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September 30, 2009

West Virginia Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation c/o State of West Virginia Department of Administration **Purchasing Division** 2019 Washington Street, East Charleston, WV 25305

RE: Expression of Interest - Little Laurel Run Highwall Design RFQ #DEP14783

To Whom It May Concern:

Thrasher Engineering, Inc. is pleased to have the opportunity to submit this expression of interest and qualifications to provide engineering design services for the Little Laurel Run Highwall Design Project in Preston County, West Virginia. Our qualifications will provide the Department of Environmental Protection's Office of Abandoned Mine Lands and Reclamation with the highest level of service and technical proficiency in a timely and cost efficient manner.

Following our review of the information provided for the project, and a site visit, we have developed a thorough understanding of the project needs. With that understanding, we offer the following qualifications that the selection of Thrasher Engineering for this project will bring to the DEP and the Office of Abandoned Mine Lands:

Experience to Meet the Scope of Services: Through our site development department, Thrasher Engineering has provided survey, design and construction management services for site development projects on land which included the need to backfill highwalls. Additionally, we have mapped and designed numerous open channel drainage systems, and provided stream bank protection. As demonstrated in our qualifications, Thrasher Engineering has surveyed, mapped, designed and provided construction management services for more site projects than any other West Virginia engineering firm.

Successful Project Experience with AML: We provided engineering design services for AML DEP projects in Barbour County at Anglin's Run and in Randolph County at the Roaring Creek Stream project site. Additionally, in 2005, we were selected by the DEP to provide engineering design and mapping services for the Amherstdale and Ragland Road AML water line projects in Mingo and Logan Counties. As you are aware, each of these projects was completed on time. Thrasher Engineering also has extensive experience with water line projects in areas that are partially affected by AML; we recently provided engineering services for two partial AML projects for the Town of Masontown in Preston County.

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PURCHASING DIVISION

RFQ # DEP 14783 Page 2

Project Team: The qualifications of professionals on the team we have assembled to provide design services for this project are unmatched for this type of work. We have 25 engineers on staff, 14 of who are Registered Professional Engineers. Our Environmental Manager, Sheirl Fletcher, has over 20 years of environmental experience with a major coal company, with specific experience in acid mine drainage reclamation. Thrasher Engineering offers 13 fully staffed survey crews with experience in mining survey including pre and post subsidence and acid mine drainage. Our construction management team currently employs nearly 30 construction managers and inspectors, many with experience in site development and remediation projects. Our depth of personnel will allow us to start this project immediately.

Location and Area Knowledge: For 25 years, Thrasher Engineering, Inc. has provided top quality engineering services throughout West Virginia, including numerous clients in Preston County where this AML project is located. As the selected firm for this project, in conjunction with our other projects in Preston County, we can bring time and cost efficiencies to the Department.

With our experience with AML and drainage projects, our qualified personnel and our expertise and experience in Preston County, Thrasher Engineering is the right choice for this AML project.

Following the instructions outlined in the RFQ, this proposal contains information regarding Thrasher Engineering's history, qualifications and management and staffing capabilities along with the required DEP /AML Consultant's Confidential Qualifications Questionnaire and Matrix and an affidavit stating Thrasher Engineering has no debt owed to the State of West Virginia.

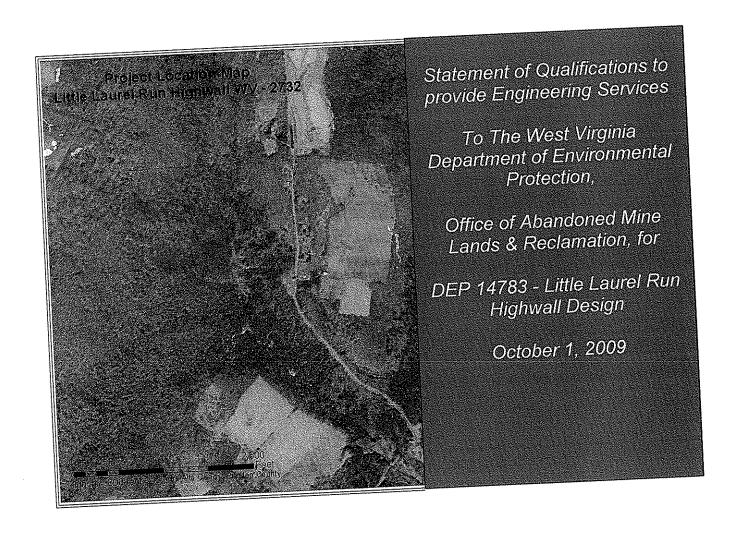
We thank you for your consideration of our qualifications and look forward to the opportunity to present our qualifications and project methodology to you in person.

Sincerely,

THRASHER ENGINEERING, INC.

Steven T. Engelhardt

Business Development Manager





Northgate Business Park 300 Association Drive Charleston, WV 25311 304-343-7601 304-343-7604 Fax 30 Columbia Boulevard P.O. Box 1532 Clarksburg, WV 26301 304-624-4108 304-624-7831 Fax

www.thrashereng.com thrasher@thrashereng.com 3000 Thayer Center Oakland, MD 21550 301-334-3866 301-334-4020 Fax

## STATEMENT OF QUALIFICATIONS

### FIRM OVERVIEW

## THRASHER ENGINEERING, INC.

#### Established

1983

#### Officers

H. Wood Thrasher, P.E., Kenneth P. Moran, P.E., P.S.

Kurt L. Newbrough, P.S.

#### **Partners**

Wm. Randy Watson Chadwick Biller, P.E. Chad Riley, P.E. Clay P. Riley, P.E. Daniel E. Ferrell, P.E.

Kenneth P. Moran, P.E., P.S.

Jonathan Carpenter, P.E.

President

Vice-President

Secretary/Treasurer

**Public Utilities** 

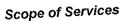
Site Development/Highways/Airports

Site Development **Public Utilities Public Utilities** 

Vice-President

Charleston Branch Manager/

**Public Utilities** 



Public Work - Water / Sewer / Treatment Plants / Facility Plans / Business and Industrial Parks Site Development - Industrial/ Business

/ Commercial / Residential

General Civil Engineering - Municipal Engineering /

Subdivisions / Paving / Highway/ Roadways / Recreational Trails Design

**Environmental Engineering** 

Architecture

Landscape Architecture

Land Surveying, Platting, Legal Description Preparation Construction Management / Materials Testing / Inspection

GIS Mapping and Software Development

#### Offices

30 Columbia Boulevard, Clarksburg, WV 300 Association Drive, Charleston, WV 3000 Thayer Center, Oakland, MD Main Street, Moorefield, WV - Field Office Princeton, WW - Pentree, Incorporated - Affiliate



Thrasher Engineering, Inc. Office -Clarksburg, WV



Thrasher Engineering, Inc. Office -Charleston, WV

## STATEMENT OF QUALIFICATIONS

Thrasher Engineering, Inc. is a civil engineering consulting firm, specializing in public works projects. The majority of Thrasher Engineering's work involves publicly funded water treatment and distribution systems, sewage collection and treatment systems, and industrial and business parks. Over \$600 million in water, sewer, site development, survey and construction management projects have been designed and supervised by the firm

H. Wood Thrasher and Henry A. Thrasher formed the company in 1983 with a commitment to excellence and professionalism in engineering. H. Wood Thrasher, P.E. remains principal of the company; also serving as principals are Kenneth P. Moran, P.E., and Kurt L. Newbrough, P.S.

Providing a full range of professional engineering services, Thrasher Engineering, Inc. currently maintains a staff of 170 full-time employees. Our staff includes registered professional engineers, graduate engineers, registered professional surveyors, and support staffing of surveyors, design technicians, CADD technicians, construction managers, and secretarial/clerical personnel. This professional staff has a wealth of experience and is our greatest asset. This includes not only the principals but also the technicians, surveyors, construction managers, and office support staff. Combining education with experience, the qualified staff of Thrasher Engineering strives to provide service that is second to none and is committed to maintaining a strong reputation for quality work. The company's full and diverse staff has the resources to handle many projects, both large and small, simultaneously.

#### **SERVICES**

The expertise of our company is confirmed in the variety of projects successfully completed. Areas of expertise that we believe are most beneficial to the WV Department of Environmental Protection Office of Abandoned Mine Lands and Reclamation for the DEP AML Little Laurel Run Highwall Design Project include:

### SITE DEVELOPMENT

Thrasher Engineering has planned, surveyed, designed and provided construction management services for over 30 site development projects for both public and private clients. Projects ranging from sites for residential housing to business and industrial parks to multi-purpose "live, work and play" communities are included in our range of

Storm water Pond, Canaan Federal Prison, Scranton, PA

site development projects. Our objective in site development engineering is to go beyond just the engineering aspect of the project; we work as a team with our clients to understand their present and future needs. With that information, we work with them to evaluate site locations that best suit their short and longterm goals.

Our Site Development Services Include:

Planning and Conceptual Design- evaluation of potential sites; recommendation of most functional, most cost-effective alternative; layout of site reflecting best use of land available; design of off-site and on-site (underground) including water service, sanitary sewer service, storm drainage facilities, telephone, electrical service, and television cable service; obtaining all permits necessary to allow construction including State Health Department for extension of water and sewer lines, WV Division of Environmental Protection Sediment and Erosion Control Permit, WV Division of Highways entrance permit, as well as any local permits required; roadway design; layout of industrial lighting; and construction management services to assure compliance with design.

Grading Plans - which includes development of cut and fill quantities and construction plans (showing existing and proposed contours, structures, and facilities on site) to allow for the best use of available land.

Utility Layout/Mapping - includes design of utility extensions to serve existing and proposed facilities, as well as the complete mapping of existing utilities.

### STORM WATER DRAINAGE / SEDIMENT AND **EROSION CONTROL**

Our experience includes development of Sediment and Erosion Control measures on all types of construction sites as required by the WV Division of Environmental Protection, design of drainage facilities including piping, intake structures, etc., for site stabilization and flood control.

Our staff members have considerable hydrologic and hydraulic design experience and have successfully obtained local, state,

and federal erosion and sediment control permits and National Pollutant Discharge Elimination System (NPDES) permits for point source and storm water discharges.

Capabilities in the evaluation and design storm water drainage include:

- Hydrology Studies / Hydrographic Mapping
- Storm Water Collection Systems
- **Detention Ponds**
- Injection Wells
- Underground Storage
- Combined Sewer Overload (CSO) separation



## ENVIRONMENTAL REPORTING SERVICES

Thrasher Engineering, Inc. provides full environmental assessment and clearance services. We have more than 18 years of experience conducting environmental/natural resource compliance consultation with West Virginia Division of Environmental Protection, (WVDEP), Federal Aviation Administration and Federal Highways Administration, US Department of Agriculture-Rural Development Utility Program, and US Environmental Protection Agency (EPA).

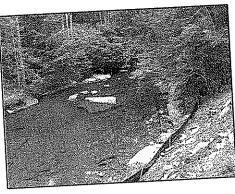
### Experience includes:

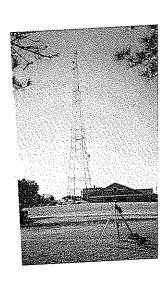
- Permitting Related Activities (401 and 404)
- NEPA Environmental Document Preparation
- Wetland Delineation and Mitigation
- Rare, Threatened and Endangered Species Section 7 Informal Consultation
- Rare, Threatened and Endangered Species Section 10 Habitat Conservation Plans
- Water Use and Water Quality
- Air and Noise Impacts, Assessments, and Controls
- □ Cultural Resources –(Sub contracted to a reputable and approved Cultural Resource Consultant)
- Hazardous Materials
- Sediment and Erosion Control
- Consent Orders
- Compliance Schedules
- SPCC Plans, Contingency Plans, Ground Water Protection Plans and Storm Water Pollution Site investigations Prevention Plans
- Waste Treatment and Site Remediation
- Waste Disposal
- Channel Restoration
- Stream Bank Stabilization
- **Enforcement Actions**

#### SURVEY

In addition to a full service professional engineering staff, Thrasher Engineering maintains a complete surveying department which includes four licensed professional land surveyors, ten full-time survey crews, CADD technicians, and office support staff.

We perform our work utilizing the most current methods and equipment available. Our survey work is accomplished using global positioning systems (GPS) and electronic distance measuring (EDM) survey stations with data gathering capabilities.





The type of surveys provided by Thrasher Engineering varies greatly as well and covers virtually all aspects of land surveying, such as:

<u>Pre- and Post-Mining Surveys</u> - vertical and horizontal control, inspector's report of protected structures, interior and exterior photographs, and videos. Thrasher Engineering provides these survey services for numerous coal companies, including Eastern and Martinka. Additional services performed for Eastern includes construction layout for impoundments, shaft site boundary and topographic surveys, map editing, and collection of well inventory data

<u>Boundary Surveys</u> - verification of land owners, traverse and location of existing monuments, computations of closure, establishment of property corners, actual field stakeout, and preparation of plats and legal descriptions for property owners.

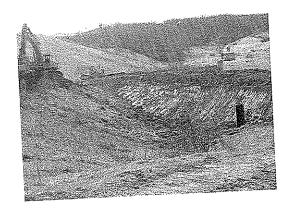
<u>Topographic Surveys</u> - location of existing features and determination of contours used in engineering layout of water distribution systems, sewer collection systems, industrial park layouts, etc.

<u>Construction Layout</u> - providing horizontal and vertical control for contractor's use and using this information to establish construction controls.

GPS Surveys - horizontal and vertical control networks

# CONSTRUCTION MANAGEMENT AND INSPECTION

Thrasher Engineering knows how projects should be built. We can provide the knowledgeable and experienced personnel necessary to manage the construction phase of your project. Our project managers and inspectors are experienced in all types of construction activities. From utilities, site development and storm water management to roads, bridges and airports, we apply our construction management and inspection expertise to ensure successful projects. Our construction managers and our inspectors have years of experience; many of our inspectors are certified by the West Virginia Department of Transportation / Division of Highways for roadwork and materials testing.



### **MATERIALS TESTING**

Thrasher Engineering's Materials Testing Department is capable of performing a wide range of field and laboratory tests. Our laboratory at our Clarksburg, WV office is one of only three nationally certified facilities in the State of West Virginia .Additionally, our engineers and technicians who perform tests both in the field and in the lab are also certified by the State.

Services Inc	lude:	
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	Concrete Testing and Inspection
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- □ Soil Testing and Inspection
- Aggregate Testing and Inspection
- □ Mortar and Grout
- Asphalt
- Paint Coatings
- □ Sprayed-on Fireproofing
- Subsidence Inspecting
- Caisson and Piling Inspection

### GEO-TECHNICAL SERVICES

For these projects, we will utilize Novell Geo-Environmental, a Certified Minority/ Women Business Enterprise (MBE/WBE).

## EQUIPMENT AND SOFTWARE

Thrasher Engineering, Incorporated provides one of the largest networks of computer aided design (CAD) equipment, software and trained personnel in the State of West Virginia.

AutoCAD Landdesktop 2008 and Microstation V8 software is utilized at 48 CAD stations within the Group. Additionally, equipment includes 10 large format (size E) plotters and 5 large format plotter / scanners.

CAD plans are prepared by both dedicated CAD employees and by staff engineers and engineering technicians in each of the firm's offices. This equipment allows our design department to perform accurate work quickly and efficiently. All departments have the capability to electronically transmit data to clients requesting this service. This blend of experienced personnel utilizing modern equipment results in successful projects and satisfied clients

## FIRM MANAGEMENT AND STAFFING

Thrasher Engineering offers the largest engineering staff in the State of West Virginia. The expertise of the Thrasher Engineering staff is a combination of education and experience; it is reflected in all aspects of our services. The firm is led by a talented group of principals and partners who are dedicated to the success of our projects and the satisfaction of our clients.

## FIRM OFFICERS AND PARTNERS

H. Wood Thrasher, P.E. - President Kenneth P. Moran, P.E. - Vice-President Kurt L. Newbrough, P.S.

Wm. Randy Watson Chadwick Biller, P.E.

Chad Riley, P.E. Clay P. Riley, P.E. Daniel E. Ferrell, P.E. Jonathan Carpenter, P.E. Administration
Chief Engineer
Survey / Inspection /
Materials Testing
Public Utilities
Site Development / Highways
/Airports
Site Development
Public Utilities
Public Utilities
Charleston Branch Manager

H. Wood "Woody" Thrasher, P.E. President of Thrasher Engineering, Inc. graduated from West Virginia University in 1977 with a degree in Civil Engineering. Since that time, he has utilized his engineering skills and entrepreneurial spirit to build Thrasher Engineering, Inc. into West engineering skills and consulting engineering firm. Mr. Thrasher has extensive experience in Virginia's largest civil and consulting engineering firm. Mr. Thrasher has extensive experience in all aspects of the engineering process, with emphasis on management and administration of multi-million dollar projects including funding and regulatory issues. Mr. Thrasher forms and supervises multi-project design teams and conducts client needs assessments.

**Kenneth P. Moran, P.E.** is Vice-President and Chief Engineer. Mr. Moran has 24 years of experience in civil engineering. He provides project management and technical review for both site development and public utilities projects. A graduate of Fairmont State University, Mr. Moran is a registered Professional Engineer (P.E.) in addition to a registered Professional Land Surveyor (P.S).

Also a partner and principal of Thrasher Engineering is **Kurt L. Newbrough**, **P.S**. Mr. Newbrough provides supervision of all survey activities for the firm performed by ten full-time survey teams. Mr. Newbrough is a licensed Professional Surveyor and has specialized training in OSHA Hazardous Waste Operations and Emergency Response Center in Addition to the US Department of Labor / Mine Safety and Health Administration. He also serves in the elected position as Harrison County (WV) Surveyor.

Public utilities system projects are the responsibility of Wm. Randall Watson. A graduate of Fairmont State University, Mr. Watson joined Thrasher Engineering in 1984 and is a firm partner. Clay P. Riley, P.E., also a firm partner, is involved in both water and sanitary sewer utilities projects. He is a graduate of the West Virginia University College of Engineering. Daniel E. Ferrell, P.E. is a graduate of West Virginia University and received his Master of Science Degree in Civil Engineering from Old Dominion University. He also is responsible for public utilities projects.

Chadwick Biller, P.E. and Chad M. Riley P.E., round out the senior managers of the company. Mr. Riley is a graduate engineer from Fairmont State University and supervises site development projects. Mr. Biller received his engineering degree from West Virginia University. He is responsible for mine reclamation, highways, roads, bridges and airport projects, in addition to site development.

### PROJECT TEAM

Thrasher Engineering has assigned a team of experienced professionals to the Little Laurel Run Highwall design project.

Kenneth P. Moran, P.E. will serve as Principal-In-Charge and Chief Engineer for the project. Mr. Moran is Vice-President of Thrasher Engineering, Inc. and oversees all engineering services provided by the firm.

Chadwick D. Biller, P.E. will be the Project Manager. His role in this project will be to oversee all design aspects of the project and work closely with the DEP/ AML office to ensure timeliness client satisfaction and oversee budgetary aspects. Mr. Biller is a Partner in Thrasher Engineering, Inc. and manages site development and survey projects, many of which include remediation, soil and erosion control and drainage aspects.

Mike Nestor will serve as Project Engineer and be responsible for design of the project. Mr. Nestor's experience includes drainage and sediment control design projects for site development projects. He recently served as design engineer for the Roaring Creek and Anglin AML projects in Barbour County.

Jeff Pine will be responsible for CAD design for the project. Mr. Pine provides design infrastructure projects including street and lot layout, street profiles, extension of the public sewer and water systems including utility plans and profiles, storm water drainage, storm water management, erosion and sediment control plans and NPDES permitting.

Environmental services will be managed by Sheirl Fletcher, Environmental Manager for Thrasher Engineering, Inc. Ms. Fletcher joined Thrasher Engineering, Inc. after serving 23 years as a geologist, hydrologist and environmental specialist with Consol Energy, Corporation. In that position, she participated in the engineering and final reclamation of five Consol Energy mines in Monongalia County.

The survey aspects of the project will be under the direction of **Kurt Newbrough**, **P.S.**Mr. Newbrough has over 20 years of experience in survey projects and significant project experience in pre and post mine subsidence surveys. These surveys have been conducted for experience coal companies at sites throughout the state. Mr. Newbrough will assign and oversee the work of the experienced survey crew.

Geo-technical services will be under the direction of Larry Nottingham of Novel Geo-Environmental, a Certified DBE business.

Should the DEP choose to retain Thrasher Engineering, Inc. for the construction monitoring aspect of the project, Thrasher Engineering, Inc. has one of the largest construction inspection teams in the State. Nearly 30 inspectors are available to provide services for the project. **Aaron Denham** serves as supervisor of Construction Management and Materials Testing. He is a graduate of Fairmont State University and is a Level V Certified Inspector by the WV DOH.

Resumes of the project team members follow as additions to the information included in the AML Consultant's Confidential Qualifications Questionnaire.

# KENNETH P. MORAN, P.E., P.S.



Vice President / Chief Operating Officer/ Chief Engineer

## SUMMARY OF EXPERIENCE

Mr. Moran joined Thrasher Engineering in 1991 and currently serves as Vice President and Chief Operations Officer and Chief Engineer.

Mr. Moran is responsible for management feasibility studies and design of public utility and site development projects for local state, federal and private clients. Additionally, Mr. Moran has extensive experience in all aspects of engineering and with funding and regulatory agencies in conjunction with projects.

### **EDUCATION**

☐ B.S., Civil Engineering Technology, 1983 – Fairmont State University

### **CERTIFICATIONS**

JEK HILLO	ATTOM
☐ Reg ☐ Reg ☐ Pro	istered Professional Engineer (PE), State of West Virginia #11309 istered Professional Engineer (PE), State of Virginia#0102021855 istered Professional Engineer (PE), State of Ohio #64412 fessional Land Surveyor (PS), State of West Virginia#1333
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Charge Mr. Moran has managed multiple projects for the Oity. Mr. Moran also	
Colonial Village Line Replacement Charge. Mr. Moran has managed multiple projects for the City of Clarksburg of Charge. Mr. Moran has managed multiple projects for the City of Clarksburg He has designed multiple pump stations and collection systems throughout the City of Clarksburg worked on various pump station systems and collection systems throughout the City of Clarksburg worked on various pump station systems and collection systems throughout the City of Clarksburg worked on various pump station systems and collection systems throughout the City to establish	
me has designed an various pump station systems and collection systems wastewater Treatment Facility.	
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worked on various pump station systems upgrades of their existing wastewater redundant and as Engineer in Charge management upgrades of their existing wastewater redundant and as Engineer in Charge management upgrades of their existing wastewater redundant and as Engineer and water project Engineer wastewater redundant and serious statements.	
This facility was a Term Control Plan solutions.	
This facility was a 6 million to 6 million solutions. their GIS and Long Term Control Plan solutions. Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer Town of Terra Alta, Sanitary Sewer Collection Improvements and WWTP — Project Engineer	
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and Project Wanagon and avandable Sequencing Batch Reaction (SBR) Wasternament System Water	
and Project Manager. Will Model and Project Manager. Will Model Batch Reaction (SBR) Wastewater Treatment a 250,000 gpd expandable Sequencing Batch Reaction and Treatment System Water  Hundred-Littleton PSD, New Sanitary Sewer Collection and Principal in Charge. Mr. Moran was System — Project Manager, Project Engineer and Principal in Charge. Mr. Moran was	
System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, Project Engineer and Principal in Charge, IM.  System – Project Manager, IM.  System – Project Manager	
System - Project manual Sewer Collection System project in and around the Mr. Moran was	
involved in the Santary Wastewater Treatment Facility. As Philoppie in Overstand the district.	
System – Project Manager, Project in and around the Town of Harden involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Town of Harden was involved in the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in and around the Sanitary Sewer Collection System project in an around the Sanitary Sewer Collection System project in an around the Sanitary Sewer Collection System project in an around the Sanitary Sewer Collection System project in an around the Sanitary Sewer Collection System project in an around the Sanitary Sewer	
involved with multiple tankinger for Water Extension to Prison and Project wide service to the	
Preston EDA, Chief English (8) mile water distribution system to finall fields for water	
project entailed the design of Prisons. This system included development of well loss allon elevated	d
Preston EDA, Chief Engineer 101  Preston EDA, Chief Engineer 101  Project entailed the design of an eight (8) mile water distribution system to provide solvide solvide project entailed the design of an eight (8) mile water included development of well fields for water Hazelton Federal Bureau of Prisons. This system included development of well fields for water Hazelton Federal Bureau water treatment facility, multiple booster stations, and a 1 million gallon elevated.	
supply and a new water document	
storage tank.	

	The state of the s
	Preston EDA, Chief Engineer for Park Utilities at Northpointe Industrial Park – Chief  Preston EDA, Chief Engineer for Park Utilities at Northpointe Industrial Park – Chief  Preston EDA, Chief Engineer for Park Utilities at Northpointe Industrial Park – Chief  Preston EDA, Chief Engineer for Park Utilities at Northpointe Industrial Park – Chief
	Preston EDA, Chief Engineer for Park Utilities at Northpointe Industrial Park  Preston EDA, Chief Engineer for Park Utilities at Northpointe Industrial Park  Engineer. Mr. Moran designed the water, storm sewer, sanitary sewer improvements for a new  Engineer. Mr. Moran designed the water, storm sewer, sanitary sewer improvements for a new  Engineer. This Industrial Park is located in the Hazelton area in Preston County. He also
	Preston EDA, Chief Engineer for factoring and Project Manager. Mr. Moran designed the water, storm sewer, sanitary sewer improvements for Engineer. Mr. Moran designed the water, storm sewer, sanitary sewer improvements for Engineer. Mr. Moran designed the water, storm sewer, sanitary sewer improvements for Engineer. Mr. Engineer. Mr. Son one and Sanitary Sewer Treatment Facility to serve the park.
	Engineer. Wil. World Industrial Park is located in the Hazelton area in 1 Took
	Industrial Park. This industrial Sewer Treatment Facility to serve the park.
	designed a 50,000 year. Nutter Fort, Sabarton - Project Engineer and Clorksburg, Nutter Fort,
	Food Lion, Clarksburg, National Food Lion in the areas of Clarksburg, water management
	Moran was involved in the site doveloped grading, sighting of the buildings, storm water management
	Moran was involved in the site development for Food Lion in the areas of Clarksburg, retained Moran was involved in the site development for Food Lion in the areas of Clarksburg, retained Moran was involved in the site development for Food Lion in the areas of Clarksburg, retained and Sabraton. His designs included grading, sighting of the buildings, storm water management and Sabraton. This project was a
	systems, water, and sewel.
	and Sabraton. His designs includes grand and Sabraton. His designs includes grand systems, water, and sewer.  systems, water, and sewer.  US Army Reserve Center, Clarksburg and Jane Lew – Project Engineer. This project was a systems, water, and sewer.  US Army Reserve Center, Clarksburg and Jane Lew – Project Engineer. This project was a system of the project team consisted of Mr. Moran and members of March Westin. Designs
	systems, water, and sewer.  US Army Reserve Center, Clarksburg and Jane Lew – Project Engineer. This project Engineer.  US Army Reserve Center, Clarksburg and Jane Lew – Project Engineer. This project Engineer this project Engineer. This project Engineer
	I I I I I I I I I I I I I I I I I I I
	services including grading, drainage, stort Engineer. Mr. Moran designed the wastewater
	Calhoun County right School He also provided site drainage, design set
	services including grading, drainage, starting of the wastewates.  Calhoun County High School – Project Engineer. Mr. Moran designed the wastewates and services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage, design services including treatment facility for the package plant. He also provided site drainage facility faci
	treatment facility for the package package in the design of site grading, drainage, storm water management, water and sewer.  Harrison County Bank – Project Engineer. Mr. Moran was involved in the design of site Harrison County Bank – Project Engineer. Mr. Moran water and sewer. grading, storm water management, site drainage, design services, water and sewer.
	grading, Storm water management and Moran designed the site grading
	☐ Harrison County Bank = Project Engineer, design services, water and sewer.  grading, storm water management, site drainage, design services, water and sewer.  Peoples State Bank - Project Engineer. Mr. Moran designed the site grading, storm water peoples State Bank - Project Engineer. Mr. Moran designed the site grading, storm water and sewer.
	Peoples State Bank – Project Engineer. With Moran was primarily involved with the management, site drainage, all design services, water and sewer.  management, site drainage, all design services, water and sewer.  management, site drainage, all design services, water and sewer.  management, site drainage, all design services, water and sewer.  management, site drainage, all design services, water and sewer.  management, site drainage, all design services, water and sewer.  management, site drainage, all design services, water and sewer.  management, site drainage, all design services, water and sewer.  management services are services, water and sewer.  management services are services are services and sewer.  management services are services are services are services are services.  management services are services are services are services are services.  management services are services are services are services are services.  management services are services are services are services are services.  management services are services are services are services are services.  management services are services are services are services are services are services.  management services are services are services are services are services are services.  management services are services.  management services are services.  management services are
	Big Elm Elementary School - Project 213
	management, site drainage, all design design. Mr. Moran was primarily involved with the Big  Big Elm Elementary School – Project Engineer. Mr. Moran was primarily involved with the Big  Department of Highway's road widening of Route 19 and turning lanes for the entrance of the Big  Department of Highway's road widening of Route 19 and turning lanes for the entrance of the Big
	Elm Elementary School Access Road - Project Engineer. This project Drive Mr. Moran
	Robert C. Byrd High Scridol Access Access of Route 98 and Robert C. Byrd Drive. Will drainage.
	widening and turning larges draw of Robert C. Byrd Drive including paverners, dispersion
	designed the complete and he was involved in all aspects of the project. Broinet Engineer. Mr.
Y	relocation of all utilities and of US Route 19 and Turning Lanes of turning lanes. Mr.
× /	relocation of all utilities and the was involved in the was involved in every aspect of the project.  Tincoln High School, Widening of US Route 19 and turning lanes. Mr. Moran's involvement with this project was the widening of US Route 19 and turning lanes. Mr. Moran's involved in the design of the pavement, alignment, drainage, relocation of all utilities Moran was involved in every aspect of the project.
	Moran's involvement with the design of the payement, alignment, drainage, relocation of all alignment
	Moran was involved in the project of the project.
	and was involved in the Project C. Byrd Industrial Park - Project Eighte 58 new roads through
	Hardy County EDA - Robert O. Dy. Her road widening of Route 30, New York on the design for the road widening of Route 30, New York of the Hardy County EDA - Robert O. Dy.
	Manager Wil, Words worth and facility Walet, Sewel, Comment
	the industrial park, stormwater management point facility, which is industrial park, stormwater management point facility.  lighting, and a 20,000 gpd expandable Wastewater Treatment Facility.  lighting, and a 20,000 gpd expandable Wastewater Treatment Facility.  Replact Engineer and Principal in Charge. Over the last 15 years Mr.
	lighting, and a 20,000 gpt of Engineer and Principal in Charge. Over the city of
	☐ City of Kingwood - Projects and sanitary sewer projects and selection systems
	Moran was involved in multiple water pump station systems, sewer concentration charge, he was
	Kingwood. He also willingwood sanitary sewer and water system. As Thiolean As
	Moran was involved in multiple water projection systems, sewer collection systems. Kingwood. He also worked on various sewer pump station systems, sewer collection systems. Kingwood. He also worked on various sewer and water system. As Principal in Charge, he was throughout the City of Kingwood sanitary sewer and water system. As Principal in Charge, he was throughout the current several project in the collection systems.
	throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout the City of Kingwood sanitary sewer and water system throughout throughout the City of Kingwood sanitary sewer and water system throughout throughout throughout through the city of Kingwood sanitary sewer and water system throughout throughout throughout through the city of Kingwood sanitary sewer and water system through the city of the city of the city of the city of through the city of the city of the city of through the city of the city
	expandable (SBN) waste Project Engineer/Project Manager
	<ul> <li>Preston County Sewel 1 County Sewel 1</li></ul>
	designed a new 2.5 million gallon visit

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## CHADWICK D. BILLER, P.E.

Partner / Project Manager



Mr. Biller has experience in all aspects of engineering with specific emphasis on site development, highways, roads, bridges, and airports. Mr. Biller joined Thrasher Engineering in 1999 and is a partner of Thrasher Engineering. For Thrasher Engineering, Mr. Biller is responsible for WV DEP AML project and public and private site development projects, specializing in airports, highways, roads and bridges. As Project Manager for all of the firm's WVDOT/DOH projects, he has extensive

roads and knowledg	I bridges. As Project Manager for all of the IIIII S WVB 9
EDUCA B	<u>TION</u> .S., Civil Engineering, 1992 – West Virginia University
□ R □ R	FICATIONS Registered Professional Engineer (PE), State of West Virginia #13620 Registered Professional Engineer (PE), State of Pennsylvania #PE056012E Registered Professional Engineer (PE), State of Ohio #64594
DEDRE	SENTATIVE PROJECT EXPERIENCE
Site Dev	velopment Projects WV DEP Anglin's Run and Roaring Creek Projects WV DEP Anglin's Run and Roaring Creek Projects Taylor County Commission, Re-roofing of Courthouse and Jail Taylor County County Aerospace Center Fairmont State University Aerospace Center Raleigh County Memorial Airport Industrial Park Putnam Business Park Wood Products Business Park Wood Products Business Park Aurora Flight Sciences Various Subdivision in Berkeley County Ranging From 12 to 420 Lots Various Subdivision in Berkeley County Ranging From 12 to 420 Lots Site Plans for Hi-Tech Consortium Expansion, Fairmont, WV Site Plans for Nippon Thermostat, Green Metals and Schwans, Putnam County
00000	Wingate Hotel, Charles Pointe, Bridgeport, WV Wingate Hotel, Charles Pointe, Bridgeport, WV Daycare Center and USDA Parking Lot, Hardy County City of Pleasant Valley, Sidewalks Snowshoe Mountain Resort / Intrawest – The Seneca Wetland Replacement Project, Putnam County
<u> </u>	Shinnston City Park, including Food Bridge
Airpo	orts Harrison Marion Regional Airport – Improvement Master Plan Regional Provinces Park and Master Plan

- ☐ Raleigh County Airport Business Park and Master Plan
- ☐ Grafton Hospital, Helipad Relocation

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Old Shirt Color of the Color of	d Bridgeport Hill New Storm Drainage System browshoe Drive Upgrade ng Coal Highway bra Alta Curve brodgeville Road bridgeport Bypass bridgeport Bypass bridgeport Bypass bridge of US Route 19 bridgeport Bypass bridgerick Creek Connector bridge Bridgeport, Valley Drive, Chenoweth Drive, Village Drive and Meadowbrook Mall bridgeport, Valley Drive, Chenoweth Drive, Village Drive and Meadowbrook Mall bridge Rehabilitation of the 5th Street Bridge, Parkersburg bridge Rehabilitation of the 3th and 3th Street Bridges, Charleston bridge Replacement, Lewis Co. bridge Replacement, Logan Co. bridge Replacement, Logan Co. bridge County High School Bridge Replacement bridge Marion County

### MIKE NESTOR, E.I. Project Manager / Engineer



Mr. Nestor joined Thrasher Engineering in 2005 and serves as Project Manager and Engineer. Mr. Nestor has a wide range of experience in residential and commercial site development projects, all aspects of infrastructure design including street and lot layout, street profiles,

utilizing a extension erosion a general o	s a wide range of experience in residential street and lot layout, street profiles, all aspects of infrastructure design including street and lot layout, street profiles, all aspects of infrastructure design including street and lot layout, street profiles, all aspects of public sewer and water systems, storm water drainage, storm water and water sees all not seed and s
EDUCA	<u>TION</u> 3.S. Civil Engineering Technology – Fairmont State University, 2003
CERTII	F <u>ICATIONS</u> Engineer Intern, State of West Virginia
AFFILI O	<u>ATIONS</u> American Society of Civil Engineers Eastern Panhandle Home Builders Association
REPR	ESENTATIVE PROJECT EXPERIENCE  WV DEP AML PORTAL AND DRAINAGE DESIGN- Design for access roads, drainage control  WV DEP AML PORTAL AND DRAINAGE DESIGN- Design for Anglin's Run and Roaring Creek
	WV DEP AML PORTAL AND DRAINAGE DESIGN- Design for access roads, drainage obtained by the channels, re-grading and wet-seal of deep mine portals for Anglin's Run and Roaring Creek channels, re-grading and wet-seal of deep mine portals for Anglin's Run and Roaring Creek
	eites in Barpour County.
	MILLARDSVILLE VILLAGE – 26 townhouse lots on approximately 36.73 acres. sketch plat, storm water management design, and street profiles.
	FAIRFAX FARM Section 2 10 this section and
	Completed development of drainings and design.  plan, layout of lots, and Preliminary Plat design.  plan, layout of lots, and Preliminary Plat design.  PIKESIDE MEADOWS Section E – 63 townhouse lots on approximately 17.51 acres.  PIKESIDE MEADOWS for Public Service Districts.
	PIKESIDE MEADOWS Section 2 Project Districts.
	I ITTLE GEORGETOWN ESTATES A List layout sentic layout, design of sediment washing
	Prepared drawings for Fusike Sections 1 and 2 – 64 single family residential to LITTLE GEORGETOWN ESTATES Sections 1 and 2 – 64 single family residential to LITTLE GEORGETOWN ESTATES Section 3 approximately 127 acres. Completed lot layout, septic layout, design of sediment basin, approximately 127 acres consists and sediment control, and Preliminary Plat. turning lane, erosion and sediment control, and Preliminary Plat.
(m)	approximately 127 acres. Complete Supproximately 32.81 turning lane, erosion and sediment control, and Preliminary Plat. turning lane, erosion and sediment control, and Preliminary Plat. turning lane of turning lane on WV Route 51.
اسا	WEBBER SPRINGS Section 3 – 119 Single turning with Space of turning lane on WV Route 51.  acres. Completed design of turning lane on WV Route 51.  BROOKSIDE ESTATES Section 1 – 60 single family residential lots on approximately 101.86  BROOKSIDE ESTATES Section 1 – 60 single family residential lots on approximately 101.86
	BROOKSIDE ESTATES Section Blat design along with septic reserve layout and minute grant of
	acres. Completed Sketch Flat Goodge and profiles.  CREEKSIDE MEADOWS – 95 single family residential lots on approximately 101.86 acres.  CREEKSIDE MEADOWS – 95 single family residential lots on approximately 101.86 acres.
	and profiles.  CREEKSIDE MEADOWS – 95 single family residential lots on approximately formula and control of storm and lot layout. Sketch Plat design, water and sewer extensions, and design of storm and lot layout.

Completed lot layout, Sketch Plat design, water and sewer extensions, and design of storm ☐ MULLBERRY KNOLL – 10 townhouse lots on approximately 1.5 acres. Completed Sketch Plat design, water and sewer extension, grading plan, erosion and sediment control plan, and design of storm water management facilities.

Annual Control of the	SHENANDOAH OFFICE PARK – Two commercial buildings totaling 50,000 sf. Sketch Plat
	design.  SPRING HILL Section 6 – 15 single family residential lots on approximately 10 acres.  SPRING HILL Section 6 – 15 single family residential lots on approximately 10 acres.  Completed design of storm water management, grading plan, and preparation of drawings  Completed design of storm water management, grading plan, and preparation of drawings
	Completed design of storm water and for Preliminary Plat submittal.  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5  MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5
۵	Preliminary Plat design.  NATIONAL PROPANE – Bulk Propane Storage Facility and office space of approximately and office space of approximately approximately plan, erosion and 5.5 acres. Completed Sketch Plat, water and sewer extensions, grading plan, erosion and 5.5 acres. Completed Sketch Plat, water and sewer extensions, grading plan, drainage plan, design of storm water management facility, and
<u> </u>	Preliminary Plat design.  BACK CREEK ACRES – 3 single family residential lots on approximately 6 delections of the BACK CREEK ACRES – 3 single family residential lots on approximately 6 delections of BACK CREEK ACRES – 3 single family residential lots on approximately 6 delections of BACK CREEK ACRES (NEED NATIONAL MEDICINE – Completed Site Plan for city approval of 800 sf
	office addition.  CHESTNUT HILL ESTATES – 29 single family residential lots on approximately of a second control of the second contr
	2 SPRING HILL Section 7 2 7 single statements on the Section 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8
	Preliminary Plat design.  Preliminary Plat design.  WILLIAMSPORT PARK ROAD EXTENSION – 650 foot road extension in Williamsport, management, profiles, with the strength including grading, drainage, storm water management, profiles,
1	permitting, and specifications.  INWOOD AND BAKER HEIGHTS WASTE WATER TREATMENT PLANTS - Composition of the second
	Plans for county approval of the
	erosion and sediment control plans  Preliminary Plat design.  CHUCK'S PIZZA – Completed Site Plan for 1,200 sf pizza shop on approximately 1.67 acres.  CHUCK'S PIZZA – Completed Site Plan for 1,200 sf pizza shop on approximately 1.67 acres.
	storm water management.  FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FeDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, motions of FeDEX SMARTPOST – Upgrades to existing fedEx SmartPost location, motions of FeDEX SMARTPOST – Upgrades to existing fedEx SmartPost location, motions of FeDEX SMARTPOST – Upgrades to exist location of FeDEX SMARTPOST – Upgrades to exi
	granted approval with county some granted approval with a some granted approval with county some granted approval with the
	drawings, and specifications.  TBA OFFICE SITE – Construction of two new office buildings totaling 6,200 sf on TBA OFFICE SITE – Construction of two new office buildings totaling 6,200 sf on and sediment approximately 1.6 acres. Completed Sketch Plat, grading plan, and erosion and sediment control plan.

April 1

775

### JEFF PINE CADD Operator



## SUMMARY OF EXPERIENCE

Mr. Pine joined Thrasher Engineering in 2005 and serves as CADD Operator for the firm. His duties entail all aspects of infrastructure design including street and log layout, street profiles, extension of the public sewer and water systems including utility plans and profiles, storm water drainage, of the public sewer and water systems including utility plans and promes, storm water storm water management, erosion and sediment control plans and NPDES permitting.

EDUC	CATION CONTRACTOR OF THE PROPERTY OF THE PROPE
	Certificate, Computer Aided Design – Hagerstown Community College Diploma – Clear Spring High School
	<u> </u>
	Certified Forklift Operator through Bragunier Masonry
REP	RESENTATIVE PROJECT EXPERIENCE
0	WV DEP AML PORTAL AND DRAINAGE DESIGN- Design for access roads, drainage control  WV DEP AML PORTAL AND DRAINAGE DESIGN- Design for access roads, drainage control  We need wet-seal of deep mine portals for Anglin's Run and Roaring Creek
	sites in Barbour County.
<u> </u>	Mockingbird Mobile Home Fark 22 to the Mockingbird Mobile Home Fark 22 to the for proposal for proposal Maidstone on the Potomac – Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual wells and Brookside Estates – 60 Single family residential lots on 125 Acres with individual well and Brookside Estates – 60 Single family residential lots on 125 Acres with individual well and Brookside Estates – 60 Single family residential lots on 125 Acres with individual well and Brookside Estates – 60 Single family residential lots on 125 Acres with individual well and Brookside Estates – 60 Single family residential lots on 125 Acres with individual
	well locations
о 0	Leisure Living Estates - Concept plat, utility plan and profile
_ _	The Darkalay Associates VIIIV
	Mockingbird – Minor Subdivision  Mockingbird – Minor Subdivision  Eco-Lab IWTP Upgrade – Define site data  Eco-Lab IWTP Upgrade – Define site data  Fed Ex Smart Post – Site plan, pricing for barriers and parking cable  Fed Ex Smart Post – Site plan, pricing for barriers and parking cable  Fed Ex Smart Post – Section 1 – 20 single family residential lots served by public utilities,

## SHEIRL FLETCHER, LPG

Environmental Manager

**EDUCATION** 



## SUMMARY OF EXPERIENCE

Sheirl Fletcher joined Thrasher Engineering, Inc. in 2007 and serves as Environmental Manager for the firm. Prior to joining Thrasher, Sheirl served as Environmental Manager for a major coal firm. She has more than 20 years experience and brings comprehensive knowledge of environmental regulatory programs and reporting requirements in multiple states to our clients' projects, along with technical expertise in environmental engineering, geology and hydrology

☐ West Virginia University, Morgantown, WV - Bachelor of Science- Geology

☐ Co	onal Training ontemporary Supervision onflict Management Fluence Management
CERTIFI Li C	I <u>CATIONS</u> censed Professional Geologist (LPG), Commonwealth of Pennsylvania ertified Professional Geologist (COG), State of West Virginia
EXPERI	
□ P	nental Management and Safety Compliance Preparations of applications for required operating permits and licenses regarding air Preparations of applications for required operating compliance with all state and Preparations of applications of the second of
f	ederal regulatory requirements.  Responsible for compliance with all environmental regulations, including interface with responsible for compliance with all environmental with company's policies and procedures.  Provironmental regulators, in a manner consistent with company's policies and procedures.  Responsible for compliance with OSHA (Occupational Safety and Health Administration)
	Assure full compliance with Committee of the Assure full compliance with Committee of the Preparation of NEPA documents including Environmental Impact Responsible for the preparation of NEPA documents including Environmental Assessments.
	Responsible for the preparation of NE. Proceedings of the Responsible for the preparation of the Responsible for the provided technical report of findings. Statements and Probable Hydrologic Impact Studies and provided technical report of findings. Developed Probable Hydrologic Impact Studies and provided technical report of the Responsibility of the
	Developed Probable Hydrologic impact Status  Developed Probable Hy
	accurate filings.
u	Compiled and reported environmental Control.  Environmental Quality Control.  Monitored projects to ensure that they were on task in reaching goals and objectives while monitored projects to ensure that they were on task in reaching goals and objectives while monitored projects to ensure that they were on task in reaching goals and objectives while
	staving within budgetary immost
	Inspected construction sites, and waste water deductions. systems for conformance with federal, state, or local regulations. systems for company personnel of inspection findings and explained how problems were Informed company personnel of inspection findings and explained how procedures.
a	prevented or corrected.  Contributed to the development of company policies, goals, objectives, and procedures, with respect to compliance of environmental regulations.  With the compliance of outside consultants providing necessary services.
a	with respect to compliance of environmental regulations.  Oversaw activities of outside consultants providing necessary services.  Oversaw activities of outside consultants providing necessary services.  Managed staff, prepared work schedules and assigned specific duties.
0	Managed staff, prepared work sollowards

	_
Ged □	logy Analyzed and interpreted geological, geochemical, and geophysical information from sources such as survey data, well logs, bore holes, and aerial photos. sources such as survey data, well logs, bore holes, and surveys by: development of drilling
	Planned and conducted geological field stadies and state and conducted geological field stadies and state and reports concerning
	pad sites, soils and subsurface drilling to collect data for interpretation, pad sites, soils and subsurface drilling to collect data for interpretation. Prepared geological maps, cross-sectional diagrams, charts, and reports concerning mineral extraction, land use, and resource management, using results of field work and laboratory research.
	laboratory research.
Hy⊓	drology Studied and documented quantities, distribution, disposition, and development of
آسا	underground and surface waters.  underground and surface waters.
u	Designed and conducted scientific hydro-geologic involves and appropriate information was available for use in water resource management
	decisions.  Coordinated and supervised the work of professional and technical staff, including
	Coordinated and supervised the work of processing consultants, engineers, technologists, and technicians.  consultants, engineers, technologists, and technicians.
	consultants, engineers, technologists, and technicians.  Drafted final reports describing research results, including illustrations, appendices, maps,
<b>W</b>	and other attachments. Studied wastewater and storm water issues, including flood and drought risks, water
	Studied wastewater and storm water issues, including to studied wastewater, and impacts on wetland habitats. quality, wastewater, and impacts on wetland habitats.
	quality, wastewater, and impacts on wetland habitats.  quality, wastewater, and impacts on wetland habitats.  Assessed ground and surface water movement to provide advice regarding issues such as  Assessed ground and surface water movement to provide advice regarding issues such as
البيا	Assessed ground and surface water movement to provide advice regarding and sites.  waste management, route and site selection, and the restoration of contaminated sites.  waste management, route and site selection, and the restoration of contaminated sites.
	Applied research findings to help littlimize the
	Applied research interngence in Applied research interngence borne diseases, erosion, and sedimentation.  Investigated complaints or conflicts related to the alteration of public waters, gathering investigated complaints or conflicts related to the alteration of progress, and preparing
	Investigated complaints or conflicts related to the alteration of public victors, gain preparing information, recommending alternatives, informing participants of progress, and preparing
	draft orders.
	Determined sampling locations and methods, and collected water of transfer of the collected water. Or transfer of the collected water of transfer of the collected water of the collected water of transfer of the collected water of transfer of transfer of the collected water of transfer of trans
	See entring to the

Larry C. Nottingham, PhD, PE

Mr. Nottinhham served as a Principal Engineer at Triad Engineering, Inc. for over 25 years before joining the professional staff at NGE. During that time he has accumulated a broad range of experience in the numerous disciplines of geotechnical engineering. Mr. Nottingham also served as a professor and department chair of the Civil Engineering Department at the West Virginia University Institute of Technology in Montgomery, West Virginia. Mr. Nottingham was involved with consultation and review of many subsidence-related projects performed for BRIM as well as the WVDEP.



#### Fields of Competence

- Foundation Investigations
- Landslide Analysis & Remedial Design
- Mine Subsidence Investigations
- Highway & Airport Geotechnical Design
- Pavement Analysis & Design
- Retaining Wall Design
- Forensic & Insurance Investigations
- Expert Witness Consultation
- Ground Water and Seepage Analysis & Design
- Dam Analysis & Design
- Personnel Management
- Project Management
- Project Estimating

#### Education

- B.S.C.E., Civil Engineering, West Virginia Institute of Technology, 1965

  M.S.C.E., Civil Engineering, University of Pittsburgh,
- Ph.D., Civil Engineering, University of Florida, 1975

#### Registration/Certifications

Registered Professional Engineer in West Virginia,

Kentucky, and Ohio

#### **Employment History**

· May 2005 - Present

Senior Engineer, Novel Geo-Environmental, PLLC

• 1979 - May, 2005

Principal Engineer, Triad Engineering, Inc.

• 1989 - 1994

Professor and Department of Civil Engineering Chair, West Virginia Institute of Technology

• 1975 - 1979

Senior Engineer, Fugro Gulf, Inc., Houston, Texas

• 1970 - 1974

Project Engineer, Florida Department of

Transportation

1967 – 1970

Project Engineer - Ackenheil & Associates. Inc.



### Kurt Newbrough, P.S. Partner / Field Services Supervisor

Mr. Newbrough serves as Secretary of Thrasher Engineering in addition to being a Partner of Resource Engineering Group and is Survey Supervisor for the firm. Mr. Newbrough has extensive knowledge in all aspects of surveys and is responsible for the assignment and review of all survey activities of his seven fully staffed survey teams. He is experienced in various types of surveys including, but not limited to boundary, topographical, construction layout and GPS for both public and private clientele. Survey projects are performed for each of the Resource Engineering Group companies' public and private clientele, as well as on an independent contract basis. Mr. Newbrough is a Registered Professional Surveyor and holds the elected position of County

Surveyor for Harrison County, West Virginia.

#### **EDUCATION**

Surveying

John Tyler Community College, Chester, Virginia United Career Center, Clarksburg, West Virginia

#### REGISTRATIONS

Professional Land Surveyor, State of West Virginia Certification, OSHA Hazardous Waste Operations and Emergency Response Center Certification, U.S. Department of Labor/Mine Safety and Health Administration

#### **AFFILIATIONS**

West Virginia Association of Land Surveyors American Congress on Surveying and Mapping

Co	PRESENTATIVE PROJECTS nstruction Layout Fairmont State University; Various Projects Associated with the 10-Year Infrastructure Improvement Master Plan City of Bridgeport; Charles Pointe Development Harman Construction, Incorporated Calvert Excavating and Paving, Incorporated Howard Concrete Dodd Corporation Mid-Atlantic Storage System, Incorporated		Fairmont State University; Various Projects Associated with the 10-Year Infrastructure Improvement Master Plan Town of Moorefield; North and South Levee Areas US Army Corps of Engineers Flood Control USARC Sites US Department of Justice; FBI Fingerprint Identification Complex Hardy County Rural Development Authority
Topographical Surveys		GPS Surveys	
	West Virginia Department of Transportation/Division of Highways	a	US Army Corps of Engineers, Baltimore District
	Harrison County Board of Education Gandee and Partners; Huntington Summit	0	Benatech Associates
	High School William A. Bruce, AIA; Food Lion Stores	<u></u>	100, 11100, 1110

### AARON DENHAM





SUMMARY OF EXPERIENCE

Mr. Denham joined Thrasher Engineering in 2000 and serves as Field Supervisor for the firm. Mr. Denham is responsible for construction management, inspection and materials testing for Denham is responsible for construction management, inspection and materials testing for highway, airport, site development, structural and public utilities projects.

**EDUCATION** 

B.S. Civil Engineering Technology, 1999 – Fairmont State University

□ B.S. Civil Engineering Technology, 1999 – Fairmont State University
CERTIFICATIONS  CERTIFICATIONS  CERTIFICATIONS  CERTIFICATIONS
Fairmont State University Level V Certification Transport
Fnaineering Specialization
□ MA/DOH Compaction inspector
□ MA/DOH Concrete Inspector/Technician
¬ му/рон Aggregate Sampling Inspector
¬ мулоµ Aggregate Technician/inspector
☐ WVDOH Bituminous Inspector/Technician
varoou Padiation SateIV
☐ WVDOH Radiation Surety ☐ Troxler Basic Safety – Nuclear Compaction Gauge
REPRESENTATIVE PROJECT EXPERIENCE
☐ Army Corp of Engineers, Tygart Dam
- Indian County Airport
Denodum Airnort Authority 2001 Waster Flan
Denodum Airport Alithority 2002 Waster France
Denodum Airnort Allthority 2003 Waster France
Repedim Airport Authority, 2004 Waster France
🗀 Ruby Memorial Hospital NE Addition
☐ Health Science Learning Center
□ WV National Cemetery Expansion
□ Fairmont State University
☐ Institute for Scientific Research
☐ I-68 Welcome Center
Stockmeier Urethanes  "I Milean Boulevard Demolition and Parking Lots; Lead
Fairmont State University Squibb Wilson Boulevald Bellionists
Increator & Testina
· · · · · · · · · · · · · · · · · · ·
City of Pleasant Valley Sidewalk Project, Lead Inspector Control
n wvDOH South High Street Bridge
☐ Wheeling Route 2 Bypass
☐ Lake Floyd Dam
☐ Baker Dam Site 10
☐ City of Bridgeport 279 By-Pass
☐ Mon-Favette Expressway
□ WVDOH Meadowbrook Road
☐ Fetterman Bridge

## REPRESENTATIVE EXPERIENCE

Thrasher Engineering offers significant experience in open drainage and sediment and erosion projects in addition to abandoned mine lands projects, covering a broad range of expertise. In the following section are examples of our experience in each of these areas related to the Little Laurel Run Highwall design project:

## ABANDONED MINE LAND PROJECTS

## WV DEP ABANDONED MINE LANDS – ANGLIN'S RUN #1 AND ROARING CREEK STREAM RESTORATION PROJECTS

Client:

WV DEP

Office of Abandoned Mine Lands and Reclamation

304-926-0485

This area includes a total of eight (8) collapsed mine portals with at least 5 of them having discharges ranging from 1 to 10 gpm. Total flows were estimated to be between 25 and 30 gpm. Thrasher Engineering's preferred scope and preliminary plans for this project include construction of an access road into the site, excavation and wet seal of at least eight (8) deep mine portals and the re-grade and fill of subsidence sinkholes. To carry water safely off site, drainage control channels, conveyance pipe and under drain will be constructed. All areas disturbed by construction will be soil covered, conditioned and re-vegetated.

Roaring Creek Stream Barbour County This project involves the elimination of subsidence depressions, the closure of open portals and the treatment of AMD. The Roaring Creek Watershed was heavily deep mined and surfaced mined prior to 1977. The project area consists of 3 open and 3 closed portals discharging AMD, AMD seeps along the unnamed tributary and an area of subsidence, which drains surface water into the mine workings. AMD flow from the deep mine portals ranges from 10 gpm to 100 gpm with PH ranging from 3.1 to 5.0. The seeps along the UNT showed an average PH of 3.3. Construct and rehabilitate access roads to the sites. Install wet seals at the portal locations (4 Portals total). Thrasher Engineering's preliminary plans include re-grading the subsidence area to prevent surface water from entering the mine workings, and installing an emergency spillway on the existing pond which will be designed to handle the additional flow.







## WV DEP ABANDONED MINE LANDS - AMHERSTDALE (LOGAN COUNTY) PRE-SETTLING BASIN AND PRE-TREATMENT FACILITY PROJECT

Client:

WV DEP

Office of Abandoned Mine Lands and Reclamation

Project Description: The AML affected area is located in Logan County on CR 16, west of the city limits of Man, a distance of approximately 12.6 Miles.

The scope of the project is the design and construction of a pre-settling basin and pre-treatment system to remove metals and turbidity from the existing water sources, allowing the water existing treatment facility to utilize the surface and groundwater.

The scope of services Thrasher Engineering provided for this project included:

Survey, supervision of subsurface investigation, environmental review, preparation of design, drawings, development of construction documents.

## WV DEP ABANDONED MINE LANDS – RAGLAND (MINGO COUNTY) WATER LINE **EXTENSION PROJECT**

Client:

WV DEP

Office of Abandoned Mine Lands and Reclamation

304-926-0485

Project Description: The AML affected area is located in the Midwestern portion of Mingo County. The area is approximately 2.6 square miles The scope of services Thrasher Engineering provided for this project included: survey, supervision of subsurface investigation, environmental review, design, development of construction documents. Upon construction, Thrasher will provide construction management services.

### ACID MINE DRAINAGE / COAL COMPANY **EXPERIENCE**

## Martinka Water Treatment Plant

Client: Martinka Coal

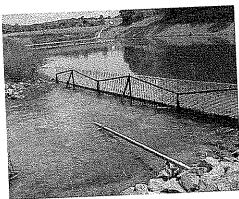
Mr. Gary Timms

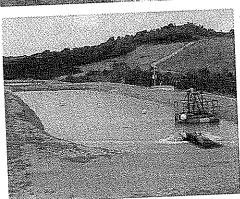
Water Treatment Plant Supervisor

Fairmont, WV 304-366-5516

Project Cost: \$6.5 Million

This project consisted of the design of a 17.3 MGD Water Treatment Plan to blend mine borehole water with acid mine drainage; the plan removes iron (1000 mg/l (ferric hydroxide) to less than 1 mg/l.





### The plant design included:

- □ Aeration Blending and Stripping Carbon Dioxide
- □ Feed Hydrogen Peroxide Shifts chemical equilibrium for utilization of naturally calcium carbonate for neutralization
- □ Coagulation/Flocculation Three (3) stage tapered flocculation with axial flow propeller mixers and variable frequency drives
- □ Sedimentation Six (6) settling ponds with ferric hydroxide sludge removal and underground injection wells
- Polishing Pond Sodium hexamataphosphate for calcium stabilization.

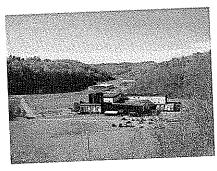
Dayton Carpenter, P.E., DEE, Project Engineer was rewarded the following for the project:

- 2002 WV ACEC Gold Award Engineering Excellence
- □ 2002 WV Manufacturer's Association Environmental Leadership Award for Innovative Technology

# SITE DEVELOPMENT PROJECTS - SEDIMENT AND EROSION MEASURES

**Harrison County Business and Technology Park** Robert C. Byrd Industrial Park – Hardy County White Oaks Business Park – Harrison County

Thrasher Engineering provided survey, site planning, and engineering design services for each of these business/industrial parks which were developed on abandoned mine lands. The design of each project included plans for landslide / erosion and sediment control within grading plans.







# Mingo County Wood Products Industrial Park, Mingo County, West Virginia

Client:

Mingo County Redevelopment Authority

Mike Whitt, Executive Director

304-235-0042

Project Description: This project consisted of the development of conceptual layout and final design drawings for the park. The work consisted of drainage, sediment, erosion measures, and on-site utilities including water and sanitary sewer, along with the design and permitting of a 12,000 gpd wastewater treatment plant. Also included in this project was a roadway design conforming to WV Department



of Highways specifications and criteria. Construction management services were also provided.

## Indian Ridge Industrial Park / McDowell County Prison

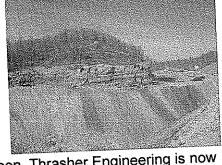
Client:

Federal Bureau of Prisons

202-514-6461

McDowell County Commission 304-436-8548

Project Description: The objective of this project was to push back an existing highwall and enlarge the flat area on



the McDowell County's Indian Ridge Industrial Park, a portion of which is being used to accommodate a Federal Prison. Thrasher Engineering is now providing the site development engineering services for that facility. This project consisted of the design, bidding, and construction management for the preparation of an industrial park/federal prison site. The construction involved moving 20,000,000 CY of earth to create approximately 250 relatively flat acres for development. Inclusive in our scope of work was site grading, sediment and erosion control, stream relocations, and wetland mitigation. This work involved laying back an existing highwall and placing the excavated material into a nearby valley to increase the developable acreage of the site. The valley fill serves as a buffer and will be used for non-structural uses.

### **Belington Industrial Park**

Client:

**Barbour County** 

Office for Economic Development

304-456-1225

This project consisted of the development and conceptual layout and final design drawings for the park. The work consisted of on-site utilities including water and sanitary

Specifically, this project included:

☐ 8,000 LF of water line,

☐ 2,700 LF of gravity sewer line,



Manholes and Fire hydrants.

Additionally, this project included an access road conforming to WV DOT/Department of Highways specifications and criteria, earthwork for building site preparation and storm water detention. Construction management services were also provided.

## West Virginia National Cemetery

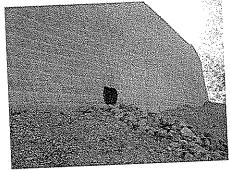
Client:

U.S. Department of Veterans Affairs Peter Fernandez, National Cemetery

Administration

Carter VanDyke Associates

215-345-5053



**Project Description:** The project consisted of the planning, design and bidding for the expansion of the WV National Cemetery. The scope of the work included site utilities, storm sewers, roads, sidewalks, retaining walls, pre-cast concrete crypt burial areas, site grading and sediment and erosion control. Construction management and survey services were also provided.

### **Fairmont State University**

Client:

Fairmont State University
Dr. Dan Bradley, P.E. President

304-367-4000



Thrasher Engineering is providing civil engineering services throughout the Fairmont State University campus within



the scope of FSU's 10-year \$10 million master plan for infrastructure improvements. This portion of the project included storm water management during and after construction. During the construction phase erosion and sediment control was contained by installing silt fence, water barriers, temporary sediment traps, inlet protection, diversion ditches and utility matting. The final site improvements contain swales, ditches, vegetation, landscaping and culverts to control the storm water and limit the pollution from the site. Ditches are protected from erosion and all unpaved areas are stabilized with vegetation.

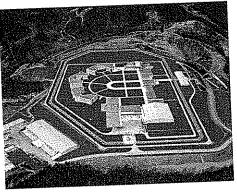
# Glenville Correctional Institution, Gilmer County, West Virginia

Client:

Federal Bureau of Prisons

202-514-6461

Project Description: This project consisted of the design/build of a U.S. Correctional Facility. Inclusive in our scope of work were the site utilities (sewer, water, stormwater management gas) site grading, sediment & erosion control, layout of facilities, on site roads and parking, various site elements and oversight during the construction phase.



## Canaan Federal Prison, Scranton, Pennsylvania

Client:

Federal Bureau of Prisons

202-514-6461.

Thrasher Engineering served as a Project Description: Team Member on this design-build project of US Penitentiary and Federal Prison Camp. The scope of services included sewer, water, storm water management and gas utilities, site grading, sediment and erosion control, relocation of a township road, layout of the facility and

oversight during construction. The drainage of this project required the design of a storm water

detention pond.

# West Virginia Division of Highways, Harrison County, West Virginia

Client:

West Virginia Division of Highways

304-558-2830

Total Project Cost: \$1,200,000

Project Description: This project consisted of developing construction drawings and right-ofway documents for a new storm drain system along Old Bridgeport Hill. The existing storm drain system was 25 to 30 feet deep and was collapsing in several areas; therefore, a new system of inlets and pipes were designed to collect surface water.

## EXPERIENCE OF SHEIRL FLETCHER, ENVIRONMENTAL MANAGER

# Consol Coal Company: Abandoned Mine Lands Remediation / Mine Reclamation

The projects included engineering and final reclamation of the following Consol Energy mines in Monongalia County, West Virginia: Blacksville No. 1, Pursglove Mine, Arkwright Mine, Osage Mine and Humphrey Mine.

Final reclamation included AMD and site remediation of the following types of surface support facilities:

Refuse / slurry impoundments

- AMD treatment plants including impoundments and sludge lagoons
- Preparation plants and coal stockpile areas
- Shaft and drift openings
- Boreholes.

## Consol Coal Company – Hydrology and Hydraulics

During the final abandonment of the Morgantown operations of Consolidation Coal Company, performed geologic hydrologic study of the Arkwright, Osage, Pursglove and Humphrey Mine pools and their inter-relationship to one another and to adjacent mining operations.

### MINING RELATED SURVEY PROJECT EXPERIENCE

### **Eastern Associated Coal Corporation**

Client:

Eastern Associated Coal Corporation Allen Moore, Project Manager

304-449-1911

Project Description: This ongoing project consists of performing pre and post-mining subsidence surveys on structures and dwellings located within and surrounding the permit boundaries of the Federal No. 2 Mine.

A typical project of this nature consists of establishing horizontal and vertical control, preservation of control points, elevations on critical structure points, baseline establishment and profile, collection of water samples for springs and wells, inspectors report of protected structures, interior and exterior digital photography, and digital CADD mapping of the field survey.

### **Eastern Associated Coal Corporation**

Client:

Eastern Associated Coal Corporation

Allen Moore, Project Manager

304-449-1911

Project Description: Past and ongoing projects have been preformed at the Federal No. 2 Mine which include:

- Water line surveys and design for replacement of existing water sources
- Structure identification surveys, water well inventories, and stream monitoring surveys
- Ground control for aerial mapping
- Gas well locations for down-hole surveys
- Subsidence stream locations and profiles
- Permit boundary staking
- Construction layout for refuse impoundments
- Scott's Run Railroad Bypass project design survey, design, and construction layout
- Boundary surveys for fee purchase property acquisitions
- Construction layout for new shaft sites
- Powerline profiles and construction layout
- Topographic design surveys and soundings for impoundment ponds
- Drainage control surveys and design for surface water runoff

#### Martinka Coal Company

Client.

Martinka Coal Company Gary Timms, Project Manager 304-366-5516

Project Description: This project consisted of the collection of data to be used in conjunction with the design of an acid mine drainage facility, designed by Thrasher Engineering, Located at the Tygart River Mine.

Critical land survey components consisted of the following:

- Topographic surveys and digital mapping of approximately 50 acres
- Dewatering borehole layout
- Downstream cross-section surveys for volume computations
- Protected structures identification and mapping
- Pre-blasting surveys on nearly 200 structures
- Construction layout of the entire facility

## Martinka Coal Company - Fairmont, WV

Client:

Martinka Coal Company

Gary Timms, Project Manager

304-366-5516

Project Description: Past and ongoing projects have been performed at the Tygart River Mine including:

- Dewatering borehole computations and layout
- Stockpile surveys
- Certification of drainage system, ponds 5, 6, and 7 Permit No. 1001-87
- Topographic survey and construction layout of the existing Guyses Run AMD Facility
- Boundary surveys for fee purchase property acquisitions
- Subsidence stream locations and profiles
- Construction layout for refuse impoundment
- Ground control for aerial mapping
- Scanned mapping digital overlays
- Conceptual site plan for recreational facilities

#### PROJECT APPROACH

In order to develop a full understanding of the WV DEP's needs for this project, Thrasher Engineering, Inc. studied the information provided in the RFQ and visited the site. Based upon our findings (illustrated on the following site map), we have developed the following project approach to demonstrate our technical abilities and straight forward method of design and construction.

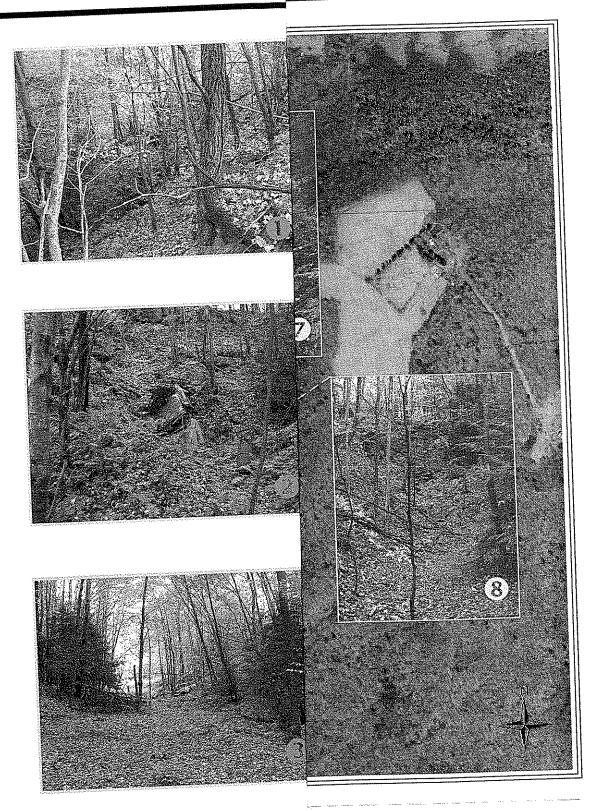
This project approach is a general approach that will be used on any WVDEP reclamation project and may need to be modified depending on the existing information that is available for the specific project. Also, some steps may not be needed on every project.

**Step #1 Obtain adequate mapping.** The limits of construction will be flown and digitally mapped or, if the area is small enough, survey crews will field survey the area. Thrasher will then provide 1"=50' scale mapping with 2' contours. Spot elevations and critical cross sections may be completed in the field if necessary to make tie-ins.

**Step #2 Design the project.** Thrasher will work closely with the WVDEP in designing the project. Field reviews will be conducted to determine the most cost effective method to be used to reclaim the area. A preliminary design based on the field reviews will be submitted to the WVDEP. After receiving comments or corrections, Thrasher will submit the final plans, specifications and design report. The design report will consist of the bore logs, piezometer elevations, quantity calculations, right of entry forms and any other assumptions that were made during the design.

**Step #3 Prepare for construction.** Thrasher will also set up reference points, benchmarks and control points outside of the construction limits so the contractor will be able to construct the project in the future. Thrasher will complete any permits, right of ways, and easements that are necessary to construct the project. The project manager and engineer will attend the pre-bid meetings to answer any questions that contractors may have about the design.

**Step # 4 Construct the project.** The project manager will be available during construction to answer any questions the contractor or inspector may have. Thrasher inspectors that are certified by the State of WV are available to be used if the WVDEP requests this service.



# Little Laurel Run Highwall—Pictur



	WEST VIRGINIA		OUALIFICATION	PROTECTION QUESTIONNAIRE Attacl	cl. nt "B"
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LITTLE LAUKEL KON HIGHWALL DE DEP 14783  1. FIRM NAME THRASHER ENGINEERING, INC		FFICE IA BLV	BUSINESS ADDRESS D., CLARKSBURG, WV	3. FORMER FIRM NAME NOT APPLICABLE	
4. HOME OFFICE TELEPHONE 304-624-4108	5. ESTABLISHED	(YEAR	6. TYPE OWNERSHIP Individual Corporation X Partnership Joint-Venture	M. I	ED DBE Business NO X
Z	ADDRESS/ JRG, WV /	TELEPHONE/ PERSON 304-624-4108 / KEN WV / 304-343-7601	PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH 8 / KENNETH P. MORAN, P.E., VICE PRESIDENT / 12 3-7601 / JONATHAN CARPENTER, MANAGING PARTNER /	AML DESIGN PERSONNEL EACH OFFICE P.E., VICE PRESIDENT / 12 ENTER, MANAGING PARTNER / 2	P. 127
300 ASSOCIATION DAINT, CONTROLL AND STREETS OF FIRM W. Wood Thrasher, P.E President Kenneth P. Moran, P.E Vice President Kurt Newbrough, P.S Secretary	FICERS OR MEMBER President - Vice President Secretary		8a. NAME, TITLE, & TELEPHONE NUNWE. RANDY WAISON -304-624-4108 - CHAD BILLER, P.E304-624-4108 - CHAD M. RILEY, P.E304-624-4108 CLAY P. RILEY, P.E304-624-4108 DANIEL E. FERRELL, P.E304-324-328	1BEK - OIHEK - PARTNER -PARTNER - PARTNER 3-PARTNER 1-4108 -PARTN	
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ARKWRIGHT, OSAGE PURSGLOVE AND HUMPHREY MINE POOLS AND THEIR INTER-RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING STATIONS, WATER TREATMENT PLANTS, AND STORAGE FACILITIES. MANY OF THESE PROJECTS ARE IN AREAS WITH AML AFFECTED WATER Description and Number of Projects: DESCRIPTION AND NUMBER OF PROJECTS: THRASHER ENGINEERING HAS DESIGN. IN ADDITION, THRASHER ENVIRONMENTAL, THE CHARLESTON WV BRANCH OF OUR COMPANY DESIGNED AN AWARD WINNING WATER SHE ALSO WAS INVOLVED IN THE STRATEGIC PLACEMENT OF ACID MINE DRAINAGE TREATMENT FACILITIES AND PLANT OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING AND ENVIRONMENTAL PERMITTING OF THE FINAL Description and Number of Projects: OUR TEAM ENVIRONMENTAL MANAGER PARTICIPATED IN THE ENGINEERING ANALYSIS LAB AT ITS CLARKSBURG, WV OFFICE. SOIL ANALYSIS EXPERIENCE IS SPECIFICALLY IN GRADATIONS AND CLASSIFICATION OH ABANDONMENT OF THE MORGANTOWN OPERATIONS OF CONSOL COAL COMPANY. THIS INCLUDED THE GEOLOGIC HYDROLOGY STUDY OF THE SI CES NULLEROUS RELATIONSHIP TO ONE ANOTHER AND TO ADJACENT MINING OPERATIONS. SHE ALSO WAS INVOLVED IN THE STRATEGIC PLACEMENT OF THROUGH OUR WORK IN THE PLANNING AND DESIGN OF BRIDGES WYDEP RELATED SPECIFICALLY TO ACID MINE DRAINAGE AND ABATEMENT, BOTH OF WHICH ARE LOCATED IN BARBOUR COUNTY, WEST EXPERIENCE IN HYDROLOGY. WE ALSO HAVE EXTENSION EXPERIENCE IN HYDRAULIC MODELING FOR WATER AND WASTEWATER PROJECTS DEVELOPMENT, WATER LINE AND SANITARY SEWER PROJECTS RELATED TO ABANDONED MINE LANDS HAVE ALSO BEEN ENGINEERED. OUR DESIGN TEAM ENVIRONMENTAL MANAGER HAS 23 YEARS OF EXPERIENCE AS GEOLOGIST, HYDROLOGIST AND ENVIRONMENTAL SPECIALIST THE THRASHER ENGINEERING SURVEY DEPARTMENT HAS PERFORMED FOR THE WEST VIRGINIA DEPARTMENT OF HIGHWAYS AND WATER LINE EXTENSION PROJECTS, THRASHER ENGINEERING HAS EXTENSIVE Description and Number of Projects: TEI IS CURRENTLY DESIGNING TWO RECLAMATION PROJECTSFOR THE WE UTILIZE THE SERVICES OF NUMEROUS FIRMS, INCLUDING PENTREE, INC. WHICH IS AN AFFILIATE COMPANY AND ENVIRONMENTAL PERMITTING OF THE FINAL ABANDONMENT OF THE MORGANTOWN OPERATIONS OF CONSOL COAL COMPANY. THIS WITH CONSOL ENERGY. PROJECTS INCLUDED THE ENGINEERING AND FINAL RECLAMATION OF THE BLACKSVILLE NO.1D, PURSGLOVE, (Include any experience your firm has in THRASHER ENGINEERING MAINTAINS A MATERIALS TESTING AND ENGINEERING HAS PERFORMED ENGINEERING DESIGN SI PROJECTS INVOLVING LAND REMEDIATION, STORM WATER DRAINAGE, SLIP REPAIR AND MASS GRADING IN RELATION TO SITE TO THE WV DEP FOR BOTH DRAINAGE AND PORTAL, AML, PROJECTS AS WELL AS FOR WATER LINE PROJECTS RELATED TO AML. Is your firm experienced in Abandoned Mine Land. Remediation/Mine Reclamation Engineering? Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design? Does your firm produce its own Aerial Photography and Develop Contour Mapping? TREATMENT PLANT FOR MARTINKA MINES IN MARION COUNTY, WEST VIRGINIA TO TREAT DRAINAGE. WE PERFORM THESE SOIL ANALYSES ON ALL OUR PRIVATELY FUNDED SITE DEVELOPMENT PROJECTS. DESIGNED OVER 100 WATER LINE EXTENSION PROJECTS IN THE PAST 20 YEARS OF BUSINESS. ENGINEERING INC. THROUGH THE RESOURCE ENGINEERING GROUP HOLDING COMPANY. evaluation of aquifer degradation as a result of mining.) Is your firm experienced in domestic waterline design? SERVICES FOR PRE AND POST MINE SUBSIDENCE FOR MAJOR COAL COMPANIES. Is your firm experienced in hydrology and hydraulics? AACID MINE DRAINAGE TREATMENT FACILITIES AND PLANT DESIGN. Description and Number of Project: THRAL ARKWRIGHT, OSAGE AND HUMPHREY MINES IN MONONGALIA COUNTY Is your firm experienced in Soil Analysis? Description and Number of Projects: THROUGHOUT WEST VIRGINIA. THRASHER <u>.</u> [x]

sh	YEARS OF AML EXPERIENCE:	as Vice President and Chief Operations Offi	design of public utility and site development projects Moran has extensive experience in all aspects of tion with projects.	recimpanton (Type, Year, State)	ered Professic irginia #11305 ered Professic	Virginia#0102021833  Urginia#0102021833  Registered Professional Engineer (PE), State of Ohio #64412  Professional Land Surveyor (PS), State of West Virginia#1333	■		YEARS OF AML EXPERIENCE:	in all aspects of engineering with specific emphasis.  Biller joined Thrasher Engineering in 1999 and is a Biller is responsible for WV DEP AML project and public it, highways, roads and bridges. As Project Manager for it is that e and federal building standards.	1 4 4 5	REGISTRATION (Type, Year, State)  Registered Professional Engineer(PE), State of West Virginia #13620  Registered Professional Engineer (PE), State of Pennsylvania #PE056012E  Registered Professional Engineer (PE), State of Ohio #64594
13. PEPC NAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATF RESPOND ASSOCIATE RESPOND ASSOCIATE RESPOND ASSOCIATE RESPONDED.	ast, Fil	MORAN, KENNETH P.  Mr. Moran joined Thrasher Engineering in 1991 and currently serves	feasibility studies and ents. Additionally, Mr. ory agencies in conjunct	ialization)		☐ Member of American Society of Civil Englineers	C I E	NAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES	TILE (Last, Fir	Fesponsibilities: Mr. Biller has experience, highways, roads, bridges, and airports. Mr. Engineering. For Thrasher Engineering, Mr. Welopment projects, specializing in airports WDOT/DOH projects, he has extensive knowledged.	S.S.	EMBERSHI  Americ  Societ  Nation

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1 meanor Engineering in 2005 and serves	rator for the
and log layout, street profile rofiles, storm water drainage,	iles, e, storm
EDUCATION (Degree, Year, Specialization)  Certificate, Computer Aided Design - Hagerstown Community College Diploma - Clear Spring High School	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	
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1000 and is principal	and Partner
anation of Responsibilities Mr. Newbrough joined Thrasher Engineering in 1990 and is remorganisment of Responsibilities Mr. Newbrough serves as Survey Supervisor and is responsible for assignment and review of all in. Mr. Newbrough has extensive experience in all aspects of surveys, including but not limited to ant surveys and the preparation of plats and legal descriptions. Mr. Newbrough also performs court surveys and the preparation of plats and legal descriptions. Mr. Newbrough also performs court surveys and the preparation layout, and processes GPS raw data for both public and privacemputes field data for construction layout, and processes GPS raw data for both public serves computes field data for Engineering projects as well as separate contracts. He also serves	all survey d to boundary courthouse private urves in the
EDUCATION (Degree, Year, Specialization)  EDUCATION (Degree, Year, Specialization)	
larksburg, WV	***************************************
REGISTRATION (Type, Teal, State), West West Virginia Association of Land Surveyors American Congress on Surveying and Mapping Member Strathmore's Who's Who	est Virginia d Emergency and Health

PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AML DESIGN SERVICES Thrasher Engineering, Inc. will design work for AML utilizing one of the largest networks of computer aided design (CAD) equipment, software and trained personnel in the State of West Virginia.

our CAD staff has the ability to share necessary plans among our

locations. This will allow work designed for AML to be prepared and updated at the office location that best meets the AutoCAD Landdesktop 2008 and Microstation V8 software is utilized at 48 CAD stations throughout our locations.

Additionally, equipment includes 10 large format (size E) plotters and 5 large format plotter / scanners.CAD plans are prepared by both dedicated CAD employees and by staff engineers and engineering technicians in each of the firm's

Thrasher Engineering, Inc. also utilized top-of-the line survey equipment. Our survey work is accomplished with global positioning systems (GPS) and electronic distance measuring (EDM) survey stations with data gathering capabilities. This equipment includes: The equipment used to complete survey services for AML projects includes:

- Leica Geosystem System 500 GPS
- Leica Ski Post Processing Software
- Topcon G600 Total Station Instrument
  - Leica 303 Total Station Instrument
- Leica 307 Total Station Instrument
- Leica 403 Total Station Instrument
  - Leica 405 Total Station Instrument Lecia 407 Total Station Instrument
- Lecia 703 Total Station Instrument

GNATE NGINEER OF RECORD: SITE DEVELOPMENT PROJECTS	
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15. CUF I ACTIVITIES ON WILLOW		MARTIDE OF YOUR FIRM'S	ESTIMATED CONSTRUCTION	PERCENT COMPLETE
PROJECT NAME, TYPE AND			COST	30%
AND ROARING AML RANDOLPH	MENT OF st, SE 7 25304	ENGINEERING DESIGN FOR PORTAL SEALING, DRAINAGE AND RECLAMATION	\$700,000.00	
COUNTIES, WV WHITE OAKS BUSINESS PARK SITE DEVELOPMENT AND UTILITIES HARRISON COUNTY, WV	HIGH TECH CORRIDOR DEVELOPMENT, LLC MR. JACK KEELEY PO BOX 1532 CLARKSBURG, WV 26302	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$12,100,000.00	\$0\$
MCHENRY BUSINESS PARK SITE DEVELOPMENT AND UTILITIES GARRETT COUNTY, MD	GARRETT COUNTY EDA 203 SOUTH 4TH STREET COURTHOUSE ROOM 208 OAKLAND, MD 21550 301-334-1921	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$3,500,000.00	658
RITCHIE COUNTY BUSINESS PARK SITE DEVELOPMENT RITCHIE COUNTY	RITCHIE COUNTY ECONOMIC DEVELOPMENT AUTHORITY 217 WEST MAIN STREET HARRISVILLE, WV 26362	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$2,000,000.00	. 20%
CITY OF PLEASANT VALLEY SIDEWALKS PROJECT MARION COUNTY, WV	CITY OF PLEASANT VALLEY, 2340 KINGMONT ROAD PLEASANT VALLEY, WV 26554	DESIGN, SURVEY, CONSTRUCTION MGT, INSP AND TESTING - SIDEWALKS PHASE III	\$250,000.	809
NORTH CENTRAL WV AIRPORT HARRISON COUNTY, WV VARIOUS - HANGERS /STORM WATER	BENEDUM AIRPORT AUTHORITY JAMES R. GRIFFITH, AIRPORT MGR. 2000 AVIATION WAY BRIDGEPORT, WV	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	\$500,000 to \$1,000,000.00	ON-GOING
TOTAL NUMBER OF PROJECTS: 6 (TOTAL IN FULL APPROXI APPROXIMATELY 40 MILLION)	— ፟ጟ	TOTAL ESTIMATED   \$18,600,000.00	TOTAL ESTIMATED CONSTRUCTION COSTS: \$18,600,000.00 +	

CURKENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATEL ENGINEER OF RECORD: WATER TREATMENT AND DISTRIBUT. A

ENT ACTIVITES		ł		PERCENT COMPLETE
	NAME AND ADDRESS OF	KM'S	ESTIMATED CONSTRUCTION	
<u>ا</u>	C. C.	RESPONSIBILLTY		
CHESTNUT RIDGE PSD	IREET	DESIGN, FUNDING AND	\$9,500,000	30%
BARBOUR COUNTY, WV	p.o. BOX 386 PHILIPPI, WV 26416	CONTRACT DOCUMENTS, FIELD		
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TESSICA LYNCH WATER LINE		FEASIBILITY STUDY,		ok O
EXTENSION	200 BEVERLY STREET DO BOX 478	APPLICATIONS,	\$3,600,000	
WIRT COUNTY, WV	ELIZABETH, WV 26143	CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND		
		INSPECTION		
SOUTHWESTERN PSD	SOUTHWESTERN WATER PUBLIC	FEASIBILITY STUDI, DESIGN, FUNDING AND		30%
WATER LINE EXTENSION /	SEKVICE DISTRICT	APPLICATIONS,	\$10,430,000.	
REPLACEMENT	FLEMINGTON, WV 26347	CONTRACT DOCUMENTS, FIELD		
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HAMRICK PSD	PO BOX 228	DESIGN, FUNDING AND	\$1,100,000.	25%
MOORE / PORTERWOOD	HENDRICKS, WV 26271	PERMIT APPLICATIONS,		· · · · · · · · · · · · · · · · · · ·
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LINCOLN COUNTY PSD	P.O. BOX 38	DESIGN, FUNDING AND	.000,026,08	
WATER LINE BALENCION	240 LITTLE COAL RIVER RD.	PERMIT APPLICATIONS,		
PRODECTO	ALUM CREEK, WV 25003	CONTRACT DOCUMENTS, TITLE SERVICES OF SURVEY AND		
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God Vinterson	POCAHONTAS COUNTY PSD	FEASIBILITY STUDY,	\$10.456.000.	
POCAHONIAS COUNTIESD WATER IINE REPLACEMENT	HC 63 BOX 122	DESIGN, FUNDING AND		25%
DURBIN / BARTOW/FRANK	FRANK, WV 24920	CONTRACT DOCUMENTS, FIELD		
		SERVICES OF SURVEY AND	unnovkydda	
			The state of the s	808
Account to the second of the s	SALEM, CITY OF	FEASIBILITY STUDY,	\$1,500,000.	· Mariemy A
CITY OF SALEM, WEST	P.O. BOX 352			and the state of t
VIRGINIA	223 W. LIMIN 36426	CONTRACT DOCUMENTS, FIELD		
WATER LINE REPLACEMENT	SALELY NY LOS N	SERVICES OF SURVEY AND		
		ECTION	TOTAL RETIMATED CONSTRUCTION COSTS:	
TOTAL NUMBER OF PROJECTS: 7 REPRESENTED (APPR ANDITIONAL, CURRENTLY IN PRELIMINARY / DESIGN	SOX IIV	LION	00 REPRESENTED OST OF ALL JOBS APPROXIMATELY	31.Y \$150,000,000.00
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PROJECT NAME, TYPE AND	NAME AND ADDRESS OF	NATURE OF YOUR FIRM'S	ESTIMATED CONSTRUCTION	PERCENT COMPLETE
LOCATION BROOKE COUNTY PSD REPLACEMENT AND EXTENSION BROOKE COUNTY, WV	DWNER BROOKE CO. PSD 711 CHARLES ST. P. O. BOX 150 WELLSBURG, WV 26070	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND TASPECTION	\$22,000,000	658
GREATER HARRISON COUNTY PSD PHASE II HARRISON COUNTY, WV	GREATER HARRISON COUNTY PSD P.O. BOX 190 WEST MILFORD, WV 26451	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$11,600,000	80%
TENNERTON PSD SANITARY SEWER EXTENSION UPSHUR COUNTY, WV	TENNERTON PSD 188 FAYETTE ST. BUCKHANNON, WV 26201	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,675,000.	75%
POCAHONTAS COUNTY PSD WWTP AND COLLECTION SYSTEM POCAHONTAS COUNTY, WV	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	FEASIBLLITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$11,600,000	30%
HEPIZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH DRAWER H HEPZIBAH, WV 26369	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$3,400,000	20%
MALDEN PUBLIC SERVICE DISTRICT SANITARY SEWER REHABILITATION KANAWHA COUNTY, WV	MAIDEN PUBLIC SERVICE DISTRICT P.O. BOX 350 TAD, WV 25201-0350	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$13,600,000.	ភភភភ
CANYON PUBLIC SERVICE DISTRICT SANITARY SEWER UPGRADE AND EXT MONONGALIA COUNTY, WV	CANYON PSD 12 WICHITA STREET MORGANTOWN, WV 26508	Y STUDY, NDING AND LICATIONS OCUMENTS, F SURVEY	.000,000,	50%
TOTAL NUMBER OF PROJECTS: TOTAL ACTIVE SANITRY SEWE	OF PROJECTS: 7 REPRESENTED SANITRY SEWER PROJECTS APPROXIMATELY 32	TOTAL	TOTAL ESTIMATED CONSTRUCTION COSTS: \$70,300,000.00 TOTAL FOR ALL PROJECTS APPROXIMATELY \$150,000,000	70,300,000.00 \$150,000,000

SHITHING HINEGAIN	ON WHICH YOUR FIRM IS THE	DESIGNATED ENGINEER OF	RECORD: HIGHWAY, BRIDGE,	SIDEWALKS
AND ONE	NAME AND AL	S /W	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
NO	OWNER	KESFONSIBILLI		7E& - NEED HINAL COMMENTS
CORRIDOR H GRANT COUNTY, WV	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$22,000,000.	
MINERAL WELLS ROUTE 2 WOOD COUNTY	WYDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	TBD - JUST AWARDED	JUST AWARDED
TOTAL NUMBER OF PROJECTS: 6 (TOTAL IN FULL APPROXIA APPROXIMATELY 40 MILLION)	AL NUMBER OF PROJECTS: (TOTAL IN FULL APPROXIMATELY 30 SITE DEVELOPMENT ROXIMATELY 40 MILLION)	ı	TOTAL ESTIMATED CONSTRUCTION COSTS: \$46,300,000. +	

	STRUCTION COST	YOUR FIRMS RESPONSIBILITY	\$50,000,000.			
IRS	ESTIMATED CONSTRUCTION COST	ENTIRE PROJECT	\$220,000,000.			
,-CONSULTANT TO OTHERS	ESTIMATED COMPLETION DATE		2010			
M IS SERVING AS A	NAME AND ADDRESS OF OWNER		US DEPARTMENT OF JUSTICE FEDERAL BUREAU OF PRISONS DESIGN AND CONSTRUCTION BRANCH 500 FIRST STREET NW WASHINGTON, DC 20534			
T ACTIVITIES ON WHICH YOUR FIRM IS	NATURE OF FIRMS RESPONSIBILITY		SITE DEVELOPMENT ENGINEERING DESIGN (GRADING/ STORM WATER/UTILITIES/ ROADS)			
16. CU. I ACTIVITI	PROJECT NAME, TYPE AND LOCATION		MC DOWELL COUNTY FEDERAL PRISON WELCH, WV SITE DEVELOPMENT			

POK I MIMBELL MOCKS REPORT	a veads on wurch your FII	AS THE DESIGNATED ENGINEER OF RECORD		
YKOJECT NAME, TYPE	NAME AND ADDRESS	四	YEAR	COLVETRUCTED (YES OR NO)
AL AIRPORT	RALEIGH CO AIRPORT AUTHORITY 176 AIRPORT CIRCLE, ROOM 115 BEAVER, WV 25813-9475	\$5,000,000.00 - PHASE I	2007	YES
WOLFE CREEK PARK FAYETTE COUNTY, WV	EAYETTE COUNTY COMMISSION FAXETTE COUNTY COURTHOUSE 100 COURT STREET FAXETTE, WV 25840-0307	\$4,500,000 PHASE 1	2007	YES
PINECREST DEVELOPMENT RALEIGH COUNTY, WV	PINECREST DEV AUTHORITY 200 MAIN STREET BECKLEY, WV 25801-4613	\$1,500,000.00	2007	YES
CITY OF PARSONS SANITARY SEWER LINE EXTENSION TUCKER COUNTY, WV	PARSONS, CITY OF 341 2ND ST. PARSONS, WV 26287	000'006 \$	2007	YES
TOWN OF FARMINGTON WATER LINE REPLACEMENT PROJECT MARION COUNTY, WV	TOWN OF FARMINGTON 1314 MILL STREET FARMINGTON, WV 26571	\$1,300,000.	2007	YES
CITY OF KINGWOOD WHETSELL SETTLEMENT WATER LINE EXTENSION PRESTON COUNTY, WV	KINGWOOD, CITY OF 313 TUNNELTON ST. KINGWOOD, WV 26537-1462	\$ 420,000.	2007	YES
NORTON-HARDING-JIMTOWN PSD WATER LINE EXTENSION RANDOLPH COUNTY, WV	NORION-HARDING-JIMIOWN PSD P.O. BOX 87 SCOTT ROAD NORION, WV 26285	\$1,000,000	2007	YES
TOWN OF BATH - BERKELEY SPRINGS WATER WORKS MORGAN COUNTY, WV	TOWN OF BATH 271 WILKES STREET BERKELEY SPRINGS, WV 25411	\$2,000,000	2007	YES

1	THE PROTECT OF MITCH VOIL MERRY THE DESTGNATED ENGINEER OF RECORD			The same of the sa
YPE YPE	NAME AND ADDRESS	ESTIMATED CONSTRUCTION COST	YEAR	(YES OR NO)
AND LOCATION NICHOLAS COUNTY BUSINESS PARK, NICHOLAS COUNTY, WV SITE DEVELOPMENT	AISSION FE 1 551	\$2,500.000.00	2008	YES
RALEIGH COUNTY PUBLIC SERVICE DISTRICT 2 WATER LINE EXTENSIONS	RALEIGH COUNTY PSD 224 EAST MAIN PO BOX 1286 SOPHIA, WV	\$3,700,000.	2006	YES
GILMER COUNTY PSD DUSK CAMP WATER LINE EXTENSION GILMER COUNTY, WV	GIIMER COUNTY PSD 232 W. MAIN STREET GLENVILLE, WV 26351	\$2,500,000	2008	YES
HODGESVILLE PUBLIC SERVICE DISTRICT; DESIGN AND CONSTRUCTION OF WATER LINE EXTENSION, BOOSTER STATIONS,	HODGESVILLE PUBLIC SERVICE DISTRICT 188 FAYETTE STREET P.O. BOX 758 HICKHANNON. WV 26201	\$3,100,000	2004	YES
AND WATER STORAGE LAND CITY OF CAMERON WATER STORAGE TANK MARSHALL COUNTY, WV	RON RET 2603	\$2,000,000.00	2008	S HA
HAMRICK PUBLIC SERVICE DISTRICT, TUCKER COUNTY, WEST VIRGINIA; DESIGN, PREPARATION AND CONSTRUCTION MANAGEMENT TO UPGRADE THE WATER TREATMENT	HAMRICK PUBLIC SERVICE DISTRICT P.O. BOX 228 HENDRICKS, WV 26271	\$2,461,000	2004	YES
PLANT PUTNAM COUNTY BUSINESS PARK; MITIGATION OF 13 ACRES OF IMPACTED WETLAND	PUTNAM COUNTY DEVELOPMENT AUTHORITY P.O. BOX 167 SCOTT DEPOT, WV 25560	\$1,500,000	2004	YES
TOWN OF ROWLESBURG WATER TREATMENT PLANT/ EXT. PRESTON COUNTY, WV	TOWN OF ROWLESBURG PO BOX 458 42 POPLAR STREET ROWLESBURG, WV 26425	\$4,500,000.	2008	YES

COMPREDIT	(YES OR NO)	YES	YES	YES			
G #GA	YEAK	2008	2008	2008		***************************************	·
DELIGNATED ENGINEER OF RECORD	ESTIMATED CONSTRUCTION COST	\$1,300,000.	\$1,119,000.00	\$1,200,000.			
YEARS ON WHICH YOU WERE THE DESIGN	NAME AND ADDRESS OF OWNER	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	INTERNATIONAL COAL GROUP, INC. 2000 ASHLAND DRIVE ASHLAND, KY 41101	CITY OF RIPLEY TIM KING, CITY SUPERINTENDENT 203 SOUTH CHURCH ST. RIPLEY, WV 25271			
17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE	PROJECT NAME, TYPE AND LOCATION	JAKES RUN BRIDGE MONONGALLA COUNTY, WV	ICG - THREE FORKS BRIDGE TAYLOR COUNTY	CITY OF RIPLEY - MAIN STREET REVITALIZATION - JACKSON CO.		A contraction of the contraction	

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE ASSULIATED WITH OTHER FIRMS (INDICATE PHASE OF WORK FOR WHIC., YOUR FIRM WAS RESPONSIBLE)

WAS RESPONSIBLE)					
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
GLENVILLE FEDERAL CORRECTIONAL INST. SITE DEVELOPMENT GILMER COUNTY, WV	FEDERAL BUREAU OF PRISONS 320 1 <sup>ST</sup> STREET NW 500-6 WASHINGTON, DC 20534	\$96,000,000	2003	YES	BELL JUSTICE FACILITIES
FEDERAL BUREAU OF PRISONSCANAAN FACILITY SITE DEVELOPMENT SCRANTON, PA	FEDERAL BUREAU OF PRISONS 320 1 <sup>ST</sup> STREET NW 500-6 WASHINGTON, DC 20534	\$120,000,000	2002	YES	BELL JUSTICE FACILITIES
FAIRMONT STATE COLLEGE - STUDENT DORMITORY SITE DEVELOPMENT- FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$6,000,000	2004	YES	VOA ARCHITECTS
FAIRMONT STATE COLLEGE - PARKING GARAGE- SITE DEVELOPMENT -FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$4,000,000	2003	YES	MARCH-WESTIN
FAIRMONT STATE UNIVERSITY FEASTER CENTER SITE DEVELOPMENT - FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$400,000.	2005	YES	VOA ARCHITECTS
FAIRMONT STATE UNIVERSITY CREATIVE ARTS AND ENGINEERING TECH BUILDING SITE DEVELOPMENT FAIRMONT, WV	FAIRMONT STATE UNIVERSITY 1201 LOCUST AVENUE FAIRMONT, WV 26554-2491	\$100,000.	2007	YES	DESIGN ALLIANCE OMNI ASSOCIATES
19. USE THIS SPACE TO P	ROVIDE ANY ADDITIONAL INFORM	19. USE THIS SPACE TO PROVIDE ANY ADDITIONAL INFORMATION OR DESCRIPTION OF RESOURCES SUPPORTING YOUR FIRM'S QUALIFICATIONS TO	SUPPORTING	YOUR FIRM'S QUA	LIFICATIONS TO

PERFORM WORK FOR THE WV ABANDONED MINE LANDS PROGRAM

SEE ATTACHMENT - STATEMENT OF QUALIFICATIONS

SEPTEMBER 30, 2009

DATE:

TITLE: DIRECTOR OF BUSINESS DEVELOPMENT

PRINTED NAME: STEVEN T. ENGELHARDT

RFO	Nο	DEP	14783
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## STATE OF WEST VIRGINIA Purchasing Division

## **PURCHASING AFFIDAVIT**

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

## **DEFINITIONS:**

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

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

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

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

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

Vendor's Name: Thrasher Engineerings Inc.	
	Date: September 30, 2009
uthorized Signature:	

Purchasing Affidavit (Revised 06/15/07)