

**ORIGINAL**

**EXPRESSION OF INTEREST FOR  
ENGINEERING SERVICES  
TO EVALUATE AND REDESIGN THE AREAS  
OF THE EAST MAIN CAMPUS PARKING LOTS  
RFQ NO. GSD116434**

*Prepared for:*

**Department of Administration**

Purchasing Division  
Building 15  
2019 Washington Street, East  
Charleston, West Virginia 25305-0130

*Prepared by:*

**Potesta & Associates, Inc.**

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Signature: *Dana L. Burns*

Project No. 0101-11-0113

March 1, 2011

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**POTESTA**

WV PURCHASING  
DIVISION

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**1.0 INTRODUCTION**

Potesta & Associates, Inc. (POTESTA) proposes to provide professional engineering and construction management services to the State of West Virginia, Department of Administration, to evaluate and redesign the areas of the east main campus parking lot in Charleston, West Virginia. We anticipate the need for traffic flow analysis and site design services to include project surveying, construction layout, site plants, utility extensions (water, sewage, communications, electrical), permitting, preparation of bidding and contracting documents, participation in the solicitation and evaluation of bids, monitoring and inspection of construction and project startup and closeout.

**2.0 CORPORATE OVERVIEW, STAFFING AND WORKLOAD**

POTESTA is an engineering and environmental consulting firm located in Charleston, West Virginia, providing professional services to deliver innovative, cost-effective solutions to complex problems. Our firm is multi-disciplinary and has a diversified practice covering engineering (civil, chemical, environmental, geotechnical, mechanical, and mining), permitting, site characterization and remediation, and general environmental consulting. Civil/site, geotechnical and mining engineering are areas of extensive expertise at POTESTA. We have worked on numerous engineering projects (ranging from site grading and drainage plans for university dorms and commercial/presidential developments, to power plant foundations to mine layouts/reclamation of abandoned mine lands) throughout the region. Our 15 registered professional engineers have over 250 years of experience among them and are supported by a large group of engineers, designers, surveyors and a landscape architect. POTESTA's large staff of engineers, surveyors, designers, support and other personnel will ensure that the project is adequately staffed with experienced design professionals.

Our clients include public service districts, county commissions, municipalities, manufacturers, utility companies, waste management companies, architects, engineering design firms, attorneys, financial institutions, insurance companies, land developers, construction companies, chemical and mining companies, and local, state and federal government agencies.

We carry a full line of insurance coverage including general liability, errors and omissions, and workers' compensation. We also have quality control procedures to assist in providing our clients with quality projects.

POTESTA offers the following professional services.

- ▶ 404 Permit Preparation and Negotiation
- ▶ Acid Mine Drainage Control
- ▶ Asbestos Inspection
- ▶ Benthic and Biological Studies
- ▶ **CADD Services (AutoCAD 2007, Various Software Design Packages, Digitizing and Plotting)**
- ▶ Chemical Engineering
- ▶ **Civil Engineering**
- ▶ Clean Air Act Compliance
- ▶ **Construction Monitoring**
- ▶ Corporate Environmental Management
- ▶ Design of Slurry Impoundments and Refuse Disposal Sites
- ▶ Dewatering Plans
- ▶ Environmental Engineering
- ▶ Environmental Impact Studies
- ▶ Environmental Site Assessments
- ▶ Environmental Audits
- ▶ Environmental Engineering
- ▶ Erosion and Sedimentation Control Plans
- ▶ Expert Witness and Litigation Support
- ▶ Feasibility Studies
- ▶ Foundation Design
- ▶ Geological Services
- ▶ **Geotechnical Engineering**
- ▶ Ground and Surface Water Sampling
- ▶ Groundwater Investigation and Remediation
- ▶ Groundwater Protection Plans
- ▶ Hazardous Waste Management
- ▶ Hydrologic and Hydraulic Evaluations
- ▶ In-Situ and Ex-Situ Biostimulation/Bioaugmentation
- ▶ Landfill Design and Land Use and Natural Resource Planning
- ▶ Landfill Closure Plans
- ▶ Land Use and Natural Resource Planning
- ▶ Mining Engineering
- ▶ Multimedia Sampling (Air, Fly Ash, Rock, Soil, Water)
- ▶ Pollution Prevention and Waste Minimization Planning
- ▶ Permitting (Air, FERC, Fly Ash Haulback, Mining, NPDES, Quarry and Solid and Hazardous Waste)
- ▶ Post Reclamation Land Uses
- ▶ Pre-Blast and Pre-Subsidence Surveys
- ▶ Preparation of Construction Documents (Calculations Brief, Construction Drawings, Contractor's Bid Sheet, Engineer's Cost Estimate, QA/QC Manual and Technical Specifications)
- ▶ Reclamation Design and Planning
- ▶ Reclamation Liability Assessments
- ▶ Regulatory Liaison Services
- ▶ Risk-Based Environmental Assessment
- ▶ SARA Title III, TIER II and Form R Inventory and Reporting
- ▶ Sewer Line Design
- ▶ Site Characterization and Remediation Planning
- ▶ Site Design/Planning
- ▶ Soil Science/Agronomy
- ▶ Spill Prevention Control and Countermeasure Plans
- ▶ Stabilization and Closure of Waste Impoundments
- ▶ **Stormwater Management and Permitting**
- ▶ Stream Benthic Macro-Invertebrate Surveys and Toxicity Evaluations
- ▶ Stream and Water Restoration
- ▶ Subsidence Studies
- ▶ Subsurface Explorations
- ▶ Surface and Groundwater Monitoring, Statistical Analysis and Reporting
- ▶ Surveying (Traditional and Global Positioning System)
- ▶ UST Closure and Site Remediation
- ▶ UST Installation Monitoring
- ▶ Waste Facility Permitting and Design
- ▶ Waste Disposal Design
- ▶ Water Line Design
- ▶ Water/Wastewater Treatment Design
- ▶ Wetland Investigation and Delineation, Mitigation Design and Monitoring

POTESTA will utilize the appropriate classification of staff to conduct activities required for the project. Our large, experienced staff allows us to respond quickly, provides flexibility, and will provide for the opportunity of high level input from in-hour experts on complex projects. Our normal method of staffing project is to assign a small project team with total responsibility for completion of the work to the client's satisfaction and budget. Where necessary, the team can draw on the expertise available within POTESTA's large staff.

POTESTA has the ability to manage every facet of the project from beginning to end, from the preliminary study through final design and construction/monitoring management. Our staff members are routinely involved in the preparation of construction documents, including participation in the bidding and construction phases of projects.

POTESTA will perform surveying required for this project using in-house personnel. POTESTA has eight licensed professional surveyors. Our surveyors are experienced in all aspects of surveying, such as topographic mapping, boundary and property surveys, courthouse research, rights-of-way, and construction surveys for layout of work, record drawings, and quantity measurements.

POTESTA's engineering design department consists of 26 engineers with a combined design experience of well over 300 years. The diversity of our engineers' experience, plus that of our CADD designers, field technicians, and construction monitors, allows us to assemble cost-efficient, practical designs.

POTESTA's construction observation personnel are experienced with numerous civil, geotechnical, and environmental engineering projects, including adherences to specifications, pay quantity verification and dispute resolution. We have successfully completed many projects from start to finish.

**Appendix A** contains the executed Request for Quotation form and Purchasing Affidavit form.

### **3.0 STATEMENT OF QUALIFICATIONS**

#### **3.1 Civil Engineering**

Civil engineering is an area of particular expertise and experience at POTESTA. Our engineering staff has a broad background relating to the vast field of civil engineering. Civil engineering disciplines, such as roadway design, development of grading plans, stormwater management, water/wastewater treatment, and solid waste/fly ash disposal are all areas of particular expertise as POTESTA. Our diverse staff of engineers, geologists, and scientists is routinely involved in these types of projects and work to support the project teams assigned to these projects on a daily basis to achieve a completed project that meets with the client's expectations.

Once a project has been determined feasible through the preliminary planning stages, POTESTA's design professionals work to complete preliminary and final design plans. Frequent communication is made with the client and any other design professionals to review the completed activities and

obtain input for the design process. The following design services are routinely completed for clients at POTESTA:

- ◆ Erosion and Sediment Control Plans
- ◆ Hydraulic Structure Design
- ◆ Earth Retaining Structures
- ◆ Access Roadway Design and Layout
- ◆ Site Development Grading and Drainage Plans
- ◆ Site Layout (i.e., Parking Design and Traffic Flow Analysis)

POTESTA's engineering staff is also routinely working with our clients to develop and prepare environmental permits that are typically required for the completed projects. These permits are often worked and developed during the design development phases of a project. These services include:

- ◆ Stormwater Management Permits
- ◆ Air Quality Permits
- ◆ Wetland Delineation and Mitigation Permits
- ◆ National Pollutant Discharge Elimination System (NPDES) Permits
- ◆ Groundwater Protection Plans
- ◆ Environmental Site Assessments
- ◆ Environmental Impact Statements
- ◆ Spill Prevention, Control and Countermeasure Plans
- ◆ Floodplain Management Studies and Permits

During the construction process, POTESTA routinely provides professional services throughout the construction of our client's projects. These services often include survey layout, construction management, construction monitoring, record drawing preparation, and bid evaluation assistance.

#### Hydrology and Hydraulic Engineering

Our engineers have extensive experience in the application of hydrology and hydraulic principles to the design of real world systems. These applications include:

- ◆ Drainage structure sizing
  - Stream relocations
  - Culverts
  - Channels
- ◆ Pond and dam design
  - Sediment pond and basins
  - Spillway design/rehabilitation
  - Slurry impoundments
  - Lagoons
  - Dams

- ◆ Floodplain management permits/approvals
- ◆ Floodway studies
  - FEMA (Federal Emergency Management Agency)
  - NFIP (National Flood Insurance Program)
  - Flood elevation surveys/certifications
  - Flood routing
- ◆ Dam break analysis
- ◆ Hydrology surveys
- ◆ Stream gauging
- ◆ Rainfall and flow data collection
- ◆ Stormwater drainage system design
- ◆ Pressure pipe systems
- ◆ Stream restoration plans
- ◆ Natural stream channel design/restoration
- ◆ Expert witness testimony

To complete these types of applications, our engineers, scientists, and surveyors work jointly to develop an effective and economical solution to your problem. Their analyses use widely-accepted computer models.

POTESTA typically uses the following computer modeling programs:

- ◆ HEC-RAS
- ◆ HEC-HMS
- ◆ TR-20/TR-55
- ◆ StormCAD
- ◆ Culvert Master
- ◆ Flow Master
- ◆ Pond-Pac
- ◆ CORMIX

We have provided these services to a wide variety of public and private sector clients. Our staff not only understands the technical details, but is very experienced in working with the various state, federal, and local regulatory agencies. We know the level of detail they require and can obtain the necessary approvals in a timely manner.

### Stormwater Management

POTESTA has extensive experience in the application of hydrology and hydraulic principles to the design of real world systems. We have completed multiple projects applying these principles in developing stormwater management plans. Our applications include: drainage structure sizing (culverts and channels), detention and retention pond design, sediment ponds and spillway design, existing stormwater drainage system evaluations, floodway studies and floodplain management

services. The following is a brief description of representative similar projects completed by POTESTA:

- ◆ Coldwater Distribution Center – Performed a variety of civil engineering and environmental related services for the development of an 8.5 acre catalog distribution and call center located on an 80 acre site in Parkersburg, West Virginia. POTESTA prepared a site grading and drainage plan, including interior site access roads/drives and combined parking areas to provide space for 1,300 vehicles. Due to the location of the access road, Jackson’s Run was relocated onsite and a 10-foot culvert was constructed. POTESTA designed an extensive stormwater collection system, with associated conveyance and detention structures. POTESTA also prepared and constructed a mitigation plan for wetlands impacted by the project.
  
- ◆ Church of Jesus Christ of Latter Day Saints – Delineated drainage areas and assessed existing stormwater structures on impervious areas upstream from a location prone to flooding. Performed modeling to determine appropriate pipe sizes and new routing direction. Evaluated storm frequencies and the corresponding pipe sizes. Performed assessment of existing stormwater drainage structures, including culverts, drop inlets and ditch lines in Pocatolico, West Virginia.
  
- ◆ Various Industrial Sites – Prepared site development construction documents for various industrial development sites throughout West Virginia. POTESTA provided a stormwater management plan, including the design of conveyance channels, culverts, drop inlet structures and stormwater detention ponds, along with the development of sediment and erosion control plans. Additional work included design of utilities (water, sewer, electric, and gas), determination of existing utilities and proposed tie-ins, boundary survey, site layout, grading, and geotechnical services. POTESTA also prepared the access road construction plans and documents in accordance with WVDOH specifications. These sites include:
  - Luigino’s Food Processing Facility – Parkersburg, West Virginia
  - National Industrial Wholesale Lumber – Roane County Development Park - Amma, West Virginia
  - Tucker County Industrial Development Park – Davis, West Virginia
  - Eastern Kanawha County Industrial Park – West Virginia
  
- ◆ Numerous Stormwater Management Plans and Hydrologic/Hydraulic Analyses – POTESTA has been involved in numerous projects involving the development of stormwater management plans and detailed hydrologic and hydraulic analyses, including detention pond design, storm sewer design, culverts, floodplain analyses/impacts, etc. located in urban communities. These sites include:
  - One Gateway Associates (Client) – Lewisburg, West Virginia
  - CVS Pharmacies – Parkersburg, West Virginia and Belpre, Ohio



- Residents of Oakwood Road (Client) – Charleston, West Virginia
  - Con-Way Transport Services Truck Terminal (Client) – Williamstown, West Virginia
  - Various Banks – Minerals Wells, West Virginia
- ◆ *P. G. Wilson & Company, Inc.* – Developed site plans, including stormwater management, utility relocations/extensions, and grading plans for assisted living centers in Charleston and Huntington. Other work included surveying, geotechnical exploration and foundation design.
  - ◆ *Big Sandy Peaker Plant* – Prepared the site development layout to raise the site to 500-year flood plain. The process of filling part of the 100-year flood plain to the 500-year flood level required some modification to the county’s flood plain management plan, which we completed. Completed and submitted an application for an NPDES Storm Water Construction Permit. As part of the permit application, we prepared a site grading plan, cross sections, erosion and sedimentation control plan, stormwater management plan, and numerous details relative to the road and installation of drainage features.
  - ◆ *Jimmy Dunn Excavating* – Conducted a flood study to determine potential impacts of filling a portion of a seven-acre parcel located along Tappers Creek. POTESTA researched and obtained copies of the original flood model, modified applicable cross sections to be representative of existing and proposed conditions, and presented a report of the findings. POTESTA conceptually design the limits of fill to keep increased within those allowed by County regulations.
  - ◆ *University of Charleston – The New Residence Hall* – Assessed storm sewer capacity at the University of Charleston for a relocation and connection into the existing storm sewer for new dormitories and new entrance. Researched existing storm sewer maps, performed various modeling to determine the flow increase of additional runoff from dormitories. Designed drop inlets and other structure for stormwater runoff from the new entrance way. Prepared construction documents for the site layout, grading, storm drainage and utility extensions for this four-story structure.
  - ◆ *PC West Virginia Synthetic Fuel* – Provided engineering and permitting services for the development of three synthetic fuel manufacturing plants in Kanawha, Nicholas and McDowell Counties. Services included developing approximately 15 acres of stormwater management plans, site grading plans, utility locations, topographic mapping, courthouse research to identify rights-of-way and easements, preparation of plats and legal descriptions. POTESTA also prepared permit applications and performed regulatory liaison to obtain issuance of required permits.

- ◆ Union Carbide – Evaluated 300,000 linear feet of combined process/storm sewer water for Union Carbide’s South Charleston and Institute plants and their Technical Center, Charleston, West Virginia. Included was research to determine the condition of the existing sewer system. Using information from the research, a new system was designed using gravity and force main combination system. All necessary appendages were specified to handle current flow conditions. The entire system was designed to process (sanitary) flows and will be able to handle flow in the advent of development of the area. The system consisted of approximately 500 feet of piping.

### Surveying

POTESTA proposes to utilize our own survey crews on this project. POTESTA will perform all of the surveying required for this contract using in-house personnel. POTESTA has three licensed professional surveyors with over 40 years of combined surveying experience. Our surveyors are experienced in all aspects of surveying such as topographic mapping, boundary and property surveys, and construction surveys for layout of work, record drawings, and quantity measurements. We have three survey crews and the capability to add a fourth crew if necessary.

POTESTA is equipped with modern surveying instruments allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field to office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings of required end products.

POTESTA’s surveyors use state-of-the-art “Field to Finish” equipment such as total station instruments, Trimble R-8 Glonass, data collectors, AutoCAD 2010, Autodesk Land Desktop and Autodesk Civil 3D design software, computer hardware for data management, and a Hewlett Packard Designjet 5500 color ink jet plotter.

### CADD

The CADD department utilizes the latest drafting/design software and computer hardware to maintain productivity at the high levels that clients demand and expect. We utilize Microstation V\*, AutoCAD, and AutoCADD Civil 3D 2008/2011 design software to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 4000 Plus color ink jet plotter. POTESTA’s experienced and trained professionals allow clients’ projects and assignments to be completed rapidly and at a reasonable cost.

Our CADD services include:

- ◆ Surveying data manipulation, including development of topographic mapping, cross sections, profiles, isopach drawings, etc.
- ◆ Site design, including grading plans, drainage plans, utilities plans, right-of-way plans, etc.

- ◆ Roadway design
- ◆ Water and sewer design
- ◆ Permit drawings, maps, and exhibits
- ◆ Earthwork and planimetric quantity development
- ◆ Two and three dimensional graphics

### Construction Monitoring

POTESTA routinely provides construction monitoring services as part of our engineering work. Our projects have included site development, excavation and fill, utility installation, foundation testing, landfill construction and capping work, and access road construction.

POTESTA routinely provides soils testing in support of earthwork construction projects. Moisture-density relationship testing, field density testing, and proving ring tests to confirm soil bearing pressure are conducted for access road, parking area, and building foundation projects.

Our staff has extensive experience in monitoring underground utility installation, including water, sanitary sewer, and storm sewer systems. POTESTA has monitored trenching, cased road crossings, air pressure testing, and lamp testing.

POTESTA is experienced with quality assurance and quality control monitoring associated with both landfill construction, expansion, and closure projects. This includes earthen liner systems and landfill covers as well as geosynthetic liner systems and caps. POTESTA also prepares attesting documentation as required by the regulatory agencies.

### **3.2 Structural/Materials Engineering**

POTESTA routinely provides engineering and design services for testing, evaluation, and design of structures and structural materials including, but not limited to, steel, concrete, earthen and wood. On staff, POTESTA has experienced, trained field technicians that regularly conduct field material testing such as soil density (Toxler Gauge), allowable bearing capacity (cone penetrometer), concrete testing such as slump, temperature, and air entrainment. POTESTA also has been responsible for the preparation of soil and concrete specimens for laboratory testing. There are 15 registered professional engineers on staff available to provide guidance on interpreting the test results and providing solutions if problems or concerns would arise during construction.

POTESTA's staff can provide structural design of steel, concrete, and wood structures. Designs have included new structures and assessment and modification of existing structures, as well as preparation of rigging plans for maintenance work at facilities.

## **4.0 PROJECT MANAGEMENT**

### **4.1 Project Budget Control**

The project manager will be responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. POTEESTA's staff submits electronic time sheets on a weekly basis. All charges, including labor hours and other project expenses, to a particular project are compiled in our accounting center and are distributed to the project manager during the following week. In this manner, the project manager can keep close track of project costs. In addition, field representatives routinely keep track of subcontractor costs on a daily basis. Thus, we can, in effect, keep track of the total project costs on a weekly basis. Our subcontractors commonly invoice at monthly intervals and there is seldom a discrepancy between our field representative's pay items and our subcontractor's invoice.

### **4.2 Schedule Control**

Direct responsibility for schedule control lies with the project manager. Initially, the project manager will review the schedule requirements to see how they can be achieved given the anticipated scope of work. As the project progresses, the project manager will monitor progress and compare it with the established schedule on a weekly basis, keeping the principal-in-charge aware of the schedule's status. In this manner, the principal-in-charge can make staff adjustments to allow the project manager to maintain the project schedule.

### **4.3 Quality Assurance/Quality Control**

Submittals will be reviewed and commented on by the project manager and the principal-in-charge prior to submittal. POTEESTA utilizes standardized Quality Assurance/Quality Control (QA/QC) practices such as consistence checks between drawings and specifications as well as within both the drawings and specifications, color coding of check drawings/calculations, review of letters, reports, and other written documents by the project manager and one other person, and review of method of measurements versus quantity tallies to ensure QA/QC expectations are met.

## **5.0 SIMILAR PRIOR PROJECT EXPERIENCE**

Project abstracts of similar projects completed by POTEESTA are provided in **Appendix C**.

## **6.0 MISCELLANEOUS**

Resumes of key POTEESTA personnel are provided in **Appendix D**.

## **7.0 CLOSING**

POTEESTA is excited about the possibility of working the State of West Virginia on this project. Our staff of over 90 professionals will allow us to assemble an experienced project team and complete

this project in a timely and efficient manner. POTEITA is a West Virginia owned and operated firm with offices in West Virginia and an office in Winchester, Virginia. POTEITA has the ability to complete the anticipated services in-house for a reasonable cost.

We look forward to hearing back from you for specific proposal requests and to discuss your plans for the project with our engineers and environmental scientists.



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

# Request for Quotation

RFQ NUMBER  
**GSD116434**

PAGE  
**2**

ADDRESS CORRESPONDENCE TO ATTENTION OF  
**KRISTA FERRELL  
 304-558-2596**

**RFQ COPY**

**TYPE NAME/ADDRESS HERE**  
 Potesta & Associates, Inc.  
 7012 MacCorkle Avenue, SE  
 Charleston, West Virginia 25304

**DEPARTMENT OF ADMINISTRATION  
 GENERAL SERVICES  
 BUILDING 1 ROOM MB60  
 1900 KANAWHA BOULEVARD, EAST  
 CHARLESTON, WV  
 25305-0123 304-558-2317**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
02/02/2011				
BID OPENING DATE: 03/01/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>A SIGNED EOI MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION            PURCHASING DIVISION            BUILDING 15            2019 WASHINGTON STREET, EAST            CHARLESTON, WV 25305-0130</p> <p>THE EOI SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE EOI MAY NOT BE CONSIDERED:</p> <p>SEALED EOI</p> <p>BUYER: KRISTA FERRELL-FILE 21</p> <p>EOI. NO.: GSD116434</p> <p>EOI OPENING DATE: MARCH 1, 2011</p> <p>EOI OPENING TIME: 1:30 PM</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR EOI:            (304) 343-9031</p> <p>-----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY):            Dana L. Burns</p> <p>-----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Dana L. Burns</i>	TELEPHONE (304) 342-1400	DATE March 1, 2011
TITLE Vice President	FEIN 311509066	ADDRESS CHANGES TO BE NOTED ABOVE

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

# POTESTA & ASSOCIATES, INC.

## *Hydrology and Hydraulics Design*

Our engineers have extensive experience in the application of hydrology and hydraulic principles to the design of real world systems. These applications include:

- Drainage structure sizing
  - Stream relocations
  - Culverts
  - Channels
- Pond and dam design
  - Sediment ponds and basins
  - Spillways
  - Design/rehabilitation
  - Slurry impoundments
  - Lagoons
  - Dams
- Detention and detention systems
  - Ponds
  - Pipes
  - Underground bladders
- Floodplain Management Permits/Approval
- Floodway studies
  - FEMA (Federal Emergency Management Agency)
  - NFIP (National Flood Insurance Program)
  - Flood elevation surveys/certifications
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- Stream gauging
- Rainfall and flow data collection
- Stormwater drainage system design
- Pressure pipe systems
- Stream restoration plans
- Natural Stream Channel Design/Restoration
- Expert witness testimony

To complete these types of applications, our engineers, scientists, and surveyors work jointly to develop an effective and economical solution to your situation. Their analyses use widely accepted computer models.



Potesta & Associates, Inc. typically uses the following computer modeling programs:

- HEC RAS
- HEC HMS
- TR-20/TR-55
- StormCAD
- Culvert Master
- Flow Master
- Pond-Pac
- CORMIX

We have provided these services to a wide variety of public and private sector clients. Our staff not only understands the technical details, but is very experienced in working with the various state, federal, and local regulatory agencies. We know the level of detail they require and can obtain the necessary approvals in a timely manner.



### POTESTA & ASSOCIATES, INC.

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Regional Offices: Morgantown, West Virginia and Winchester, Virginia



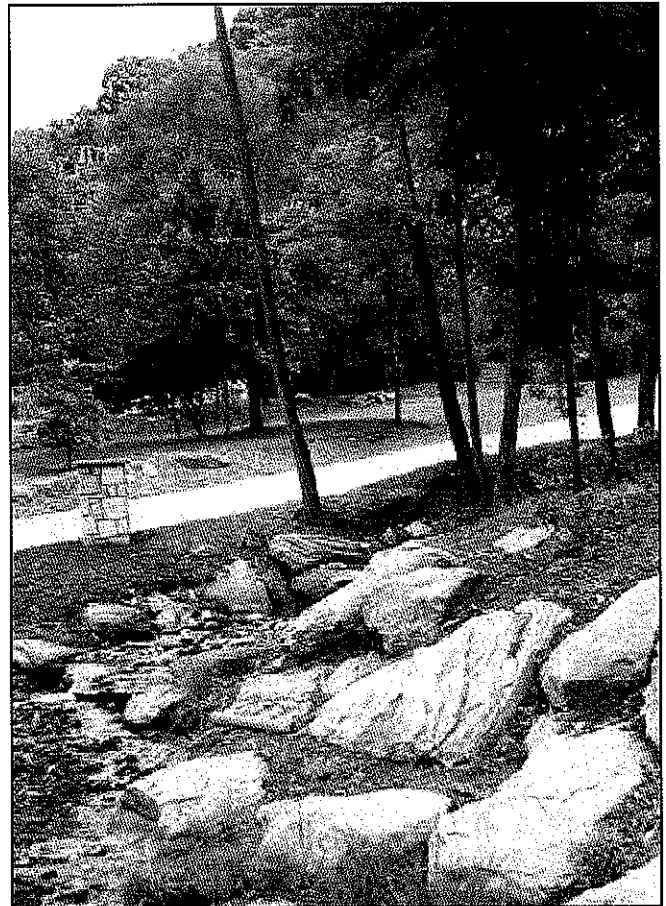
Potesta & Associates, Inc. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout West Virginia, and have been part of design teams for elementary, secondary and collegiate projects primarily associated with new building construction.

Our staff of civil, environmental, and geotechnical engineers; surveyors and environmental scientists can provide the following site planning and design services.

- Surveying - topo and boundary
- Base mapping from aerial photography
- Geotechnical engineering
- Land planning
- Environmental issues evaluation and mitigation
- Site grading
- Vehicular and pedestrian circulation
- Utility design
- Site features
- Stormwater management plans

Some clients who have used our site design services include:

- West Virginia Development Office
- Development Authorities: Tucker, Wood and Roane Counties
- Bright Enterprises
- BIDCO (Capital Area Development Corporation)
- University of Charleston
- Timberwolf Development Corporation
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Marshall University
- Architects: Associated Architects, Bastian & Harris, Architects, SEM Partners



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Regional Offices: Morgantown, West Virginia and Winchester, Virginia



# POTESTA & ASSOCIATES, INC.

## *Surveying and Mapping*

Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions) and ALTA surveys, control surveys, flood certificate surveys, well location surveys, and construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse research, preparation of right-of-way plans, and verification of property owners. Potesta & Associates, Inc. (POTESTA) has licensed professional surveyors registered in West Virginia, North Carolina, South Carolina, Ohio, Virginia, and Pennsylvania. Their total combined surveying experience comes to well over 50 years.

POTESTA's surveyors use state-of-the-art equipment such as Topcon total stations, Trimble R-8 GNSS, and SMI Version 8 data collectors with SMI software. Reduction and design software used includes AutoCAD, Softdesk Civil/Survey design, Autodesk Land Design, Microstation, and InRoads design software.

POTESTA is equipped with modern surveying instruments, allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products. These products can be supplied to our clients in AutoCAD and/or Microstation format.

Small topographic mapping projects can be completed in-house using the aforementioned process. Larger projects are better suited for mapping using aerial

photography.

POTESTA can provide the necessary surveying required for establishing ground control for aerial mapping. As a quality control measure, aerial mapping is field checked for accuracy by surveying cross sections or random points.

Surveys completed by POTESTA are performed by or under the direction of a professional licensed surveyor. Surveys and mapping are completed to the standards outlined by the National Map Standards as well as other



applicable quality standards.

Our staff is experienced in global positioning surveys (GPS). GPS equipment, Trimble R-8 GNSS, and existing base stations are among POTESTA's surveying tools. Based upon the site location and ultimate use of the survey information, a recommendation is made to the client as to whether or not traditional survey or GPS is most applicable to their project.



### POTESTA & ASSOCIATES, INC.

7012 MacCorkle Avenue, S.E. • Charleston, West Virginia 25304  
Phone: (304) 342-1400 Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)  
Regional Offices: Morgantown, West Virginia and Winchester, Virginia



Facilities Planning and Management

July 30, 2003

Mr. John Harris, AIA  
Project Architect  
Bastian and Harris Architects  
300 Summers Street, Suite 1200  
Charleston, West Virginia 25301-1630

Dear John:

Based on our telephone discussion yesterday, it is my pleasure to invite you to the ribbon cutting ceremony for the Marshall Commons Housing Project at 10:00 a.m. on August 21, 2003. It is my sincere hope that you and your entire design team will be available for this important ceremony, which marks the final completion for the residence halls. In my estimation, this is the best piece of construction ever associated with the State of West Virginia.

President Angel and Dr. Grose request that I extend this invitation to all members of your firm as well as your design team. I look forward very much to seeing you at this monumental occasion.

Respectfully

Mike M. Meadows, Director  
Facilities Planning and Management

jc

cc: Einhorn Yaffee Prescott  
Scheeser Buckley Mayfield, Inc.  
Steven Schaefer Associates, Inc.  
Potesta and Associates ✓

AUG

# **COPPER BEECH STUDENT HOUSING**

## **Copper Beech Townhome Communities, LLC**

### ***Morgantown, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained by Copper Beech Townhome Communities, LLC to prepare design plans and specifications for a proposed 40-acre student housing development, containing 31 proposed residential buildings, clubhouse, and parking. The project consisted of various constraints, such as a West Virginia County highway bordering the north side of the site, existing townhome development to the south, and an existing perennial stream bisecting the project. Also to be considered were related wetlands and ephemeral/intermittent stream channels.



In addition, many of the natural slopes on the project site in areas not affected by the stream/wetlands were two horizontal to one vertical.

POTESTA's work began with an existing layout provided by a previous design firm and moved through conceptual layout and grading activities to reduce impacts to the existing stream and wetland areas. Roughly 11,250 linear feet of retaining walls ranging up to 50 feet in height were proposed to aid in the creation of proposed roadway, parking, or building locations, while remaining out of the environmentally sensitive areas. POTESTA performed a geotechnical evaluation of the site's subsurface conditions to gather information for use with various aspects of POTESTA's scope of work.

Specific services associated with POTESTA's scope include:

- Stream and wetland delineation and report
- U.S. Army Corps of Engineers (USACE) conceptual and compensatory mitigation plan
- USACE 404/WV State 401 Permit
- WV Department of Environmental Protection WV/NPDES construction storm water permit
- Preparation of construction drawings and technical specifications
- Geotechnical evaluation through field underground exploration and report
- Storm water design and incorporation into WV/NPDES Permit
- Utility coordination-including sewer main line relocations
- Bridge design coordination for project onsite crossing of stream
- Construction stakeout of retaining walls, roadways, buildings, utilities and curbing.
- Construction observation and soils testing for walls
- FEMA Letter of Map revision due to fill (LOMR-F)
- Flood Plain permit through Monongalia County Planning Commission

**POTESTA & ASSOCIATES, INC.**

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*Project Abstract*

## **DOCTOR'S MEMORIAL BUILDING DEMOLITION Marshall University**

*Huntington, West Virginia*

Potesta & Associates, Inc. (POTESTA) worked under contract to Marshall University to prepare plans and specifications related to the demolition of the Doctor's Memorial Building located on 6<sup>th</sup> Avenue in Huntington, West Virginia. The masonry building was constructed in several phases and, as a result, contained a variety of construction materials. POTESTA worked with the University to prepare a bid package for the work, including specifications and contractor requirements to ensure that the razed debris was adequately handled, transported and disposed of in a permitted facility. Key personnel involved in the project attended both the pre-bid and pre-construction meetings to provide technical assistance to the owner.

POTESTA also prepared a post-demolition site grading plan which included the placement of compacted clean backfill in voids resulting from the demolition of basement areas and foundation elements of the structure. The site was cleared to provide access for the construction of a surface parking lot. POTESTA made recommendations for temporary surface water collection structures at the site. These structures were connected to the adjacent municipal storm sewer system. Future plans are to pave the parking lot and to construct permanent storm water drainage and control structures at that time.

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*Project Abstract*

# **SOUTH CHARLESTON CAMPUS PARKING AND VEHICLE CIRCULATION Marshall University**

*South Charleston, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Marshall University to examine vehicular circulation and parking around the university's South Charleston campus. The campus primarily serves a transient student body and is seeking to develop more on-site parking while improving some of the horizontal road alignment to allow for better flow of traffic.

POTESTA developed several alternatives and prepared cost opinions for construction of the various alternatives.



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*Project Abstract*

**UNIVERSITY OF CHARLESTON  
MIDDLE HALL DORMITORY  
BBL Carlton, LLC**

*Charleston, West Virginia*

The University of Charleston has been working over the past several years to replace and improve campus housing. This effort has included the replacement of the outdated residence halls which were constructed in the 1950's and early 1960's. The newly constructed dormitories have included Brotherton Hall in 1999, New Hall in 2004 and the most recent addition, a replacement residence for the former Benedum Hall known as Middle Hall. This new 4-story masonry structure was designed by Associated Architects, Inc. and constructed under a design/build contract by BBL Carlton, LLC. The residence hall structure is being constructed in three phases to match future enrollment growth at the University. This initial phase provided 160 beds with the each of the two remaining phases adding approximately 120 beds each. The two future phases will require the demolition of both the existing Cox and Cobb Halls.

The construction phase of the project began immediately after completion of the demolition of the existing Benedum Hall in March 2005. The project was pursued on a fast track basis to completion prior to the beginning of the fall 2005 semester. Potesta & Associates, Inc. (POTESTA) provided surveying and civil engineering services on the project. Site topographic surveys were completed to document the existing WV Division of Highways right-of-way limits associated with the adjoining MacCorkle Avenue as well as the locations of all exciting buried and overhead utilities. POTESTA also worked with all utility providers to arrange for the utility services required for the new structure. POTESTA was also responsible for determination of the final footprint location of the building meeting all setback requirements for the property.

During construction POTESTA field surveyors were responsible for the stakeout of the structure including the building footprint as well as the location of the individual auger cast piles. Following the installation of the foundations, POTESTA also completed a deviation survey other newly installed piles for review by the structural engineer.

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*Project Abstract*

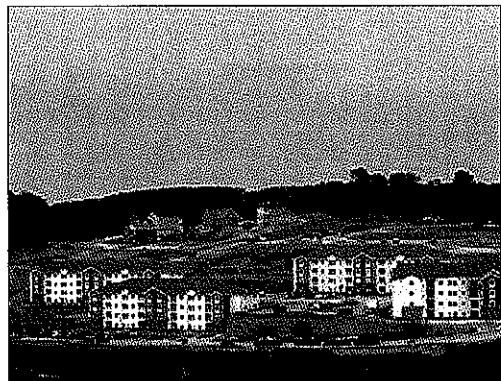
# **WEST RUN STUDENT HOUSING**

## **West Run Student Housing Associates, Inc.**

### ***Morgantown, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained by West Run Student Housing Associates, Inc. of Pittsburgh, Pennsylvania to provide environmental consulting services as well as civil and geotechnical engineering for the West Run Student Housing project located at Morgantown, West Virginia. This proved to be a complex grading/site design project, as it involved 944 student beds in 17 buildings and more than 1,000 parking spaces, plus a clubhouse and basketball courts.

The site is approximately 20 acres in size and most of the property is on a natural 20 percent slope. POTESTA's services included roadway design and permitting, including upgrade of approximately 1/4 mile of a county road; storm water management and permitting, including conveyance systems, a storm water management pond and erosion and sediment control; and site design, including building placement and conceptual design of more than 50,000 square feet of segmental retaining walls. The site also includes a reinforced soil slope that reaches more than 35 feet in height and is more than 800 feet in length.



Other project services performed by POTESTA included a Phase I Environmental Site Assessment, and evaluation of a coal seam located on the property, geotechnical drilling and recommendations, an ALTA survey, preparation of contract and bidding documents, and construction administration.

The project design was completed on an accelerated schedule to allow the developer to secure financing and begin construction within a few months after receiving a purchase option on the project. The construction phase of the project has been sequenced to allow for occupancy of the first seven buildings within eight months after the contractor received notice to proceed.

The first phase of the project is to be completed in 2007, while the anticipated completion date is 2008.

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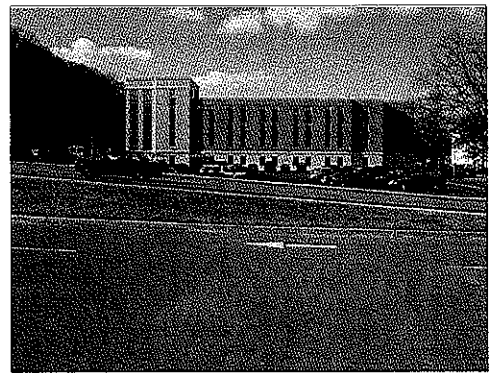
*Project Abstract*

# UNIVERSITY OF CHARLESTON NEW RESIDENCE HALL BBL Carlton, LLC

*Charleston, West Virginia*

The University of Charleston master plan recommended replacement of existing outdated dormitories with new facilities to attract more students to live on campus. The first new dormitory, Brotherton Hall, was completed in 1999. The second one, New Hall, was completed in January 2004. It is a 180-bed, four-story structure.

This project was a fast-tracked design-build project led by the building contractor, BBL Carlton, LLC. The contractor led the project team of architects, engineers and subcontractors in designing and building the structure in a little more than one year. Potesta & Associates, Inc. (POTESTA) provided surveying and civil engineering for the dormitory. Also as part of the building's construction, a new access road into the university had to be designed and built in accordance with the West Virginia Division of Highways' (WVDOH) specifications because the dormitory's location was within the existing access road.



The dormitory was constructed in two phases. The first phase broke ground in April 2003 with this construction completed on the first two floors for student occupancy by August 14, 2003. Also at that same time, the new access road and modifications to the MacCorkle Avenue (WV61) campus entrance had to be completed. POTESTA provided survey, design, permit preparation and construction document preparation in accordance with WVDOH standards for the access road and MacCorkle Avenue modifications.



As part of the second phase of dormitory construction, a new sanitary lift station was required to eliminate a long-term maintenance problem for the university which would have become acute without this facility. POTESTA, again as part of the design build team prepared flow monitoring information to the Charleston Sanitary Board, provided survey and prepared construction documents for this sanitary lift station. The project has met all its aggressive milestone dates on schedule and within the budget.

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*Project Abstract*

# **WEST VIRGINIA UNIVERSITY TRANSPORTATION CENTER AND GARAGE**

**Lloyd W. Miller, Architect**

*Morgantown, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Lloyd W. Miller, Architect, to provide surveying and engineering services related to a \$16 million transportation center and garage design/build project at West Virginia University's Health Sciences Campus. The intermodal facility will feature a bus depot, 500-space parking garage and covered walkways to the Robert C. Byrd Health Sciences Center and the nearby Personal Rapid Transit (PRT) station. The center will also house a bus garage and office space, and may house future retail stores.



POTESTA's scope of services included the following:

- Topographic and boundary surveying
- Surveying related to existing high pressure steam line
- Geotechnical exploration and foundation recommendations
- Review of existing conditions and recommendations pertaining to storm water management
- Development of project criteria documents and performance specifications for design/build contract
- Evaluation of design/build submittals for compliance with project criteria
- Consulting services related to final design documents.

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# VINCENT J. AMMIRATO, P. E.

Senior Engineer



## PROFESSIONAL REGISTRATION/CERTIFICATION

Professional Engineer - West Virginia,  
Ohio, Pennsylvania, Virginia and Georgia

OSHA 30 Training

## EDUCATIONAL BACKGROUND

B. S. Civil Engineering, 1970  
Rose-Hulman Institute of  
Technology  
Terra Haute, Indiana

## EMPLOYMENT HISTORY

2000-Present Potesta & Associates, Inc.  
1973-2000 Columbia Gas Transmission  
Corporation  
1969-1974 Consumers Power Company

## AREAS OF SPECIALIZATION

Conceptual and final design of gas compressor and treatment plants, gas engine and dehydration emission control systems, environmental permitting and programs, Spill Prevention Control and Countermeasure (SPCC) Plans. Thirty years experience in the natural gas industry.

## PROFESSIONAL EXPERIENCE

- Provided detailed engineering design for more than 20 natural gas compressor unit installations (additions and new station construction) including preparing scopes of work, construction estimates, equipment specifications and selection, site and plant layout. Responsibilities included all phases of planning, design, and project management. Designs were performed for engine/compressor unit cooling, lubrication, fuel gas, hydraulic, exhaust and air intake systems. Plant piping designs were performed for acoustic pulsation damping, vibration reduction and pipe flex analysis, flow and pressure drop calculations. Design calculations were performed for building and equipment foundations, structural steel and pressure piping and vessels. Equipment specifications and selection included heat exchanger, air intake and exhaust systems, main and auxiliary buildings, HVAC, control valves, air compressors and driers.
- Provided detailed engineering design for natural gas dehydration and treatment facilities. Responsibilities included equipment specification and selection, site planning, construction budgeting and scheduling.
- Permitted new and modified air sources in 14 states, including engines, turbines, heaters, generators, gas processing plants and emission control devices. Permits were for major and minor applications, PSD review, BAT, RACT, MACT and LEAR reviews and Title V. Also, responsibilities included preparing permit assessments allowing the operating company to install or modify equipment that would meet construction schedules and budgets.
- Installation of emission control equipment on existing natural gas compressor engines to comply with RACT requirements under Title I of the Clean Air Act Amendment of 1990. Project elements were determining regulatory requirements, determining existing equipment emission rates, obtaining air permits, and selecting and installing emission control equipment. Responsibilities included assessing all existing gas engines located in non-attainment areas, establishing and managing the program budget, working with state regulatory agencies, contracting and managing installation of equipment and compliance testing. This program resulted in installation of Nox emission control systems on 15 engines.

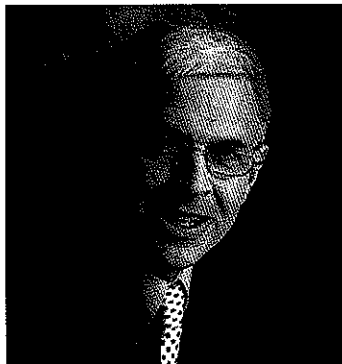
- Installation of emission control equipment on existing natural gas dehydration units to comply with MACT requirements under Title III of the Clean Air Act Amendment of 1990. Project Required evaluation of all dehydration plants in the operation selection and construction of control equipment, obtaining air permits, establishing and managing a construction budget and schedule. Results of the program were installation of 20 systems for the control of hazardous air pollution.
- Developed an integrated environmental compliance management program for permit compliance, including testing, regulatory analysis, monitoring, record keeping, report writing, equipment and emission inventories and permit compliance testing. Additionally, a computer database program was developed to maintain and collect equipment specifications, operating and emission data and for notifying, tracking and reporting permit compliance tasks requirements for completion.
- Performed regulatory review of new and pending regulations with potential to affect the natural gas industry and developed an assessment of its impact on company operations. Significant amount of work was conducted on review of Nox and MACT emission control requirements. Work included preparing and submitting comments and meeting with state and federal regulatory agencies.
- Established a program for Columbia Gas to join USEPA's Natural Gas STAR program. This required developing, assessing and reporting on methods of achieving reductions of methane emissions. As a result of the effort, the USEPA selected Columbia as winner of the "Partner of the Year" award in its first year of participation.
- Evaluated underground and aboveground storage tanks for compliance with state and federal regulations and implementing corrective measures when needed. Project Scope covered inventorying and assessing over 2,400 tanks located in five states.
- Provided expert witness testimony involving foundation stability.
- Prepared hydraulic and hydrologic analysis and design for townhouse development in St. Albans, WV.
- Prepared hydraulic and hydrologic analysis for pending court case involving landslide damage to landowner's property.
- Hydraulic and hydrologic analysis for NPDES Permit for 327-acre site development required for a new highway and high school.
- Design of sanitary water system for recreational housing development and motel to be located in Tucker County, West Virginia.
- Prepare analysis of underground gasoline pipe failure for pending court case.

- Conduct Phase I Environmental Site Assessment for vacation home housing development in Greenbrier County.
- Prepared insurance damage assessment for medical office building resulting from a fire.
- Prepared insurance damage assessment for medical office building following a hot water boiler failure.
- Conducted a site assessment of a sports complex that was being purchased by a high school for use as a gymnasium.
- Prepared construction and right-of-way drawing in accordance with the West Virginia Division of Highways Standards and Specifications for 0.625 miles of access road for an industrial park located in Wood County, WV.
- Served as Project Manager for CQA of a sanitary landfill located in Brooke County, WV.
- Structural design for repair to retaining wall using rock tie-back anchors. A section of a 200-foot long steel soldier beam and concrete lagging retaining wall had exhibited signs of movement. A system of rock tie-back anchor was designed and installed to secure the wall.
- Project Manager/Project Engineer for wastewater projects involving evaluation of treatment systems, facility design, permitting and construction of sanitary wastewater collection and treatment systems, including pretreatment, wastewater treatment plants (WWTP), sludge management and effluent outfalls. Tasks included client/contract management, mapping development, hydraulic design, geotechnical investigations, site and facility layout, preparation of drawings, specifications, and cost estimates. Permitting activities included preparation of permit applications for West Virginia Department of Environmental Protection NPDES WWTP discharge and construction permits, State of West Virginia Office of Environmental Health Services, Public Lands Corporation, U.S. Army Corp of Engineers, West Virginia Department of Highways and Rail Road Crossing. Reviewed contractor submittals, and contractor pay requests and preparation of record drawings. Project specific details on wastewater projects are listed below:
  - Old Standard Subdivision – A new residential subdivision located in Jefferson County, West Virginia included 7,300 feet of force main and 4370 feet of gravity main, a WWTP and 1,380 feet of effluent line to an outfall at the Shenandoah River. The WWTP for this project is based on an activated sludge membrane bioreactor (MBR) process designed to meet Chesapeake Bay Standards. The plant is designed to treat a daily average flow of 50,000 gallons per day (gpd) and is expandable to 250,000 gpd.
  - Charles Town Races & Slots – A new WWTP to provide service at the race track and gaming facility in Jefferson County, West Virginia. The WWTP for this project is based on a sequencing batch reactors (SBR) process supplied by Aqua-Aerobics Systems, Inc. Tertiary filtration and

chemical treatment (ferric chloride and polymer) is provided to meet Chesapeake Bay standards for nutrient removal. Initial design flow is for 250,000 gpd which is expandable to 325,000 gpd. An effluent line to an outfall to at Flowing Springs Run was provided from the WWTP.

- Highland Farms Subdivision – A new residential subdivision located in Jefferson County, West Virginia included 3,700 feet of gravity main, a WWTP and 1,091 feet of effluent line to an outfall at the Shenandoah River. The WWTP for this project is based on an activated sludge membrane bioreactor (MBR) process designed to meet Chesapeake Bay Standards. The plant is designed to treat a daily average flow of 250,000 gpd and is expandable to 500,000 gpd.
- Tackley Mill Development – A new residential/commercial development located in Jefferson County, West Virginia including a WWTP and approximately 2.3 miles of effluent force main to an outfall on Elk Branch. The WWTP for this project is based on an activated sludge membrane bioreactor (MBR) process designed to meet Chesapeake Bay Standards. The plant is designed to treat a daily average flow of 706,000 gpd and is capable of being expanded to 1,000,000 gpd. The WWTP will be constructed in phases of 250,000 gpd, 500,000 gpd and 706,000 gpd.
- Coolfont Village Development – A new residential/commercial development located in Morgan County, West Virginia including a WWTP and approximately 106 feet of effluent gravity main to an outfall on Sir John's Run. The WWTP for this project is based on an activated sludge membrane bioreactor (MBR) process designed to meet Chesapeake Bay Standards. The plant is designed to treat a daily average flow of 440,000 gpd. The WWTP will be constructed in phases of 100,000 gpd, 250,000 gpd and 440,000 gpd.
- Developed, prepared and certified over 100 Spill Prevention Containment and Countermeasure Plan for the following industrial sectors:
  - Natural Gas Compressor Stations
  - Natural Gas Storage Fields
  - Bulk Oil Storage Facilities
  - Coal Mining Operations
  - Coal Processing Facilities
  - Wood Processing Operations
  - Industrial Manufacturing Plants
  - Asphalt Batch Plants
- Project Manager/Project Engineer for site development plans for public housing complexes for the Charleston Housing Authority in Charleston, West Virginia. The project involved preparation of site grading plans, storm water management, retaining walls, utility plans and profiles, access roadway, construction drawings and specifications. Housing complexes developed include:

- Renaissance Townhomes
  - Patrick Street
  - Jarrett Terrace
  - Orchard Manor
- Project Manager/Project Engineer for site development plans for three new residence halls and a new dining hall for Marshall University in Huntington, West Virginia. The project involved preparation of site grading plans, storm water management, utility plans and profiles, construction drawings and specifications.



**PROFESSIONAL REGISTRATION**

Professional Engineer - West Virginia,  
Illinois

OSHA 40-Hour Health and Safety  
Training

**EDUCATIONAL BACKGROUND**

B.S. Civil Engineering, 1978  
West Virginia University

M.S. Civil Engineering, 1979  
West Virginia University

**EMPLOYMENT HISTORY**

1997-Pres. Potesta & Associates, Inc.  
1994-1997 Terradon Corporation  
1979-1994 GAI Consultants, Inc.  
1978-1979 West Virginia University  
1976-1977 West Virginia Department of  
Highways (summers)

**PROFESSIONAL AFFILIATIONS**

American Society of Civil Engineers  
National Society of Professional  
Engineers  
WV Association of Consulting  
Engineers

**HONORS**

Tau Beta Pi/Chi Epsilon

**AREAS OF SPECIALIZATION**

Management of design and permitting of civil, environmental, geotechnical, and mining engineering projects. Siting, design and permitting of industrial and municipal waste disposal sites; reclamation of abandoned mine lands; and development of stormwater management plans and groundwater sampling programs. Environmental/reclamation liability assessments. Development of site plans for commercial and industrial facilities including hydrologic and hydraulic analyses. Expert witness testimony.

**PROFESSIONAL EXPERIENCE**

- Municipal Solid Waste:
  - ▶ West Virginia Solid Waste Management Board/Monongalia County Sanitary Landfill - Morgantown, WV
  - ▶ Northfork Landfill - Wheeling, WV
  - ▶ Disposal Service, Inc. Landfill - Hurricane, WV
  - ▶ Sycamore Landfill, Inc. - Hurricane, WV
  - ▶ City of Charleston Landfill - Charleston, WV
  - ▶ WVDEP's Landfill Closure Assistance Program
    - Montgomery Sanitary Landfill - Montgomery, W
    - Wyoming County Sanitary Landfill - Pineville, WV
    - Jackson County Sanitary Landfill - Ripley, WV
    - City of Moundsville Landfill - Charleston, WV
  - ▶ Mingo County Landfill
  - ▶ Omar Landfill - Omar, WV
  - ▶ Pocahontas County Landfill - Marlinton, WV
  - ▶ HAM Sanitary Landfill - Peterstown, WV
  - ▶ Kanawha-Western Landfill - Cross Lanes, WV
  - ▶ S&S Landfill - West Milford, WV
  
- Industrial Solid Waste:
  - ▶ Mobay Hazardous Waste Landfill - Natrium, WV
  - ▶ American Cyanamid (4 Projects) - Willow Island, WV
  - ▶ Client Confidential - Parkersburg, WV
  - ▶ Monsanto Company - Nitro, WV (Multiple Projects)
  - ▶ Harrison Power Station - Haywood, WV
  - ▶ Fort Martin Power Station - Morgantown, WV
  - ▶ Mount Storm Power Station - Mount Storm, WV
  - ▶ Keystone Power Station - Elderton, PA
  - ▶ New Castle Power Station - New Castle, PA
  - ▶ Conemaugh Power Station - New Florence, PA
  - ▶ Alcoa Corporation - Newburgh, IN
  - ▶ Portsmouth Power Station - Portsmouth, VA
  - ▶ F. B. Culley Power Station - Newburgh, IN

- ▶ Hatfield Power Station - Masontown, PA
- ▶ Armstrong Power Station - Armstrong County, PA
- ▶ Cheswick Power Station - Springdale, PA
  
- Development of construction drawings, technical specifications, contractor's bid sheet and engineer's cost estimate for closure of Montgomery Sanitary Landfill. Work included leachate collection system, cap and double walled leachate tank.
  - ▶ WVDEP - Office of Waste Management
  
- Development of construction drawings, technical specifications, contractor's bid sheet, and engineer's cost estimate for final closure of the Wyoming County Landfill. Work included site assessment, double walled leachate tank, pump station and connection of leachate line to the Center Public Service District sanitary sewer.
  - ▶ WVDEP - Office of Waste Management
  
- Development of interim closure plans including leachate collection system, adequacy of groundwater monitoring wells and soil cover for the Jackson County Landfill and the City of Moundsville Landfill.
  - ▶ WVDEP - Office of Waste Management
  
- Management of three liner expansions, borrow area determination, minor permit modifications, 1.6 MG double-lined leachate pond design, construction monitoring, and investigation of future alternatives for the WV Solid Waste Management Board's Monongalia County Sanitary Landfill.
  
- Evaluation of landfill expansion and leachate minimization. Preparation of permit application for Phase I Cell 3 and Phase II including drawings, specifications and CQA manual. Preparation of construction drawings for Phase I Cell 3 Stage 1 and management of construction monitoring. Preparation of erosion and sedimentation control plan, soldier beam and lagging retaining wall, gabion basket retaining wall, and assistance on FERC permit to relocate gas line.
  - ▶ Disposal Services, Inc. - Hurricane, WV
  
- Preparation of Landfill Expansion Revisions, permit revisions and permit negotiation. Detailed review of hydrogeology and groundwater flow regime. Management of QA/QC for landfill expansion including clay/synthetic liner system, double walled leachate tank, sedimentation pond, drainage channels and associated facilities.
  - ▶ S&S Landfill - Harrison County, WV
  
- Management of miscellaneous services including preliminary closure plan, evaluation of leachate treatment alternatives, repair of tear in synthetic liner, preparation of annual reports, and surveying for Pocahontas County Landfill.
  - ▶ Pocahontas County Solid Waste Authority - Marlinton, WV



- Investigation of potential landfill fire at Kanawha Western Landfill-Kanawha County Solid Waste Authority.
- Detailed geologic and hydrologic studies, monitoring well installation, and preparation of associated sections of landfill permits.
  - ▶ North Fork Landfill - Wheeling, WV
  - ▶ Sycamore Landfill - Hurricane, WV
- Management of non-hazardous industrial landfill design project involving design report, technical specifications, construction drawings, QA/QC manual, operation manual, permit application, and environmental assessment. Included meetings with EPA Region 3 and WV Division of Natural Resources. Also three site selection studies. Complete geologic and hydrogeologic investigations including installation of monitoring wells.
  - ▶ Rhone-Poulenc Ag Company
- Design, permitting, economic analyses, and preparation of construction bid documents for coal ash/refuse sites including HDPE and PVC liner systems.
  - ▶ Virginia Electric and Power Company
    - Portsmouth Power Station ash pond to dry fill conversion project
    - Mount Storm Interim Ash Site
  - ▶ Pennsylvania Electric Company
    - Keystone Coal Ash/Coal Refuse Site
  - ▶ Allegheny Power System
    - Hatfield Ash Site
- Siting studies, including environmental impacts and economic analyses, for industrial waste and coal ash/refuse sites.
  - ▶ Peabody Coal Company - slurry impoundment
  - ▶ Rhone-Poulenc Ag Company - 3 sites for industrial landfill
  - ▶ Virginia Electric and Power Company - Mt. Storm Power Station
  - ▶ Southern Indiana Gas and Electric Company - 4 sites at F.B. Culley Station
  - ▶ Alcoa Generating Corporation - 7 sites at Warrick Station
- Preparation of permit applications for the New Castle ash site and Mitchell scrubber sludge disposal site.
  - ▶ Pennsylvania Power Company
  - ▶ Allegheny Power System
- Evaluation of natural and synthetic liner systems for coal ash/coal refuse sites.
  - ▶ Pennsylvania Electric Company
- Management of QA/QC monitoring program for first RCRA industrial waste impoundment in EPA Region 3. Composite liner system consisted of 3-foot soil-bentonite liner and two 60-mil HDPE synthetic liners separated by an HDPE drainage net. Provided on-site testing laboratory. Daily and weekly project reports were provided. Prepared summary report and necessary "certifications" for submittal to WV Division of Natural Resources and EPA.
  - ▶ American Cyanamid Company-Willow Island, WV

- Management of QA/QC monitoring program for a stormwater retention basin consisting of a 3' soil bentonite liner with a concrete overlay. Daily, weekly, and project summary reports were prepared.
  - ▶ American Cyanamid Company-Willow Island, WV
- Preparation of plans, specifications, and permit application for the closure of an industrial waste disposal site. The capping system included geogrid to assist in supporting the overlying HDPE liner and soil cap.
  - ▶ American Cyanamid Company-Willow Island, WV
- Management of QA/QC monitoring for closure of a 3-acre hazardous waste disposal area with sludge stabilization and an HDPE cap. Provided an on-site testing laboratory, daily and weekly project reports, a summary report and agency required certifications.
  - ▶ American Cyanamid Company-Willow Island, WV
- Management of the QA/QC monitoring for the stabilization and capping of 10-acre hazardous waste equalization basin.
  - ▶ American Cyanamid Company-Willow Island, WV
- Management of monitoring well installations.
  - ▶ North Fork Landfill
  - ▶ Rhone-Poulenc Ag Company
- Coordinator of the compilation of data for a RCRA Part B permit application for a hazardous waste transfer facility in Parkersburg, WV including SPCC plan.
- Preparation of the Coal Ash Disposal Manual and various manuals for the High Volume/Low Technology Fly Ash Utilization Program.
  - ▶ Electric Power Research Institute
- Investigation of contamination from underground storage tanks and hydrocarbon spills. Included preparation of necessary regulatory forms, sample acquisition and analyses, and meetings with regulatory agency.
  - ▶ West Virginia Division of Natural Resources-Various projects under Master Agreement
  - ▶ Goldman Associates
  - ▶ Vandalia Mining Company
  - ▶ Marshall University
- Development of reclamation plans for over 60 projects including landslides, mine fires, acid mine drainage, mine subsidence, refuse piles, water supply systems and asbestos abatement. Projects include the following:
  - ▶ Grass Run Refuse
  - ▶ Allen Sheridan Hazardous Facility (asbestos)
  - ▶ Elk City - Century - Volga Phase I/II Water Study
  - ▶ Camp Mohonegan Regrade
  - ▶ Comfort Run Coal Company (asbestos)

- ▶ Allen AMD
- ▶ Turner Douglas Complex
- ▶ Buffalo Creek No. 5 Refuse
- ▶ Dawmont Mine Facility
- ▶ Helen (Lewis) Refuse
- ▶ Upshur 10/15 Drainage
- ▶ Phase I Water Studies Brooke and Fayette Counties
  - Gauley River PSD - Belva
  - Hammond PSD - Wellsburg
  - New Haven Chamber of Commerce - Hico
- ▶ Mill Creek Regional Water Project Phase II Water Study (Boone, Lincoln and Logan Counties)
- ▶ Godby Branch Phase II Water Study
- ▶ Madison Street Portals/Fairview Route 218 Portals
- ▶ Summerlee Refuse Pile (project won 1996 southern reclamation award)
- ▶ Putnam County Phase I Water Studies
  - Heizer Creek
  - Manila Creek
- ▶ Boone County Phase I Water Studies
  - Jeffery Area
    - Jeffery
    - Hewett Creek
    - Seacoal
  - Ottawa Area
    - Ottawa
    - Greenview
    - Missouri Fork
    - Meadow Fork
    - Aleshire Branch
    - Dent Fork
    - Mike's Fork
  - Duncan Hill Subsidence
  - Phase II Water Feasibility Studies: Logan County
    - Cow Creek
    - Crooked Creek
    - Upper Rum Creek
  - Cora Mine Drainage No. II
  - Covey Creek Mine Fire
  - Phase I Water Studies for Logan County
    - Pecks Mill - Godby Heights Communities
    - Cow Creek - Sarah Ann - Crystal Block Communities
    - Upper Rum Creek Community
    - Clothier Community
    - Crooked Creek Community
    - Godby Branch
    - Whitman Creek - Holden Project
  - Vivian Refuse Pile
  - Kimball Refuse Pile (project won 1995 southern reclamation award)
  - Hampden (Smith) Landslide

- Bear Run Refuse (project won 1994 Ducks Unlimited award)
  - Beaver Creek Waterline Extension: Phase III Water Project
  - Charleston (Ratcliffe) Landslide
  - Garrison Complex
  - Cassity Fork Water Supply Extension: Phase III Water Project
  - Mulberry Fork (Stover) Landslide
  - Beckley Subsidence
  - Courtright Highwall
  - Jonben (Haga) Subsidence
  - Belle Landslide
  - Holden (Padgett) Subsidence
  - Minden Drilling
  - Kitchen/Gibson Landslide
  - Gray and Iaquina Subsidence
  - St. John's Road Subsidence
  - High Coal Tipple
  - Route 19/28 Subsidence
  - Omar Refuse Pile (project won reclamation of the year award)
  - Mt. Hope Subsidence
  - Morgantown Airport Drainage/Subsidence
  - Logan Drainage
  - Huffman Street Subsidence
  - Switzer Adams/Robinson Drainage
  - Follansbee Drainage
  - Fairmont East Subsidence
  - Fairmont IV Subsidence
  - Hawkins AMD
  - Vargo Drainage
  - Duck Creek Landslide
  - Kistler Mine Fire
    - West Virginia Division of Energy and West Virginia Division of Environmental Protection
    - Ohio Department of Natural Resources
- Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for six-mile water line extension including fire protection. Project included 90,000-gallon water tank, booster station, and pressure relief valves. Extension tied into Norton Harding Jimtown PSD System and served town of Cassity in Randolph County.
    - WVDEP-AML
  - Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for a half-mile water line extension to serve Beaver Creek near Junior in Randolph County.
    - WVDEP-AML
  - Management of four Phase II water studies and five Phase I water studies to determine if water supplies had been affected by coal mining. Work included resident interviews, mine map searches, area reconnaissance, obtaining water

samples, reviewing water analysis data, preparing conceptual designs and associated costs and preparation of summary report.

- ▶ WVDEP-AML
- Preliminary and detailed air pollution modeling for Pittsburgh's convention center complex and for the Washington Heights development.
  - ▶ Urban Redevelopment Authority of Pittsburgh
- Management of certified emission statements for 11 coal preparation plants and air emission inventories for 8 coal preparation plants for submittal to the West Virginia Office of Air Quality.
  - ▶ Eastern Associated Coal Corp.
- Operation permit from West Virginia Air Pollution Control Commission for cement/grout portable batch plant for mine subsidence control project in Follansbee, West Virginia.
  - ▶ Nicholson Construction Company
- Management of numerous environmental assessments for property transactions.
  - ▶ 70-acre parcel of land adjacent to Kanawha - Western Landfill for Kanawha County SWA
  - ▶ 65,000 acre Environmental/Reclamation Liability Assessment for A.T. Massey Coal Company
  - ▶ Environmental/Reclamation Liability Assessment involving 56 coal permits in KY for A.T. Massey Coal Company
  - ▶ General Electric Company - Nitro, WV
  - ▶ K-Mart in Parkersburg, WV
  - ▶ Mac's Body Shop for use as recycling center - KCSWA
  - ▶ 1200 acres for Island Creek Coal Co. in KY
  - ▶ South Central Regional Jail site near Charleston, WV
  - ▶ 300 acre coal property in Logan County for FDIC
  - ▶ 180 acre parcel of land for potential landfill developments
  - ▶ Rhone-Poulenc Ag Company - Institute, WV
  - ▶ Laboratory/office building for Eastern Associated Coal Corporation - Beckley, WV
  - ▶ Environmental/Reclamation Liability Assessment involving 27 coal permits in southern WV
  - ▶ Environmental/Reclamation Liability Assessment for 24,000 acre coal property in southern WV for Eastern Associated Coal Corporation
  - ▶ Environmental/Reclamation Liability Assessment involving 11 coal permits in southern WV
  - ▶ Environmental/Reclamation Liability Assessment for 37 permits covering 7,000 acres for Massey Coal Services in WV
  - ▶ Environmental/Reclamation Liability Assessment for 28 permits covering 6,300 acres for Massey Coal Services in WV
  - ▶ Environmental/Reclamation Liability Assessment for 7,000 acres in southern WV for Massey Coal Services

- Development of alternative truck transportation cost schemes:
  - Industrial and Hazardous Waste Management Study, Allegheny County, PA
  - Holcomb, KA, Power Station, Sunflower Electric Cooperative
  - Portsmouth Station remote ash structural fill, Virginia Electric and Power Company
- Development of a computer program that provides a detailed cost estimate for a coal ash disposal area.
  - Electric Power Research Institute
- Evaluation of settling characteristics for an emergency fly ash disposal pond and design of associated modifications at a plant in Institute, WV.
  - Rhone-Poulenc Ag Company
- Sampling/sounding of two basins containing sludge from secondary biological treatment of industrial wastewater and subsequent determination of sludge quantities.
  - Rhone-Poulenc Ag Company
- Subsurface investigations, subsidence monitoring, review of a coal reserve analysis, site plans, preblast/presubsidence surveys, hydrologic analyses, preparation of mining permits, and design and permitting of coal slurry impoundments for coal mining companies in West Virginia, Virginia, Kentucky, Ohio, and Maryland.
  - Peabody Coal Company
  - Eastern Associated Coal Company
  - Southern Ohio Coal Company
  - Island Creek Corporation
  - Massey Coal Services
  - Appalachian Mining Inc.
  - Oneida Coal Company
  - Old Ben Coal Company
  - Mettiki Coal Company
- Management of fly ash utilization permits for various coal companies.
  - Rawl Sales, Inc.
  - Elk Run Coal Company
  - Appalachian Mining, Inc.
  - Peerless Eagle Coal Company
- Managed subsurface investigation, foundation design and development of mine stabilization program for NASA's Independent Verification and Validation Center in Fairmont, WV.
- Development of specification manual for conducting soil and groundwater sampling programs for Rhone-Poulenc Ag Company, Institute, WV. Manual detailed decontamination methods and proper handling/disposal methods.

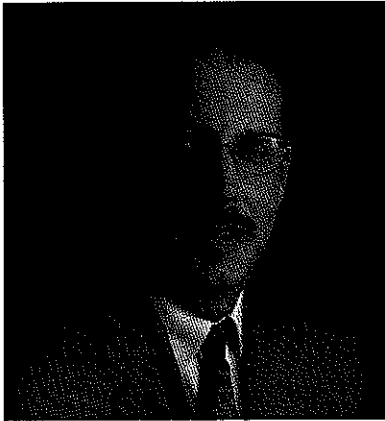
- Development of fly ash flowable fill specification for submittal to WV Division of Highways.
  - Monongahela Power Company-Fairmont, WV
- Hydrologic and hydraulic analyses of South Ruffner Watershed. Project analyzed various storm events and presented conceptual recommendations to reduce effects of these storms.
  - City of Charleston, WV
- Management of numerous projects at Plasma Processing Corporation's aluminum reprocessing facility near Ravenswood, WV.
  - Subsurface investigation and preparation of soils report
  - NPDES Permit
  - Development of sampling program for Plasma to follow in obtaining samples for NPDES Stormwater Analyses
  - Development of hazardous waste operations manual
  - Acquisition of WV Air Pollution Commission permits
  - Environmental audit of facility operations
- Internal and external methane gas monitoring at nursing home facility in Boone County, WV.
- Inspection and preparation of rehabilitation design for Parking Garage No. 1 for City of Charleston.
- Sludge sampling programs at the Institute, WV plant of Union Carbide Corporation and at the Tri-State Terminal of Ashland Petroleum Company.
- Economic analyses of wet versus dry disposal processes, including conveyor belts, trucks, and sluicing by pipe, for fly ash and bottom ash.
  - Tennessee Valley Authority
- Groundwater sampling programs:
  - Herr's Island, Urban Redevelopment Authority of Pittsburgh
  - Robertshaw Controls in New Stanton, PA
  - New Castle Power Station
  - Pennsylvania Power Company
  - Portsmouth Power Station
  - Virginia Electric and Power Company
  - Rhone-Poulenc Ag Company, Institute, WV
- Management of pump tests.
  - Peabody Coal Company - Bim, WV
  - Southern Ohio Coal Company - Meigs County, Ohio
  - Rhone-Poulenc Ag Company - Institute, WV
- Closure of above ground storage tanks. Included preparation of documentation for regulatory agency and sample acquisition and analyses.
  - Rhone-Poulenc Ag Company - Institute, WV

- ▶ American Cyanamid Company - Willow Island, WV
- Design of a holding tank and ventilation system vault near Houston, PA.
  - ▶ Washington County Industrial Development Agency
- Development of specifications for a sand mound treatment system at the U.S. Air training center near Pittsburgh, PA.
- Computer modeling of groundwater movement of contaminants resulting from underground coal gasification.
- Determination of watershed areas along the Suwannee River Basin for the Jacksonville District, U.S. Army Corps of Engineers.
- Inspection of bridge and highway construction for the West Virginia Department of Highways.
- Coordination for Environmental Impact Statement for Route 19 upgrade from Summersville to Interstate 79 in Braxton County and New River Parkway from Sandstone Falls on I-64 to near Athens on I-77.
  - ▶ West Virginia Division of Highways
- Management of stream stabilization and restoration plan for segment of East Fork of Queer Creek in Hocking County, Ohio.
  - ▶ Columbia Gas Transmission Corporation
- Management of consulting services for environmental report preparation and FERC permit applications for various natural gas pipeline projects.
  - ▶ Columbia Gas Transmission Corporation



# CHRISTOPHER A. GROSE

*Senior Engineering Associate I, Licensed Remediation Specialist*



## PROFESSIONAL REGISTRATION/CERTIFICATION

- West Virginia Licensed Remediation Specialist
- Hazardous Waste Site Operations and Superfund Worker Protection Training
- American Red Cross Standard First Aid and CPR Training
- Troxler Moisture-Density Gauge

## EDUCATIONAL BACKGROUND

- B.S. Civil Engineering, 1988  
West Virginia Institute of Technology
- M.S. Geological Engineering, 1990  
University of Missouri-Rolla

## EMPLOYMENT HISTORY

- 1997-Present Potesta & Associates, Inc.
- 1994-1997 Terradon Corporation
- 1990-1994 GAI Consultants, Inc.
- 1989-1990 University of Missouri-Rolla
- 1989 Triad Engineering  
Consultants(summer)
- 1988 West Virginia Institute of  
Technology
- 1983-1988 Clint Bryan & Associates  
(summer) Architects

## PROFESSIONAL AFFILIATIONS

## AREAS OF SPECIALIZATION

Surface and subsurface hydrology and hydrogeology including contaminant transport and groundwater flow modeling. Hazardous waste remediation, including CERCLA/SARA, RI and FS report compilation. Geological and geotechnical aspects of the siting and design of municipal and industrial waste landfills, foundation recommendations and cut slope designs in soil and rock.

## PROFESSIONAL EXPERIENCE

- Engineering design for the closure of a chemical waste landfill in Parkersburg, WV. Completion of a settlement analysis to determine the expected consolidation of waste during dewatering. Cover design incorporated a composite liner system with synthetic drains. The cap utilized synthetic reinforcement to minimize consolidation-induced stresses on the synthetic liner.
  - ▶ American Cyanamid
- Operation and maintenance of several groundwater remediation systems including pump and treat and sparge systems for a large chemical manufacturer in Nitro, West Virginia. The pump and treat technology is designed to recover kerosene in one instance and TCE in another. Both systems are safety oriented and are fully automatic. The sparge system is a study/field test to determine the impact that oxygen injection will have on the degradation of phenolic compounds existing in the groundwater.
  - ▶ Nitro, West Virginia
- Responsible for the design and implementation of drilling and sampling programs for several Phase I and Phase II environmental assessments.
- Permit completion for closure of a chemical sludge impoundment near Parkersburg, WV. Analysis of existing monitoring well configuration.
  - ▶ American Cyanamid
- Analysis and study of elevated levels of organic constituents and elevated pH values in existing monitoring wells. Study to determine if well construction techniques or development procedures contributed to the presence of these constituents.
  - ▶ Rhone Poulenc Ag Company
- Design and completion of several monitoring wells to monitor an abandoned fly ash disposal area. Included hydrologic analysis of site geology to determine major aquifers present in the area.
  - ▶ Union Carbide Corporation

- Completion of several groundwater contamination studies in West Virginia. Contaminates included diesel fuel, gasoline, chlorobenzene and benzene. Studies included field exploration utilizing various methods including air and mud rotary drilling. Responsible for the setup, calibration and analysis of groundwater computer models to lend insight into the flow regimes and dispersion characteristics of the potentially affected areas.
- Evaluation of subsurface conditions including both soil and rock to provide geotechnical recommendations related to potential bridge abutment foundation systems near Martinsburg, West Virginia. Alternatives included both shallow and deep foundations. Deep foundations were required at several abutments due to voids encountered in limestone bedrock.
  - West Virginia Department of Highways
- Preparation of foundation investigations for several large structures including a parking garage and student housing complex at Marshall University, Huntington, West Virginia. Tasks included development of a subsurface exploration program, soils/rock sampling and testing program as well as a preparation of a final geotechnical report.
  - Huntington, West Virginia
- Evaluation of numerous failed soil fill slopes to determine probable failure mechanisms in order to develop and remediation alternatives. Responsible for the development of regrading plans which included subsurface drains, benching schemes and toe buttresses.
- Design of final landfill closure for an abandoned solid waste facility for the WVDEP-Closure Assistance Program. Design included diversion and collection channels, cap design, leachate collection system and 150,000 gallon leachate storage tank.
  - Montgomery, WV
- Permit completion for a new municipal landfill, including design and construction of monitoring wells monitoring several aquifers.
  - North Fork Landfill, Wheeling, WV
- Part I permit completion, design and implementation of a drilling program, including evaluation of an existing monitoring well configuration. Testing of existing site soils for suitable liner material sources.
  - Sycamore Landfill, Hurricane, WV
- Completion of several Part I Solid Waste Facility permits including the design and implementation of drilling programs, formal geological studies, hydrogeological analysis of the proposed sites, and locations and development of upgradient and downgradient groundwater monitoring wells. Design, Construction, and development of seven monitoring wells for a proposed 13-acre industrial waste disposal facility near Institute, WV.
  - Rhone Poulenc Ag Company

- Responsible for the development and design of several interim or maintenance related items associated with drainage at the Monongalia County Landfill. Included the design and upgrade of both new and existing channels, diversions or berms to minimize surface water infiltration and minimizing the amount of leachate generation.
  - Morgantown, West Virginia
  - West Virginia Division of Environmental Protection
- Design, management and project oversight during construction for the closure of a 7-acre biological sludge pond in Nitro, West Virginia. Preliminary design studies included the completion of batch tests to evaluate stabilization materials. Also handled the development and submittal of several permits associated with the project including erosion and sediment control plan, Army Corps of Engineers permit and a wetland's investigation and nationwide 404 permit.
  - Nitro, West Virginia
- Subsurface sample collection, resistivity measurements, explosivity measurements, and decontamination procedures for an organic contamination study at Institute, WV.
  - Rhone Poulenc Ag Company
- Underground storage tank contamination study in Jesse, WV. Delineation of a subsurface hydrocarbon contamination plume as well as possible flow directions to determine potential receptors.
  - West Virginia Division of Natural Resources
- Site evaluation, including continuous HNU scanning of collected soil samples and installation of piezometers, for two proposed sites near Charleston, WV.
  - General Services Administration
- Foundation design for a proposed 100,000 gallon potable water storage tank and valve pit near Cassidy, WV.
  - West Virginia Division of Environmental Protection
- Engineering evaluations, including collection and analysis of core samples, for possible subsidence-related fracturing of several areas potentially affected by mining subsidence.
  - West Virginia Division of Environmental Protection
- Evaluation of numerous groundwater monitoring wells to determine the direction of migration and the feasibility of utilizing them in a planned pump and treat recovery system. The site was an active compressor facility located in Eastern Kentucky.
  - Columbia Gas Transmission Corporation
- Subsidence evaluation and slope monitoring, using extensometers and tilt plates located on the slope face, of a 60-foot road cut experiencing subsidence-induced fracturing near Koppeston, WV.

- ▶ Peabody Coal Company
- Engineering design of several wetland habitat areas relating to the effective remediation of a coal refuse disposal site in Glenville, WV.
  - ▶ West Virginia Division of Environmental Protection
- Completion of formal subsidence control plan for a proposed 14,000-acre longwall mining operation at the Mountaineer Mine, Wharncliff, WV.
  - ▶ Mingo Logan Coal Company
- Preparation of several article 3 surface mining permit applications for various West Virginia Coal Companies:
  - ▶ Proposed deep mine using longwall mining techniques in Boone County, West Virginia located in the Eagle coal seam.
    - Eastern Associated Coal Corporation
  - ▶ Deep mine using conventional mining techniques near Madison in Boone County, West Virginia. Located in the No. 2 Gas (Campbell Creek) coal seam.
    - Hobet Mining, Inc.
  - ▶ Deep mine using conventional mining techniques near Logan in Logan County, West Virginia. Located in the Alma coal seam.
    - Rum Creek Coal Sales
  - ▶ Surface mine using mountain top removal techniques near Twilight in Boone County, West Virginia. Located in the Coalburg and Lower Kittanning seams.
    - Eastern Associated Coal Corporation
- Completion of several environmental assessments for coal properties. Work included emphasis on both environmental and reclamation liabilities associated with pre and post SMCRA sites on the properties.
  - ▶ Massey Coal Services, Inc.
  - ▶ Eastern Associated Coal Corporation
- Preparation of Phase I, II and III water studies throughout the state of West Virginia for the West Virginia Division of Environmental Protection, AML section. Work items included interview of area residents to determine major quality and quantity problems, field and records research to determine the location of known pre-law mining activity which could potentially affect groundwater quality, collection of groundwater samples and design of water distribution facilities.
- Responsible for the design, management and inspection of a geotechnical investigation of a proposed five mile rail extension located in Nicholas County, West Virginia. Investigation included study and design of planned rock cuts and track foundation materials.
- Preparation of several spill prevention control and countermeasure plans for gas storage well sites in Pennsylvania and West Virginia.
  - ▶ Columbia Gas Transmission Corporation

- Design of stream relocation plans including preparation and coordination of applicable environmental permits. The relocation was required due to an adjacent gas pipeline near the stream.
  - Columbia Gas Transmission Corporation
  
- Development of closure design for a 14-acre inactive waste water treatment pond. Responsibilities included evaluation of sludge stabilization technologies, types of reagent and mixing ratios to achieve the required in-place strengths. Conducted contractor interviews with the owner, as well as providing assistance to the owner during preparation of the construction contract. During construction, conducted weekly safety meetings on-site with the contractor. This project was also expanded to provide stabilization of a 1.5-acre digester basin adjacent to 14-acre pond. The original contract was extended to cover stabilization of this pond. Stabilization efforts included submittal of an Army Corps of Engineers' nationwide permit to stabilize the bank of the Kanawha River and application of a West Virginia NPDES General Stormwater Construction Permit.
  - Nitro, West Virginia

# KENNETH W. KINDER, P.E.

Staff Engineer



## PROFESSIONAL REGISTRATION

Professional Engineer, WV Board of Professional Engineers

## CERTIFICATIONS

Troxler Nuclear Density Equipment Operator, 2001

Humboldt Scientific, Inc. HAZMAT Training Certification, 2005

## EDUCATION

B.S. Civil Engineering, 2003  
West Virginia University Institute of Technology, Montgomery, WV

## EMPLOYMENT HISTORY

2003-Present Potesta & Associates, Inc.  
May 2000 - Potesta & Associates, Inc.  
May 2003  
1995-2000 Eagle Surveying, Inc.

## PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE)

## AREAS OF SPECIALIZATION

Civil/site design, hydrology analysis, hydraulic design, stormwater management, floodplain management, erosion and sediment control, wastewater treatment, computer modeling associated with hydrology and hydraulics, geotechnical, construction monitoring, computer aided drafting, land surveying.

## PROFESSIONAL EXPERIENCE

### *Civil/Site Design*

Developed a civil site design for a proposed petroleum storage tank farm in Raleigh County, WV. Tasks included preparing a boring layout for geotechnical drilling, boring observation, preparing construction drawings to show proposed grading, and determining the volume of excavation required. Coordinated the design of reinforced concrete foundations and slab with structural engineer.

Assisted with the civil site design for the Spring Hill Apartment Complex in Charleston. Tasks included regrading the site to accommodate new housing facilities, design of the storm drainage system, and meeting stormwater runoff requirements of the City of Charleston.

Assisted with the civil site design for a proposed pharmacy school building for the University of Charleston. Tasks included preparing a proposed grading plan, coordinating connections to existing utilities, and assisting with stormwater management.

### *Hydrology and Hydraulic Design*

Completed the design of proposed ephemeral and intermittent stream mitigation channels on several projects located at active and reclaimed mine sites. Tasks included delineating drainage areas, computing runoff, and designing stream channels with a main channel to contain a 1-year to 2-year storm event and a riparian zone which would contain a 10-year storm event.

Assisted with the design of a proposed gravity and force main sewer line project to convey sanitary sewage and landfill leachate. Tasks included coordinating the location of sewer taps, hydraulic design of the system, preparing permit applications, preparing construction bid documents, and preparing an estimate of probable construction costs.

Completed hydraulic design of components associated with three membrane bioreactor (MBR) wastewater treatment plants. Tasks included sizing gravity and force main process piping, slidegates, flow control weirs, and other components for head works and tail works of the treatment plant

### *Stormwater Management*

Performed a stormwater runoff evaluation for the existing Wal-Mart in Lewisburg, WV. Tasks included evaluating the performance of an existing stormwater management pond and redesigning the outlet structure to meet the pre-development peak runoff flows. PondPack was utilized to model the two stormwater management ponds, which were located in series.

Modeled the drainage system of the Mingo Logan Coal Company Mountaineer Mine using the SedCad software. The hydrologic evaluation was conducted to meet the requirement of a West Virginia Division of Environmental Protection (WVDEP) Surface Water Runoff Analysis (SWORA) which requires that during-mining and post-mining flow rates shall not exceed pre-mining flowrates. The modeling included the evaluation of existing drainage structures and several proposed structures.

Completed the hydraulic design of a stormwater collection system (storm sewer) for a proposed apartment complex in Mason County, WV. Tasks also included the design of a sedimentation pond to meet the WVDEP NPDES construction stormwater requirements. The sedimentation pond was designed to be converted to a permanent stormwater control structure upon completion of construction.

### *Floodplain Management*

Assisted with the analysis of a flood event that occurred in 2004 on Straight Fork of Mate Creek in Mingo County, WV, a watershed adjacent to the construction project associated with the King Coal Highway. Tasks included modeling the storm event from actual precipitation data obtained and using HEC-HMS and HEC-RAS to determine flood levels and the impacts on the properties of local residents. Other scenarios were modeled to show impacts to properties in the event that an upstream sediment pond would breach, existing underground mine works would blow out, and a combination of the above scenarios. The study also evaluated the effects of blasting upon existing underground mine works.

Generated a civil site design for a golf course located in the floodplain of a stream which is prone to frequent flooding. Tasks included overseeing the development of aerial topographic mapping and developing a grading plan to regrade portions of the golf course to minimize flooding potential in areas of high-play, without borrowing off-site fill material.

Submitted a floodplain building permit to the Town of Moorefield, WV for the placement of fill material in the floodplain of a tributary of the South Branch of the Potomac at a property adjacent to the proposed Corridor H. Tasks included coordinating the proposed grading plan with the local floodplain manager to show that upstream flood levels would not be affected.

Submitted a floodplain building permit to Marshall County, WV for the placement of fill in the floodplain and floodway of the Ohio River. Tasks included obtaining the original computer model which was prepared by the United States Army Corps of Engineers in 1983, running the original model data in HEC-RAS and altering the computer model to analyze the effect of the proposed grading plan. An engineering

report was prepared and submitted along with the floodplain building permit application to show that 100-year flood elevations would not be affected by our project

*Erosion and Sediment Control*

Modeled the drainage system of the Mingo Logan Coal Company Mountaineer Mine using the SedCad software. The hydrologic evaluation was conducted to meet the requirement of a WVDEP SWORA and also include a sedimentologic evaluation. The modeling included the evaluation of existing drainage structures to determine which structures were most efficient at treating sediment laden runoff. Inefficient structures were updated and additional structures were proposed to reduce the sediment discharge to an acceptable concentration.

Assisted with the preparation of several WVDEP NPDES construction stormwater permit applications including two projects associated with construction of the King Coal Highway in Mingo County, WV, which included nearly five miles of roadway and over 30 erosion and sediment control structures. Tasks included computing peak flow rates, design of erosion and sediment control structures, and developing Stormwater Pollution Prevention Plans.

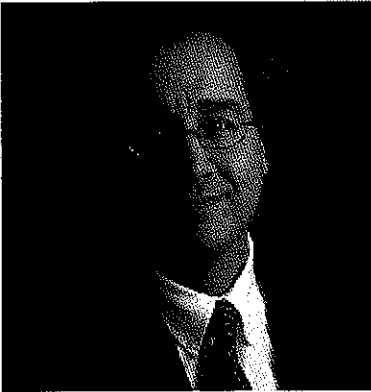
*Wastewater Treatment*

Assisted with the design of three membrane bioreactor wastewater treatment plants (WWTP) for proposed residential developments. Tasks included preparation of Health Department and WVDEP permit applications, coordination with state and local agencies, hydraulic design of piping, screens, weirs and other hydraulic components, coordinating structural, mechanical, and electrical designs, and preparation of drawings and construction documents. Average daily flow rates (ADFs) of the WWTPs ranged from 125,000 gpd to 1 MGD.

Assisted with the design of treatment ponds for two separate projects in Marshall County, WV. The treatment ponds were to be utilized to treat high levels of iron and manganese. Tasks included evaluating the costs and benefits of precast concrete tanks versus constructed earthen settling ponds, design of hydraulic components such as inlet and outlet channels, determining geometric dimensions of ponds to increase the efficiency of the ponds and reduce the effects of shortcircuiting, design of an aeration trough to aid in the treatment of iron, and the preparation of construction cost estimates.



**D. MARK KISER, P. E.**  
*Chief Engineer, Licensed Remediation Specialist*



**PROFESSIONAL REGISTRATION**

Professional Engineer, West Virginia  
Licensed Remediation Specialist, West Virginia

**PROFESSIONAL CERTIFICATION**

- Hazardous Waste Site Operations and Superfund
- Worker Protection Training, 40-Hour Training,
- Supervisory Training, and Annual Refreshers
- Troxler Nuclear Densometer Certification
- Licensed Remediation Specialist - West Virginia

**EDUCATIONAL BACKGROUND**

B.S. Civil Engineering, 1984  
West Virginia University

**EMPLOYMENT HISTORY**

1997-Present Potesta & Associates, Inc.  
1995-1997 Terradon Corporation  
1984-1995 GAI Consultants

**HONORS**

Chi Epsilon  
Tau Beta Pi  
American Society of Military Engineers  
Scholarship

**AREAS OF SPECIALIZATION**

Conceptual and final designs for chemical, utility, and municipal solid waste disposal sites including liner systems, leachate management systems, stormwater management systems, operational plans, and capping/closure systems; abandoned mine lands reclamation projects; sludge stabilization and basin/pond closure projects; environmental sampling and remedial programs; environmental permitting; hydrologic and hydraulic analyses; quality assurance/quality control monitoring.

**PROFESSIONAL EXPERIENCE**

- Final design and preparation of construction drawings, detailed technical specifications, and engineer's construction cost estimate for the construction of a 1.9-million gallon double-lined pond and 5 acres of a landfill liner system. This project included development of an ultimate facility layout plan, a two year detailed development plan, and construction monitoring. Project also included negotiations with regulatory agency to obtain approval of the permit.
  - ▶ Client Confidential
- Design; preparation of drawings, technical specifications, contractor's bid sheet, engineer's cost estimate, contract, and cap acceptability evaluation; evaluation of contractor bids, and construction monitoring associated with the capping and closure of a 2.5-acre cell of an industrial waste landfill facility. Cap included a multi-layer geocomposite system to minimize infiltration and the production and leachate to improve the areas groundwater quality.
  - ▶ Client Confidential
- Design; preparation of drawings, technical specifications, and contract/bid documents; construction monitoring; air monitoring; sludge sampling; and analysis; review and approval of a detailed health and safety plan; permitting; and other miscellaneous engineering services for the stabilization and closure of a 3-acre sludge basin and a 1-acre sludge pond. The project included management of a pilot-scale demonstration, procurement of stabilization reagents from multiple providers, and development of an adjacent soil borrow area.
  - ▶ Client Confidential
- Response to regulatory agency review comments and redesign of a pond liner system and piggyback landfill liner system for a 20-acre landfill in West Virginia.
  - ▶ Client Confidential
- Consulting regarding the design of a final cover/cap for an industrial waste landfill located in West Virginia.

- ▶ DuPont Environmental Remediation Services
- Project manager/engineer for independent quality assurance/quality control monitoring associated with closure of a three acre SWMU consisting of a waste impoundment. Project included construction of an earthen buttress to improve slope stability, in-place waste stabilization using fly ash and kiln dust, and construction of a RCRA cap. Responsible for field design revisions to overcome problems, conformance testing, and preparation of certifications and a summary report. Project included sampling and analysis of raw and stabilized sludge.
  - ▶ American Cyanamid Company
- Field (construction) monitoring for development of a residual waste landfill including compaction testing for heavy earth moving, synthetic (PVC) liner installation, concrete testing, and other miscellaneous testing.
  - ▶ Pennsylvania Electric Company
- Design and permitting for a proposed industrial solid waste landfill. Project included complete hydrogeologic evaluation including several borings and installation of seven monitoring wells; documentation of soils, geology, water quality and hydrogeology; detailed site design of leachate ponds, liner system, stormwater collection system, access road, and capping/closure system. Multi-volume permit application prepared including Operations Manual, Quality Assurance/Quality Control Plan, Technical Specifications, Permit Application, and Design Drawings.
  - ▶ Rhone-Poulenc Ag Company
- Leachate Minimization Study for a RCRA Hazardous Waste Landfill. Project included assessment of existing landfill operation and recommendations to reduce quantity of contaminated runoff from over 8 million gallons per year (MGY) to between 2 and 3 MGY. Detailed staging and operating plan, stormwater management plan, and cost estimates prepared.
  - ▶ Rhone-Poulenc Ag Company
- Closure plan and permit application for closure of a three acre surface impoundment containing sludge and tar. Stability concerns for an existing embankment containing the waste lead to the development of a lightweight cap. Subsurface investigation and field surveying completed. Closure application as required by the West Virginia Division of Environmental Protection provided.
  - ▶ American Cyanamid Company
- Evaluation of an emergency fly ash pond for a chemical plant in Institute, West Virginia. Recommendations, including conceptual design drawings and an engineer's cost estimate, to increase the settling efficiency of the pond. Special design elements, including a polymer feed system, submerged manifold pipe, splitter dike, and an overflow weir.
  - ▶ Rhone-Poulenc AG Company

- Engineer responsible for expansions, planning, and upgrades for the Monongalia County Sanitary Landfill from 1990 through 1992. Activities included three expansions (7 acres total) of the landfill liner and leachate collection system including grading, groundwater collection drains, landfill liner system and leachate drains, protective cover and surface drainage control; construction monitoring and certification of landfill expansions; construction of a 1.6 million gallon leachate storage basin including clay liner, double synthetic liner, synthetic drainage layer, protective cover, drainage control devices; annual landfill volume reports including surveyed cross sections; two borrow area investigations to identify clay liner sources; feasibility study for expansion and continued operation of the facility; and a final closure plan for the facility including a multi-layered cap and drainage control plan.
- Utility relocation plans required for site development, waterline, and sewer construction projects. Projects included determination of utility locations by records review, utility contacts, and surveying. Designs were prepared including locations, details, and pavement replacement. Design also included obtaining approvals from West Virginia Division of Highways and the owners of the utilities.
- Storm water drainage plans for site development projects including pre- and post-development discharges, design of sediment control devices, preparation of stormwater general permit application, and consulting for numerous construction projects in West Virginia.
- Consulting and permitting for the development of seven coal-based synthetic fuel manufacturing plants in West Virginia, Indiana, Kentucky, and Illinois. Project included obtaining pre-construction and operating permits for air, water and mining for the manufacturing plants and the feedstock coal recovery operations. Assignments included permit application preparation, assistance in locating and evaluating coal feedstock sites, construction monitoring, Phase I environmental site assessments, and other miscellaneous engineering consulting functions.
  - ▶ Pace Carbon Fuels, L.L.C.
- Site reconnaissance, development of alternative capping/closure systems, and preparation of engineer's cost estimates for the closure of two West Virginia municipal waste landfills in support of rate making testimony and hearings.
  - ▶ West Virginia Public Service Commission
- Consultant for site development and construction of a fly ash disposal facility including a review of site operations, developing a maintenance program, compaction testing and review, and problem shooting.
  - ▶ Virginia Power Company
- Yearly construction designs for lined coal ash and coal refuse disposal sites at the Keystone and Conemaugh power stations, including a synthetic liner system, ground-water and surface-water control, leachate collection, landfill development, and haul road design. Construction quantity and cost estimates

- and development of IBM-PC software for evaluating the storage capacity of the disposal sites.
  - ▶ Pennsylvania Electric Company
- Preparation of solid waste disposal permit applications for the Monroeville Landfill, Monroeville, Pennsylvania, and the Southern Alleghenies Landfill, Cambria County, Pennsylvania, both of which include a double synthetic liner system combined with a drainage net leak detection system to conform to Pennsylvania DER regulations.
  - ▶ Chambers Development Company
- Coordination of field activities associated with construction monitoring and laboratory testing for RCRA hazardous waste impoundment (the first permitted and constructed in EPA Region III) in Willow Island, West Virginia, including earth moving, construction of a soil-bentonite liner, monitoring of three, sealed double-ring infiltrometers, and construction of an HDPE double-lined impoundment.
  - ▶ American Cyanamid Company
- Responsible for hydrogeologic investigation and preparation of the WVDEP Part A Solid Waste Disposal Permit Application for the Sycamore Scenic Landfill in Putnam County, West Virginia. Work included coring, test pit, and laboratory analysis of soils; review of existing ground water data; and analysis and evaluation of data for completing the Part A Application.
- Responsible for detailed hydrogeologic investigation and preparation of a major portion of the WVDEP Part A Solid Waste Disposal Permit Application for the Northfork Landfill near Wheeling, West Virginia. Project included field reconnaissance and mapping of existing site conditions, rock corings, test pits, laboratory analysis of soils for potential construction materials, installation of four monitoring wells, and the corresponding analysis and evaluation of data for completing the Part A Application.
- Project manager/engineer for the West Virginia Division of Environmental Protection's landfill closure assistance program for 1993 through 1995. Responsible for conceptual design, field investigation, construction drawings, specifications, permit applications, etc., for the following projects.
  - ▶ Wyoming County Landfill
  - ▶ Jackson County Landfill
  - ▶ Kanawha Western Landfill
  - ▶ Monongalia County Sanitary Landfill
  - ▶ Fayette County Landfill
- Quality assurance/quality control monitoring for closure of a 10-acre SWMU containing biological treatment sludge. The contents of the basin were stabilized by mechanical mixing. Activities included supervision of testing, data evaluation, and a revised interim grading and drainage plan. Report and certification provided for WVDEP-OWM.
  - ▶ Cytec Industries

- Closure plan and permit application for closure of a 5-acre industrial waste landfill. Steep slopes over a portion of the landfill necessitated the design of an innovative cap system and leachate collection system. Project also included closure and capping of a small pit containing tar residue.
  - ▶ Cytex Industries
- Project engineer/project manager for finalizing a permit application for the S&S Landfill near Clarksburg, West Virginia. Components of the plan included a detailed staging and closure plan to comply with sediment control and leachate storage requirements. Successfully represented the landfill in a permit appeal hearing before the Water Resources Board. Prepared two construction/bid packages for constructing the initial 10 acres of the landfill.
  - ▶ Eastern Environmental Services, Inc.
- Project engineer/project manager for the West Virginia Division of Environmental Protection's abandoned mine lands reclamation open-end contract from 1988 through 1995. Responsible for conceptual design, permit applications, etc. for the following projects.
  - ▶ Turner Douglas Complex
  - ▶ Omar Refuse Piles (project won reclamation of the year award)
  - ▶ Bear Run Refuse (project won 1994 Ducks Unlimited award)
  - ▶ Kimberly Refuse Pile (project won 1995 southern reclamation award)
  - ▶ Vivian Refuse Pile
  - ▶ Duncan Hill No. 1 and No. 2 Subsidence
  - ▶ Urso Subsidence
  - ▶ Summerlee Refuse Pile
  - ▶ Godby Branch Water Extension
  - ▶ Jonben Subsidence
  - ▶ Williamson (Elias) Landslide
  - ▶ Lefthand Fork Burning Refuse
  - ▶ Belle Landslide
  - ▶ Doug Gray Subsidence
  - ▶ Harris Acid Mine Drainage
  - ▶ Numerous Phase I and Phase II Water Quality Studies/Surveys
- Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for six-mile water line extension including fire protection. Included in project was 90,000 gallon water tank, booster station, and pressure relief valves. Extension tied into Norton Harding Jimtown PSD System and served town of Cassity in Randolph County.
  - ▶ WVDEP-AML
- Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for a half-mile water line extension to serve Beaver Creek near Junior in Randolph County.
  - ▶ WVDEP-AML
- Management of four Phase II water studies and five Phase I water studies to determine if water supplies had been affected by coal mining. Work included

resident interviews, mine map searches, area reconnaissance, obtaining water samples, reviewing water analysis data, preparing conceptual designs and associated costs and preparation of summary report.

- ▶ WVDEP-AML

- Design for waterline extension projects including preparation of construction drawings, specifications, and engineer's cost estimates for the West Virginia Division of Environmental Protection, Office of Abandoned Mine Lands and Reclamation.
  - ▶ Cassity Fork Waterline
  - ▶ Beaver Creek Waterline Extension
  - ▶ Godby Branch Waterline Extension
- Soundings and sampling of 3 basins containing sludge. Two basins contained sludge from secondary biological treatment of industrial wastewater. One basin contained petroleum product sludges. Sludge quantities determined from soundings and cross sections prepared. Samples obtained for laboratory analysis.
  - ▶ Rhone-Poulenc Ag Company
  - ▶ Ashland Petroleum Company
- Closure of thirteen aboveground RCRA storage tanks. Closure services included review of agency approved closure plan to determine compliance items, visual inspection of tank interiors and earthen containment berm areas, review of rinsate analyses, review of soils testing analysis from berm areas, and preparation of closure documentation and certification.
  - ▶ Rhone-Poulenc AG Company
  - ▶ American Cyanamid Company
- Phase I environmental assessment for the West Virginia Regional Jail and Correctional Facility Authority to document potential liability for a potential regional jail site in Kanawha County, West Virginia. Activities included historic records search, interviews, and site reconnaissance with a report prepared documenting the findings.
- Geotechnical investigation for two proposed above-ground reinforced concrete tanks to serve as secondary wastewater treatment unit. Investigation included soil drilling, sampling, laboratory analysis for engineering properties, and analysis for contamination. Field survey completed to locate existing structures. Report prepared outlining soils/geology and foundation recommendations.
  - ▶ Rhone-Poulenc AG Company
- Assessment of environmental liabilities associated with a large tract of property including over 25 permitted mines and a coal preparation plant. Investigation included a review of permits and requirements, past environmental compliance record, walkover of each site, and development of estimated reclamation costs for each site. Report prepared to document results of the liability assessment.
  - ▶ Massey Coal Services, Inc.

- Management and oversight of environmental assessment to identify any liabilities or soil/water degradation for a proposed industrial solid waste landfill. Investigation included drilling, sampling, monitoring well sampling, site reconnaissance, and historic records research. Results presented in a report.
  - ▶ Rhone-Poulenc AG Company
- Environmental Impact Statement (EIS) for proposed Route 19 upgrade from Summersville, West Virginia to Interstate 79 in Braxton County, West Virginia. Project included evaluation of three alternatives over approximately 25 mile length. Involvement included responsibility for hazardous waste section and general data.
  - ▶ West Virginia Division of Highways
- Project manager/engineer for the preparation of coal ash utilization permits for West Virginia mining operations. Permits included placing ash in the embankment of refuse disposal sites and placing ash with spoil backfill.
  - ▶ Elk Run Coal Company
  - ▶ Appalachian Mining, Inc.
  - ▶ Peerless Eagle Coal Company
  - ▶ Rawl Sales and Processing Company
- Coal ash utilization study including five mining operations and four coal ash sources in Virginia and West Virginia. Study evaluated both surface and underground beneficial uses of ash to neutralize acidic drainage.
  - ▶ Eastern Associated Coal Corp.
- Project manager for in-house consulting services provided for environmental reports and permit applications for natural gas pipeline transmission projects.
  - ▶ Columbia Gas Transmission Corp.
- Numerous Phase I Environmental Site Assessments including reclamation liability assessments for mining and industrial properties in West Virginia and Kentucky.
  - ▶ Client Confidential
- Assistance with site design and engineer's construction cost estimate for the remedial design of a CERCLIS waste disposal facility.
  - ▶ Virginia Electric Power Company
- QA/QC monitoring oversight for a municipal waste landfill in Tazwell County, Virginia.
  - ▶ Tazwell County, Virginia
- Design of stream stabilization and restoration plan for a section of East Fork of Queer Creek in Hocking County, Ohio. Project included obtaining 401/404 certification and preparation of a detailed construction plan.
  - ▶ Columbia Gas Transmission Corporation

- Preparation of a permit to construct and site development plan for a secondary aluminum processing facility start-up in Jackson County, West Virginia.
  - Plasma Processing Corporation
- Feasibility study for the replacement of the CSX Ramp in Charleston, West Virginia
  - City of Charleston
- Business development, preparing proposals, and scheduling of staff for a 25-person office in Charleston, West Virginia.
- Cum Laude Graduate of Introduction to Professional Practice Course developed by Institute for Professional Practice. Topics included risk management, contract administration, communications, and other aspects associated with consulting and professional practice.
- Assessment of environmental and reclamation liabilities associated with over 40 surface mine permits in western Virginia. Evaluation included PCB concerns, reclamation costs, underground and aboveground storage tanks, and acid mine drainage.
- Completion of eight Phase I environmental site assessments for nursing and rehabilitation care facilities in West Virginia.
  - The Multicare Companies, Inc.
- Abandoned underground storage tank investigation including sampling of tank contents, geoprobe investigation, and field and laboratory analysis of soil samples.
  - Cannelton, Inc.
- Phase 2 environmental site assessment to characterize contamination at an abandoned mine facility. Concerns included underground storage tanks, extensive surface hydrocarbon contamination, PCBs, and asbestos concerns.
- Phase I environmental site assessment for property proposed for development as a strip mall.
  - DiMucci Development



**EDUCATION**

Charleston High School, 1989  
WVWEA O&M Short School

**CERTIFICATIONS**

WVDOH Compaction Inspector  
WVDOH Concrete Technician  
WVDOH Concrete Inspector  
WVDOH Asphalt Technician  
WVDOH Aggregate Inspector  
ACI Concrete Technician Grade 1  
NICET Level 1  
Fairmont State College Transportation  
Engineering Technician-Associate,  
2002

**EMPLOYMENT HISTORY**

2003-Present Potesta & Associates, Inc.  
2002 CTL Engineering, Inc.  
2000-2001 Site-Blauvelt Engineers  
1998-2000 Triad Engineering, Inc.  
1989-1998 Kroger Company

**AREAS OF SPECIALIZATION**

Sampling and testing of materials, including soils and concrete; installation of subsurface utilities. Testing included pressure testing of pipe lines, nuclear density, one-point proctor determinations, sand cone density tests, concrete/grout testing and cylinder/cube fabrication. Lab work included standard proctors, gradations, 200 washes, sieves, liquid and plastic limits, moistures, hydrometers, soil classification, sample logging and compressive strength testing.

**PROFESSIONAL EXPERIENCE**

- Resident Project Representative for Residuals project for West Virginia-American Water Company, serving as liaison to contractor and monitoring work for owner and engineer. Work included receiving materials, reviewing submittals and progress payments, drafting and issuing change orders, and preparing daily logs summarizing construction. Construction work included installation of sludge pumping station, 1,000,000 gallon concrete gravity thickener, plate settler, two 2.2-meter belt filter presses, chemical feed systems and conveyors, and a building to house equipment. Included was monitoring of pipe installation (e.g. backfill placement, pressure testing) for 25 different subsurface piping systems including 3/4-inch to 6-inch PVC and 4-inch to 24-inch ductile iron pipe.
- Resident Project Representative for installation of approximately 3,700 feet of 12-inch and 8-inch HDPE subsurface effluent piping system. Tasks included verifying that bedding and backfill compaction requirements were met, along with requirements for pressure testing of installed pipeline and vacuum testing of manholes. Also, maintained daily logs of construction activities, informed client of progress and/or complications and developed record drawings.
- Resident Project Representative for installation of approximately 14,000 feet of 8-inch water line for the Fisher Ridge-Phase II water line extension in Putnam County, West Virginia. Maintained daily logs of construction activities, verified pay requests, served as liaison with client, and developed record drawings.
- Resident Project Representative for installation of approximately 11,000 feet of 8-inch, 6-inch and 2-inch water line for the Mifflin-Sharples water line extension in Logan County, West Virginia. Included were upgrades to existing water line, a railroad crossing and connections to the existing Logan County Public Service District Sharples system. Maintained daily logs of construction activities, verified pay requests, served as liaison with client, and developed record drawings.
- Resident Project Representative for installation of approximately 9,000 linear feet of water line, a booster station, and a water storage tank at a coal mine complex in Logan County, West Virginia. Maintained daily logs of

construction activities, verified pay requests, served as liaison with client, and developed record drawings.

- Work experience includes various site development projects including placement of water, sewer, gas, electrical and storm water utilities associated with development.
- Worked as a field technician, testing soil and concrete for Kokosing/Frucon on Marmet Lock and Dam project. Also supervised Soils Lab. Field duties included job site documentation, sampling and testing of materials. Conducted nuclear density tests, sand cone density tests, one-point proctor determinations, concrete/grout testing and cylinder/cube fabrication.
- Worked as consultant inspector to West Virginia Division of Highways (WVDOH), overseeing work and progress of contractors to assure that projects meet WVDOH specifications. Duties included preparing daily reports, documentation of payable quantities of completed items (e.g., 200 LF of 24" RCP @ \$5/LF = \$1,000), contractor progress, time and material monitoring of additional work not included in the contract, file maintenance, receiving documents, attending meetings and maintaining public safety, as well as field inspection. Projects included Dry Run Bridge job and I-64 Institute to Dunbar project (including four bridges).
- Completed the following types of inspections:
  - Asphalt placement and compaction
  - Clearing and grubbing
  - Concrete
  - Fill placement and backfill
  - Free draining base trench
  - MSE wall
  - Pipe installation, backfill and testing
  - Piling
  - Structure demolition
  - Subgrade placement and compaction
  - Superstructure steel
  - Traffic control
- Inspected and tested asphalt placement, concrete placement, soil and aggregate compaction.
- Conducted core drilling, jobsite documentation, lab work, density tests, operating nuclear density gauges, fabricating concrete cylinders and conducting roller passes on stone.
- Concrete experience includes inspection and testing of concrete treated base (CTB) and Rapid Set Concrete for Yeager Airport, Charleston, WV.
- Assisted with surveying projects, running levels, conducting right-of-way surveys, locating utilities, houses, buildings and driveways on plans, searching property deeds and will books, setting property and centerline stakes, TBMs and hard points. Also worked as a rodman.

- Drilling experience includes logging split spoons and rock core samples, pumping water and reclaiming drill sites.

# MICHAEL B. SANKOFF

*Senior CADD Designer*



## EDUCATION

- B.S. Industrial Management, 1987  
West Virginia Institute of  
Technology
- A. S. Drafting and Design  
Engineering Technology, 1986  
West Virginia Institute of  
Technology
- A. S. Mechanical Engineering  
Technology, 1986  
West Virginia Institute of  
Technology

## EMPLOYMENT HISTORY

- 1997-Present Potesta & Associates, Inc.  
1996-1997 Terradon Corporation  
1989-1996 H. C. Nutting Company  
1988-1989 Peabody Coal Company  
1987-1988 Kelly, Gidley, Blair &  
Wolfe

## AREAS OF SPECIALIZATION

CADD design and field inspection.

## PROFESSIONAL EXPERIENCE

- Construction inspection, computer drafting and manual drafting.
- Computations and materials testing.
- Removal of underground storage tanks.
- Monitoring well installation.
- Exxon, SuperAmerica, Pennzoil, KRT
- Groundwater remediation (gasoline and diesel).
- KRT
- Environmental site surveys.
- Geoprobe soil sampling.
- Operated truck and skid drill rigs.
- Tested concrete cylinders.
- Performed proctor tests.
- Slope stability analysis.
- Groundwater sampling.

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: Potesta & Associates, Inc.

Authorized Signature: *Dana L. Burns* Date: March 1, 2011

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this      day of March, 2011.

My Commission expires February 14, 2014.

**AFFIX SEAL HERE**

NOTARY PUBLIC *Rhonda L. Henson*

