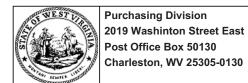


2019 Washington Street, East Charleston, WV 25305 Telephone: 304-558-2306 General Fax: 304-558-6026 Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.





State Of West Virginia Solicitation Response

Proc Folder: 27420

 $\textbf{Solicitation Description}: \texttt{ADDENDUM NO. 2} \quad \texttt{CEOI FOR F AND M COAL}, \\ \texttt{S-1044-87}, \\ \texttt{S-57-8}$

Proc Type: Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation No	Version
	2014-11-05	SR 0313 ESR1103140000000841	1
	13:30:00		

VENDOR

000000204789

THRASHER GROUP INC

FOR INFORMATION CONTACT THE BUYER

Jamie Adkins (304) 926-0499 jamie.h.adkins@wv.gov

Signature X FEIN # DATE

All offers subject to all terms and conditions contained in this solicitation

Page: 1 FORM ID: WV-PRC-SR-001

Line	Comm Ln Desc	Qty	Unit Issue Unit Price	Ln Total Or Contract Amount
1	EOI Mapping/Engineering Design			\$161,610.00
	Services			

Comm Code	Manufacturer	Specification	Model #	
81100000				

Extended Description:

Mapping of mine permit areas, property owner boundaries, and engineering design services to assist OSR in completing land reclamation and water treatment by compiling a Request for Quotation (RFQ) for the project, per the attached specification and requirements.

EXPRESSION OF INTEREST for F&M COAL COMPANY, INC. (S-1044-87 & S-57-84) PRESTON COUNTY, WEST VIRGINIA

DEP 1500000005 NOVEMBER 5, 2014



THRASHER

600 WHITE OAKS BLVD. BRIDGEPORT, WV 26330 www.thrashereng.com



Department of Administration, Purchasing Division 2019 Washington Street East Charleston, WV 25305-0130 November 5, 2014

RE: DEP 17035, F&M Coal Company, Inc. (S-1044-87 and S-57-84) - Preston County, West Virginia

Dear Members of the Selection Committee:

Thrasher is no stranger to DEP reclamation projects. Our attention to detail and project execution speak for itself. Like most projects we undertake, Thrasher has researched the F & M Coal Company project sites A and B. We understand the depth and breath of this project and believe we will provide timely, cost effective improvements. Our experience in mine portal design projects assures project success.

As the Principal-In-Charge, I have assembled a team of professionals who will deliver based on the following competencies:

- detailed review of the existing conditions of the project area,
- ability to provide recommendations and options for drainage and erosion control,
- coordination with utility companies,
- prepare designs for new roads including culverts,
- · perform blasting designs and pre-blast surveys,
- eliminate existing highwalls,
- install surface water drainage,
- regrade/remove sediment ditches when not needed, reshape and add lime amendments,
- condition, stabalize and revegetate disturbed land, prepare and regrade plans if needed,
- design efficient passive and active water treatment and pumping systems,
- design sludge handling facilities and
- final site cleanup.

Thrasher has built a business reputation that stands on integrity, experience, efficiency and judgment. In taking this approach, we have carefully and concisely responded to your request. We have assembled an experienced group of professionals to meet the various needs of this project. Our knowledge of the area and proximity to the sites will prove to be advantageous to the successful completion of this project.

Sincerely,

CHADWICK D. BILLER, PE

Partner, Principal-in-Charge

had Bell



SELECTION CRITERIA

A. WV Professional Engineers in the Primary Office: Thrasher employs 14 registered PE's at our company headquarters located in Bridgeport, WV.

- H. Wood "Woody" Thrasher, PE
- Chad Biller, PE
- Mike Nestor, PE
- Daniel Ferrell, PE
- Ken Moran, PE
- Clay Riley, PE
- Matt Fluharty, PE
- Tom Urquhart, PE, BCEE
- Chad Riley, PE
- Jeff Gola, PE
- Doug Forni, PE
- Rob Milne, PE
- Richard Hovatter, PE
- Brad Messenger, PE
- Garrett Grubb, PE



B. Our reclamation engineering design experience as it relates to the specific project:

- Chad Biller, PE, Principal-in-Charge. Chad has more than 19 years of civil engineering experience with specific emphasis in 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 and business parks, highways, and airports. Mr. Biller is also familiar with reclamation of mine portals, using either wet or dry seals.
- April Rohrbaugh, Project Engineer has completed the design of six AML projects, under the direction of Chad Biller.
- Richard "RJ" Hovatter, PE has extensive experience in grouting projects for the WVDEP.

C. Available OSR Design Team:

Civil PE's: Chad Biller, Richard Hovatter, Mike Nestor, Dan Ferrell, Ken Moran, Clay Riley, Matt Fluharty, Tom Urquhart, Chad Riley, Jeff Gola and Doug Forni

CAD: Brandon Hinkle, John Pitman, Jason Heflin, Joe Lowther, Phil Lantz, John Sirianni, Robert Hebb, Mike Oldaker, Zack Gain, Jessica Wells and Trudy Heil



BACKGROUND

Thrasher is a privately owned engineering firm that specializes in multidisciplinary engineering services. Established in 1983, Thrasher is built on stable leadership, financial strength and reputation. Our dedication to creative design solutions, well-managed projects and customer service has made Thrasher West Virginia's largest privately owned engineering firm and an industry leader in the Mid-Atlantic region.

Since our formation, the company has grown to a firm of more than 300 employees. Our diverse staff has the resources to handle many projects, both large and small, simultaneously. Our client base is diverse and includes municipalities, state and federal government agencies, secondary and higher education, pubic and private entities, etc.

Principals:

H. Wood "Woody" Thrasher, PE

Kenneth P. Moran, PE, PS

Chad M. Riley, PE

Daniel E. Ferrell, PE

Wm. Randy Watson, PE

Clay P. Riley, PE

Jonathan Carpenter, PE

Chadwick D. Biller, PE

Craig Baker, Associate AIA

Robert R. Milne, PE

Ron Stanley, CPA

Jenelle Armstrong, PE

Matt Fluharty, PE

Our Locations:

Bridgeport, West Virginia

Charleston, West Virginia

Beckley, West Virginia

Oakland, Maryland

Canton, Ohio

Fredericksburg, Virginia

Canonsburg, Pennsylvania

Multi-Disciplinary Services:

Civil Engineering

Utility Services

Land and Site Development

Roadways

Bridges

Streetscapes

Airports

Storm Water Systems

Environmental Services

Architecture

Land Planning

Landscape Architecture

Construction Monitoring

Materials Testing

Pipeline Inspection

GIS Mapping



OURAPPROACHTORECLAMATION

Thrasher has, or is in the process of, completing ten Abandoned Mine Lands (AML) projects for the West Virginia Department of Environmental Protection (WVDEP). While the scope of the projects varies, Thrasher has the experience and resources to apply the following design aspects:

- *Review Existing Conditions*: A thorough review of the project area is essential. Accurate mapping that reflects the true conditions is essential to a successful project. Thrasher has over 40 survey crews and its own aerial photography department to ensure an accurate base map is generated for all design work.
- **Reclaim Refuse Piles**: refuse piles were incorporated into the backfill of re-graded highwalls. These areas are then covered with soil and re-seeded.
- *Highwall Re-Grading*: miles of highwalls have been backfilled and re-graded utilizing plans developed by Thrasher. Balancing the amount of cut and fill and keeping the amount of disturbance to a minimum is a challenge on any AML project. Thrasher has successfully met these challenges on other projects.
- **Sealing of Portals:** Thrasher has developed plans for dozens of wet and modified mine seals for AML projects, including bat gate mine seals.
- *Sink Hole Repair:* shallow mine voids cause sink holes that divert natural streams underground. Thrasher evaluates each site and develops a plan to backfill the voids, thereby reestablishing the original property.
- Landslide Repair: two different landslide repair projects have been completed by Thrasher. Each repair required extensive geotechnical design for soldier pile and concrete lagging and concrete segmental gravity block walls. Both projects were in close proximity to residential areas that required special care during construction.
- **Design of Efficient and Active Water Treatment and Pumping Systems**: Thrasher has completed passive treatment facilities for many conservation districts in WV. Lamberts Run in Harrison County is the latest system that has been successfully installed. Thrasher has also been the leader in new technologies for water treatment facilities. Thrasher has completed active facilities including sludge removal for mining companies, PSD's and many municipalities in WV.
- *Drainage Design:* all of the AML projects completed by Thrasher have required design of drainage structures. These have included vegetated, grouted, riprap, as well as culverts and storm sewers, as well as detention systems. Drainage calculations were completed to properly size all conveyences.
- *Permitting:* the permitting process can delay projects if they are not submitted correctly or in a timely manner. Thrasher takes pride in on our ability to quickly obtain permits for our clients. We are able to utilize our excellent relationship with the WVDEP for NPDES permits as well as our relationship with the West Virginia Division of Highways for entrance and drainage permits. We are also experienced in obtaining ACE permits for stream impacts, aquatic habitat restoration, establishment and enhancement activities.



F&M COAL COMPANY (S-1044-87)

Thrasher has taken steps to adequately respond to the WVDEP's expression of interest by researching the job sites. Our assessment of the sites reveal this project will require the following steps:

- Step 1. Adequate Mapping
- Step 2. Project Development and Design
- Step 3. Environmental and Permitting
- Step 4. Bidding
- Step 5. Construction Management

Site A (S-1044-87)





F&M COAL COMPANY (S-57-84)

Thrasher has taken steps to adequately respond to the WVDEP's expression of interest by researching the job sites. Our assessment of the sites reveal this project will require the following steps:

Step 1. Adequate Mapping

Step 2. Project Development and Design

Step 3. Environmental and Permitting

Step 4. Bidding

Step 5. Construction Management

Site B (S-57-84)





ADDITIONAL RELATED SERVICES

SITE DEVELOPMENT

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.

Services Include:

- Planning and Conceptual Design
- Grading Plans
- Utility Layout and Mapping

STORM WATER, SEDIMENT AND EROSION

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.

Capabilities Include:

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

SURVEY

In addition to a full service professional engineering staff, we maintains a surveying department which includes 10 licensed professional land surveyors, twenty full-time survey crews, CADD technicians, and office support staff.

ENVIRONMENTAL REPORTING SERVICES

Thrasher provides full environmental assessment and clearance services. We have more than 20 years of experience conducting environmental and natural resource compliance consultation with both state and federal agencies.

Experience includes:

- Permitting Related Activities (401 and 404)
- NEPA 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
- 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
- Aquatic Habitat Restorations, Establishment and Enhancement Activities

ADDITIONAL RELATED SERVICES

CONSTRUCTION MANAGEMENT AND INSPECTION

Thrasher knows how projects should be built. We provide the knowledge and experience necessary to manage the construction of your project. Our project managers and inspectors are experienced in all types of construction activities. Many of our construction managers and inspectors have years of experience, and our are certified by the West Virginia Department of Transportation, Division of Highways for roadwork and materials testing.

MATERIALS TESTING

Thrasher's Materials Testing Department is capable of performing a wide range of field and laboratory tests. Our laboratory at our Bridgeport, 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 certified by the State of WV.

EQUIPMENT AND SOFTWARE

Thrasher 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.



April Rohrbaugh, Project Manager reviews project designs and answers questions with a group of contractors on a recent site visit to Roger Camp Hill.





Chad Biller, PE Principal-In-Charge

Education:

• BS, Civil Engineering, West Virginia University

Registrations:

- Registered Professional Engineer (PE) State of West Virginia
- Registered Professional Engineer (PE) State of Pennsylvania
- Registered Professional Engineer (PE) State of Ohio
- American Society of Civil Engineers
- American Society of Highway Engineers
- Society of American Military Engineers
- National Society of Professional Engineers

ANGLINS RUN and ROARING CREEK:

Anglins Run: Thrasher provided preliminary plans and final design for two WVDEP AML projects. Anglins Run included a total of eight collapsed mine portals with at least five of them having discharges ranging from one to ten gpm. Total flows were estimated to be between 25 and 30 gpm. Thrasher's plan for this project included construction of an access road, excavation and wet seal of at least eight 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 was constructed.

Roaring Creek: This project involved 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 consisted of three open and three 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 10gpm to 100 gpm with PH ranging from 3.1 to 5.0. Preliminary plans included re-grading the subsidence area to prevent surface water from entering the mine workings, and installing an emergency spillway on the existing pond to handle the additional flow.

OVERFIELD AND SQUIRES CREEK: These projects consisted of engineering design for portal sealing, drainage and retaining walls for the Overfield - Lafferty Site and engineering design for portal sealing, drainage and backfilling of the highwall with refuse for the Squires Creek Site.

RALEIGH COUNTY AIRPORT INDUSTRIAL PARK: This multi-phased project consisted of all preliminary design, permitting, final design and construction management for the development of a 300+ acre business and industrial park adjacent to the Raleigh County airport. Engineering design consisted of mass grading, E&S plans, stormwater, public utilities, roadways, sidewalks and building pads.



April Rohrbaugh Project Manager

Education:

• BS, Civil Engineering Technology, West Virginia University

Project Manager on the following:

- Squires Creek: Reclaim Refuse Piles; Highwall Re-grading
- Overfield (Lafferty): Landslide Repair
- Laurel Run: AMD Passive Treatments, Portals and Highwall Reclamation
- Clarksburg Lyons Landslide: Retaining Wall
- Pleasant Valley: Highwall, Portals and Bat Gates
- Roger Camp Hill: 1/2 Acre AMD Impoundment and Refuse Reclamation

OVERFIELD AND SQUIRES CREEK: Ms. Rohrbaugh served as Project Manager. These projects consisted of engineering design for portal sealing, drainage and retaining walls for the Overfield-Lafferty Site and engineering design for portal sealing, drainage and backfilling of the highwall with refuse for the Squires Creek Site.

LAUREL RUN #1: Ms. Rohrbaugh served as Project Manager. This project site consisted of seven sections of highwall that totaled approximately 5,700 feet in length and averaged 20 feet in height. There were three collapsed portals adjacent to one another discharging approximately 25 gpm. One open portal entrance measured 2 foot by 3 foot and had no known discharge associated with it. Approximately 230 feet of abandoned railroad tracks remained on the project site and they did not connect to any existing tracks. The project site covered a total area of six acres and suffered from a lack of vegetation and toeing into Laurel Run.

ROGER CAMP HILL: Ms. Rohrbaugh served as Project Manager. This project involved dewatering a 169,000 gallon AMD water impoundment which had a pH of 2.6. There were also multiple seeps to be mitigated with a pH of 3.3 Fe>10 mg/l and an estimated flow of 15 gpm. In addition to the AMD seeps and impoundment, there were three open refuse sites with a combined area around 3 acres. Thrasher's plan for this project included, treating the impoundment's water as it was released and, where appropriate, excavating the refuse piles and backfilling the dewatered impoundment. Then all exposed refuse was entombed and conveyances were constructed to safety carry stormwater in and around the reclamation sites.

CLARKSBURG LYONS LANDSLIDE: Ms. Rohrbaugh served as Project Manager. The project site is located in Clarksburg, WV off of Route 19. There was a two acre slide mass composed of strip mine spoil and natural slip prone material located above and behind a the Lyons residence. The scope of work consisted of constructing a soldier pile and concrete lagging retaining wall with appurtenances to stabilize the slope above the existing residence and pond, as well as, regarding the slip area while installing underdrains and channels to carry water safely through or around the slip area.



Richard Hovatter, PE Project Engineer

Education:

• BS, Civil Engineering Technology, Fairmont State University

Registrations:

- Registered Professional Engineer (PE) State of West Virginia
- Registered Professional Engineer (PE) State of Pennsylvania
- Level I Rosgen Natural Stream Construction
- Level II Rosgen Natural Stream Construction
- HEC—RAS Operator Training Short Course
- Annual Oil & Gas Training Pennsylvania
- MSHA Training

ODOT ROUTE 2, GYPSUM MINE STABILIZATION: Mr. Hovatter served as Project Engineer and was responsible for developing a grout stabilization plan for approximately two miles of Route 2 in Sandusky, Ohio. The plan was to stabilize all four lanes of highway where it crossed over an abandoned gypsum mine. The mined gypsum seam was approximately twelve to fifteen feet thick and was completely mined out. As part of the plan, Mr. Hovatter was responsible with acquiring an underground injection permit through the Ohio Department of Natural Resources.

WV DEP SHINNS RUN PORTALS: Mr. Hovatter served as Project Engineer and was responsible for the design, drawings along with the construction documents on an AML project outside of Shinnston on Shinns Run Road. The project consisted of a total seven open mine portals that needed to be sealed. Three of the portals were required to have bat gates installed and the others were to be piped for drainage. During the subsurface investigation it was determined that the section of Shinns Run that passed over three of the portals was constructed over significant mine voids. This resulted in a grout stabilization design to be added to the project scope.

CHARLEROI DRAINAGE PROJECT: Mr. Hovatter served as Project Engineer and was responsible for the site design and all construction documents at the Charleroi Liquid Propane load out facility. The site was constructed so that the scales set at the low point of the site and all the site drainage settled under the scales.

JK ALFRED PROPERTY: Mr. Hovatter served as Project Engineer and was responsible for analyzing the existing drainage system and determining if it was adequate to pass the design storm runoff from the site. He was also responsible for obtaining a modification to the existing NPDES permit.

GRAFTON NATIONAL CEMETERY: Taylor County, WV. Mr. Hovatter served as Project Engineer for this design build project to re-mediate the discharge of the storm collection system at the cemetery. The discharge was released out on to an unstabilized slope and had caused significant erosion below the pipe. Mr. Hovatter designed a concrete sump along with a grouted riprap channel to collect the discharge and convey it downslope to a stable are for discharge.



Michael Nestor, PE, CFM Project Engineer

Education:

• BS, Civil Engineering Technology, Fairmont State University

Registrations:

- Registered Professional Engineer (PE) State of West Virginia
- Current President of American Society of Highway Engineers, North Central West Virginia Chapter
- American Society of Civil Engineers

ANGLINS RUN AND ROARING CREEK: Mr. Nestor served as Project Engineer for the design of wet mine seal for abandoned mine portals and downstream conveyance of water associated with abandoned mines. Mr. Nestor worked closely with the DEP to identify sinkholes associated with abandoned mines and developed a site grading plan to restore collapsed areas and re-route drainage around problem areas.

STREAM MODELING: Various Counties, WV. Mr. Nestor has performed several stream evaluations utilizing HEC-RAS stream modeling software for projects located in Monongalia, Harrison and Hampshire counties.

TOWN OF OAK HILL STORM WATER PROJECT: Fayette County, WV. Mr. Nestor served as Project Manager for the design of storm sewer upgrades for the Town of Oak Hill. The project included the addition of a 2'x6' box culvert under Trump Avenue, construction drawings and specifications.

HAWKS NEST SUB-DIVISION: Garrett County, MD. Mr. Nestor served as Project Engineer for the development of a storm water management plan for a residential subdivision using low impact development methods. The scope of the project included site grading, storm water management, erosion and sediment control plans.

FAIRMONT STATE UNIVERSITY STORM WATER MANAGEMENT PLAN: Marion County, WV. Mr. Nestor served as Project Engineer for the development of a storm water management program for the FSU campus, which is classified as an MS4 entity. The scope of this project included meeting all MS4 requirements in addition to preparing and submitting all necessary permit applications to the WV DEP.

CITY OF CLARKSBURG STORM WATER MANAGEMENT PLAN: Harrison County, WV. Mr. Nestor served as Project Engineer for the development of a storm water management program for the entire city. Mr. Nestor assisted the city in getting all permitting required and the application to the WV DEP.

SQUIRES CREEK





SQUIRES CREEK

This job site included two refuse piles covering about two to three acres in total. There were remains of one mine building, unvegetated coal refuse, deep mine portals and acid mine drainage. Nearly all of this land was unvegetated with signs of severe erosion, the toe of the eastern pile extended down to the creek. Both piles had very steep outslopes and several well used 4-wheeler (ATV) trails extended up and down the face, thereby posing public safety hazards.

There were also six open and collapsed deep mine portals. Of these portals, one was open enough to easily allow entrance by either a child or adult. This opening was 4 to 5 feet high by 20 feet in width. Inside the portal were mine props that were clearly visible and the mine appeared to extend for a considerable distance into the hill. The remaining five portals, all located along a 200 LF mine face-up or highwall, approximately 10 to 15 ft. in height, were collapsed with only one discharging about 2 to 3 gpm of acid mine drainage (AMD).

MARTINKA MINE





MARTINKA MINE

This project consisted of the design of a 17.5 MGD Water Treatment Plant to blend mine borehole water with acid mine drainage; the plan remove D iron ($1000 \text{ mg/(ferric hydroxide})}$ 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 stage tapered flocculation with axial flow propeller mixers and variable frequency drives
- Sedimentation Six settling ponds with ferric hydroxide sludge removal and underground injection wells
- Polishing Pond Sodium hexamataphosphate addition for calcium stabilization.

ANGLINS RUN & ROARING CREEK





ANGLINS RUN

The project area included a total of eight collapsed mine portals with at least five of them having discharges ranging from 1 to 10 gpm. Total flows were estimated to be between 25 and 30 gpm. Thrasher's scope and plans for this project included construction of an access road into the site, excavation and wet seal of at least eight 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 were constructed. All areas disturbed by construction were soil covered, conditioned and re-vegetated.

ROARING CREEK

This project involved 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 consisted of 3 open and 3 closed portals discharging AMD. The AMD seeped along the unnamed tributary and an area of subsidence, which drained surface water into the mine workings. AMD flow from the deep mine portals ranged 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. Thrasher's design plans called for the construction and rehabilitation of access roads to the site, and installation of wet seals at the portal locations. The plans also included re-grading the subsidence area to prevent surface water from entering the mine workings, and installing an emergency spillway on the existing pond which was designed to handle the additional flow.

LAUREL RUN #1

LAUREL RUN #1

This project site consisted of seven sections of highwall that totaled approximately 5,700 feet in length and averaged 20 feet in height. There were three collapsed portals adjacent to one another discharging approximately 25 gpm. One open portal entrance measured 2 foot by 3 foot and had no known discharge associated with it. Approximately 230 feet of abandoned railroad tracks remained on the project site and they did not connect to any existing tracks. The project site covered a total area of six acres and suffered from a lack of vegetation and toeing into Laurel Run.



- 31.5 Acres
- 160,000 cy balanced earthwork
- 6 mine seals



CLARKSBURG LYONS LANDSLIDE

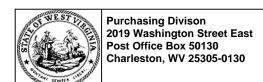




LYONS LANDSLIDE

The project site is located in Clarksburg, WV off of Route 19. There was a two acre slide mass composed of strip mine spoil and natural slip prone material located above and behind a the Lyons residence. The scope of work consisted of constructing a soldier pile and concrete lagging retaining wall with appurtenances to stabilize the slope above the existing residence and pond, as well as, regarding the slip area while installing underdrains and channels to carry water safely through or around the slip area.

Retaining wall was a 23 ft. soldier pile and concrete lagging retaining wall with 1,600 LF of underdrains.



State of West Virginia Centralized Expression of Interest 02 — Architect/Engr

Proc Folder: 27420

Doc Description: EXPRESSION OF INTEREST FOR F and M Coal, S-1044-87 & S-57-8

Proc Type: Central Contract - Fixed Amt

 Date Issued
 Solicitation Closes
 Solicitation No
 Version

 2014-10-03
 2014-11-04 13:30:00
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 0313 DEP1500000005
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BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION 2019 WASHINGTON ST E

CHARLESTON WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

The Thrasher Group, Inc. 600 White Oaks Blvd Bridgeport, WV 26330 304-624-4108

FOR INFORMATION CONTACT THE BUYER

Robert Kilpatrick (304) 558-0067

robert.p.kilpatrick@wv.gov

All offers subject to all terms and conditions contained in this solicitation

Page: 1 FORM ID: WV-PRC-CEOI-001

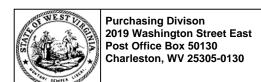
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US		US	

Line	Comm Ln Desc	Qty	Unit Issue	
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Comm Code	Manufacturer	Specification	Model #	
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Extended Description:

Mapping of mine permit areas, property owner boundaries, and engineering design services to assist OSR in completing land reclamation and water treatment by compiling a Request for Quotation (RFQ) for the project, per the attached specification and requirements.



State of West Virginia Centralized Expression of Interest 02 — Architect/Engr

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Doc Description: ADDENDUM NO. 1 CEOI FOR F AND M COAL, S-1044-87, S-57-8

Proc Type: Central Contract - Fixed Amt

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BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION 2019 WASHINGTON ST E

CHARLESTON WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

The Thrasher Group, Inc. 600 White Oaks Blvd Bridgeport, WV 26330 304-624-4108

FOR INFORMATION CONTACT THE BUYER

Jamie Adkins (304) 926-0499 jamie.h.adkins@wv.gov

Signature X | full | FEIN # 550633596 DATE | 11-5-14

All offers subject to all terms and conditions contained in this solicitation

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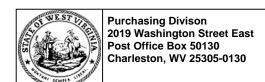
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1	EOI Mapping/Engineering Design Services			

Comm Code	Manufacturer	Specification	Model #	
81100000				

Extended Description:

Mapping of mine permit areas, property owner boundaries, and engineering design services to assist OSR in completing land reclamation and water treatment by compiling a Request for Quotation (RFQ) for the project, per the attached specification and requirements.



State of West Virginia **Centralized Expression of Interest** 02 - Architect/Engr

Proc Folder: 27420

Doc Description: ADDENDUM NO. 2 CEOI FOR F AND M COAL, S-1044-87, S-57-8

Proc Type: Central Contract - Fixed Amt

Version **Solicitation Closes Date Issued** Solicitation No CEOI 2014-10-22 2014-11-05 0313 DEP1500000005 3 13:30:00

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION 2019 WASHINGTON ST E

CHARLESTON WV25305

US

VENDOR

Vendor Name, Address and Telephone Number:

The Thrasher Group, Inc. 600 White Oaks Blvd Bridgeport, WV 26330 304-624-4108

FOR INFORMATION CONTACT THE BUYER

Jamie Adkins (304) 926-0499 jamie.h.adkins@wv.gov

11-5-14 550633596 FEIN# DATE Signature X

All offers subject to all terms and conditions contained in this solicitation

Page: 1 FORM ID: WV-PRC-CEOI-001

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF SPECIAL RECLAMATIC	N	ENVIRONMENTAL PROTECTION OFFICE OF SPECIAL RECLAMATIO	N
47 SCHOOL ST, STE 301		47 SCHOOL ST, STE 301	
PHILIPPI	WV26416	PHILIPPI	WV 26416-9998
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	
1	EOI Mapping/Engineering Design Services			

Comm Code	Manufacturer	Specification	Model #	
81100000				

Extended Description:

Mapping of mine permit areas, property owner boundaries, and engineering design services to assist OSR in completing land reclamation and water treatment by compiling a Request for Quotation (RFQ) for the project, per the attached specification and requirements.

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: DEP1500000005

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

(Check the box next to each addendum received) [X] Addendum No. 1 [] Addendum No. 6 [X] Addendum No. 2 [] Addendum No. 7 [] Addendum No. 3 [] Addendum No. 8 [] Addendum No. 4 [] Addendum No. 9 [] Addendum No. 5 [] Addendum No. 10

Addendum Numbers Received:

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Company

Mullicular

Authorized Signature

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing. Revised 6/8/2012

RESOU-2

OP ID: PM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/10/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to

t	he terms and conditions of the policy ertificate holder in lieu of such endo	, cer	tain ent(s	policies may require an e	ndorse	ement. A sta	tement on the	nis certificate does not d	onfe	r rights to the	
PRO	DDUCER			<i>F</i>	CONTA	CT					
Her	nderson Brothers, Inc.				NAME: PHONE FAX						
920 Ft Duquesne Blvd Pittsburgh, PA 15222					(A/C, No, Ext): (A/C, No): E-MAIL ADDRESS;						
Jan	nes L. Conn				AUDRE		UDED(S) AEEOE	DING COVERAGE		1	
					INCHE					NAIC #	
INSURED The Thrasher Group, Inc.						INSURER A: The Travelers Indemnity Compan INSURER B: The Charter Oak Fire Ins. Co.					
	Ronald Stanley				INSURER C: Travelers Property Casualty Co					25615 25674	
	PO Box 940 Bridgeport, WV 26330						73 Flopert	ousually oo		23074	
	Bridgeport, WV 20330				INSURE						
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CO	VERAGES CEI	TIFI	CATI	E NUMBER:	INSURE	:K F :		REVISION NUMBER:			
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INSR LTR			WVD	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	S		
	GENERAL LIABILITY							EACH OCCURRENCE DAMAGE TO RENTED	\$	1,000,000	
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	CLAIMS-MADE X OCCUR							MED EXP (Any one person)	\$	10,000	
Α	X Ohio Stop Gap							PERSONAL & ADV INJURY	\$	1,000,000	
								GENERAL AGGREGATE	\$	2,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:							PRODUCTS - COMP/OP AGG	\$	2,000,000	
	POLICY PRO- JECT LOC	-	-					COMPINED SINGLE LIMIT	\$		
	AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000	
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	AUTOS AUTOS							BODILY INJURY (Per accident)	\$		
	X HIRED AUTOS X NON-OWNED							PROPERTY DAMAGE (PER ACCIDENT)	\$		
	 	_	-						\$		
	X UMBRELLA LIAB X OCCUR							EACH OCCURRENCE	\$	5,000,000	
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	DED X RETENTIONS 10,000	1	-					140 07171	\$		
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N							WC STATU- TORY LIMITS ER			
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	NIA						E.L. EACH ACCIDENT	\$		
	(Mandatory In NH) If yes, describe under							E.L. DISEASE - EA EMPLOYEE	\$		
	DESCRIPTION OF OPERATIONS below	-	-					E.L. DISEASE - POLICY LIMIT	\$		
DES	CRIPTION OF OPERATIONS / LOCATIONS / VEHIC	LES (Attach .	ACORD 101, Additional Remarks S	ichedule,	if more space is	required)				
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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/12/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to

RODU	CER				CONTA NAME:	CT Patricia	Cholewa			
he Ja	ames B. Oswald Company							FAX (A/C No.)	216-81	39-2815
1100 Superior Avenue, Suite 1500				PHONE (A/C, No, Ext): 216-839-2807 FAX (A/C, No): 216-839-2815 E-MAIL ADDRESS: PCholewa@oswaldcompanies.com						
Cleveland OH 44114							_	RDING COVERAGE		NAIC #
					INSTIRE			surance Co.		25054
INSURED RESOU-1						RB:	openany n	IOMIGITUS OU.		20004
The Thrasher Group, Inc.						RC:				
00 W	hite Oaks Boulevard			INSURE	MANUAL PROPERTY AND ADDRESS OF THE PARTY AND A					
	0x 940			INSURER E :						
riage	port WV 26330				INSURE					
OVE	RAGES CER	TIFIC	CATE	NUMBER: 2134598143	Contract of the last of the la	IX C .		REVISION NUMBER:		
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SR	TYPE OF INSURANCE		SUBR	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s	
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	CLAIMS-MADE OCCUR							MED EXP (Any one person)	s	
								PERSONAL & ADV INJURY	\$	*****
								GENERAL AGGREGATE	\$	
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	POLICY PRO- JECT LOC								\$	
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	ANY AUTO							BODILY INJURY (Per person)	\$	
	ALL OWNED SCHEDULED							BODILY INJURY (Per accident)	\$	
	NON-OWNED							PROPERTY DAMAGE (Per accident)	\$	
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\top	UMBRELLA LIAB OCCUR							EACH OCCURRENCE	s	
	EXCESS LIAB CLAIMS-MADE							AGGREGATE	s	
	DED RETENTION \$								s	
	ORKERS COMPENSATION							WC STATU- OTH- TORY LIMITS ER		
	ND EMPLOYERS' LIABILITY NY PROPRIETOR/PARTNER/EXECUTIVE							E.L. EACH ACCIDENT	\$	
OF	FFICER/MEMBER EXCLUDED?	N/A						E.L. DISEASE - EA EMPLOYEE		
if	yes, describe under ESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT	s	
Pr	ofessional Liability aims Made etro Date: 1/11/2005	N	Υ	AEE7287300		1/1/2014	1/1/2015	Each Claim Aggregate	\$5,000, \$5,000, Included	000
	PTION OF OPERATIONS / LOCATIONS / VEHICL of Subrogation as designated ab							n contract or agreemen	it.	
ERTI	FICATE HOLDER				CANC	ELLATION				
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ACORD

CERTIFICATE OF LIABILITY INSURANCE

6/12/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s)

certificate holder in lieu of such endorsement(s).												
PRO	DUCER				CONTA NAME:	CT Traci E.	Benedum			Annual Control of the		
Dyer insurance Agency 347 Washington Avenue PO Box 607						PHONE (A/C, No, Ext): (304) 624-5584 FAX (A/C, No): (304) 622-4736						
						E-MAIL ADDRESS: tbenedum@dyerinsgroup.com						
	ksburg, WV 26302-0607				INSURER(S) AFFORDING COVERAGE NAIC #							
					Weve	RA: Travele		NO SOVENAGE		36137		
INSL	PED						,10			00107		
INSC					INSURER B:							
	Thrasher Engineering, Inc. 600 White Oaks Boulevard				INSURE	RC:						
	PO Box 940				INSURE	R.D:						
	Bridgeport, WV 26330				INSURER E :							
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CE	HIS IS TO CERTIFY THAT THE POLICI DICATED. NOTWITHSTANDING ANY F ERTIFICATE MAY BE ISSUED OR MAY (CLUSIONS AND CONDITIONS OF SUCH	PER POLI	TAIN, CIES	ENT, TERM OR CONDITION THE INSURANCE AFFORD LIMITS SHOWN MAY HAVE	OED BY	NY CONTRA 7 THE POLIC REDUCED BY	CT OR OTHER IES DESCRIB PAID CLAIMS	R DOCUMENT WITH RESPE ED HEREIN IS SUBJECT TO	CT TO	WHICH THIS		
INSR	TYPE OF INSURANCE	INSR	SUBR WVD	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	3			
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	COMMERCIAL GENERAL LIABILITY							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$			
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	EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$			
	DED RETENTION \$	1							\$	19		
	WORKERS COMPENSATION							X WC STATU- X OTH-				
Α	AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE			UB-9C486312		04/01/2014	04/01/2015		\$	1,000,000		
	OFFICER/MEMBER EXCLUDED? (Mandatory In NH)	NIA						E.L. DISEASE - EA EMPLOYEE	\$	1,000,000		
	If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT	\$	1,000,000		
_	DESCRIPTION OF OPERATIONS BEIDW	+										
DESC	RIPTION OF OPERATIONS / LOCATIONS / VEHIC	LES (Attach	ACORD 101, Additional Remarks \$	chedule,	If more space is	required)					
Worl	ers' compensation coverage applies t	o the	state	s of WV, VA ,MD, PA and K	Y.							
Blan	ket Waiver of Subrogation and Alterna	te En	ploye	er Endorsement applies to	the wo	rkers' compe	nsation polic	y with Travelers Insurance	} .			
Broad Form Coverage applies to WV for the workers' compensation policy with Travele The 30-day notice of cancellation has been added by endorsement												
CE	RTIFICATE HOLDER				CANC	ELLATION						
					CUC	III D ALD/ OF T	THE ADOLOG	**************************************		50 50 50 50		
								ESCRIBED POLICIES BE CA				
					THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.							
					AUTHORIZED REPRESENTATIVE							

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION							
OSR	CONSULTANT QUALIFICATIO	N QUESTIONNAIRE	Attachment "B"				
PROJECT NAME F&M Coal Company, Inc.	DATE (DAY, MONT November 5, 2014		FEIN 55-0633596-6				
1. FIRM NAME THE THRASHER GROUP, INC.		BUSINESS ADDRESS JLEVARD, BRIDGEPORT, WV 26330	3. FORMER FIRM NAME THRASHER ENGINEERING, INC.				
4. HOME OFFICE TELEPHONE 304-624-4108	5. ESTABLISHED (YEAR 1983	6. TYPE OWNERSHIP Individual Corporation Partnership Joint-Ve					
300 ASSOCIATION DRIVE, CHARLESTOI 3000 THAYER PLACE, OAKLAND, MD/30 380 AIRPORT CIRCLE, BEAVER, WV 25 4150 BELDEN VILLAGE STREET, SUITE 10 236 CAMBRIDGE STREET, FREDERICKSI	EPORT, WV 26330 / 304-624-4108 / CHAI N, WV / 304-343-7601 / JONATHAN CARP 01-334-3866 / CHAD RILEY, PE / 1 6813 /304-860-1924 / ROBERT CRADDOCI 01, CANTON, OHIO 44718 / 330-491-8170 BURG, VA 22405 / 540-372-3499/DOUGL/ 1740 /304-431-7800/ WAYNE MORGAN,	PENTER, MANAGING PARTNER / 2 K/0 / STEVE HAMIT, P.E./2 AS RICHMOND, L.S./9					
8. NAMES OF PRINCIPAL OFFIC H. WOOD THRASHER, P.E. – PRESIDENT KENNETH P. MORAN, P.E. – VICE PRESII RONALD STANLEY, CPA – CHIEF FINAN	- DENT	8a. NAME, TITLE, & TELE; WM. RANDY WATSON-PARTNER (304) CHAD M. RILEY, P.E.— PARTNER (304) CHADWICK BILLER, P.E.— PARTNER (304) 6 DAN FERRELL, P.E.— PARTNER (304) 62 CRAIG BAKER, ASSOCIATE AIA— PART ROBERT MILNE, P.E.— PARTNER (304) JONATHAN CARPENTER, P.EPARTNE MATTHEW FLUHARTY, PE— PARTNER JENELLE ARMSTRONG, PE— PARTNER	624-4108 04) 624-4108 624-4108 4-4108 NER (304) 624-4108 624-4108 R (304) 343-7601 (304) 624-4108				
9. PERSONNEL BY DISCIPLINE		,					
44 ADMINISTRATIVE 7 ARCHITECTS — BIOLOGIST 18 CADD OPERATORS — CHEMICAL ENGINEERS 38 CIVIL ENGINEERS 37 CONSTRUCTION INSPECTORS — DESIGNERS — DRAFTSMEN	 ECOLOGISTS ECONOMISTS ELECTRICAL ENGINEERS ENVIRONMENTALISTS ESTIMATORS GEOLOGISTS HISTORIANS HYDROLOGISTS 	2 LANDSCAPE ARCHITECTS — MECHANICAL ENGINE — MINING ENGINEER 5 PHOTOGRAMMETRISTS — PLANNERS: URBAN/F — SANITARY ENGINEER — SOILS ENGINEERS — SPECIFICATION WRITERS	EERS 72 SURVEYORS S — TRAFFIC ENGINEERS 1 GIS SPECIALIST 1 PIPELINE INSPECTOR				
	work.		at qualifies them to supervise and				

11. OUTSIDE KEY CONSULTANTS/SUB- Questionnaire".	-CONSULTANTS ANTICIPATED TO BE USED. Attach "A	AML Consultant Confidential Qualification
NAME AND ADDRESS: NOVEL GEO-ENVIRONMENTAL 650 MACCORKLE AVENUE WEST	SPECIALTY: GEO-TECHNICAL SERVICES	WORKED WITH BEFORE _X Yes
ST. ALBANS, WV 25177		No
NAME AND ADDRESS: RELIANCE LABORATORIES, INC 2044 MEADOWBROOK ROAD BRIDGEPORT, WV 26330	SPECIALTY: WATER SAMPLE ANALYZATION	WORKED WITH BEFORE XYes
NAME AND ADDRESS:	SPECIALTY:	No WORKED WITH BEFORE
TARME AND ADDRESS.	STECHETT.	YesNo
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE Yes No

- 12. A. Is your firm experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

 X YES Description and Number of Project: THRASHER PERFORMS ENGINEERING DESIGN SERVICES TO THE WV DEP FOR DRAINAGE,
 PORTAL, HIGHWALL AND OTHER REMEDIATION PROJECTS, AS WELL AS FOR WATER LINE AND WATER TREATMENT PLANT PROJECTS RELATED TO AML. NUMEROUS
 PROJECTS INVOLVING LAND REMEDIATION, STORM WATER DRAINAGE, SLIP REPAIR, MASS GRADING IN RELATION TO SITE DEVELOPMENT AND HIGHWAY PROJECTS ARE
 ENGINEERED BY THE FIRM ON A REGULAR BASIS.
- B. Is your firm experienced in Soil Analysis and Coal Refuse Analyses?

 X YES Description and Number of Projects: THRASHER MAINTAINS AN AASHTO CERTIFIED MATERIALS TESTING AND ANALYSIS LAB AT BOTH THE CLARKSBURG AND BECKLEY OFFICES. SOIL ANALYSIS EXPERIENCE IS SPECIFICALLY IN GRADATIONS AND CLASSIFICATION.
- C. Is your firm experienced in hydrology and hydraulics for handling mine water discharges on mining sites?

 X YES Description and Number of Projects: THROUGH OUR WORK IN THE PLANNING AND DESIGN OF BRIDGES FOR THE WEST

 VIRGINIA DEPARTMENT OF HIGHWAYS AND WATER LINE EXTENSION PROJECTS THROUGHOUT THE STATE, THRASHER HAS EXTENSIVE EXPERIENCE IN HYDROLOGY. WE

 ALSO HAVE EXTENSION EXPERIENCE IN HYDRAULIC MODELING FOR WATER AND WASTEWATER PROJECTS THROUGHOUT WEST VIRGINIA.
- Does your firm produce its own Aerial Photography and Development of Contour Mapping?
 YES Description and Number of Projects: THRASHER SURVEY ONLY SUBCONTRACTS THE ACQUISITION OF AERIAL PHOTOGRAPHY.

 ALL OTHER SERVICES ASSOCIATED WITH MAPPING ARE PERFORMED IN-HOUSE INCLUDING AERO-TRIANGULATION, PLANIMETRIC COMPILATION, SURFACE MODELING,
 CONTOURING AND DIGITAL ORTHO-RECTIFIED IMAGERY. THRASHER MAPPING AND CONTROL SERVICES INCLUDE NGS "BLUE-BOOKING", PERMANENT MONUMENT
 POSITIONING AND INSTALLATION, GPS BASE STATION INSTALLATION, PRECISE LEVELING, CONTROL NETWORKS, AERIAL PHOTO CONTROL, VERTICAL SCALE MAPPING,
 STEREO PHOTOGRAMMETRY, ORTHO-RECTIFIED IMAGES, TRIANGULATED SURFACE MODELS, 3D MODELING AND ANIMATION. THRASHER PROVIDES THESE SERVICES
 FROM BOTH MANNED AND UNMANNED PLATFORMS. THRASHER LIDAR/REMOTE SENSING IS PERFORMED FROM TERRESTRIAL AND AIRBORNE PLATFORMS BOTH
 MANNED AND REMOTE CONTROLLED. THRASHER'S MODEL WHEN IT COMES TO ADVANCED TECHNOLOGIES IS TO EMPLOY TECHNICAL EXPERTISE, OWN SOFTWARE AND
 RENT/LEASE HARDWARE AS NEEDED SINCE TECHNOLOGY CHANGES ARE CONSTANT.
- E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

 YES Description and Number of Projects: THRASHER HAS DESIGNED MORE WATER LINE SYSTEMS THAN ANY OTHER WEST VIRGINIA

 FIRM. PROJECTS INCLUDE NEW SYSTEMS, EXTENSIONS AND REPLACEMENTS OF WATER LINE DISTRIBUTION SYSTEMS, MANY OF WHICH HAVE BEEN AFFECTED BY

 ABANDONED MINE LANDS. DESIGN OF THE PROJECTS INCLUDES INCLUDE LINES, BOOSTER STATIONS, WATER TREATMENT PLANTS, AND STORAGE FACILITIES.

 THRASHER'S ANALYSIS AND DESIGN ALSO INCLUDES IMPROVEMENTS AND ALTERNATIVES FOR WATER SOURCES DEEMED GROUND WATER UNDER THE DIRECT EFFECT OF SURFACE WATER.
 - F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?
- YES Description and Number of Projects THRASHER HAS BEEN AWARDED AND HAS SUCCESSFULLY COMPLETED NUMEROUS RECLAMATION PROJECTS FOR WVDEP RELATED SPECIFICALLY TO ACID MINE DRAINAGE AND ABATEMENT. THE CHARLESTON WV BRANCH OF OUR COMPANY DESIGNED AN AWARD WINNING WATER TREATMENT PLANT FOR MARTINKA MINES IN MARION COUNTY, WEST VIRGINIA TO TREAT MINE DRAINAGE.

13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete					
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE						
BILLER, CHADWICK D. P.E.	YEARS OF AML DESIGN EXPERIENCE: 5	YEARS OF AML RELATED DESIGN EXPERIENCE: 19	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 19					
Brief Explanation of Responsibilitie bridges, and airports. Mr. Biller joined Thrasher Engi AML project and public and private site developmen projects, he has extensive knowledge of state and fe	neering in 1999 and is a partner of Thrashe t projects, specializing in airports, highway	er Engineering. For Thrasher Engineering,	Mr. Biller is responsible for WV DEP					
EDUCATION (Degree, Year, Specializat • B.S., Civil Engineering, 1992 – West								
MEMBERSHIP IN PROFESSIONAL ORGANIZAT American Society of Civil Engineers Society of American Military Engineers National Society of Professional Engineers	IONS	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. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	INCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete					
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE						
NESTOR, MICHAEL – PROJECT ENGINEER	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 9	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9					
Brief Explanation of Responsibilitie range of experience in residential and commercial site extensions of public sewer and water systems, storm Mr. Nestor oversees all general operations within The completion of projects covering site development, sufficiently (Degree, Year, Specializat	te development projects, utilizing all aspec n water drainage, storm water managemen ne Berkeley Associates, directing administro urveying, material testing, and environmen	ts of infrastructure design including street nt, erosion and sediment control plans, an ative staff, CAD technicians, and staff eng	and lot layout, street profiles, d NPDES permitting. In addition,					
B.S. Civil Engineering Technology – Fairmont State U								
MEMBERSHIP IN PROFESSIONAL ORGANIZAT American Society of Civil Engineers Eastern Panhandle Home Builders Association		REGISTRATION (Type, Year, State) • Professional Engineer (P.E.), 2009, State of West Virginia						

13. PERSONAL HISTORY STATEMENT OF PR	RINCIPALS AND ASSOCIATES RESPO	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete	
data but keep to essentials)	_			
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE		
ROHRBAUGH, APRIL	YEARS OF AML DESIGN EXPERIENCE: 3	YEARS OF AML RELATED DESIGN EXPERIENCE: 8	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: -	
Brief Explanation of Responsibilitie Ms. Rohrbaugh joined Thrasher Engineering in Janua reclamation and sediment/erosion control project. Mer responsibilities with AML projects include: Desig sediment control. Ms. Rohrbaugh's other responsibility planning for residential, commercial, and recreations drainage, storm water management, erosion and se	ary of 2006 and serves as Staff Engineer in Ms. Rohrbaugh has experience in all aspect an of wet and modified mine seals, grading ilities include: design surveying consisting o nal developments. Site/Land Development	ts of site engineering, taking projects from I associated with reclaiming, storm water I of both field traversing and survey location engineering: geometric layout of sites, sul	survey to concept to construction. management, and erosion and as and aerial mapping. Conceptual	
EDUCATION (Degree, Year, Specializat	ion) B.S. Civil Engineering – West Vi	rginia University, 2005, Civil Engineeri	ng	
MEMBERSHIP IN PROFESSIONAL ORGANIZAT 13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)		REGISTRATION (Type, Year, St		
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE		
HOVATTER, RICHARD (RJ) – PROJECT MANAGER	YEARS OF AML DESIGN EXPERIENCE: 9	YEARS OF AML RELATED DESIGN EXPERIENCE: 9	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9	
Brief Explanation of Responsibilitie Office. As a graduate of Fairmont State University as as landslides and mine subsidence of abandoned mine erosion control plans and waterline feasibility studie	nd previous experience Mr. Hovatter has e. ine land. Mr. Hovatter is responsible for the es.	xtensive knowledge of abandoned mine la	and and emergency situations such	
EDUCATION (Degree, Year, Specializat Bachelor of Science, 2002, Civil Engineering Te	•			
MEMBERSHIP IN PROFESSIONAL ORGANIZAT	IONS		ate) P.E.), 2009, State of West Virginia P.E.), 2010, State of Pennsylvania	

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE OSR 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.

CONNECTED THROUGH A VIRTUAL PRIVATE NETWORK, 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 NEEDS OF THE SCOPE OF SERVICES.

CIVIL 3D, 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 OFFICES.

THRASHER ENGINEERING, INC. ALSO UTILIZES 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. THE SURVEY CREWS AND OFFICE SUPPORT STAFF

GENERATE MAPPING DELIVERABLES IN VIRTUALLY ANY DIGITAL FORMAT REFERENCED TO SPECIFIED PROJECTION SYSTEMS.

ADDITIONAL SURVEY SERVICES INCLUDE: HIGH ACCURACY MONUMENTATION, ASTRONOMIC OBSERVATIONS / ORIENTATION, NGS BLUE BOOKING, HYDROGRAPHIC, TERRESTRIAL SCANNING, 3D AS-BUILTS, 3D MONITORING, SUB-SURFACE UTILITY LOCATION / DESIGNATION. THE FIELD CREWS ARE ALL EQUIPPED WITH LATE MODEL FOUR WHEEL DRIVE VEHICLES STOCKED WITH THE MOST MODERN EQUIPMENT AVAILABLE TO PERFORM PROFESSIONAL LAND SURVEYING SERVICES.

_63 TRIMBLE GNSS UNITS

6 TRIMBLE ROBOTS

2 PRECISE DIGITAL FIRST ORDER LEVELS WITH INVAR RODS

25 LEICA, NIKON OR TOPCON TOTAL STATIONS ALL MANAGED BY

TRIMBLE TSC3 FIELD COMPUTERS

REMOTE CONTROLLED/UNMANNED MAPPING AERIAL PLATFORM

HYDROGRAPHIC SURVEY VESSEL

3D SUB-SURFACE UTILITY LOCATORS

CIVIL 3D

CARLSON AND MICROSTATION V8 SOFTWARE

70 CAD STATIONS

10 LARGE FORMAT (SIZE E) PLOTTERS AND

5 LARGE FORMAT PLOTTER / SCANNERS.

CURRENT ACTIVITIES - WVDOH PROJECTS- DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF Y RESPONS	OUR FIRM'S IBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
MINERAL WELLS ROUTE 2 WOOD COUNTY	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	CIVIL ENGINEERING SURVEY, CONSTRU DOCUMENTS	•	\$6,000,000.00	DESIGN STUDY 100% ENGINEERING DESIGN – 0%
BASNETTVILLE BRIDGE MARION COUNTY	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	CIVIL ENGINEERING SURVEY, CONSTRU DOCUMENTS	,	\$1,800,000.00	15%
US ROUTE 119 BRIDGES ROANE COUNTY	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	CIVIL ENGINEERING SURVEY, CONSTRU DOCUMENTS	•	\$1,500,000.00	10%

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD:

PRESENT ACTIVITIES - WATER AND WASTEWATER PROJECTS- DESIGNATED ENGINEER OF RECORD

THRASHER IS CURRENTLY THE DESIGNATED "ENGINEER OF RECORD" ON MORE THAN 200 ON-GOING PROJECTS. THESE PROJECTS RANGE FROM SIMPLE BOUNDARY SURVEYS WHICH ARE COMPLETED WITHIN A FEW DAYS' TIME TO COMPLETE MUNICIPAL PROJECTS WHICH ARE COMPLETED OVER AN EXTENDED AMOUNT OF TIME. THE FOLLOWING LIST OF SELECTED CURRENT PROJECTS REPRESENTS THOSE WHICH HAVE BEEN AWARDED TO THRASHER WITHIN THE PAST THREE (3) YEARS AND DEMONSTRATES THE RANGE OF SERVICES PROVIDED BY THRASHER.

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
MALDEN PUBLIC SERVICE DISTRICT	MALDEN PUBLIC SERVICE DISTRICT	FEASIBILITY STUDY, DESIGN,		
WASTEWATER TREATMENT PLANT	P.O. BOX 350	FUNDING AND PERMIT	\$13,600,000.00	50%
KANAWHA COUNTY, WV	TAD, WV 25201-0350	APPLICATIONS, CONTRACT	Ψ15,000,000.00	30/0
		DOCUMENTS, FIELD SERVICES OF		
		SURVEY AND INSPECTION		
CITY OF RIPLEY, WV	CITY OF RIPLEY, WV	FEASIBILITY STUDY, DESIGN,		
WASTEWATER TREATMENT PLANT &	203 SOUTH CHURCH STREET	FUNDING AND PERMIT	\$13,000,000.00	50%
SYSTEM IMPROVEMENTS	RIPLEY, WV 25271	APPLICATIONS, CONTRACT	. , ,	
JACKSON COUNTY, WV	,	DOCUMENTS, FIELD SERVICES OF		
Í .		SURVEY AND INSPECTION		
FOUNTAIN PUBLIC SERVICE DISTRICT	FOUNTAIN PUBLIC SERVICE DISTRICT	FEASIBILITY STUDY, DESIGN,		
WATER SYSTEM PROJECT	PO BOX 146 / ROUTE 46 EAST	FUNDING AND PERMIT	\$10,500,000.00	45%
MINERAL COUNTY, WV	KEYSER, WV 26726	APPLICATIONS, CONTRACT		
		DOCUMENTS, FIELD SERVICES OF		
		SURVEY AND INSPECTION		
CITY OF ROMNEY WASTEWATER	CITY OF ROMNEY	FEASIBILITY STUDY, DESIGN,		
TREATMENT PLANT,	340 E MAIN STREET	FUNDING AND PERMIT	\$9,000,000.00	60 %
ROMNEY, WV	ROMNEY, WV 26757	APPLICATIONS, CONTRACT		
		DOCUMENTS, FIELD SERVICES OF		
		SURVEY AND INSPECTION		
TOWN OF FLEMINGTON	TOWN OF FLEMINGTON	FEASIBILITY STUDY, DESIGN,		
SANITARY SEWER EXTENSION	PO BOX 443	FUNDING AND PERMIT		
FLEMINGTON, WV	FLEMINGTON, WV 26347	APPLICATIONS, CONTRACT		
		DOCUMENTS, FIELD SERVICES OF		
		SURVEY AND INSPECTION		
CITY OF CLARKSBURG	CITY OF CLARKSBURG	FEASIBILITY STUDY, DESIGN,		
WASTEWATER TREATMENT PLANT	222 WEST MAIN STREET	FUNDING AND PERMIT		
UPGRADES FOR LTCP	CLARKSBURG, WV 26301	APPLICATIONS, CONTRACT		
		DOCUMENTS, FIELD SERVICES OF		
		SURVEY AND INSPECTION		
PRESTON COUNTY SEWER PUBLIC	PRESTON COUNTY SEWER PUBLIC	FEASIBILITY STUDY, DESIGN,		
SERVICE DISTRICT	SERVICE DISTRICT	FUNDING AND PERMIT		
WASTEWATER TREATMENT PLANT	PO BOX 89	APPLICATIONS, CONTRACT		
AND COLLECTION SYSTEM	BRUCETON MILLS, WV 26525	DOCUMENTS, FIELD SERVICES OF		
		SURVEY AND INSPECTION		
TOTAL NUMBER OF PROJECTS:		 	ED CONSTRUCTION COSTS:	

TOTAL NUMBER OF PROJECTS: 7 SHOWN – 200+ COMPANY-WIDE TOTAL ESTIMATED CONSTRUCTION COSTS:

TOTAL ESTIMATED CONSTRUCTION COSTS: \$60,350,000.00 SHOWN - TOTAL PROJECTS APPROXIMATELY \$750,000,000.00

15.CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD: PRESENT ACTIVITIES - WATER AND WASTEWATER PROJECTS- DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF Y RESPONSI		ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
CHESTNUT RIDGE PSD BARBOUR/PRESTON EXTENSION BARBOUR COUNTY, WV	CHESTNUT RIDGE PSD 209 S MAIN STREET P.O. BOX 386 PHILIPPI, WV 26416	FEASIBILITY STUDY, FUNDING AND PERI APPLICATIONS, CON DOCUMENTS, FIELD SURVEY AND INSPE	MIT NTRACT O SERVICES OF	\$4,500,000	90%
GILMER COUNTY PSD WATER LINE EXTENSION	GILMER COUNTY PSD PO BOX 729 GLENVILLE, WV 26351	FEASIBILITY STUDY, FUNDING AND PERI APPLICATIONS, CON DOCUMENTS, FIELE SURVEY AND INSPE	MIT NTRACT O SERVICES OF	\$3,200,000.00	85%
MINGO COUNTY PSD WATER LINE EXTENSION	MINGO COUNTY PSD PO BOX 98 NAUGATUCK, WV 25685	FEASIBILITY STUDY, FUNDING AND PERI APPLICATIONS, CON DOCUMENTS, FIELE SURVEY AND INSPE	MIT NTRACT O SERVICES OF	\$1,075,000.00	60%
HAMRICK PSD MOORE/PORTERWOOD EXTENSION TUCKER COUNTY, WV	HAMRICK PSD PO BOX 228 HENDRICKS, WV 26271	FEASIBILITY STUDY, FUNDING AND PERI APPLICATIONS, CON DOCUMENTS, FIELE SURVEY AND INSPE	MIT NTRACT O SERVICES OF	\$1,100,000.	35%
LINCOLN COUNTY PSD WATER LINE EXTENSION PROJECTS	P.O. BOX 38 240 LITTLE COAL RIVER RD. ALUM CREEK, WV 25003	FEASIBILITY STUDY, FUNDING AND PERI APPLICATIONS, CON DOCUMENTS, FIELD SURVEY AND INSPE	MIT NTRACT O SERVICES OF	\$6,920,000.	25%
TOWN OF CAPON BRIDGE WATERLINE AND PUMP STATION REPLACEMENT	TOWN OF CAPON BRIDGE PO BOX 183 FRANK, WV 24920	FEASIBILITY STUDY, DESIGN, FUNDING AND PERMIT APPLICATIONS, CONTRACT DOCUMENTS, FIELD SERVICES OF SURVEY AND INSPECTION		\$1,925,000.00	50%
CITY OF SALEM, WEST VIRGINIA WATER LINE REPLACEMENT	SALEM, CITY OF P.O. BOX 352 229 W. MAIN SALEM, WV 26426	FEASIBILITY STUDY, FUNDING AND PERI APPLICATIONS, CON DOCUMENTS, FIELE SURVEY AND INSPE	MIT NTRACT O SERVICES OF	\$1,500,000.	80%
TOTAL NUMBER OF PROJECTS: CURRENTLY IN PRELIMINARY / DESIGN	7 REPRESENTED (APPROXIMATELY 20 A N OR CONSTRUCTION PHASES		TOTAL ESTIMAT \$18,220,000.00 RE	PED CONSTRUCTION COSTS:	

ESTIMATED COST OF ALL JOBS APPROXIMATELY \$150,000,000.00

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD: **SANITARY SEWER PROJECTS**THRASHER ENGINEERING IS CURRENTLY THE DESIGNATED "ENGINEER OF RECORD" ON MORE THAN 200 ON-GOING PROJECTS. THESE PROJECTS RANGE FROM SIMPLE BOUNDARY

SURVEYS WHICH ARE COMPLETED WITHIN A FEW DAYS' TIME TO COMPLETE MUNICIPAL PROJECTS WHICH ARE COMPLETED OVER AN EXTENDED AMOUNT OF TIME. A PARTIAL LISTING OF CURRENT PROJECTS FOLLOWS WHICH DEMONSTRATES THE RANGE OF SERVICES PROVIDED BY THRASHER ENGINEERING.

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S ESTIM 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		\$10,000,000.00	50%
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		\$6,000,000.00	65%
TENNERTON PSD PHASE III SANITARY SEWER EXTENSION UPSHUR COUNTY, WV	TENNERTON PSD 188 FAYETTE ST. BUCKHANNON, WV 26201	FEASIBILITY STUDY FUNDING AND PER APPLICATIONS, CO DOCUMENTS, FIEL SURVEY AND INSPI	RMIT INTRACT D SERVICES OF	\$6,800,000.00	5%
ENLARGED HEPZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH PSD DRAWER H HEPZIBAH, WV 26369	FEASIBILITY STUDY FUNDING AND PER APPLICATIONS, CO DOCUMENTS, FIEL SURVEY AND INSPI	RMIT INTRACT D SERVICES OF	\$2,666,000.00	50%
CITY OF WEIRTON, WV PHASE II SEWER PROJECT	CITY OF WEIRTON 3031 BIRCH DRIVE WEIRTON, WV 26062	FEASIBILITY STUDY FUNDING AND PER APPLICATIONS, CO DOCUMENTS, FIEL SURVEY AND INSPI	RMIT INTRACT D SERVICES OF	\$5,728,000.00	40%
TOWN OF JUNIOR WASTEWATER TREATMENT PLANT JUNIOR, WV	TOWN OF JUNIOR PO BOX 247 JUNIOR, WV 26275	FEASIBILITY STUDY FUNDING AND PER APPLICATIONS, CO DOCUMENTS, FIEL SURVEY AND INSPI	S AND PERMIT TIONS, CONTRACT ENTS, FIELD SERVICES OF \$2,332,000.00		45%
TOTAL NUMBER OF PROJECTS: TOTAL ACTIVE SANITRY SEWER PROJE				OJECTS APPROXIMATELY \$150,000,000	0,000.00

16. CURRENT ACTIVIT	IES ON WHICH YOUR FI	RM IS SERVING AS A S	UB-CONSULTANT TO OTH	ERS				
PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CON	TED CONSTRUCTION COST			
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY			
BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT WASTEWATER TREATMENT PLANT BERKELY COUNTY,WV	DESIGN SUPPORT CONSTRUCTION ADMIN.	BERKELEY COUNTY PSSD PO BOX 944 MARTINSBURG, WV 25402	2015	\$20,000,000.00	\$10,000,000.00			
RD BAILY WATER SYSTEM MCGRAWS, WV	DESIGN SUPPPORT CONSTRUCTION ADM.	RAVENCLIFF-MCGRAWS- SAULSVILLE PSD P.O. BOX 217 MCGRAWS, WV 25875	2016	\$30,000,000.00	\$12,000,000.00			

COMPLETED WORK - WVDEP OFFICE OF AML&R - PROJECTS DESIGNATED ENGINEER OF RECORD

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOU WERE THE DESIGNATED ENGINEER OF RECORD THRASHER HAS DESIGNED, BID AND PROVIDED CONSTRUCTION SERVICES FOR MORE THAN 200 PUBLICLY FUNDED PROJECTS WITHIN THE PAST 10 YEARS. THE FOLLOWING LIST IS COMPRISED OF PROJECTS COMPLETED WITHIN THE LAST THREE (3) YEARS THAT DEMONSTRATE THE RANGE OF DISCIPLINES PROVIDED BY THRASHER

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
PLEASANT VALLEY AML RECLAMATION MARION COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$764,000.00	2013	YES
ROGER (CAMP HILL) AML RECLAMATION TUCKER COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$210,000.00	2013	YES
ANGLINS RUN PORTALS AML RECLAMATION BARBOUR COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$321,000.00	2010	YES
ROARING CREEK SUBSIDENCE AML RECLAMATION RANDOLPH COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$353,000.00	2010	YES
SQUIRES CREEK PORTALS REFUSE AML RECLAMATION	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$260,000.00	2011	YES
OVERFIELD (LAFFERTY) CS&P AML RECLAMATION	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$492,000.00	2011	YES
LAUREL RUN #1 REFUSE / HIGHWALL AML RECLAMATION MONONGALIA COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$1,558,000.00	2012	YES
CLARKSBURG (LYONS) LANDSLIDE AML RECLAMATION HARRISON COUNTY, WV	WV DEP, OFFICE OF AML&R 601 57 TH STREET, SE CHARLESTON, WV 25304	\$1,492,000.00	2012	YES

17. COMPLETED WORK WITHIN LA	ST 5 YEARS ON WHICH YOUR FIRM WA	AS THE DESIGNATED ENGINEER OF RECOR	D	
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
MCHENRY BUSINESS PARK SITE DEVELOPMENT AND UTILITIES GARRETT COUNTY, MD	GARRETT COUNTY EDA 203 SOUTH 4TH STREET COURTHOUSE ROOM 208 OAKLAND, MD 21550	\$3,500,000.00	2011	YES
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	\$12,100,000.00	2010	YES
CANYON PUBLIC SERVICE DISTRICT SANITARY SEWER UPGRADE AND EXT MONONGALIA COUNTY, WV	CANYON PSD 12 WICHITA STREET MORGANTOWN, WV 26508	\$6,500,000.	2009	YES
HEPIZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH DRAWER H HEPZIBAH, WV 26369	\$3,400,000	2010	YES
SUN VALLEY WATER AND SEWER SYSTEM IMPROVEMENTS REYNOLDSVILLE, WV	SUN VALLEY PSD PO BOX 95 REYNOLDSVILLE, WV 26422	\$12,500,000	2010	YES
BROOKE COUNTY PSD REPLACEMENT AND EXTENSION BROOKE COUNTY, WV	BROOKE CO. PSD 711 CHARLES ST. P. O. BOX 150 WELLSBURG, WV 26070	\$10,000,000	2009	YES
HUTTONSVILLE PSD PHASE II RANDOLPH COUNTY, WV	HUTTONSVILLE PSD P.O. BOX 277 MILL CREEK, WV 26280	\$4,300,000	2009	YES
POCAHONTAS COUNTY PSD WWTP AND COLLECTION SYSTEM POCAHONTAS COUNTY, WV	POCAHONTAS COUNTY PSD HC 63 BOX 122 FRANK, WV 24920	\$11,600,000	2009	YES
HARDY COUNTY WATER SYSTEM IMPROVEMENTS HARDY COUNTY, WV	HARDY COUNTY PSD 223 N. MAIN STREET MOOREFIELD, WV 26836	\$8,000,000	2010	YES

17. COMPLETED WORK WITHIN LAST	5 YEARS ON WHICH YOU WERE THE DESIG	NATED ENGINEER OF RECORD		
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
LEWIS COUNTY ECONOMIC DEVELOPMENT AUTHORITY BLOODY RUN WATER LINE EXTENSION	LEWIS COUNTY EDA 16 GARTON PLAZA WESTON, WV 26452	\$167,165.00	2013	YES
HEPIZIBAH PSD SANITARY SEWER EXTENSION HARRISON COUNTY, WV	ENLARGED HEPZIBAH DRAWER H HEPZIBAH, WV 26369	\$3,400,000	2010	YES
SOUTHWESTERN PSD WATER LINE EXTENSION / REPLACEMENT	SOUTHWESTERN WATER PUBLIC SERVICE DISTRICT P. O. BOX 98 FLEMINGTON, WV 26347	\$10,430,000	2012.	YES
CITY OF SALEM WATER LINE REPLACEMENT AND DAM IMPROVEMENTS HARRISON COUNTY, WV	CITY OF SALEM 229 WEST MAIN STREET SALEM, WV 26426	\$981,595.00	2013	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.	2010	YES
COUNTY LINE BRIDGE MARSHALL COUNTY, WV	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	\$1,800,000.00	2013	YES
WVDOH DISTRICT 7 HEADQUARTERS LEWIS COUNTY, WV	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	\$2,300,000.00	2013	YES
I-64 WEIGH STATION PUTNAM COUNTY, WV	WVDOT / DOH BLDG. 5, ROOM A-109 1900 KANAWHA BLVD., EAST CHARLESTON, WV 25305	\$800,000.00	2013	YES

18. COMPLETED WORK WI	ITHIN LAST 5 YEARS ON WHICH	YOU WERE ASSOCIATED WITH OTHER FIRM	MS (INDICA	TE PHASE OF WORK	FOR WHICH YOUR FIRM			
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			
MC DOWELL COUNTY FEDERAL PRISON WELCH, WV SITE DEVELOPMENT	US DEPARTMENT OF JUSTICE FEDERAL BUREAU OF PRISONS 500 FIRST STREET NW WASHINGTON, DC 20534	\$25,000,000.00	2010	YES YES	BELL JUSTICE FACILITIES			
CITY OF BECKLEY INTERMODAL GATEWAY	CITY OF BECKLEY 409 S. KANAWHA STREET BECKLEY, WV 25801	\$250,000.00 2012 YES PARSON						
19. USE THIS SPACE TO PROVID WV ABANDONED MINE L		OR DESCRIPTION OF RESOURCES SUPPORTING	YOUR FIRM'S	QUALIFICATIONS TO	PERFORM WORK FOR THE			
SEE ATTACHMENT – STATEMENT OF QUALIFICATIONS								
20. THE FOREGOING IS A STATE SIGNATURE:	20. THE FOREGOING IS A STATEMENT OF FACTS. SIGNATURE:							
PRINTED NAME: CHADWICK D	PRINTED NAME: CHADWICK D. BILLER, P.E.							

EXPRESSION OF INTEREST DEP17035 CEOI 0313 DEP1500000005

F&M Coal Company Inc. S-1044-87 and S-57-84 Attachment "C"

			OS	Rar	nd R	REL	ATI	ED P	ROJ	ECT	EX	PER	RIEN	CE	MA	TRI	X						
		Additional					PR	OJEC .	Г ЕХР	ERIE	NCE I	REQU	JIREN	/ENT	ΓS				Prima *** N	ry staff p I-Manag	articipat ement l	tion/capa P-Profess	icity sional
PROJECT	Exp. Basis C-Corp P-Personal *	info provided in Section (s)	Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal/shaft closure	Hydrologic/Hydraulic design/ Eval.	Remining Evaluation	Mine / refuse fire abatement	Subsidence investigation/ mitigation	Hazardous waste disposal	Project specifications	Water quality evaluation /mitigation replacement	Construction inspection / management	Water treatment	Equipment /structure removal	Stream restoration	Geotechnical/stability	NPDES/ Stormwater preparation	Chad Biller, PE ***	Mike Nester, PE, CFM	April Rohrbaugh	Dayton Carpenter, PE	Doug Forni, PE
Marinka Mine														X								X	
Roaring Creek			X			X			X		X					X		X	X	X			
Lambert's Run Site 6						X					X	X	X				X	X					X
Lyons Landslide					X	X					X					X		X	X		X		
Laurel Run						X					X	X						X	X		X		

^{*}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.

CERTIFICATIONAND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

The Thrasher Group, Inc.

(Company)

Mul Bell Chad Biller, Principal-in-Sharge

(Authorized Signature) (Representative Name, Title)

304-624-4108 304-624-7831

11-5-14

(Phone Number) (Fax Number) (Date)

	DEP1500000005
RFQ No.	

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. 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.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political aubdivisions 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.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-20-2, fallure to maintain mandatory workers' compensation coverage, or fallure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"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.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Vs. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

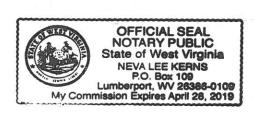
Authorized Signature: State of West Virginia County of Harrison, to-wit: Taken, subscribed, and sworn to before me this Hay of Movember, 2014. My Commission expires Capital 28

The Thrasher Group, Inc.

AFFIX SEAL HERE

NOTARY PUBLIC

Purchasing Affidavit (Revised 07/01/2012)



WITNESS THE FOLLOWING SIGNATURE: