

March 1, 2012

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 PO Box 50130 Charleston, WV 25305-0130

RE: DEP 15611, Pleasant Valley (Brown) Highwall & Portals, Expression of Interest

Dear AML Chief and Selection Committee:

Thrasher Engineering, Inc. (TEI) is very interested to provide engineering design services for the Pleasant Valley (Brown) Highwall & Portals design project in Marion County, West Virginia. We will provide the highest level of service and technical proficiency, in a cost efficient manner, and meet or beat all deadlines.

From the information provided in the RFQ we have developed an understanding of the project needs and approach. TEI has designed numerous drainage systems, access roads, sediment and erosion control measures and other features required by this project.

We have included a summary of our qualifications related to the "Selection Criteria" listed in the RFQ, under the first tab.

We look forward to the opportunity to discuss your needs and how TEI can provide services necessary.

Sincerely,

THRASHER ENGINEERING, INC.

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CHADWICK D. BILLER, PE

Partner / Principal-in-Charge

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

# Request for Quotation

RFQ NUMBER DEP15611

ADDRESS CORRESPONDENCE TO ATTENTION OF

ADDRESS CHANGES TO BE NOTED ABOVE

GUY NISBET 304-558-8802

RFQ COPY

TYPE NAME/ADDRESS HERE

Thrasher Engineering, Inc.

30 Columbia Boulevard

PO Box 1532

Partner/Principal-in-Charge

Clarksburg, WV 26301

ENVIRONMENTAL PROTECTION DEPARTMENT OF OFFICE OF AML&R 601 57TH STREET SE CHARLESTON, WV 25304 304-926-0499

DATE PRINTED TERMS OF SALE SHIP VIA F.O.B. FREIGHT TERMS 01/25/2012 BID OPENING DATE: BID OPENING TIME 01:30PM 03/01/2012 QUANTITY UNIT PRICE AMOUNT LINE UOP ITEM NUMBER 0001 JB 906-29 1 PLEASANT VALLEY (BROWN) HIGHWALL & PORTALS EOI EXPRESSION OF INTEREST THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES AT THE PLEASANT VALLEY (BROWN) HIGHWALL & PORTALS PROJECT IN MARION COUNTY, WV PER THE FOLLOWING BID REQUIREMENTS AND ATTACHED SPECIFICATIONS. BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTICY PROTECTION, THE STATE MAY DEEM THIS CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER. ANY INDIVIDUAL SIGNING THIS BID IS CERTIFYING THAT: (1) HE OR SHE IS AUTHORIZED BY THE BIDDER TO EXECUTE THE BID OR ANY DOCUMENTS RELATED THERETO ON BEHALF OF THE BIDDER, (2) THAT HE OR SHE IS AUTHORIZED TO BIND THE BIDDER IN A CONTRACTUAL RELATIONSHIP, AND (3) THAT THE BIDDER HAS PROPERLY REGISTERED WITH ANY STATE AGENCIES THAT MAY REQUIRE REGISTRATION. SEE REVERSE SIDE FOR TERMS AND CONDITIONS TELEPHONE 304-624-4108 SIGNATURE March 1, 2012



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Department of Administration
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#### **SELECTION CRITERIA**

A. West Virginia Professional Engineers (Civil or Mining) in the Primary Office. Thrasher Engineering, Inc. has 14 West Virginia registered Professional Engineers in our Primary Office located in Clarksburg, WV.

Woody Thrasher, PE
Mike Nestor, PE
Ken Moran, PE
Matt Fluharty, PE
Chad Riley, PE
Doug Forni, PE
Richard Hovatter, PE
Chad Biller, PE
Daniel Ferrell, PE
Clay Riley, PE
Tom Urquhart, PE
Jeff Gola, PE
Rob Milne, PE
Brad Messenger, PE

B. Reclamation engineering design experience of the Primary Office's WV RPE as it relates to the specific project problem areas.

**Chadwick Biller, PE**, will serve as Principal-in-Charge and has over **19 years** of civil engineering experience with specific emphasis on mine reclamation, site development, highways, roads, bridges, and airports. Mr. Biller has managed the design and construction administration for a number of large grading and drainage projects in West Virginia. These projects have included design for mine reclamation, industrial/business parks, highways, and airports. Mr. Biller is also familiar with reclamation of mine portals, using either wet or dry seals.

**Larry Nottingham, PE,** with NGE will serve as our Geotechnical sub-consultant. He has over **30 years** of AML design experience.

C. Available WV-AML Design Teams within the Primary office (A design team should consist of one Project Engineer (Civil or Mining), one CAD person and available support personnel as required by the particular project).

Thrasher Engineering has **11 WV-AML Design Teams** within the Primary Office, and over 120 additional support personnel that are available if required by the project.

Civil Engineer	CAD
1) Woody Thrasher, PE	<b>Brady Stutler</b>
2) Chad Biller, PE	Cliff Cleavenger
3) Mike Nestor, PE	Jeff Pine
4) Daniel Ferrell, PE	Jason Heflin
5) Ken Moran. PE	Phil Lantz
6) Clay Riley, PE	Joe Lowther
7) Matt Fluharty, PE	John Sirianni
8) Tom Urquhart, PE	Jeff Bonaventura
9) Chad Riley, PE	Mike Oldaker
10) Jeff Gola, PE	Zack Gain
11) Doug Forni, PE	Trudy Hiel

#### STATEMENT OF QUALIFICATIONS

#### **FIRM OVERVIEW**

#### THRASHER ENGINEERING, INC.

Established 1983

Officers/Partners

H. Wood Thrasher, P.E.,

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

Ron Stanley, CPA

President

Vice-President

Secretary/Treasurer

**Partners** 

Wm. Randy Watson Public Utilities

Chadwick Biller, P.E. Site Development/Highways/Airports/

AML

Chad Riley, P.E.

Robert Milne, P.E.

Clay P. Riley, P.E.

Daniel E. Ferrell, P.E.

Craig Baker, Assoc, AIA

Site Development

Site Development

Public Utilities

Architecture

Jonathan Carpenter, P.E. Charleston Branch Manager/

Public Utilities

Aaron Denham Testing & Inspection

Scope of Services

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

**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

380 Airport Circle, Beckley, WV – Lab & Field Office Princeton, WV – Pentree, Incorporated – Affiliate



Thrasher Engineering, Inc. Office – Clarksburg, WV



Thrasher Environmental, Inc. Office
- Charleston, WV

#### STATEMENT OF QUALIFICATIONS

Thrasher Engineering, Inc. (TEI) is a civil engineering consulting firm, specializing in public works projects. The majority of TEI'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 principal is Kenneth P. Moran, P.E.

Providing a full range of professional engineering services, Thrasher Engineering, Inc. currently maintains a staff of 200+ 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 TEI 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 **Pleasant Valley (Brown) Highwall & Portals** design project include:

#### SITE DEVELOPMENT

TEI has planned, surveyed, designed and provided construction management services for over 40 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 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 long-term 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.

<u>Grading Plans</u> - 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.

<u>Utility Layout/Mapping</u> - 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 19 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
- □ Soils and Geological Resources
- □ Cultural Resources –(Sub contracted to a reputable and approved Cultural Resource Consultant)
- ☐ Hazardous Materials



- Sediment and Erosion Control
- Consent Orders
- Compliance Schedules
- Site investigations
- □ SPCC Plans, Contingency Plans, Ground Water Protection Plans and Storm Water Pollution 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, TEI maintains a complete surveying department which includes 10 licensed professional land surveyors, twenty 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 TEI 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. TEI 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**

TEI 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**

TEI'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 Include:

- Concrete Testing and Inspection
- 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**

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

Civil 3D, Carlson and Microstation V8 software is utilized at 70 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

TEI offers the largest engineering staff in the State of West Virginia. The expertise of the TEI 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.

# **PROJECT TEAM**

TEI has assigned a team of experienced professionals to the **Pleasant Valley (Brown) Portals & Highwall** design project.

Chadwick D. Biller, P.E. will be the Principal-in-Charge. 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 TEI and manages site development, transportation and survey projects.



April Rohrbaugh will serve as Project Manager and her responsibilities regarding AML projects includes design of wet and modified mine seals, grading associated with reclaiming, storm water management, and erosion and sediment control.

**Mike Nestor, P.E.** 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 served as design engineer for the Roaring Creek and Anglin Run AML projects.

**Richard (RJ) Hovatter** will serve as **Project Engineer** for the project. Mr. Hovatter has extensive knowledge of abandoned mine land and emergency situations such as landslides and mine subsidence of abandoned mine land. Mr. Hovatter is responsible for the designs, scheduling, collection and reporting of mine surface, sediment erosion control plans and waterline feasibility studies.

Geo-technical services will be under the direction of Larry Nottingham of NGE, 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 as well as being a Partner in the firm. He is a graduate of Fairmont State University and is a Level V Certified Inspector by the WVDOH.

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

# CHADWICK D. BILLER, P.E. - PARTNER / PRINCIPAL-IN-CHARGE

# **SUMMARY OF EXPERIENCE**

Mr. Biller has experience in all aspects of engineering with specific emphasis on mine reclamation, site development, highways, roads, bridges, and airports. Mr. Biller joined the firm in 1999 and is a partner of 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 knowledge of state and federal building standards.

EDUC	ATION
	B.S., Civil Engineering, 1992 – West Virginia University
CERTI	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
REPRE	SENTATIVE PROJECT EXPERIENCE
Site De	evelopment Projects
	WV DEP Anglin's Run and Roaring Creek Projects
	WV DEP Overfield CS&P and Squires Creek
	WV DEP Lyons Landslide and Laurel Run #1
	Taylor County Commission, Re-roofing of Courthouse and Jail
	Fairmont State University Aerospace Center
	Raleigh County Memorial Airport Industrial Park
	Putnam Business Park
	Wood Products Business Park
	Aurora Flight Sciences
	Various Subdivision in Berkeley County Ranging From 12 to 420 Lots
	Site Plan for Hi-Tech Consortium Expansion, Fairmont, WV
	Site Plans for Nippon Thermostat, Green Metals and Schwans, Putnam County
	Pendleton County Courthouse Annex
	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
	Hurricane Business Park
	Shinnston City Park, Including Pool and Bathhouse

☐ City of Bridgeport, Walking Trail and Bridge

Airport	ts control of the con
	Harrison Marion Regional Airport – Improvement Master Plan
	Raleigh County Airport – Business Park and Master Plan
	Grafton Hospital, Helipad Relocation
	Parkersburg Airport – Industrial Park
	Huntington Tri-State – Industrial & Business Park
Highwa	ay/Road/Bridge Projects
	Old Bridgeport Hill New Storm Drainage System
	Snowshoe Drive Upgrade
	King Coal Highway
	Terra Alta Curve
	Lodgeville Road
	North Bridgeport Bypass
	Corridor H
	Upgrade of US Route 19
	East Street and US Route 50, Parkersburg
	Merrick Creek Connector
	City of Bridgeport, Valley Drive, Chenoweth Drive, Village Drive and Meadowbrook Mall
	Road
	Lodgeville Bridge
	Indian Fork Bridge
	Jakes Run Bridge
	Littleton and Watersnake Bridges
	Verner Bridge
	Rehabilitation of the 5 <sup>th</sup> Street Bridge, Parkersburg
	Rehabilitation of the 35 <sup>th</sup> and 36 <sup>th</sup> Street Bridges, Charleston
	Kittonsville Bridge Replacement, Lewis Co.
	Water Street Bridge Replacement, Logan Co.
	Wayne County High School Bridge Replacement
$\overline{\Box}$	David Morgan Memorial Bridge Marion County

#### APRIL ROHRBAUGH - PROJECT MANAGER

#### SUMMARY OF EXPERIENCE

Mrs. Rohrbaugh joined Thrasher Engineering in January of 2006 and serves as Staff Engineer in the site department at the Oakland Maryland Branch. Mrs. Rohrbaugh has experience in all aspects of site engineering, taking projects from survey to concept to construction. Specialties include: Design Surveying consisting of both field traversing and survey locations and aerial mapping, Conceptual Planning: planning for residential, commercial, and recreational developments, Site/Land Development Engineering: geometric layout of sites, subdivisions, and roads, grading, drainage, storm water management, erosion and sediment control, and various regulatory permitting requirements.

#### **EDUCATION**

□ B.S. Civil Engineering – West Virginia University, 2005

#### REPRESENTATIVE PROJECT EXPERIENCE

- ASHBY CREST ESTATES (Ashby, WV)- Responsible for design survey and topographic mapping and road design. Completed plat work for Mineral County Planning and Land Development approval. 54 Lot Subdivision
- ASPEN WOODS WEST (Garrett County, WV) Re-designed lot layout to incorporate more common area to accommodate equestrian use. Complete plat work for the Garrett County Planning and Land Development. 28 Lot Subdivision
- CRYSTAL SPRINGS WALKING TRAIL Completed a concept and design, as well as, overcame difficult site constraints which included wetlands, a stream crossing and slope compliance to meet ADA Standards.
- □ G&W LUMBER The existing lumber yard was extended to add approximately 1 acre of storage area. The site was graded to removing an excess of 17,000 CY of soil from the property. Also, an underground stormwater detention system was designed to maximize the storage area.
- ☐ GINSENG HILL On this design grass lined swales and stormwater structures were used to treat run-off. To drastically reduce the volume requirements of the stormwater structures, a clear water diversion swale along with a storm sewer system that carried the "clean water" to an existing outlet was utilized.
- □ HOWARD DON Single residential property which is located within the 100 year flood plan. Federal Emergency Management Agency (FEMA) required the submission of a conditional letter of map revision for fill (CLOMR-F) to approve the plans for removing a portion of the property out of the flood plain by placing fill. This project also required a permit from the Maryland Department of the Environment (MDE) for construction in an existing flood plain as well as a sand mound design approval from the Garrett County Health Department. When the grading and house was in place an as-built of the property was completed in order to resubmit to FEMA (LOMR-F) to permanently remove the property from the flood plane.
- □ JOHN FRAM (Garrett County, MD) Completed a sand mound design which was approved by the Garrett County Health Department.
- MAXING STEYER Completed the application to FEMA and plat of survey for a letter of map amendment (LOMA) proving that the existing Federal Insurance Rate Map (FIRM) included a portion of the property that was not within the 100 year flood plane, resulting in the removal of the property from the flood plane.

MCHENRY BUSINESS PARK (McHenry, MD) - Provided infrastructure design for a 180 acre Business Park located in McHenry, Maryland. Design responsibilities included: Design
survey and various platting requirements for land transfer and utility easements. Access
road designs including horizontal and vertical alignments and an entrance off of a county
road. The design of erosion and sediment controls for construction activities and swale
and culvert conveyances to 5 basins to control stormwater run off from the proposed
roadway infrastructure. Consulted with local utility companies to devise utility plans and
sections for cable, electric and telephone extensions and provided a roadway lighting plan.
Assisted in the design and layout of a potable water line extension including a site plan for
a proposed 250,000 gal water tank. Assisted in the design and layout of sanitary sewer
gravity and force main lines including site plans for 2 sewage lift stations. Participated in
weekly construction progress meetings and provided updates/reports to owner/developer.
MOUNTAINSIDE LAKEVIEW ESTATES (Garrett County, MD) - Mix-use design including
commercial and residential lots as well as utilizing the cluster design option for Garrett
County, MD. Responsible for the road design on steep slopes and planting plan for
stormwater bioretention treatment sites.
NORTH GLADE MEADOWS - 24 lot subdivision completed in two phases. The subdivision
layout consisted of one main road designed to follow along with the natural slope of the
land and two spur roads to create access to remote areas of the property. Grass lined
swales were utilized to remove the need of multiple stormwater ponds.
SWAN MEADOWS (Pleasant Valley, MD) - Responsible for the road design, low impact
stormwater management and erosion and sediment controls for this 7 lot subdivision.
THE HOMESTEAD (Oakland, MD) - Designed access road to minimize construction and
utilized grass lined swales and infiltration swales with rock bleeders in lieu of a stormwater
pond for this 8 lot subdivision.
THE RESERVE AT HOLY CROSS - Completed a useable shoreline and water depth survey
to provide the Maryland DNR with a revised dock configuration for the subdivisions
common access slips.
THOUSAND ACRES DEVELOPMENT AT DEEP CREEK LAKE (McHenry, MD) - Responsible
for all design surveying and plat work for an 800 acre mix-use property located McHenry,
MD. Also completed a comprehensive design of a 150 unit residential cluster subdivision
surrounding a proposed golf course. Provided a redesign of an existing 3 acre irrigation
pond to widen the dam to allow for a residential access road. Applied for a dam
modification permit from the Maryland Department of Dam Safety and devised an
Emergency Action Plan for a pond catastrophic event (breach).
TIMBERLINE FOUR SEASON RESORT - Devised a concept and marketing plat for future
expansion of the ski resort. The plan consisted of a mixed-use design including:
residential subdivisions, commercial area, lodging, and proposed ski trails.
WALGREENS - Completed civil construction plans including grading, storm sewer system
& sanitary sewer system plans and profiles, micro-bioretion basin with planting and
landscape plans. Provided submittal and RFI review. Prepared ADA sidewalk and Alta as-
built plats.
WHITEWATER SPRINGS - 23 lot subdivision on steep terrain with deep natural swales and
required a bridge crossing over an existing stream. Responsibilities included private
residential road design that maximized access to buildable lots and minimized grading
requirements. A construction permit required from MDE to place a bridge over the existing
stream to gain access to the subdivision. Stormwater management was achieved by the
design of multiple micro-basins were located along the roadways to provide low impact
treatment and not only lower construction costs (based on large basin design) but also
lower the future maintenance cost.

#### MICHAEL NESTOR - PROJECT ENGINEER

#### SUMMARY OF EXPERIENCE

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, utilizing all aspects of infrastructure design including street and lot layout, street profiles, extensions of public sewer and water systems, storm water drainage, storm water management, erosion and sediment control plans, and NPDES permitting.

# EDUCATION B.S. Civil Engineering Technology – Fairmont State University, 2003 CERTIFICATIONS Registered Professional Engineer (PE), State of West Virginia #18467 AFFILIATIONS American Society of Civil Engineers Eastern Panhandle Home Builders Association

#### REPRESENTATIVE EXPERIENCE

- WV DEP AML PORTAL AND DRAINAGE DESIGN- Design for access roads, drainage control channels, re-grading and wet-seal of deep mine portals for Anglin's Run and Roaring Creek sites in Barbour County.
   MILLARDSVILLE VILLAGE 26 townhouse lots on approximately 3.15 acres. Completed sketch plat, storm water management design, and street profiles.
   FAIRFAX FARM Section 2 15 single family residential lots on approximately 36.73 acres. Completed development of drainage areas, grading plan, erosion and sediment control plan, layout of lots, and Preliminary Plat design.
- □ PIKESIDE MEADOWS Section E 63 townhouse lots on approximately 17.51 acres. Prepared drawings for Public Service Districts.
- □ LITTLE GEORGETOWN ESTATES Sections 1 and 2 64 single family residential lots on approximately 127 acres. Completed lot layout, septic layout, design of sediment basin, turning lane, erosion and sediment control, and Preliminary Plat.
- WEBBER SPRINGS Section 3 119 single family residential lots on approximately 32.81 acres. Completed design of turning lane on WV Route 51.
- BROOKSIDE ESTATES Section 1 60 single family residential lots on approximately 101.86 acres. Completed Sketch Plat design along with septic reserve layout and initial grading and profiles.
- □ CREEKSIDE MEADOWS 95 single family residential lots on approximately 101.86 acres. Completed lot layout, Sketch Plat design, water and sewer extensions, and design of storm water management facilities.
- 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.
- □ 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. Completed design of storm water management, grading plan, and preparation of drawings
	for Preliminary Plat submittal.
	MAIDSTONE ON THE POTOMAC – 108 single family residential lots on approximately 40.5
	acres. Completed Sketch Plat design, water and sewer extensions, grading plan, erosion and sediment control plan, drainage plan, design of storm water management facilities, and Preliminary Plat design.
	NATIONAL PROPANE – Bulk Propane Storage Facility and office space on approximately 5.5 acres. Completed Sketch Plat, water and sewer extensions, grading plan, erosion and sediment control plan, drainage plan, design of storm water management facility, and
	Preliminary Plat design.
	BACK CREEK ACRES – 3 single family residential lots on approximately 6 acres.
	Completed Preliminary Plat, grading plan, and erosion and sediment control plan.
	MARTINSBURG INTERNAL MEDICINE – Completed Site Plan for city approval of 800 sf
	office addition.
	CHESTNUT HILL ESTATES – 29 single family residential lots on approximately 66 acres.
	Completed Sketch Plat design, lot and street layout, grading plan, and profiles.
	MVB BANK ADDITION – Completed Site Plan for approval of 900 sf bank addition. SPRING HILL Section 7 – 7 single family residential lots on approximately 7 acres.
	Completed lot layout, water and sewer extensions, grading plan, erosion and sediment
	control plan, profiles, grading plan, drainage plan, storm water management, and
	Preliminary Plat design.
	WILLIAMSPORT PARK ROAD EXTENSION – 650 foot road extension in Williamsport, MD.
	Completed design of road, including grading, drainage, storm water management, profiles, permitting, and specifications.
	INWOOD AND BAKER HEIGHTS WASTE WATER TREATMENT PLANTS – Completed Site
40000	Plans for county approval of facility upgrades.
	LEISURE LIVING ESTATES Section 4 – 10 single family residential lots on approximately 7
	acres. Completed Sketch Plat design, water and sewer extensions, grading plan, profiles,
	erosion and sediment control plan, drainage plan, storm water management, and
	Preliminary Plat design.
	CHUCK'S PIZZA – Completed Site Plan for 1,200 sf pizza shop on approximately 1.67 acres.
	Design included site layout, grading plan, erosion and sediment control plan, drainage and
	storm water management.
	FEDEX SMARTPOST – Upgrades to existing FedEx SmartPost location, including the
	addition of a guard shack and extension of gravity sewer system. Proposed work was
	granted approval with county building permit.
	OAK HILL, WV DRAINAGE PROJECT – Design of storm sewer upgrades for the town of Oak
	Hill. Project included the addition of a 2' x 6' box culvert under Trump Avenue, construction
	drawings, and specifications.  TBA OFFICE SITE – Construction of two new office buildings totaling 6,200 sf on
_	approximately 1.6 acres. Completed Sketch Plat, grading plan, and erosion and sediment
	control plan.
	control plan.

# RICHARD (RJ) HOVATTER, P.E. - PROJECT ENGINEER

#### SUMMARY OF EXPERIENCE

Richard Hovatter Jr. joined Thrasher Engineering, Inc. in 2011 and serves as Project Manager from TEI's Clarksburg Office. As a graduate of Fairmont State University and previous experience Mr. Hovatter has extensive knowledge of abandoned mine land and emergency situations such as landslides and mine subsidence of abandoned mine land. Mr. Hovatter is responsible for the designs, scheduling, collection and reporting of mine surface, sediment erosion control plans and waterline feasibility studies.

EDUC	ATION
	B.S. Civil Engineering Technology – Fairmont State University, 2002
CERTI	FICATIONS
	Registered Professional Engineer (PE), State of West Virginia #018460
	Registered Professional Engineer (PE), State of Pennsylvania #077844
REPRE	SENTATIVE EXPERIENCE
	WVDEP Thomas NE Phase I, II, III- developed group stabilization plan for multiple structures in the Town of Thomas to protect them from mine subsidence damage. Designed grout injection hole layout for structures based on existing utility locations to provide protection. Completed construction drawings, bid quantities, specifications and bid package.
	Ohio DNR Merkel Landslide- Designed emergency reclamation for a landslide that developed from an abandoned surface mine pit. Reclaimed the slip area.
	Ohio DNR Schnegg Landslide- Designed emergency reclamation plan for a landslide that
	developed from AMD discharge seep. Reclaimed slip area.  Ohio DNR Riddles Run Landslide- Designed emergency reclamation for a landslide that
_	developed down slope from abandoned deep mine entry. Reclaimed slip area.
	Ohio DNR Chaney Highwall- Designed a reclamation plan for an abandoned surface mine

 Maryland Bureau of Mines Permit 436 Haulroad Landslide- Designed emergency reclamation plan for a landslide that developed down slope from active surface mine haulroad. Reclaimed slip area.

highwall and pit area. Designed a borrow site and reclaimed pit and highwall area.

DRURY INN- Developed a grout stabilization plan for Drury Inn (St. Louis, MO) to protect proposed structure from possible mine subsidence damage. Designed grout injection hole

- Ohio DNR General Clay IM-0455- Site design and reclamation plan for abandoned clay surface mine. Consisted of several highwall and regrade areas. Provided positive surface runoff drainage to two storm water control ponds.
- Ohio DNR General Clay IM-0021- Site design and reclamation plan for abandoned clay surface mine. Consisted of several highwall and regrade areas. Provided positive surface runoff drainage.
- Ohio DNR McCourt Landslide- Designed reclamation plan for a landslide that developed in a previously reclaimed surface mine. Reclaimed slip area. Designed a rock toe key and finger drains to collect subsurface drainage and help stabilize the slip area.
- Ohio DNR Jones Trucking- Site design and reclamation plan for abandoned gravel pit.
   Regrading required to a safe and stable slope. Provided positive surface runoff drainage to a storm water control pond.

# AARON DENHAM - PARTNER / CONSTRUCTION MANAGEMENT & MATERIALS TESTING

# SUMMARY OF EXPERIENCE

■ WVDOH Meadowbrook Road

□ Fetterman Bridge

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

EDUC	ATION
	B.S. Civil Engineering Technology, 1999 – Fairmont State University
CERT	IFICATIONS
	Fairmont State University Level V Certification – Transportation Engineering Technologist
	Engineering Specialization
	WVDOH Aggregate Technician/Inspector
	WVDOH Bituminous Inspector/Technician
	Troxler Basic Safety – Nuclear Compaction Gauge
REPR	ESENTATIVE PROJECT EXPERIENCE
<u> </u>	Army Corp of Engineers, Tygart Dam
	Jackson County Airport
	Benedum Airport Authority 2001 Master Plan
	Benedum Airport Authority 2002 Master Plan
	Benedum Airport Authority 2003 Master Plan
	Benedum Airport Authority, 2004 Master Plan
	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
	Fairmont State University Squibb Wilson Boulevard Demolition and Parking Lots; Lead
	Inspector & Testing
	Fairmont State University Renovation; Testing
	City of Pleasant Valley Sidewalk Project; Lead Inspector & Testing
	WVDOH South High Street Bridge
	Wheeling Route 2 Bypass
	Lake Floyd Dam
	Baker Dam Site 10
	City of Bridgeport 279 By-Pass
	Mon-Fayette Expressway

#### REPRESENTATIVE EXPERIENCE

TEI 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 **Pleasant Valley (Brown) Highwall & Portals** 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

#### Anglin's Run #1 Barbour County

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 Randolph 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

304-926-0485

**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.





- ☐ 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

<u>Harrison County Business and Technology Park</u> <u>Robert C. Byrd Industrial Park – Hardy County</u> <u>White Oaks Business Park – Harrison County</u>

TEI 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 onsite 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 onsite utilities including water and sanitary sewer.

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.

**Project Description**: Thrasher Engineering served as a 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-of-way 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.

# **PROJECT APPROACH**

In order to develop an understanding of the WV DEP's needs for this project, TEI studied the information provided in the RFQ. Based upon our findings, 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. TEI 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.** TEI 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, TEI 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.** TEI 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. TEI 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. TEI inspectors that are certified by the State of WV are available to be used if the WVDEP requests this service.

W AML CC	WEST VIRGII	WEST VIRGINIA DEPARTMENT CONSULTANT QUALIFICATION	としま	TAL	PROTECTION Attachment	"B"	
PROJECT NAME Pleasant Valley (Brown) Highwall Portals DEP 15611	rall &	DATE (DAY, MONTH, JANUARY 1, 2012	H, YEAR)		FEIN 55-0633596-6		
1. FIRM NAME THRASHER ENGINEERING, INC	•	2. HOME OFFICE BUSINESS ADDRESS 30 COLUMBIA BLVD., CLARKSBURG, 26301	BUSINESS ADDRESS D., CLARKSBURG,	WV	3. FORMER FIRM NOT APPLICABLE	M NAME	
4. HOME OFFICE TELEPHONE 304-624-4108	5. ESTABLISHED	SHED (YEAR	6. TYPE OWNERSHIP Individual C Partnership J	VERSHIP al Corporation <b>X</b> nip Joint-Venture		WV REGISTER sadvantaged erprise) YES	RED DBE Business NO X
7. PRIMARY AML DESIGN OFFICE: 30 COLUMBIA BLVD, CLARKSBI 300 ASSOCIATION DRIVE, CH	OFFICE: ADDRESS/ T CLARKSBURG, WV / 3 IVE, CHARLESTON, W	TELEPHONE/ PERSON 304-624-4108 / KE WV / 304-343-7601	NNE /	The state of the s	AML DESIGN PERSONNEL EACH OFFICE P.E., VICE PRESIDENT / 12 ENTER, MANAGING PARTNER / 2	EACH OFFICE / 12 ER / 2	
8. NAMES OF PRINCIPAL OFFICERS H. Wood Thrasher, P.E Press Kenneth P. Moran, P.E Vice	FICERS OR MEMBERS - President - Vice President	S OF FIRM	8a. NAME, TITLE, wm. RANDY WATSON -3, CHAD BILLER, P.E3, CHAD M. RILEY, P.E. CLAY P. RILEY, P.E. DANIEL E. FERRELL, AARON DENHAM -304-6, RON STANLEY, CPA -3 ROBERT MILNE, P.E. CRAIG BAKER, ASSOC. JONATHAN CARPENTER,	BA. NAME, TITLE, & TELEPHONE NUMIWM. RANDY WATSON -304-624-4108 - PARTNER CHAD BILLER, P.E304-624-4108 - PARTNER CHAD M. RILEY, P.E304-624-4108 - PARTNER CLAY P. RILEY, P.E304-624-4108 - PARTNER ADNIEL E. FERRELL, P.E304-624-4108 - PARTNER RON STANLEY, CPA -304-624-4108 - PARTNER ROBERT MILNE, P.E304-624-4108 - PARTNER ROBERT MILNE, P.E304-624-4108 - PARTNER CORAIG BAKER, ASSOC. AIA -343-7601 - PARTNAN CARPENTER, P.E304-343-7601 - PARTNAN CARPENTER, P.E304-624-4108 - PARTNAN CARPENTER, P.E304-624-	. & TELEPHONE NUMBER - 04-624-4108 - PARTNER 304-624-4108 - PARTNER 304-624-4108 - PARTNER P. E304-624-4108 - PARTNER 24-4108 - PARTNER 04-624-4108 - PARTNER -304-624-4108 - PARTNER 304-624-4108 - PARTNER AIM -304-624-4108 - PARTNER P. E304-343-7601 - PARTNER P	OTHER PRINCIPALS	STY
9. PERSONNEL BY DISCIPLINE							
22 ADMINISTRATIVE 4 ARCHITECTS - BIOLOGIST 20 CADD OPERATORS - CHEMICAL ENGINEERS 38 CIVIL ENGINEERS 33 CONSTRUCTION INSPECTORS	- ECOLOGISTS - ECONOMISTS - ELECTRICAL 2 ENVIRONMEN - ESTIMATORS 1 GEOLOGISTS - HISTORIANS	ECOLOGISTS ECONOMISTS ELECTRICAL ENGINEERS ENVIRONMENTALISTS ESTIMATORS GEOLOGISTS HISTORIANS	1 LANDSC MECHAN MECHAN 3 PHOTOC 9 PLANNE COTTOC	LANDSCAPE ARCHITECTS MECHANICAL ENGINEERS MINING ENGINEERS PHOTOGRAMMETRISTS PLANNERS: URBAN/REGIONAL	47 — 10 ONAL	STRUCTURAL ENGIN SURVEYORS TRAFFIC ENGINEER OTHER	ENGINEERS INEERS
2 DESIGNERS — DRAFTSMEN	- HYDROLOGISTS	GISTS	2 SPECIFI WRITERS		196	TOTAL PERSONNEL	d
TOTAL NUMBER OF WV REGIS *RPEs other than Civil an supervise and perform tl	REGISTERED PROF 711 and Mining m 72 orm this type of	ISTERED PROFESSIONAL ENGINEERS and Mining must provide supportibis type of work.	IN F	OFFICE: itation tha	4 qualifies	them to	
10. HAS THIS JOINT-VENTURE WORKED TOGETHER	RKED TOGETH	BEFORE?	YES	□ NO NOT APPLICABLE	CABLE		

11. OUT? 7 KEY CONSULTANTS/SUB-CONSULTANTS ANTICI Ques unnaire".	PATED TO USED. Attach "AML	Consultant Confidential Qual: sation
NAME AND ADDRESS: NOVEL GEO-ENVIRONMENTAL	SPECIALTY: GEO-TECHNICAL SERVICES	WORKED WITH BEFORE  X Yes
NAME AND ADDRESS:	SPECIALTY:	NO WORKED WITH BEFOREYes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE  Yes

- TO THE WV DEP FOR BOTH DRAINAGE AND PORTAL AML PROJECTS AS WELL AS FOR WATER LINE AND WATER TREATMENT PLANT PROJECTS Remediation/Mine Reclamation Engineering?

  \*\* ENGINEERING HAS PERFORMED ENGINEERING DESIGN SENTICES NUMEROUS PROJECTS INVOLVING LAND REMEDIATION, STORM WATER DRAINAGE, SLIP REPAIR, MASS GRADING IN Description and Number of Project: THRAS. Is your firm experienced in Abandoned Mine Lan RELATED TO AML. NUMEROUS PROJECTS INVOLVING LAND RELATION TO SITE DEVELOPMENT AND HIGHWAY PROJECTS. A 12.
- MATERIALS TESTING AND ANALYSIS LAB AT ITS CLARKSBURG AND BECKLEY OFFICES. SOIL ANALYSIS EXPERIENCE IS SPECIFICALLY IN THRASHER ENGINEERING MAINTAINS AN AASHTO CERTIFIED Is your firm experienced in Soil Analysis? Description and Number of Projects: GRADATIONS AND CLASSIFICATION. В.
- WEST VIRGINIA DEPARTMENT OF HIGHWAYS AND WATER LINE EXTENSION PROJECTS, THRASHER ENGINEERING HAS EXTENSIVE EXPERIENCE Description and Number of Projects: THROUGH OUR WORK IN THE PLANNING AND DESIGN OF BRIDGES FOR THE IN HYDROLOGY. WE ALSO HAVE EXTENSION EXPERIENCE IN HYDRAULIC MODELING FOR WATER AND WASTEWATER PROJECTS THROUGHOUT Is your firm experienced in hydrology and hydraulics? WEST VIRGINIA.
- Does your firm produce its own Aerial Photography and Develop Contour Mapping? Description and Number of Projects: Ъ.
- WE UTILIZE THE SERVICES OF NUMEROUS FIRMS, INCLUDING PENTREE, INC. WHICH IS AN AFFILIATE COMPANY OF THRASHER ENGINEERING INC. THROUGH THE RESOURCE ENGINEERING GROUP HOLDING COMPANY. NO
- Description and Number of Projects: THRASHER ENGINEERING HAS DESIGNED OVER 100 WATER LINE EXTENSION PROJECTS IN THE PAST 20 YEARS OF BUSINESS. PROJECTS INCLUDE LINES, BOOSTER STATIONS, WATER TREATMENT PLANTS, AND (Include any experience your firm has STORAGE FACILITIES. MANY OF THESE PROJECTS ARE IN AREAS WITH AML AFFECTED WATER evaluation of aquifer degradation as a result of mining. Is your firm experienced in domestic waterline design? 四
- Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design? . Щ

PROJECTS. OVERFIELD IN BARBOUR COUNTY AND SQUIRES CREEK IN PRESTON COUNTY. BOTH OF THESE PROJECTS ARE OUT TO BID NOW. COUNTY, WEST VIRGINIA. THE CHARLESTON WV BRANCH OF OUR COMPANY DESIGNED AN AWARD WINNING WATER TREATMENT PLANT FOR WE CURRENTLY ARE DESIGNING TWO PROJECTS FOR AML. LAUREL RUN PRESTON COUNTY AND LYONS LANDSLIDE IN HARRISON COUNTY. Description and Number of Projects: TEI RECENTLY DESIGNED TWO RECLAMATION PROJECTS FOR WVDEP RELATED SPECIFICALLY TO ACID MINE DRAINAGE AND ABATEMENT, ONE IS LOCATED IN BARBOUR COUNTY AND ONE IN RANDOLPH MARTINKA MINES IN MARION COUNTY, WEST VIRGINIA TO TREAT DRAINAGE.TEI HAS COMPLETED THE DESIGN OF TWO MORE AMI

water out need to essentials) NAME & TITLE (last, First, Middle Int.)	YEARS OF EXPERIENCE	
MORAN, KENNETH P.	()	
Mr. Moran joined Thrasher Engineering in 1991 and currently serves Chief Engineer.	s as Vice President and Chief Operations Officer and	
for management feasibility studies and and private clients. Additionally, Mr. ling and regulatory agencies in conjunct	design of public utility and site development projects Moran has extensive experience in all aspects of ion with projects.	
EDUCATION (Degree, Year, Specialization) B.S., Civil Engineering	Techn	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS    Friendship Lodge No.56 A.F. & A.M.   WV Society of Professional Engineers   Member of American Society of Civil Engineers	REGISTRATION (Type, Year, State)  Registered Professional Engineer (PE), State of West Virginia #11309  Registered Professional Engineer (PE), State of Virginia#0102021855	
	Registered Professional Engineer (PE), State of Ohio #64412  Professional Land Surveyor (PS), State of West Virginia#1333	
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONdata but keep to essentials)	RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
BILLER, CHADWICK D. P.E.	YEARS OF AML RELATED DESIGN YEARS OF DONESTIC EXPERIENCE: 18 EXPERIENCE: 18	
Brief Explanation of Responsibilities: Mr. Biller has experience ion site development, highways, roads, bridges, and airports. Mr. Expanser of Thrasher Engineering. For Thrasher Engineering, Mr. Bil and private site development projects, specializing in airports, hall of the firm's WVDOT/DOH projects, he has extensive knowledge of	ce in all aspects of engineering with specific emphasis r. Biller joined Thrasher Engineering in 1999 and is a Biller is responsible for WV DEP AML project and public s, highways, roads and bridges. As Project Manager for ge of state and federal building standards.	
EDUCATION (Degree, Year, Specialization:  B.S., Civil Engineering, 1992 - West Virginia University	ity	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  American Society of Civil Engineers  Society of American Military Engineers  National Society of Professional Engineers	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. PERL AL HISTORY STATEMENT OF PRI) data but keep to essentials)	PRINCIPALS AND ASSOCIATEESPOI	ESPONSIBLE FOR AML PROJECT DESIGN	(Furnish compless
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
NESTOR, MICHAEL - PROJECT ENGINEER	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 7	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 7
Brief Explanation of Responsibilities Engineer. Mr. Nestor has a wide range all aspects of infrastructure design s water systems, storm water drainage, s In addition, Mr. Nestor oversees all g staff, CAD technicians, and staff engisurveying, material testing, and envis	Mr. Nessor of experiments of experim	j in 2005 ar ercial site profiles, liment contr Associates, of projects	id serves as Project Manager and development projects, utilizing extensions of public sewer and col plans, and NPDES permitting. directing administrative covering site development,
EDUCATION (Degree, Year, Specialization)  B.S. Civil Engineering Technology	<pre>lon) ogy - Fairmont State University,</pre>	ty, 2003	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  American Society of Civil Engineers  Eastern Panhandle Home Builders Ass	IONS neers s Association	REGISTRATION (Type, Year, State PROFESSIONAL ENGINEER West Virginia	State) R (P.E.), 2009, State of
13. PERSONAL HISTORY STATEMENT OF PRI. data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPON	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
ROHRBAUGH, APRIL	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 6	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities Mrs. Rohrbaugh joined Thrasher Engineering the Oakland Maryland Branch. Mrs. Rohrbaugi survey to concept to construction. Her resp seals, grading associated with reclaiming, other responsibilities include: Design Sur- mapping. Conceptual Planning: planning for Development Engineering: geometric layout management, erosion and sediment control, management (Degree, Year, Specialization)  EDUCATION (Degree, Year, Specialization)  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	in January of 200 h has experience i ponsibilities with storm water manag veying consisting residential, comm of sites, subdivis and various regula		Ingineer in the site department at engineering, taking projects from Design of wet and modified mine sediment control. Mrs. Rohrbaugh's ng and survey locations and aerial id developments. Site/Land ig, drainage, storm water ments.  Pring  Pring

STATEMENT OF PRINCIPALS AND ASSOCIATES <b>RESPONSIBLE FOR AML PROJECT DESIGN</b> (Furnish complete essentials)		YEARS OF AML DESIGN EXPERIENCE: YEARS OF AML RELATED DESIGN YEARS OF DOMESTIC  PROJECT  8 WATERLINE DESIGN WATERLINE DESIGN EXPERIENCE:-	Responsibilities: Richard Hovatter Jr. joined Thrasher Engineering, Inc. in 2011 and serves as TEI's Clarksburg Office. As a graduate of Fairmont State University and previous experience Mr. ve knowledge of abandoned mine land and emergency situations such as landslides and mine ned mine land. Mr. Hovatter is responsible for the designs, scheduling, collection and reporting liment erosion control plans and waterline feasibility studies.	ear, Specialization) ence, 2002, Civil Engineering Technology - Fairmont State University	SIONAL ORGANIZATIONS  REGISTRATION (Type, Year, State)  Professional Engineer (P.E.), 2009, State of West Virginia  Professional Engineer (P.E.), 2010, State of Pennsylvania	STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT essentials)	YEARS OF EXPERIENCE	YEARS OF AML DESIGN EXPERIENCE: 24 EXPERIENCE: 24 EXPERIENCE: 24	of Responsibilities Mr. Newbrough joined Thrasher Engineering in 1990. Mr. Newbrough has extensive impects of surveys, including but not limited to boundary and easement surveys and the preparation descriptions. Mr. Newbrough also performs courthouse research, computes field data for construction set GPS raw data for both public and private clientele in conjunction with Thrasher Engineering separate contracts. He also serves in the elected position of Harrison County (WV) Surveyor.	Year, Specialization) John Tyler Community College, Chester, VA sr Center, Clarksburg, WV	SIONAL ORGANIZATIONS  Association of Land Surveyors ess on Surveying and Mapping  OSHA Hazardous Waste Operations and Emergency Response Center 29 CFR 1910.120  US Department of Labor/Mine Safety and Health Administration
OF S)	NAME & TITLE (Last, First, Middle Int.)	HOVATTER, RICHARD - PROJECT MANAGER	Brief Explanation of Responsibiliti Project Manager from TEI's Clarksbu Hovatter has extensive knowledge of subsidence of abandoned mine land. of mine surface, sediment erosion o	(Degree, Year, Specia.	MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	권	NAME & TITLE (Last, First, Middle Int.)	NEWBROUGH, KURT	of Responsible aspects descriptions of Secritarian secretarian sec	EDUCATION (Degree, Year, Specializa Surveying - John Tyler Commun United Career Center, Clarksh	

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

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.

locations. This will allow work designed for AML to be prepared and updated at the office location that best meets the our Connected through a Virtual Private Network, our CAD staff has the ability to share necessary plans among needs of the scope of services.

Carlson and Microstation V8 software is utilized at 70 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 offi<mark>c</mark>es Civil 3D,

Thrasher Engineering, Inc. also utilized top-of-the line survey equipment. Our survey work is accomplished with global (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: positioning systems

- Leica T502 Total Station Instrument
- Trimble GPS
- 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

Section of the last of the las	PROJECTS
	NGINEER OF RECORD: SITE DEVELOPMENT PROJECTS
	SITE DEV
	RECORD:
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	NGINEER
	YOUR FIRM IS THE DESIGNATE.
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T COMPLETE	1000%	% in	% 10 %	8 2 8	in %	20%	4 0 % %	
PERCENT								ON-GOING
ESTIMATED CONSTRUCTION	\$700,000.00	\$450,000.00	\$500,000.00	\$12,100,000.00	\$3,500,000.00	\$700,000.00	\$1,500,000.00	\$500,000 to \$1,000,000.00
NATURE OF YOUR FIRM'S RESPONSIBILITY	ENGINEERING DESIGN FOR PORTAL SEALING, DRAINAGE AND RECLAMATION	ENGINEERING DESIGN FOR PORTAL SEALING, DRAINAGE AND RETAINING WALL	ENGINEERING DESIGN FOR PORTAL SEALING, DRAINAGE AND BACKFILLING HIGHWALL WITH REFUSE	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING	REPAIR SLIP AREA WITH A PILE RETAINING WALL	ENGINEERING DESIGN FOR PORTAL SEALING, DRAINAGE AND BACKFILLING HIGHWALL WITH REFUSE	SITE DEVELOPMENT DESIGN (LAND PLANNING, GRADING, UTILITIES) SURVEY, CONST. MGT, MATERIALS TESTING
NAME AND ADDRESS OF OWNER	WV DEP- DEPARTMENT OF AML 601 57th Street, SE Charleston, WV 25304	WV DEP-DEPARTMENT OF AML 601 57" STREET, SE CHARLESTON, WV 25304	WV DEP-DEPARTMENT OF AML 601 57" STREET, SE CHARLESTON, WV 25304	HIGH TECH CORRIDOR DEVELOPMENT, LLC MR. JACK KEELEY PO BOX 1532 CLARKSBURG, WV 26302	GARRETT COUNTY EDA 203 SOUTH 4TH STREET COURTHOUSE ROOM 208 OAKLAND, MD 21550 301-334-1921	WV DEP-DEPARTMENT OF AML 601 57" STREET, SE CHARLESTON, WV 25304	WV DEP-DEPARTMENT OF AML 601 57" STREET, SE CHARLESTON, WV 25304	BENEDUM AIRPORT AUTHORITY RICK ROCK, AIRPORT DIRECTOR 2000 AVIATION WAY RRIDGEDORT WV
PROJECT NAME, TYPE AND LOCATION	ANGLIN'S RUN AND ROARING CREEK STREAM AML RECLAMATION BARBOUR AND RANDOLPH COUNTIES, WV	OVERFIELD LAFFERIY CSP BARBOUR COUNIY, WV	SQUIRES CREEK PORTALS / REFUSE PRESTON COUNTY, WV	WHITE OAKS BUSINESS PARK SITE DEVELOPMENT AND UTILITIES HARRISON COUNTY, WV	MCHENRY BUSINESS PARK SITE DEVELOPMENT AND UTILITIES GARRETT COUNTY, MD	LYONS LANDSLIDE HARRISON COUNTY, WV	LAUREL RUN #1 PRESTON COUNTY, WV	NORTH CENTRAL WV AIRPORT HARRISON COUNTY, WV VARIOUS - HANGERS /STORM WATER

TOTAL NUMBER OF PROJECTS:

6 (TOTA 4 FULL APPROXIMATELY 30 SITE DEVELOPMENT APPROXIMATELY 40 MILLION)

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD: WATER TREATMENT AND DISTRIBUTION PROJECTS

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
CHESTNUT RIDGE PSD BARBOUR/PRESTON EXTENSION BARBOUR COUNTY, WV	CHESINUI RIDGE PSD 209 S MAIN STREET P.O. BOX 386 PHILIPPI, WV 26416	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION.	\$9,500,000	30%
JESSICA LYNCH WATER LINE EXTENSION WIRT COUNTY, WV	TOWN OF ELIZABETH 200 BEVERLY STREET P.O. BOX 478 ELIZABETH, WV 26143	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$3,600,000	%0 8
SOUTHWESTERN PSD WATER LINE EXTENSION / REPLACEMENT	SOUTHWESTERN WATER PUBLIC SERVICE DISTRICT P. O. BOX 98 FLEMINGTON, WV 26347	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$10,430,000.	30%
HAMRICK PSD MOORE/PORTERWOOD EXTENSION TUCKER COUNTY, WV	HAMRICK PSD PO BOX 228 HENDRICKS, WV 26271	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,100,000.	25 %
LINCOLN COUNTY PSD WATER LINE EXTENSION PROJECTS	LINCOLN PSD P.O. BOX 38 240 LITTLE COAL RIVER RD. ALUM CREEK, WV 25003	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$6,920,000.	25,8
POCAHONTAS COUNTY PSD WATER LINE REPLACEMENT DURBIN / BARTOW/FRANK	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$10,456,000.	55 85
CITY OF SALEM, WEST VIRGINIA WATER LINE REPLACEMENT	SALEM, CITY OF P.O. BOX 352 229 W. MAIN SALEM, WV 26426	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$1,500,000.	% 0 8
TOTAL NUMBER OF PROJECTS: 7 REPRESENTED (APPROXIMA ADDITIONAL CURRENTLY IN PRELIMINARY / DESIGN OR C PHASES	ROXIMA OR C	TOTAL ESTIMATED SONSTRUCTION \$32,830,000.00 ESTIMATED COST	TOTAL ESTIMATED CONSTRUCTION COSTS: \$32,830,000.00 REPRESENTED ESTIMATED COST OF ALL JOBS APPROXIMATELY	\$150,000,000.00

15. CUR T ACTIVITIES (	ON WHICH YOUR FIRM IS THE	DESIGNATE	"NGINEER OF RECORD: SANITARY SEWER PROJECTS	ROJECTS
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
KINGWOOD SEWER REPLACEMENT AND SERVICE EXTENSIONS KINGWOOD, WV	CITY OF KINGWOOD 313 TUNNELTON STREET KINGWOOD, WV 26537	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$10,000,000	% %
GREATER HARRISON COUNTY PSD PHASE II-B 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	\$6,000,000	% \G
TENNERTON PSD PHASE III 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	\$6,800,000	w %
POCAHONTAS COUNTY PSD WWTP AND COLLECTION SYSTEM POCAHONTAS COUNTY, WV	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$11,600,000	% ഗ ത
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	ه کا
MALDEN PUBLIC SERVICE DISTRICT SANITARY SEWER REHABILITATION KANAWHA COUNTY, WV	MALDEN 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.	% on &
CANYON PUBLIC SERVICE DISTRICT SANITARY SEWER UPGRADE AND EXT MONONGALIA COUNTY, WV	CANYON PSD 12 WICHITA STREET MORGANTOWN, WV 26508	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION	\$6,500,000.	% S &
TOTAL NUMBER OF PROJECTS: TOTAL ACTIVE SANITRY SEWER	7 REPRESENTED R PROJECTS APPROXIMATELY 32	TOTAL ESTIMATED  TOTAL FOR ALL PI	CONSTRUCTION COSTS:	\$70,300,000.00

)					9.
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT	COMPLETE
COUNTY LINE BRIDGE, MARSHALL COUNTY	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$1,800,000.	4 0 %	٥°
MINERAL WELLS ROUTE 2 WOOD COUNTY	WVDOT/DOH 1900 KANAWHA BLVD EAST CHARLESTON, WV 25305	PRELIMINARY ENGINEERING, DESIGN, SURVEY	\$6,000,000	10%	oko
TOTAL NUMBER OF PROJECTS:  6 (TOTAL IN FULL APPROXII APPROXIMATELY 40 MILLION)	MATELY 30 SITE DEVELOPMENT	TOTAL ESTIMATED	TED CONSTRUCTION COSTS: \$7,800,000		٠

15. CUR' 'T ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATE' 'NGINEER OF RECORD: HIGHWAY, BRIDGE, SIDEWALKS

	CONSTRUCTION COST	YOUR FIRMS RESPONSIBILITY	\$50,000,000.	4		
RS	ESTIMATED CONS	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			
16. CUR' T ACTIVITIES ON WHICH YOUR FIRM IS SE	NATURE OF FIRMS RESPONSIBILITY		SITE DEVELOPMENT ENGINEERING DESIGN (GRADING/ STORM WATER/UTILITIES/ ROADS)			
16. CUR T ACTIVITI	PROJECT NAME, TYPE AND LOCATION		MC DOWELL COUNTY FEDERAL PRISON WELCH, WV SITE DEVELOPMENT			

17. CC LETED WORK WITHIN LAST	5 YEARS ON WHICH YOUR FIRE	AS THE DESTGNATED ENGINEER OF RECORD		
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION CO	YEAR	CONSTRUCTED (YES OR NO)
RALEIGH MEMORIAL AIRPORT RALEIGH COUNTY, WV	RALEIGH CO AIRPORT AUTHORITY 176 AIRPORT CIRCLE, ROOM 115 BEAVER, WV 25813-9475	\$5,000,000.00 - PHASE I	2007	
WOLFE CREEK PARK FAYETTE COUNTY, WV	FAYETTE COUNTY COMMISSION FAYETTE COUNTY COURTHOUSE 100 COURT STREET FAYETTE, WV 25840-0307	\$4,500,000 PHASE 1	2007	S표ス
CRES	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	\$ 900,000	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
NG- KTE NTY	NORTON-HARDING-JIMTOWN PSD P.O. BOX 87 SCOTT ROAD NORTON, 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	오프ス

17. COMPLETED WORK WITHIN LAST 5	YEARS ON WHICH YOU WERE THE DESIGNATED	NATED ENGINEER OF RECORD		
OJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	1 1	YEAR	CONSTRUCTED (YES OR NO)
NICHOLAS COUNTY BUSINESS PARK, NICHOLAS COUNTY, WV SITE DEVELOPMENT	NICHOLAS CO BLDG COMMISSION 700 MAIN STREET, SUITE 1 SUMMERSVILLE, WV 26651	\$2,500.000.00	2008	Say
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	GILMER COUNTY PSD 232 W. MAIN STREET GLENVILLE, WV 26351	\$2,500,000	2008	Say
HODGESVILLE PUBLIC SERVICE DISTRICT; DESIGN AND CONSTRUCTION OF WATER LINE EXTENSION, BOOSTER STATIONS, AND WATER STORAGE TANK	HODGESVILLE PUBLIC SERVICE DISTRICT 188 FAYETTE STREET P.O. BOX 758 BUCKHANNON, WV 26201	\$3,100,000	2004	YES
CITY OF CAMERON WATER STORAGE TANK MARSHALL COUNTY, WV	CITY OF CAMERON 44 MAIN STREET CAMERON, WV 26033	\$2,000,000.00	2008	YES
HAMRICK PUBLIC SERVICE DISTRICT, TUCKER COUNTY, WEST VIRGINIA; DESIGN, PREPARATION AND CONSTRUCTION MANAGEMENT TO UPGRADE THE WATER TREATMENT PLANT	HAMRICK PUBLIC SERVICE DISTRICT P.O. BOX 228 HENDRICKS, WV 26271	\$2,461,000	2004	YES
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	X포S
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

	CONSTRUCTED (YES OR NO)	YES	YES	YES			
	YEAR	2008	2008	2008			
NATED ENGINEER OF RECORD	ESTIMATED CONSTRUCTION COST	\$1,300,000.	\$1,119,000.00	\$1,200,000.			
YEARS ON WHICH YOU WERE THE DESIGNATED	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	PROJECT NAME, TYPE AND LOCATION	JAKES RUN BRIDGE MONONGALIA COUNTY, WV	ICG - THREE FORKS BRIDGE TAYLOR COUNTY	CITY OF RIPLEY - MAIN STREET REVITALIZATION - JACKSON CO.			

JUR FIRM TED WITH OTHER FIRMS (INDICATE PHASE OF WORK FOR WHIC. 18. PLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE ASSOWAS RESPONSIBLE)

WAS RESPONSIBLE)						
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED	FIRM ASSOCIATED WITH	IATED
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		2003	YES	BELL JUSTICE FACILITIES	
FEDERAL BUREAU OF PRISONS -CANAAN 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	SI
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	8
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	TES
19. USE THIS SPACE TO PI PERFORM WORK FOR TH	JSE THIS SPACE TO PROVIDE ANY ADDITIONAL INFORMATION PERFORM WORK FOR THE WV ABANDONED MINE LANDS PROGRAM	MATION OR DESCRIPTION OF RESOURCES ROGRAM	SUPPORTING	YOUR FIRM'S	QUALIFICATIONS T	TO

# SEE ATTACHMENT - STATEMENT OF QUALIFICATIONS

	DATE: MARCH 1, 2012	
	PRINCIPAL-IN-CHARGE DA	
	TITLE: PARTNER /	
20. THE FOREGOING IS A STATEMENT OF FACTS.	SIGNATURE: Hund Bull	A GRITTE CHADMICH CHARACTER OF THE CONTRACT OF

AML and RELATED PROJECT EXPERIENCE M	OJECT E.	XPERIENC	E MATRIX	XIF																		
							PRC	JECT E	XPERIE	NCE REC	PROJECT EXPERIENCE REQUIREMENTS	STN					PRIM	ARY STAF	PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional	SIPATION P=Profe	/CAPACI	<b>}</b>
PROJECT	Exp. Basis C=Corp. P=Personal	Additional Info Provided in Section (s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	noiteulev∃ gninimeA	Mine/Refuse Fire Abatement Subsidence	noitsetigation noitsetiliM stseW suobseseH	Disposal Project Specifications	Water Quality  Evaluation/Miligation/	Replacement Construction Inspection/Managem ent	Water Treatment	Eq;ulpment/Structure	Stream Restoration	Seotechnical/Stability						
													100									
Anglin's Run & Roaring Creek Stream AML	O			×	×	×				×				×		×						
Overfield Lafferty CSP	O		×	×	×	×				×						×						
Squires Creek Portals	O		×	×	×	×				×	555			×		×						Win B. J.
White Oaks Site Development & Utilities	O									×	700	×				×						
McHenry Site Development & Utilities	O									×		×				×						
Lyons Landslide	O		×			×				×						×						
Laurel Run #1	v		×	×	×	×				×				×		×						
NCWV Airport	ပ									×		×		×		×						
Chestnut Ridge PSD	O									_	×	×										782
Jessica Lynch Water Line Extension	၁										×	×								33.		
Hamrick PSD	U										×	×										
Lincoln County PSD	O									×		×				×						
City of Salem	O									_	×	×										
* List whether project experience is corporate or p	perience is	s corporate	or perso	personnel based or both	sed or b	oth.																

Attachment "C"

<sup>\*</sup> List whether project experience is corporate or personnel based or both.

\*\* Use this area to provide specific sections or pages if needed for reference.

\*\*\* List Primary Design personnel and their functional capacity for the projects listed.

AML and RELATED PROJECT EXPERIENCE	OJECT E	XPERIENC	E MATRIX	XII																		
							PRO	JECT EX	KPERIE	PROJECT EXPERIENCE REQUIREMENTS	QUIREM	ENTS					PRII	PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional	IFF PART	ICIPATIO t P=Prof	N/CAPAC essional	È
PROJECT	Exp. Basis Cacorp P=Personal	Additional Info Provided in Section (s)	Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Podal/Shaft Closure	Hydrologlc/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement Subsidence	noisetigation Mitigation Hazardous Waste	Disposal	Project Specifications  Water Quality  Evaluation/Mitigation/	Replacement Construction Inspection/Managem	enl Water Treatment	Eq;uipment/Structure	Stream Restoration	Geotechnical/Stability						وسر تدو
												S. P. S.										
Pocahontas County PSD	O										×	×	1 (50)			×						
Southwestern PSD	O										×	×				×						
Kingwood Sewer	O										×	×						100				
Greater Harrison PSD	O										×	×				×						
Tennerton PSD	O										×	×	(216									
Pocahontas PSD WWTP	υ	S No.				×					× ×	×	×			×						
Hepzibah PSD	O										×	×	88									
Maiden PSD	O										×	×	200	s .								
Canyon PSD	O										×	×	1983									
County Line Bridge	O					×					×				×	×						
Mineral Wells Rt. 2	O					×		y.		913	×				×	×						
McDowell County Federal Prison	S					×		·			×	×				×						
* List whether project experience is corporate or	perience i	s corporate		personnel based or both	sed or bo	ıth.	1	-	-		-	1	-	-								

Attachment "C"

List whether project experience is corporate or personnel based or both.
 Use this area to provide specific sections or pages if needed for reference.
 List Primary Design personnel and their functional capacity for the projects listed.

	DEDAGOAA	
DEO No	DEP15611	

## STATE OF WEST VIRGINIA Purchasing Division

# PURCHASING AFFIDAVIT

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

### **DEFINITIONS:**

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

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

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

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

# Wendor's Name: Thrasher Engineering, Inc. Authorized Signature: Date: March 1, 2012 State of West Virginia County of Harrison , to-wit: Taken, subscribed, and sworn to before me this 29 day of February , 20 /2 My Commission expires May 23 , 20 21 AFFIX SEAL HERE NOTARY PUBLIC State of West Virginia