pulaski, Virginia	Phase I Environmental Site Assessment as part of real estate transfer.	Harvey Chevrolet PO Box 972 Radford, VA 24143 Mr. George Harvey 540-639-3923	1994	NA
Environmental Site Assessment Smyth County RED Grant Chilhowie, Virginia	Phase I Environmental Site Assessment as part of site acquisition and preliminary design.	Smyth County Community Development PO Box 188 Marion, VA 24354 Ms. Sally Morgan 540-783-7000	1994	N/A
Environmental Site Assessment Burlington Industries Dublin, Virginia.	Completion of an extended Phase I ESA in accordance with ASTM Standard 1527. Additional services included soil sampling and analysis based on results of Phase I investigation and previous land use.	Town of Dublin PO Box 1066 Dublin, VA 24084 Mr. Gary Elander 540-674-4731	1994	N/A
Environmental Site Assessments GTE/Mobilnet	Site walkovers and historical research, land use analyses and evaluations of potential environmental contamination for cellular communications tower sites.	GTE/Mobilnet 1100 Perimeter Park Rd., Suite 101 Morrisville, NC 27560 Mr. Scott Smith 336-481-6408	1993 - 1994	N/A
Environmental Site Assessment Wythe Health Services Wytheville, Virginia	Completion of Phase I ESAs on three buildings as part of construction loan conversion to a long-term mortgage with First Union Bank in Wytheville.	Wythe County Community Hospital 600 West Ridge Road Wytheville, VA 24382 Mr. Bob Ellis 540-228-0204	1993	N/A
Environmental Site Assessment Radford University 711 Calhoun Street Radford, Virginia	Phase I Environmental Site assessment for real estate transfer.	Radford University PO Box 6909 Radford, VA 24142 Mr. David Armstrong 540-831-5432	1993	N/A
Site Development Franklin County Commerce Center Rocky Mount, Virginia	Environmental Screening Inspection and preliminary site design for commercial center.	Franklin County 108 East Court Street Rocky Mount, VA 24151 Mr. Macon Sammons 540-483-3030	1993	N/A

Industrial Sites Alleghany County Covington, Virginia	Environmental Site Assessment and PER for two industrial parks to be developed in the Clifton Forge area.	Greater Alleghany Highlands Dev. Comm. 450 W. Main Street, Suite 201 Covington, VA 22426 Mr. Glynn Loope 540-962-7200	1992	N/A
Industrial Site Selection Study Montgomery County, Virginia	Phase 1: Used GIS to evaluate 360 sq. miles for suitability for an industrial development. Narrowed the scope to 33 areas ranging from 50-1,000 acres each. Ten sites provided preliminary layouts and cost estimates on development. Recommended three sites. Phase 2: Environmental Site Assessment of site selected by County. Phase 3: Preliminary engineering report of the site following standards of RED Grant Program.	Montgomery County IDA Courthouse Room 213 Christiansburg, VA 24073 Mr. Bob Isner 540-382-5732	1992	N/A
Environmental Site Investigation RADVA Corporation Radford & Portsmouth, Virginia	Environmental Screening Inspection for refinancing of site loans.	RADVA Corporation 301 First Street -Drawer 2900 FSS Radford, VA 24143 Mr. William Cadden 540-639-9091	1992	N/A
Stern's Miracle-Gro New Castle, Virginia	Expanded Phase I Environmental Site Assessment for Commercial properties.	Stern's Miracle-Gro Mr. Mark Schwartz 800 Port Washington Blvd. New Castle, VA 24127 516-883-6550	1992	N/A
Industrial Site Study Patrick County, Virginia	Countywide site analysis, preliminary engineering report, and environmental site assessment for industrial park development of 100 to 200 acres.	Patrick County PO Box 466 Stuart, VA 24171 Mr. Dave Hoback 540-694-6094	1992	N/A
Environmental Site Assessment Montgomery County Christiansburg, Virginia	Phase I Environmental Site Assessment for proposed 140 acre industrial park.	Montgomery County IDA PO Box 806 Christiansburg, VA 24073 Mr. Bob Isner 540-382-5732	1992	N/A
Celanese Acetate Environmental Site Assessment Narrows, Virginia	Phase I Environmental Site Assessment for land transfer.	Celanese Acetate PO Box 1000 Narrows, VA 24124 Mr. Pat Johnson 540- 921-1111 ext. 4139	1991	N/A

III. Key Personnel

A. Management Structure

The environmental geologist, Ron Matney, heads the environmental site assessment team. The project engineer is the primary contact for the client and regulatory agencies. The officer-in-charge, Gary Crouch, provides overall leadership in the organization and backup to the environmental site assessment team. He provides quality control reviews and helps in allocating company resources to complete the job on schedule. Following are resumes of personnel who work on environmental site assessments.



Gary S. Crouch, PE

Principal-In-Charge

In his position at Anderson & Associates, Mr. Crouch serves as both a project manager and a supervisor over other project managers on a variety of civil and environmental engineering projects. His work has included the planning, design, permitting, and construction administration of both conventional and innovative wastewater treatment facilities, water distribution systems, water treatment and storage facilities, commercial development, landfills, and mined land reclamation. His experience is highlighted below:

Job Specific Experience:

Environmental

Mr. Crouch serves as a Project Engineer and as a supervisor of other project engineers. He is responsible for environmental project assignments. Mr. Crouch has experience in performing environmental assessments for real estate transactions, Economic Development Projects, water and wastewater projects, coal mine reclamation projects, and stone quarry operations. He has also performed wetland impact assessments and designed mitigation measures. Other relevant environmental experience includes emergency damage control, site assessments, site remediation planning, and environmental permitting.

Site Assessments

Environmental Impact Review, Dublin, VA. Performed an environmental impact review for the four acre Pulaski County Magnet School parcel within the New River Community College campus. Officer-in-Charge.

Environmental Site Assessment, St. Albans, Radford, VA. Analysis of the "Clinic" building and immediate surrounding grounds at St. Albans. Officer-in-Charge.

Environmental Site Assessment, 614 Howe Street and 615 Fairfax Street, Radford, VA. Preparation of Phase I ESA in accordance with ASTM standard 1527. Two separate properties were investigated. Each property consisted of a small lot and single family home. A single report was written, with sections on both properties. Officer-in-Charge.

Environmental Site Assessment, Proposed Chestnut Knob Water Storage Tank Site, Horse Pasture, VA. Preparation of Phase I ESA in accordance with ASTM Standard E 1527. Property consisted of 5-acres of formerly agricultural land, now a wooded lot. Officer-in-Charge.

Environmental Site Assessment, Proposed Merrimac Greenbox Site, Merrimac, VA. Preparation of Phase I ESA in accordance with ASTM Standard E 1527. Property consisted of 1.9-acre proposed greenbox site and an additional 17-acre site. Both sites occupied land influenced by a former coal mine. Officer-in-Charge.

Education:

BS/1974/Virginia Tech
Civil Engineering

Registration:

Professional Engineer/
1978/VA

Professional Engineer/
1991/NC

Professional Engineer/
1996/WV

Professional Engineer/
1996/TN

Years of Experience:

With A&A since: 1974

With other firms: 3 years

Extended Environmental Site Assessment and Environmental Assessment, Montvale Industrial Park, Bedford County, VA. Phase I ESA report preparation for two undeveloped parcels totaling 183 acres. Coordination of soil and groundwater sampling and analysis for petroleum hydrocarbon contamination. Prepared Environmental Assessment of potential impacts of proposed industrial park using Rural Development Form FMHA 1940-20 for guidance. Officer-in-Charge.

Environmental Site Assessment, Sonshine Apartments, Radford University. Preparation of Phase I ESA in accordance with ASTM standard 1527. Property consisted of two apartment buildings situated on 2 acre site. Officer-in-Charge.

Environmental Assessment, Proposed water and wastewater improvements, Floyd, VA. Prepared Environmental Assessment of potential impacts of proposed water and wastewater alignments using Rural Development Form FMHA 1940-20 for guidance. Officer-in-Charge.

Environmental Assessment, Proposed water system improvements, New Castle, VA. Prepared Environmental Assessment of potential impacts of proposed water alignments using Rural Development Form FMHA 1940-20 for guidance. Officer-in-Charge.

Environmental Site Assessment, Proposed Industrial Park, Pulaski, VA. Phase I ESA report preparation for an undeveloped 132-acre parcel. Prepared Environmental Assessment of potential impacts of proposed industrial park using Rural Development Form FMHA 1940-20 for guidance. Officer-in-Charge.

Environmental Site Assessment, Collegiate Suites III Development, Town of Blacksburg, VA. Phase I ESA for a five and one-half acre parcel. Officer-in-Charge.

Environmental Site Assessment, Pinkard's Court, Roanoke County, VA. Site inspection of approximately 27 buildings, data collection, and report preparation for Phase I assessment for Lowe's Companies, Inc. Officer-in-Charge.

Extended Environmental Site Assessment, Norfolk Southern Office Building and Passenger Station, Roanoke, VA. Preparation of Phase I ESA in accordance with ASTM Standard 1527. Coordination of soil and groundwater sampling and analysis for petroleum hydrocarbon and RCRA metals contamination. Officer-in-Charge.

Environmental Assessment, Jefferson County, WV. Prepare an assessment of the environmental impact of the project and design of two pump stations and force main to replace wastewater treatment plant at Jefferson County High School and Harper's Ferry Job Corp. Center. Officer-in-Charge.

Environmental Site Follow-up, Botetourt County, VA. Additional investigation and recommendations to resolve issues outlined in a Phase I ESA of the Greenfield site. Officer in Charge.

Environmental Site Assessment, Town of Dublin, VA. Completion of an extended Phase I ESA in accordance with ASTM Standard 1527 of a former textile site. Additional services included soil sampling and analysis based on results of Phase I investigation and previous land use. Officer-in-Charge.

Environmental Impact Assessment, GTE/Mobilnet, NC. Phase I ESA for two cellular tower sites in Walkertown and North Asheboro, North Carolina. Project Manager.
Environmental Site Assessment, Wythe County Industrial Development Authority, VA. Responsibilities included coordination of site review, data analysis and report preparation for Phase I assessment for a possible prison location on 500+ acres. Officer-in-Charge.

Environmental Site Assessment, Georgia Pacific, Floyd, VA. Responsibilities included coordination of site review, data analysis and report preparation for a Phase 1 assessment for a real estate transaction. Officer-in-Charge.

Environmental Site Assessment, RADVA Corporation, Radford, VA. Responsibilities included coordination of site review, data analysis and report preparation for Phase I assessment in conjunction with refinancing effort. Officer-in-Charge.

Environmental Site Assessment for George Harvey, Pulaski VA. Responsibilities included site investigation, review of public information, interviews with governmental officials, and report preparation for Phase I assessment as part of real estate transfer. Officer-in-Charge.

Environmental Site Review, Covington, VA. Evaluation of environmental factors related to the selection of potential industrial sites for Alleghany County. Environmental Engineer

Environmental Site Review, Stuart, VA. Evaluation of environmental factors related to the selection of potential industrial sites for Patrick County. Environmental Engineer,

Environmental Site Review, Montgomery County, VA. Evaluation of environmental factors related to the selection of potential industrial sites. Environmental Engineer.

Environmental Site Assessment, Stern's Miracle-Gro, New Castle, VA. Responsibilities included site review, soil sampling, review of regulatory agency records, and report preparation for an expanded Phase I site assessment. Officer-in-Charge.

Environmental Screening Investigation, RADVA Corporation, Radford, VA. Responsibilities included site review and report preparation of two sites in accordance with a lending institutes requirements. Officer-in-Charge.

Environmental Site Assessment, Hoechst Celanese, Narrows, VA. Responsibilities included site review, correspondence with regulatory agency personnel, review of subsurface investigation, and report preparation for Phase I assessment. Officer-in-Charge.

Environmental Site Assessment, Kroger Company, Blacksburg, VA. Responsibilities included coordination of site review, correspondence with regulatory and governmental personnel, and report preparation for Phase I assessment. Officer-in-Charge.

Environmental Site Assessment, Duffield, VA. Environmental site assessment for undeveloped portions of the Duffield Industrial Park and Dungannon Industrial Park in Scott County. Responsibilities included report preparation and correspondence with regulatory agencies. Officer-in-Charge.

Environmental Site Assessment, Plymouth Industries, Radford, VA. Site assessment for a 13 acre industrial site in the Radford Industrial Center.

Environmental Site Assignment, Wythe-Bland Health Services. Responsibilities include site review and report preparation as part of completion of Phase I assessment for three health clinic sites. Officer-in-Charge.

Environmental Site Assessment, Floyd County, VA. Site assessment for Paige Tract adjacent to Floyd County Industrial Park. Officer-in-Charge.

Environmental Site Assessment, Floyd County, VA. Site assessment for parcel to be used for expansion of Check Elementary School. Officer-in-Charge.

Environmental Site Assessment, Floyd County, VA. Site assessment for medical clinic to be acquired by the County. Officer-in-Charge.

Environmental Site Assessment, Lucas Development, NC. Site assessment for parcel to be developed for Rite Aid pharmacy. Officer-in-Charge.

Environmental Site Assessment, Rebound!, Floyd, VA. Site assessment for 28-acre former Department of Corrections work camp to be renovated as a juvenile rehabilitation center. Officer-in-Charge.

Environmental Site Assessment, Town of Wytheville, VA. Site assessment for two large tracts to be developed as an industrial park. Officer-in-Charge.

Environmental Site Assessment, Floyd Regional Commerce Center, Floyd County, VA. Site assessment for 178-acre tract including Phase I and II historic resources investigation. Officer-in-Charge.

Ron N. Matney, II

Environmental Scientist / Geologist



Education:

BS/1997/Virginia
Tech/Geology

MS/2001/Radford
University/
Environmental &
Engineering Geology

Years of Experience:

With A&A since 2010

With other firms: 13
years

Professional Memberships:

American Council of
Engineering (ACEC)

ASFE, The Best
People on Earth

Association of
Engineering
Geologists

American
Geophysical Union
(AGU)

Society of Marketing
Professional
Services (SMPS)

Washington Builders
Conference

Mr. Matney has more than ten years of experience within the A/E industry, beginning as a project engineer with Schnabel Engineering working within the geotechnical, environmental and construction phase services. Since that time, he has managed well over 100 projects and client representatives in Blacksburg, VA, Washington D.C., and the surrounding areas. He has managed an office, trained business development and marketing staff for over a year within the local A/E firms. Mr. Matney has completed four business development, marketing, management and contracts administration training seminars under ASFE, including FOPP, "Contract Fundamentals for Project Managers," "Project Planning and Control," and "Fundamentals for Project Management." Beyond a Master's Degree in Environmental and Engineering Geology, he studied for one year in Geological Engineering at the Mackay School of Mines, UNR; concentrating on slope stability, rock mechanics and geomechanics. His experience is highlighted below:

Stream Stabilization, Emory & Henry College, Emory, VA. Stream stabilization and engineering design services, permitting and stream flow evaluation. Environmental Scientist.

Geophysics and Preliminary Environmental Assessment, Progress Park, Wythe County, VA. Geophysical study for karst risk analysis and a preliminary environmental investigation for future industrial site development. Geotechnical Engineer.

Water System Improvements, Town of Hillsville, VA. Provided engineering design services for water system improvements including a new water storage tank, booster station, main line extension and replacements, and related appurtenances. Additional work included a geotechnical study, detailed topographic survey at the booster station and water storage tank sites, and a 10' wide strip topographic survey along the main line improvements alignment. This base mapping was used to develop the water system improvement plan sheets. Geotechnical Engineer.

Route 659 Landslide Project, Virginia Department of Mines, Minerals & Energy (DMME), Big Stone Gap, VA. Reclamation work associated with the stabilization of a dangerous slide affecting Route 659. The slide was determined to be caused by runoff from sealed mine portals in conjunction with large scale rain events. The recommended solution was to divert the runoff from the sealed portals via construction of storm water structures along with stabilization of the slope, to be accomplished by armoring the toe of the slope and the removal of saturated slide material. Geotechnical Engineer.

Karst Study, Hethwood Properties, Blacksburg, VA. Performed a non-destructive examination of a potential karst feature within the confines of the Hethwood Properties, an apartment complex. Geotechnical Engineer.

Water Tank Karst Study, Blacksburg Country Club, Blacksburg, VA. Performed ground stabilization and karst remediation by using pressurized grout soil improvement. Geotechnical Engineer.

51 Louisiana Avenue, Washington, DC. Geotechnical design project for a 15-story development. Geotechnical Engineer.

Bluestone Development, Tazewell, VA. Geotechnical design for a mixed use development. Geotechnical Engineer.

Aquatic Center, Christiansburg, VA. Geotechnical design and geophysics for a new two-story, 52,000 square foot aquatic facility. The space will include three pools and spaces for recreational swimming and Atlantic Coast Conference and other swimming meets. Geotechnical Engineer.

Development Park, Wythe County, VA. Geotechnical design and karst analysis. Geotechnical Engineer.

Lowe's, Claypool Hill, VA. Geotechnical design and geophysics for karst analysis and remediation. Geotechnical Engineer.

Pentagon Library & Conference Center, Washington, DC. Construction design project for a unique addition. Geotechnical Engineer.