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Header

List View

General Information

Contact

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Document Information

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Procurement Type: Central Contract - Fixed Amt

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Alias/DBA:

Total Bid: \$0.00

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Solicitation Description: Addendum 01 Elkins-Randolph
County Landfill Closure Cap

Total of Header Attachments: 0

Total of All Attachments: 0



Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder : 138519

Solicitation Description : Addendum 01 Elkins-Randolph County Landfill Closure Cap

Proc Type : Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation No	Version
	2015-11-12 13:30:00	SR 0313 ESR11121500000002200	1

VENDOR

000000203587

TRIAD ENGINEERING INC

FOR INFORMATION CONTACT THE BUYER

Beth Collins
(304) 558-2157
beth.a.collins@wv.gov

Signature X

FEIN #

DATE

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Water testing services				\$0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description :	Site Characterization Study, Leachate Management and Closure Cap Design for the Elkins-Randolph County Landfill per the attached specifications, bid requirements, and terms and conditions, incorporated here by reference and made a part hereof.
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EXPRESSION OF INTEREST

ELKINS/RANDOLPH COUNTY

LANDFILL CLOSURE CAP

November 12, 2015



Prepared For:

Beth Collins
Department of Administration
Purchasing Division
2019 Washington St. E.
Charleston, Wv 25305
Ph: 304.558.2157

Prepared By:

Triad Engineering Inc.
10541 Teays Valley Road
Scott Depot, West Virginia 25560
Ph: 304.755.0721
Fx: 304.755.1880



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Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

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

Proc Folder: 138519

Doc Description: Addendum 01 Elkins-Randolph County Landfill Closure Cap

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2015-10-30	2015-11-12 13:30:00	CEOI 0313 DEP1600000010	2

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:

Triad Engineering, Inc.
10541 Teays Valley Rd.
Scott Depot, WV 25560
304-755-0721

FOR INFORMATION CONTACT THE BUYER

Beth Collins
(304) 558-2157
beth.a.collins@wv.gov

Signature X

FEIN # 550592364

DATE 11/12/2015

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

ADDITIONAL INFORMATION:

Engineering and Design

Addendum No. 01:

This addendum is issued to modify the solicitation per the attached documentation and the following:

1. To modify the bid opening date to November 12, 2015 at 1:30PM, EST.
2. To provide answers to vendor submitted questions.

No other changes.

CRFQ

The West Virginia Purchasing Division, for the Agency, the West Virginia Department of Environmental Protection, is soliciting Expressions of Interest for professional mapping and design services for the Elkins-Randolph County Landfill project located in Randolph County, West Virginia, per the attached bid requirements and specifications.

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF ENVIRONMENTAL REMEDIATION 601 57TH ST SE CHARLESTON WV25304 US		ENVIRONMENTAL PROTECTION 601 57TH ST CHARLESTON WV 25304 US	

Line	Comm Ln Desc	Qty	Unit Issue
1	Water testing services		

Comm Code	Manufacturer	Specification	Model #
81100000			

Extended Description :

Site Characterization Study, Leachate Management and Closure Cap Design for the Elkins-Randolph County Landfill per the attached specifications, bid requirements, and terms and conditions, incorporated here by reference and made a part hereof.

SCHEDULE OF EVENTS

Line	Event	Event Date
1	Tech Questions Deadline at 5:00 PM, EST	2015-10-09

DEP1600000010	Document Phase Final	Document Description Addendum 01 Elkins-Randolph Co unty Landfill Closure Cap	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

November 12, 2015

Beth Collins
Department of Administration
Purchasing Division
2019 Washington St. E.
Charleston, WV 25305

Subject: EXPRESSION OF INTEREST – DEP1600000010
Statement of Qualifications
Elkins-Randolph County Landfill Closure Cap

Dear Ms. Collins:

Triad Engineering, Inc. (Triad) is pleased to present this Expression of Interest to provide Landfill Site Characterization, Closure Design, and Construction Inspection services for the Elkins/Randolph County Landfill. We have prepared this proposal in response to Request for Quotation No. DEP1600000010 dated November 12, 2015. Herein, we have provided the following information:

- Our experience in landfill site characterization, assessment and design services.
- A description of our project team and how they will be organized to complete the work. Resumes of team members are also provided.
- Our approach to the project including an outline of project phases.
- A description of our internal project quality control and cost control systems.

We are confident that this information meets your needs at this time, and we look forward to a favorable review of our qualifications. If you have any questions or require any additional information, please do not hesitate to contact us.

Very truly yours,

TRIAD ENGINEERING, INC.



Dave Meadows, PE, PS
Chief Technical Officer
Regional Manager



Lee McCoy, PE
Civil Engineering Manager

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***Corporate History
And
Experience***

CORPORATE HISTORY AND EXPERIENCE

Triad Engineering, Incorporated (Triad) is an **employee owned**, regional consulting firm based in West Virginia that provides professional services in the areas of civil, environmental, geotechnical engineering; site assessment; planning and landscape architecture; geology and hydrogeology; surveying and mapping; construction inspection; and related services. Our firm has provided services on many thousands of projects of varying size and complexity since its founding in Morgantown, West Virginia in 1975.

Through our 40 years of service in West Virginia and surrounding states, both the number and complexity of these projects have grown. Our clients include Federal and State governmental agencies, mining and industrial corporations, contractors, architects, engineers, attorneys, developers, and commercial organizations.

Facilities and equipment available to support our staff have continued to evolve through the years to adapt to the changing needs of the market. Each of our offices contains computer facilities that are utilized for hydrogeological evaluations, risk



assessment, stability analyses, survey data reduction, mapping and site design. Our computer based drafting and reproduction facilities are used to develop detailed site plans, construction details, and other graphic documentation as required for our projects. Our Utilities Group possess all the necessary equipment to perform a thorough and comprehensive Sanitary Sewer Evaluation Study including Closed Circuit Television Camera Systems (remote control and cable driven), flow meters and smoke testing equipment.

Triad currently includes a staff of nearly 200 personnel located in seven offices: Hagerstown, Maryland; Pittsburgh, Pennsylvania; Ashburn and Winchester, Virginia; Athens, Ohio; and Morgantown and St. Albans (Scott Depot), West Virginia. Our personnel include chemical, civil, environmental, geotechnical and mining engineers, as well as geologists and hydro geologists, biologists, chemists, environmental scientists, planners, landscape architects, natural resource specialists, regulatory compliance specialists, permitting engineers, risk assessors and health and safety specialists.

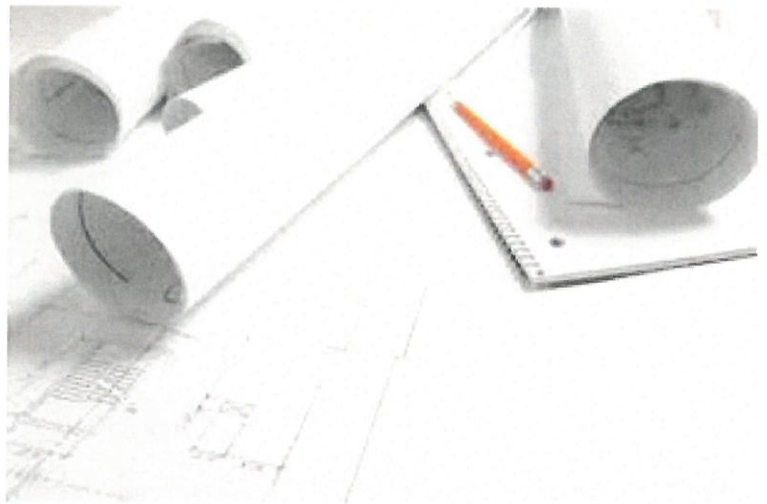
Triad was previously selected by WVDEP to complete two, three-year LCAP closure design contracts, and was later selected by Quality Based Selection (QBS) methods for several other stand-alone landfill closure design contracts. Therefore, our staff is completely familiar with the work required under this contract. During our previous contract work with LCAP, Triad has successfully completed nine separate landfill projects similar or identical to this project. We are currently completing two additional projects. Because LCAP design projects are geotechnical oriented, our expertise in geotechnical engineering, geology and civil engineering design make us particularly well qualified to provide the requested services.

LANDFILL PROJECT EXPERIENCE

Our experience and capabilities as a geotechnical engineering and earth-science firm brought about our development as a waste management design firm more than twenty years ago. Triad was providing a variety of geotechnical engineering and hydrogeological services related to the construction of synthetic and soil liners for one of our long term clients, Union Carbide Corporation (now Dow Chemical). Based on our performance on previous projects, they requested that we design and permit a new hazardous waste landfill for their Sistersville, West Virginia facility. Utilizing our in-house capabilities and expertise in geotechnical engineering, geology, drilling, material testing and civil engineering, we brought the project to completion on time and within budget. Triad completed all phases of the necessary hydrogeologic and borrow-soil investigations, as well as engineering design, permitting and regulatory agency liaison services. From that point forward, our firm continued to grow steadily in the direction of waste management design services.

Since that time, Triad has completed a variety of solid waste and hazardous waste landfill designs, upgrades and closures. The majority of this work has been performed for West Virginia landfills, and mandated by the requirements of 33CSR1. Most of our engineering work has also included full-time construction quality control (QC) inspection and final engineering certification of construction.

It is doubtful that any other West Virginia firm can demonstrate the depth and variety of landfill engineering and QC experience that Triad can bring to this project. With this extensive experience in design engineering, contract document preparation and QC inspection, we are expertly qualified to provide these services for proper closure and reclamation of the Elkins/Randolph County Landfill. **Appendix A** contains a listing of numerous landfill closure and other waste management projects completed by our firm.



Project Team & Project Approach

PROJECT TEAM

Triad currently maintains a staff of approximately 185 personnel. This includes civil, environmental, geotechnical and mining engineers, geologists and hydrogeologists, landscape architects, biologists, environmental scientists, and chemists. Our technical support and administrative staff includes designers, CADD technicians, surveyors, engineering technicians, drillers, construction inspectors and clerical personnel. The majority of our professional and technical staff has been with the company for many years. We pride ourselves in a very low turnover rate, which adds to continuity and enhances the level of productivity and experience afforded by our company.

Since our first foray into landfill design more than 25 years ago, Triad has developed a waste management design team which possesses a wide range of technical and regulatory expertise related to solid waste. Geologists, engineers, construction inspectors, environmental technicians, surveyors, designers and CADD technicians cooperate in the development of complete landfill project packages. Their work includes:

- Site Characterization Studies
- Facility siting
- Leachate Management
- Surveying and layout
- Construction management
- Design/construction alternatives
- Soils and geologic investigation
- Closure Cap Design
- Quality Assurance/Quality Control
- Engineering certification

Our geologists share a large body of knowledge and experience regarding the soil, rock and groundwater indigenous to West Virginia. They are particularly aware of the impact which geology and groundwater can have on the design, construction and closure of a waste management facility.



Our soils engineers, in cooperation with our materials testing laboratories, routinely assess the suitability of on-site soils for construction of low permeability hydraulic barriers and other closure cap components. Our technical staff cooperates with our clients and several regulatory agencies in the on-going development of new techniques for the design, testing and specification of low permeability barriers. We believe Triad is on the cutting edge of technology in this field. We utilize the methods developed by Dr. David Daniel at Drexel University to provide a compaction-moisture-permeability window for construction of the low permeability component layers required for composite liner and cap systems.

Our material testing laboratories are well-equipped to provide the testing needed to develop the "Daniel's window" for low permeability soil components. Triad continues to develop new and better laboratory test methods, and improves upon methods already developed by the US EPA and state regulatory agencies. Our laboratories routinely participate in certification programs administered by the US Army Corps of Engineers, American Society of Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO) and the West Virginia Department of Transportation (WVDOT).



Our firm maintains an experienced, well-trained staff of construction QC inspectors who work with our engineering staff and contractors in the field.

They typically are present at landfill construction

sites on a full-time basis to ensure that the soil and synthetic liners and closure caps designed by our firm are constructed in accordance with the appropriate specifications.

Our surveying department also provides support to the design team, directing the layout and construction of base grades, checking liner component thicknesses, and checking grades and alignments on leachate collection piping and surface water drainage systems. They routinely perform annual topographic surveys of current landfill progress to determine compliance with required grades, permit limits, and to determine volume of filling.

Our design/drafting team utilizes electronically stored data from our survey crews, or from aerial photography, to generate three-dimensional computer models of our landfill projects. The use of three-dimensional CADD models allows our engineers to easily make changes to our design in response to client needs, regulatory agency comments or previously unknown site constraints. Performing our design in the three-dimensional system allows us to calculate cut and fill quantities, thereby ensuring that materials handling is kept to a minimum. Our CADD systems generate clear, easy-to-read drawings which help to assure more expeditious regulatory agency approval.

Triad has assembled a team of individuals with broad waste management experience to provide services under this contract. The majority of the Project Team is assigned to our Charleston area office, located in Scott Depot, West

Virginia. The following persons will serve as members of the Project Team for the Elkins/Randolph County Landfill project:

Our principal in charge, **David Meadows** is a registered professional engineer and surveyor. Mr. Meadows brings over 40 years of leadership, design and project management experience to Triad Engineering. Mr. Meadows joined Triad in 2013 to provide management to the southwest region which includes the southern West Virginia area and the Athens, Ohio office. Prior to coming to Triad he served in a number of technical and leadership positions at the US Army Corps of Engineers, Huntington District. His expertise includes civil design, geotechnical engineering, construction management, surveying, environmental remediation and water resources engineering.

Lee McCoy, PE, our Project Manager and Civil Site Group Manager, is a registered professional engineer in West Virginia, Kentucky and Ohio. He has over 18 years of experience in civil site design which includes landfill design, site layout, grading, drainage, and development of storm water management plans. He directs a group of other engineers and technicians who also perform design work as well as develop plans and specifications for these projects. Mr. McCoy also works closely with and directs as needed inspectors and construction managers who observe the projects through the construction phase.

Randy Moulton, PE is currently our Chief Engineer. Mr. Moulton is responsible for corporate contract administration and overall quality control and technical quality assurance of projects undertaken by the company. Specific technical activities include preparation of geotechnical proposals, review and/or preparation of subsurface exploration programs, evaluation of geotechnical data and review and preparation of detailed geotechnical reports. Technical specialties also include design of deep foundations, in particular rock-socketed caissons, design of various types of retaining walls, evaluation of groundwater and seepage problems, and design of earth and earth-rock dams. Mr. Moulton has also been responsible for managing design of corrective measures at sanitary landfills under the Landfill Corrective Action Program (LCAP) in West Virginia and characterization and design of remedial measures for an old landfill in Virginia.

Danny Lipscomb, PE is currently the Geotechnical Services Manager and a Senior Engineer at the St. Albans branch of Triad. In this capacity, he has been involved in development and management of subsurface exploration projects and development of geotechnical engineering reports providing recommendations based on field observations and laboratory results for bearing capacity, earthwork operations, earthen dam embankments, slope stability, flexible and rigid pavement design, lateral earth pressures, sinkhole remediation, geophysics

(electrical resistivity and ground penetrating radar), and rock excavation. These projects have included roadway/bridges, freshwater dams, shopping centers, buildings, retaining walls, residential communities, water storage tanks, waste water treatment facilities, and structures for coal mining facilities.

Heather Metz, LRS is currently the Environmental Services Manager and Senior Environmental Scientist at the Scott Depot office of Triad. In this capacity, Ms. Metz has assisted the USEPA and WVDEP, OER by performing various site assessment tasks at numerous Superfund sites in West Virginia. Tasks have included performing Preliminary Assessments (PA), Site Inspections (SI), combined Preliminary Assessment Site Inspections (PA/SI), Expanded Site Inspections (ESI), and Site Inspection Reassessments (SIR) under CERCLA. Specific tasks have included performing regulatory file reviews, site reconnaissance's, Hazard Ranking System (HRS) site scoring using USEPA software, USEPA Contract Laboratory Program (CLP) data management using USEPA software, providing electronic laboratory data deliverables for the WVDEP in EQUIS® data management format, Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) generation, field sampling, and report preparation. Ms. Metz has also performed Phase I and Phase II environmental site assessment (ESA) investigations at commercial facilities and operating manufacturing plants. These tasks have included performing subsurface investigations, multi-media sampling, data analysis, and report generation. Ms. Metz also performs a variety of tasks for sites in the West Virginia Voluntary Remediation Program (VRP). Tasks have included preparation of VRP Applications, Agreements, Sampling and Analysis Plans, extensive site characterization activities, and report preparation.

Jobe Hope is currently the Field Technician Supervisor for the St. Albans office of Triad. In this capacity he oversees the field staff, by handling calls from technicians on technical matters, staffing and scheduling and serving as the branch RSO. Mr. Hope also handles and in house QA/QC, schedules training classes, keeps all records of inspections and calibrations. In addition, he also writes proposals for perspective jobs, assigns new jobs and lab work and writes all QC plans.

Resumes which provide detailed information regarding the education and experience of all individuals who will perform services under this contract are included in **Appendix B**.



PROJECT APPROACH

Based on our current understanding of the work requirements for the Elkins/Randolph County Landfill and our past experience with several similar projects, we believe that the work can be subdivided into five phases. Work elements associated with each phase are discussed in more detail herein.

Surveying and Mapping

Prior to beginning site assessment and engineering design, it will be necessary to have reliable and accurate mapping over the project area, including any potential borrow areas and areas where leachate storage or treatment may occur. Triad will team with our aerial photography subcontractor (Keddal Aerial Mapping) to determine appropriate ground control locations prior to flying the site. Triad will then establish aerial mapping targets using GPS survey equipment and personnel from our Charleston, WV area office to minimize travel expenses. Our field crew will also verify the legal boundaries of the property, and these will also be shown on the base map.

After the site is flown, our subcontractor will provide mapping for field review and verification. After all field data is confirmed, final digital and hard copy files will be provided to Triad. These files will form the basis for our base mapping.

Site Characterization Study

After accurate mapping is available, Triad will conduct a site reconnaissance visit in cooperation with the WVDEP project manager. During our site reconnaissance, we will examine and discuss the following features:

- Interim cap system
- Existing surface water drainage controls
- Potential leachate release areas
- Nearby receiving streams and other sensitive receptors
- Potential borrow areas
- Existing monitoring wells

Following our site visit, Triad will discuss our proposed site characterization plan with the WVDEP project manager and subsequently provide a written scope of work for approval.

Upon approval, Triad will mobilize drilling equipment from our Charleston, WV area office to conduct any subsurface investigation necessary to characterize waste limits, potential borrow soils, groundwater, and bedrock conditions at the site. Samples of groundwater from existing monitoring wells, samples from surface run-off channels, and samples from potential leachate seeps will be obtained for laboratory analysis. Laboratory testing will be completed by our subcontract analytical laboratory, Pace Analytical Services, Inc., a WVDEP certified laboratory.

Sufficient data will be obtained during the course of our site assessment to generate a report that will describe current conditions at the site and provide a proposed cost effective remedial approach. Our Site Characterization Report will include:

- Overall site map depicting relevant features
- Description of groundwater quality and flow patterns
- Description of site geology and soils
- Evaluation of existing cover soil
- Evaluation of available borrow soils, including quantity and quality
- Description of surface water drainage
- An evaluation of potential impacts to nearby surface water, groundwater, and other potential sensitive receptors
- Our recommended approach to final closure of the landfill

Design Engineering and Permitting

After review and approval of our Site Characterization Report by WVDEP, Triad will begin preliminary engineering of a closure solution. We anticipate that submittals will be made to WVDEP at the 30% complete, 90% complete, and 100% complete stage of design. Our design package will generally include the following elements:

- Existing Conditions and Topography
- Survey Layout Plan
- Erosion and Sediment Control
- Base Grading Plan
- Final Grading Plan
- Closure Cap Details
- Surface and Stormwater Management Plan
- Sediment Control Structure Plans and Details
- Leachate Collection/Storage System Plans and Details
- Miscellaneous Details
- Supporting Calculations
- Construction Specifications

Construction Cost Estimate and Bidding

Upon completion of final plans and specifications, the expected cost of the work will be estimated. This cost evaluation will be made using unit cost data from various sources (i.e. previous bids on similar projects, information solicited from material suppliers, Means unit costs, etc.). The final cost estimate will be discussed with the WVDEP project manager and, whenever necessary, revisions to the plans and specifications will be made to bring the estimated costs in line with the project budget.

After an estimated construction budget is established, Triad will assist WVDEP in the advertisement and bidding of the work. The Triad project manager and project engineer will attend the pre-bid meeting to show the job to prospective contractors, and will assist the WVDEP project manager with the review and analysis of bids.

Construction Quality Control Inspection

Triad project team personnel and construction inspectors from the Charleston, WV area office will make regular visits to the project site as appropriate and necessary during construction. Triad inspectors will conduct quality control tests at the frequency provided in the specifications and will evaluate the contractor's work for compliance with the specifications. The Triad design engineer will be available as necessary to visit the site with the WVDEP project manager to evaluate progress and/or to solve problems which may develop during the course of construction. We typically suggest bi-weekly progress meetings at the site to review work which has been completed to date, outline concerns or deficiencies (if applicable), respond to questions from the Contractor, and receive information regarding submittals and schedule updates.

Upon completion of the construction, our engineer will conduct a final inspection with the WVDEP project manager and the contractor to develop a punch list as necessary to ensure that all elements of the project are completed in accordance with the plans and specifications.

PROJECT QUALITY CONTROL AND COST CONTROL SYSTEM

Our project manager will be responsible for monitoring and controlling project schedule, budget and quality. Prior to beginning the project, Mr. McCoy will coordinate with the WVDEP project manager to prepare a Project Management Plan. The Project Management Plan document guides and records execution of the project from beginning to final completion. As work progresses, the project manager will evaluate progress on a weekly basis to compare actual project progress with the established work schedule. If these reviews indicate that a schedule problem is developing, the project manager will explore options for correcting the situation. If circumstances develop that will make it impossible to maintain the original schedule, the WVDEP project manager will be immediately informed of the situation and a mutually satisfactory schedule adjustment will be made.

Personnel time and expense charges are maintained and allocated to projects on a weekly basis. Using this data, together with knowledge of subcontractor costs, our project manager will also review project budget status on a weekly basis. This information is available at the project manager's desktop via our automated accounting and project management software. The percent of work completed will be compared to the percent of costs incurred in order to quickly identify any budget problems which may develop. If potential budget problems are identified,

they will be evaluated by the project manager and the WVDEP project manager will be immediately informed of the problems and causes. If justified, a mutually agreeable budget revision will be prepared or the work scope will be revised to conform to the original budget, based on the nature of the problem.

Project meetings will be held at least weekly between the Triad project manager, the senior engineer, and other relevant staff as appropriate to generally review project schedule and budget, and also to review work product for completeness, accuracy, and conformance with the project requirements. Triad maintains a two-tiered quality review system. The first tier requires the staff person who generates work to have their work product reviewed by a peer. Any revisions required by the peer review are completed prior to moving to the second tier. In the second tier review, a senior level technical person must review and sign off on the quality of all work. Generally, senior review will be conducted by Lee McCoy, PE, for civil engineering work and Dave Meadows, PE, PS for geotechnical and site assessment work. However, other senior level staff may complete these reviews as necessary to maintain efficient work flow.



SUMMARY

As indicated in this proposal and the accompanying CCQQ, Triad maintains the staff, equipment and other resources to complete the Elkins/Randolph County Landfill project almost completely in-house. Staff from our Charleston area and Morgantown offices, will perform the work so that we can minimize travel costs and more efficiently utilize the time allowed for the project.

We can also utilize technical strengths and experience housed in other Triad office locations to supplement expertise available in the Charleston area office. Technical oversight, including the review and editing of specifications and drawings, will be accomplished via our shared server folders, which provide company wide access to files stored there.

The attached **Appendix A - Landfill Project Experience**, illustrates our experience and ability to complete a wide variety of landfill projects, from initial design to site assessment and closure. We strongly believe that you will conclude Triad is one of the most capable and experienced landfill consulting firms in West Virginia.

Appendix A

LANDFILL PROJECT EXPERIENCE

Project Name Location	Contact Phone No.	Services Provided
MARION COUNTY LANDFILL Farmington, WV	Mr. Paul Benedum (304) 368-2000	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
MORGAN COUNTY LANDFILL GREAT CACAPON, WV	Mr. Mark Church (540) 665-5643	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
DONS DISPOSAL Charleston, WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
CITY OF BUCKHANNON CLOSURE CAP Buckhannon, WV	Mr. Mark Church (540) 665-5643	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
CITY OF BUCKHANNON LEACHATE COLLECTION Buckhannon, WV	Mr. Mark Church (540) 665-5643	Leachate treatment feasibility study; Borrow soils investigation; Laboratory soils & permeability testing; Leachate sampling and testing; Site design; Leachate lift station design; Sewer design; Construction drawings & specifications; Construction cost estimate; Construction bid preparation and management
MCDOWELL COUNTY LANDFILL Roderfield, WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
GRANT CO. LANDFILL Petersburg, WV	Mr. Mark Church (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
ERO LANDFILL Mason Co., WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management; Monitoring well installation; Wetland treatment system design
MINGO CO. LANDFILL Mingo Co., WV	Mr. Clyde Bennett (304) 872-3800	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
NORTH LANDFILL Marietta, OH	Mr. Tim King (304) 747-3763	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management

Project Name Location	Contact Phone No.	Services Provided
GOFF MOUNTAIN LANDFILL Institute, WV	Mr. Steve Graves (304) 767-6613	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
FREDERICK COUNTY CDD LANDFILL Winchester, VA	Mr. Harvey E. (Ed) Strawsnyder (540) 665-5643	Aerial photography and development of contour mapping; Geotechnical Investigation; Monitoring well installation; Construction drawings & specifications; Permit document preparation; Construction inspection of several cells
LOCAL SANITATION SERVICE Morehead, KY	Mr. Steve Hodges (606) 784-6544	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
FREDERICK COUNTY SANITARY LANDFILL Winchester, WV	Mr. Harvey E. (Ed) Strawsnyder (540) 665-5643	Geotechnical and hydrogeologic studies; Laboratory soils & permeability testing; Monitoring plan preparation; Groundwater sampling and testing; Monitoring well installation; Construction monitoring and testing of numerous cells
PRICHARD LANDFILL Prichard, WV	Mr. Rick Maynard (304) 648-5925	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
SYCAMORE LANDFILL Hurricane, WV	Mr. Charles A. Forth (304) 562-2611	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management
NUMBER 1 LANDFILL Sistersville, WV	Ms. Tina Adams (304) 652-3211	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management; Monitoring well installation
HOLTZ IMPOUNDMENT So. Charleston, WV	Mr. Jerome Cibrik (304) 747-2987	Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management; Monitoring well installation
NUMBER 3 LANDFILL Sistersville, WV	Ms. Tina Adams (304) 625-3211	Site feasibility study; Monitoring well installation and hydrogeologic studies; Closure Design; Permit document preparation; Borrow soils investigation; Site characterization and evaluation (groundwater, waste limits); Closure construction inspection; Aerial photography and development of contour mapping; Construction drawings & specifications; Closure construction cost estimate; Construction bid preparation and management Liner compatibility study
NUMBER 2 LANDFILL Sistersville, WV	Ms. Tina Adams (304) 625-3211	Engineering design; Synthetic and soil liner construction inspection; Permit document preparation; Aerial surveying and ground control; Construction cost estimate and construction bid document preparation; Monitoring well installation
RHONE-POULENC CLOSURES Institute, WV	Mr. George Kennedy (304) 747-6870	Closure design; Site investigation; Borrow material study; Surveying and topographic mapping; Lab testing; Construction inspection; Engineering certification; Annual hydrogeologic analysis
SOIL OPERABLE UNIT 1 Marietta, OH	Mr. Tim King (304) 747-3763	Construction oversight on behalf of owner on two-year construction project for closure of several superfund landfill units
SHENANDOAH COUNTY LANDFILL	Mr. Henry Mikus	Soil and hydrogeologic studies; Monitoring well installation; Laboratory soils & permeability testing; Permit documents; Subsidence

Project Name Location	Contact Phone No.	Services Provided
EXPANSION Woodstock, VA	(540) 984-8573	stabilization design
CHARLES PACE TIRE SITE Tunnelton, WV	Mr. Charlie Jordan (304) 558-0844	Review of soils & hydrogeological data; other siting information; and, preliminary plans & specifications
WV TIRE DISPOSAL Summersville, WV	Mr. Charlie Jordan (304) 558-0844	Review of soils & hydrogeological data; other siting information; and, preliminary plans & specifications
PRINCE WILLIAM COUNTY LANDFILL Prince William Co., VA	Mr. David E. Stinson (703) 471-6150	Soils and hydrogeologic studies; Laboratory soils & permeability testing; Monitoring well installation
EAST SETTLING BASIN CLOSURE Sistersville, WV	Mr. Okey Tucker (304) 625-3211	Borrow study; Materials testing; Soils QA/QC; Engineering certification
CHARLES CITY COUNTY REGIONAL LANDFILL Charles City, VA	Mr. John Brunson (404) 438-7770	Soil and hydrogeologic studies; Monitoring well design and installation; Laboratory soils & permeability testing
NORTHWESTERN LANDFILL Parkersburg, WV	Mr. Ron Levine (304) 428-0602	Construction inspection; Borrow study; On-going consultation; Clay liner QA/QC; Certification report; Lab testing
MEADOWFILL LANDFILL Clarksburg, WV	Mr. Dave Gallagher (304) 842-2784	Borrow study; Subsurface investigation; Lab testing; Synthetic and clay liner QA/QC; Certification report; Stability analysis
GALLIA COUNTY LANDFILL Gallapolis, OH	Mr. Tim Laraway (404) 513-2560	Surveying; Borrow study; Drainage structures design; Sediment pond upgrade design; QA/QC inspection
PAGE COUNTY LANDFILL Luray, VA	Mr. Ron Wilson (540) 743-4142	Geotechnical and hydrogeologic feasibility studies; Monitoring well installation; Groundwater sampling and testing
LOUDOUN COUNTY LANDFILL Leesburg, Virginia	Ms. Sharon Hodges (540) 777-0591	Construction monitoring and testing; Laboratory soils & permeability testing
PRINCE WILLIAM COUNTY CONSTRUCTION DEBRIS LANDFILL Prince William Co., VA	Mr. David E. Stinson (703) 471-6150	Soil investigation; Laboratory soils & permeability testing
SHENANDOAH COUNTY LANDFILL Woodstock, VA	Mr. Richard Chrisman (540) 984-8573	Soil and hydro-geologic studies; Monitoring well installation; Laboratory soils & permeability testing
PANIC POND RETROFIT Sistersville, WV	Mr. Okey Tucker (304) 652-3211	Borrow study; Synthetic liner QA/QC; Soils QA/QC; Field and lab permeability testing
EMERGENCY BASIN RETROFIT	Mr. Bob Dulaney	Borrow study; Synthetic liner QA/QC; Soils QA/QC; Field and lab permeability testing

Project Name Location	Contact Phone No.	Services Provided
Marietta, OH	(614) 374-1146	
PRESTON COUNTY LANDFILL Masontown, WV	Mr. Harold Ray (304) 864-6514	Laboratory soils & permeability testing; Permit preparation; QA/QC testing
BUCKHANNON LANDFILL Buckhannon, WV	Mr. Burl Smith (304) 472-1002	Hydrogeologic study; Monitoring well installation; Laboratory soils testing
GARRETT COUNTY LANDFILL Oakland, MD	Mr. Lee Thorne (301) 334-3988	Monitoring well installation; Laboratory soils & permeability testing; Soil & synthetic liner QA/QC
ROMNEY LANDFILL EXPANSION Romney, WV	Mr. Jay Jensen (304) 257-1221	Borrow studies; Laboratory soils & permeability testing; Geologic study

Buckhannon Landfill Closure Buckhannon, West Virginia

Project Description

The project consisted of closure of the Buckhannon Landfill located near Buckhannon, West Virginia. Closure cap design including project specifications and QA / QC plan for this project was performed by Triad. Closure of the landfill included construction of a closure cap, leachate and gas collection layers and systems, and surface water collection, diversion, and management.

The closure cap consisted of 18 inches of intermediate cover soil material, geocomposite gas venting and leachate collection layers, 40 mil linear low density polyethylene (LLDPE) flexible membrane liner, and a 24 inch vegetative soil cover layer.

Services performed by Triad consisted of complete engineering design of all aspects of the cap system, followed by quality control inspection during placement of all components of the project, including earthen and geosynthetic materials for the closure cap, leachate and gas venting layers, leachate collection system, as well as the storm water collection, diversion, and management system. Triad also prepared a final report upon completion of the project including the engineer's certification statement.



CLIENT

West Virginia Department of Environmental Protection

Don's Disposal Landfill Closure Sissonville, West Virginia

Project Description

Triad provided full civil/environmental engineering services including the design of a closure cap and appurtenant surface and subsurface drainage features for the Don's Disposal landfill located near Sissonville West Virginia. The project sites consisted of approximately 30 acres. Triad coordinated with the owner's representatives to develop complete and comprehensive construction drawings, construction specifications, quality assurance and quality control plans, and design reports.



The intent of the proposed closure plan systems was to; minimize surface water infiltration, thereby minimizing generation of leachate, collect and remove any surface and/or subsurface leachate seepage, collect and remove gas generated during waste decomposition, and to minimize the potential for erosion of the closure cap by surface water run on/runoff.

The proposed closure cap components were selected

based on local availability of potential cap construction materials, logistics of construction, and cost. The proposed closure plans included stripping of the existing cover as necessary to remove vegetation, regrading waste to provide a configuration with a minimum of constructability issues, installation of a closure cap system consisting of; the installation of a leachate collection and removal system, storage, and loadout systems, passive gas vent layer collection and removal systems, drainage layer collection, the implementation of comprehensive storm water management plans, piezometer abandonment, and access roads.

Services provided by Triad consisted of, field surveying to generate a map of existing site and topographic features, geotechnical investigation to determine subsurface conditions to facilitate design of the closure cap systems, design of all site grading and drainage features, and preparation of West Virginia National Pollutant Discharge Elimination System (WVNPDES) permits. Special services for the West Virginia Department of Environmental Protection included negotiation with local utilities to expand service to the new facility.

CLIENT

West Virginia Department of Environmental Protection

McDowell County Landfill Closure McDowell County, West Virginia

Project Description

The project consisted of the construction for the closure of the McDowell County Landfill. The McDowell County Landfill is located on the waters of the Tug Fork of the Big Sandy River, in north central McDowell County, West Virginia. Closure cap design including project specifications and QA / QC plan for this project was performed by Triad. Closure of the landfill included construction of a closure cap, leachate and gas collection layers and systems, and surface water collection, diversion, and management.



The closure cap consisted of 18 inches of intermediate cover soil material, geocomposite gas venting and leachate collection layers, 40 mil linear low density polyethylene (LLDPE) flexible membrane liner, and a 24 inch vegetative soil cover layer.

Services performed by Triad consisted of quality assurance / quality control oversight during placement of all

components of the project including earthen and geosynthetic materials for the closure cap and leachate and gas venting layers, leachate collection system, and storm water collection, diversion, and management system. Triad also prepared a final completion report upon completion of the project including a construction certification statement.

CLIENT

West Virginia Department of Environmental Protection

**Phase I West Closure
Goff Mountain Landfill
Bayer Crop Science
Institute, West Virginia**

Project Description

Bayer CropScience operates an industrial waste landfill, known as Goff Mountain Landfill near its plant in Institute, West Virginia. This landfill receives RCRA-hazardous industrial waste consisting primarily of filter cake from the plant wastewater treatment unit. The filter cake is transported to the landfill by truck where it is blended with clean clay soil and placed. Historically the landfill construction has progressed as a series of benches (or lifts) which were capped once available airspace was exhausted. In this case, exhaustion of the landfill's active airspace was expected sometime during the year 2004. Expecting the exhaustion of the landfill's airspace, the Owner made the decision to expand, necessitating the initial phase of a multi-phased expansion.



The Design Drawings,
Technical Specifications,
and Quality
Assurance/Quality Control
Plan were prepared by

Triad Engineering, Inc. (Triad) of St. Albans, West Virginia. Construction Quality Assurance/Quality Control monitoring and materials evaluation were also performed by Triad. The construction of the Phase I Expansion consisted of installing a liner in the unlined portions of the western side of the landfill and closure of an interim capped area.

Services provided by Triad during the Phase I Expansion Project consisted of closure cap and liner design and permitting, quality assurance / quality control oversight during placement of all components of the project including all drainage features, fill placement and liner and closure cap construction. Triad also prepared a final completion report upon completion of the project including a construction certification statement.

CLIENT

Bayer CropScience

**Phase IIA and IIB West Expansion
Goff Mountain Landfill
Bayer Crop Science
Institute, West Virginia**

Project Description

Bayer CropScience operates an industrial waste landfill, known as Goff Mountain Landfill near its plant in Institute, West Virginia. This landfill receives RCRA-hazardous industrial waste consisting primarily of filter cake from the plant wastewater treatment unit. The filter cake is transported to the landfill by truck where it is blended with clean clay soil and placed. Historically the landfill construction has progressed as a series of benches (or lifts) which were capped once available airspace was exhausted.



In this case, exhaustion of the landfill's active airspace was expected sometime during the year 2004. Expecting the exhaustion of the landfill's airspace, the Owner made the decision to expand, necessitating the implementation of phases of a multi-phased expansion.

The Design Drawings, Technical Specifications, and Quality Assurance/Quality Control Plan were prepared by Triad Engineering, Inc. (Triad) of St. Albans, West Virginia. Construction Quality Assurance/Quality Control monitoring and materials evaluation were also performed by Triad. The construction of the Phase IIA Expansion consisted of installing a liner in an unlined portion of the western side of the landfill to provide an additional storage.

Services provided by Triad during the Phase IIA & Phase IIB Expansion Project consisted of liner design and permitting, quality assurance / quality control oversight during placement of all components of the project including all drainage features, fill placement and liner component construction. Triad also prepared a final completion report upon completion of the project including a construction certification statement.

CLIENT

Bayer CropScience

**Permit Compliance Repair Project
Goff Mountain Landfill
Bayer Crop Science
Institute, West Virginia**

Project Description

The Bayer Corporation operates an industrial waste landfill, known as Goff Mountain Landfill near its plant in Institute, West Virginia. This landfill receives RCRA-hazardous industrial waste consisting primarily of filter cake from the plant wastewater treatment unit. The filter cake is transported to the landfill by truck where it is blended with clean clay soil and placed. Historically the landfill construction has progressed as a series of benches (or lifts) which were capped once available airspace was exhausted. In this case, exhaustion of the landfill's active airspace was expected sometime during the year 2004. Expecting the exhaustion of the landfill's airspace, the Owner made the decision to expand, necessitating multiple expansion phases and increased activity. This increased activity resulted in making necessary repairs to the landfill and properly addressing waste and leachate seeps to remain in permit compliance.



The Design Drawings, Technical Specifications, and Quality Assurance/Quality Control Plan were prepared by Triad Engineering, Inc. (Triad) of St. Albans, West Virginia. Construction Quality Assurance/Quality Control monitoring and materials evaluation were also performed by Triad. The repairs consisted of collecting and properly sealing seeping waste and leachate and repairing the access road.

Services provided by Triad during the Permit Compliance Repair Project consisted of design of drainage features and roadway repair areas, quality assurance / quality control oversight during placement of all components of the project including all drainage features, fill placement and road repair components. Triad also prepared a final completion report upon completion of the project including a construction certification statement.

CLIENT

Bayer CropScience

**Hazardous Waste Disposal Study
No. 2 Landfill
Momentive Performance Materials
Friendly, West Virginia**

Project Description

Momentive Performance Materials (MPM) is a global leader in producing silicones and advanced materials. MPM is based in Waterford, New York but has several facilities throughout the world. The current facility in evaluation is located in Friendly, West Virginia. The facility currently has two landfills. The No. 1 Landfill has been closed for several years. The No. 2 Landfill is currently in operation. This landfill receives RCRA-hazardous industrial waste consisting primarily of sludge from the plant wastewater treatment unit. Due to nearly exhausting the permitted air space, Triad was asked to perform a study evaluating several options to expand the air space and provide an additional 10 years of sludge storage.

The options studied consisted of the following

- Design and Construction of an entirely new landfill
- Dewatering sludge in order to place in a manner to minimize air space use
- Removing all waste to an offsite disposal facility
- Expansion of the existing No. 2 landfill



The most feasible and cost effective option chosen was the expansion of the existing No. 2 Landfill.

Services provided by Triad during the Hazardous Waste Disposal Study consisted of performing research, collecting cost data, performing conceptual preliminary design, and generating cost estimates for each option. This information was presented to Momentive Performance Products in a formal report.

CLIENT

Momentive Performance Products

No. 2 Landfill Expansion Project Momentive Performance Materials Friendly, West Virginia

Project Description

Momentive Performance Materials (MPM) is a global leader in producing silicones and advanced materials. MPM is based in Waterford, New York but has several facilities throughout the world. The current facility in evaluation is located in Friendly, West Virginia. The facility currently has two landfills. The No. 1 Landfill has been closed for several years. The No. 2 Landfill is currently in operation. This landfill receives RCRA-hazardous industrial waste consisting primarily of sludge from the plant wastewater treatment unit. Due to nearly exhausting the permitted air space, Triad was asked to perform a study evaluating several options to expand the air space and provide an additional 10 years of sludge storage. Based on the results of the study, it was decided to expand the existing landfill to gain the desired air space.



The Design Drawings, Technical Specifications, and Quality Assurance/Quality Control Plan were prepared by Triad Engineering, Inc. (Triad) of St. Albans, West Virginia. Construction Quality Assurance/Quality Control monitoring and materials evaluation are



also being performed by Triad. The construction of the Expansion is currently ongoing and consists of raising the crest of the existing earthen dam and adding berms and walls.

Services provided by Triad during the Expansion Project consisted design and permitting, quality assurance / quality control oversight during placement of all components of the project including all drainage features, fill placement and liner component

construction. Triad will prepare a final completion report upon completion of the project including a construction certification statement.

CLIENT

Momentive Performance Products

**Lift 5 Access Road
Goff Mountain Landfill
Institute, West Virginia**

Project Description

The Bayer Corporation operates an industrial waste landfill, known as Goff Mountain Landfill near its plant in Institute, West Virginia. This landfill receives RCRA-hazardous industrial waste consisting primarily of filter cake from the plant wastewater treatment unit. The filter cake is transported to the landfill by truck where it is blended with clean clay soil and placed. Historically the landfill construction has progressed as a series of benches (or lifts) which were capped once available airspace was exhausted. In this case, exhaustion of the landfill's active airspace was expected sometime during the year 2004. Expecting the exhaustion of the landfill's airspace, the Owner made the decision to expand, necessitating the initial phase of a multi-phased expansion. As part of the expansion, several operational changes had to be made including the primary access route and dumping location for the waste material. Construction of the initial phase (Phase I) of the multi-phased expansion required demolition of the existing access road. Demolition of the existing access road necessitated the construction of a new access road complete with drainage appurtenances and guardrail.

The Design Drawings, Technical Specifications, and Quality Assurance/Quality Control Plan were prepared by Triad Engineering, Inc. (Triad) of St. Albans, West Virginia. Construction Quality Assurance/Quality Control monitoring and materials evaluation were also performed by Triad. Construction initially began the second week in May, 2001, and was essentially completed by the beginning of November, 2001.

The construction of the Lift 5 Access Road consisted of disassembly of the existing guardrail, clearing, grubbing, and stripping topsoil from areas affected by cutting and filling operations, extension of an existing 12-inch diameter pipe including the removal of two existing culverts, cutting and placement of fill to provide subgrade and drainage appurtenances for the access road, and installation of the pavement structure including new guardrail and final revegetation.

Services provided by Triad during construction of the Lift 5 Access Road consisted of quality assurance / quality control oversight during placement of all components of the project including all drainage features, fill placement and access road construction. Triad also prepared a final completion report upon completion of the project including a construction certification statement.

CLIENT

Bayer CropScience

Soil Containment Operable Unit (OUI)
Dow Chemical (Formerly Union Carbide Corporation)
Marietta, Ohio

Project Description

The former Union Carbide Corporation (UCC), Marietta, Ohio Facility is located in Warren Township, Washington County, Ohio, approximately four miles southwest of the City of Marietta, on Ohio State Route 7. The Administrative Order by Consent (AOC) separates the site into two (2) operable units: a Soil Containment Operable Unit (OU1), and a Groundwater Management Operable Unit (OU2). OU1 includes the real property that comprises the Raschig Area, Site A Landfill, Site B Landfill and Lime Sludge Area, Unnamed Creek, North Tank Farm and, solely for purposes of O&M activities, the OU1 portion of the site also includes the North Landfill. OU2 includes the areal extent of groundwater contamination associated with OU1 and, in addition, the abandoned Benzene Transfer Pipeline, the Monitoring Well TW-75 Area, and the North Landfill.

The project consisted of the construction for the cleanup and closure of the aforementioned sites. Typical cleanup and closure activities included excavation, grading, monitoring and removal of contaminated ground water and construction of closure caps consisting of subgrade soil placement and preparation, placement of a geosynthetic clay liner (GCL) and placement of a 40 mil textured flexible membrane liner (FML).

Services performed by Triad consisted of quality assurance / quality control oversight during placement of all components of the project including earthen and geosynthetic materials for the closure cap. Triad also prepared a final completion report upon completion of the project including a construction certification statement.

CLIENT

Union Carbide Corporation

Appendix B

David F. Meadows, PE, PS

Chief Technical Officer

Southwest Regional Manager/Senior Engineer

PROFESSIONAL EXPERIENCE

40 Years

EDUCATION

M., Civil Engineering (Geotechnical), 1981, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

M.S., Civil Engineering, 1987, West Virginia College of Graduate Studies, Charleston, WV

B.S., Civil Engineering, 1974, West Virginia Institute of Technology, Montgomery, WV, Graduated Cum Laude.

HIGHLIGHTS OF EXPERIENCE

Mr. Meadows brings over 40 years of leadership, design, construction and project management experience to Triad Engineering. Mr. Meadows joined Triad in 2013 to provide management to the southwest region which includes the southern West Virginia area and the Athens, Ohio office. Prior to coming to Triad he served in a number of technical and leadership positions at the US Army Corps of Engineers, Huntington District. His expertise includes civil design, geotechnical engineering, construction management, surveying, environmental remediation and water resources engineering.

REGISTRATIONS, LICENSES & TRAINING

Registered Professional Engineer

West Virginia

Registered Professional Surveyor

West Virginia

HIS PROJECT EXPERIENCE INCLUDES:

Triad Engineering, Scott Depot, WV

Mr. Meadows has played an important role in maintaining the technical quality and management of the region, while being very active in business development. Besides managing all phases of operations for the Scott Depot, WV and Athens, OH offices, Mr. Meadows is responsible for management and planning of all civil engineering design projects; environmental assessments; surveying and mapping; water/wastewater engineering design projects; construction monitoring and testing operations; geotechnical investigation projects; and soils and concrete laboratory work in the region.

US Army Corps of Engineers, Huntington, WV

Chief H&H and Technical Support Division, Great Lakes and Ohio River Dam Safety Production Center and Dam Safety Modification Mandatory Center of Expertise. Mr. Meadows was responsible for developing and directing the Division's efforts to manage the regional execution of complex, non-routine, regional and inter-regional dam safety modifications, engineering assessments and risk and reliability analyses throughout the infrastructure capital stock portfolio of the U.S. Army Corps of Engineers. He primarily accomplished this mission through twelve senior technical staff (Hydraulic, Cost and Construction Engineers) who oversaw all complex technical aspects of modification work. He directed their work and provided them with strategic leadership, mentoring, coaching, counseling, team building, partnering, direction and management.

Chief, Engineering and Construction Division. Mr. Meadows was responsible to the District Commander for the Engineering and Construction functions associated with creating synergy between water resource development and the environment as it pertained to the Civil Works Program; responded to local, national, and global disasters; and provided full spectrum engineering and construction support to a geographic area comprising 45,000-square-miles. The district infrastructure includes 35 major flood control dams, nine locks and dam, and 29 major local flood protection projects. He provided technical, management, and strategic advice on engineering and construction matters. He directed a diverse staff of 215 team members engaged in all of the district's engineering design, construction, dam safety, levee safety, water management, flood damage reduction, navigation, flood proofing, and environmental enhancement, restoration and rehabilitation projects.

Chief, Water Resources Engineering Branch, Engineering and Construction Division. Mr. Meadows was responsible for planning, supervising and coordinating all hydrologic and hydraulic engineering, water control management and water quality activities of the Huntington District. These multiple discipline activities involved supervisory and program responsibility for studies, designs and reports through all stages of engineering investigations and planning, including preliminary examinations, surveys, review of surveys, urban studies, design reports and final construction plans and specifications for a wide variety of projects which included multiple-purpose projects for flood control, hydroelectric power development, navigation, water quality, and/or recreation, in various combinations, local flood protection projects, and channel improvement.

In addition to the above positions, Mr. Meadows has served as the Chief, Environmental and Remediation Section, Construction Management and Field Support Branch, Chief, Civil Design Section, Design Branch, Chief Soils & HTRW Section, Geotechnical Branch. He has also served as a Geotechnical Engineer, a Program Manager and a Hydraulic Engineer. During his career at the Corps he has worked on numerous projects such as the Yatesville Dam design and construction; West Columbus Floodwall, Williamson Central Business District Floodwall, Matewan Floodwall, Grundy Floodwall, Island Creek Flood Damage Reduction Project, Lower Mud Flood Damage Reduction Project and the Marlinton Flood Damage Reduction Project; R. C. Byrd, Winfield and Marmet Locks and Dam Replacement; Willow Island and Medahl hydropower additions; and the Bluestone, Zoar Levee, Dover, Bolivar, Beach City and Mohawk Dam Safety Modifications; and the Tom Jenkins Mineral Extraction. Mr. Meadows was responsible for the and engineering and construction management of the Summit Equipment Remediation, American Car and Foundry Remediation, West Virginia Ordnance Works Remediation and Operations & Maintenance, Dolly Sods, and the PBOW Remediation and Operations & Maintenance; and the Zoar Levee Emergency Repairs. Directly responsible for the development of Flood-proofing Guide Plans and Specifications that resulted in numerous savings and adopted across the USACE.

L. Lee McCoy, Jr., PE

Civil Engineering Services Manager, Senior Engineer
Southwest Region

PROFESSIONAL EXPERIENCE

18 Years

EDUCATION

BS Civil Engineering, West Virginia Institute of Technology

HIGHLIGHTS OF EXPERIENCE

Mr. McCoy is currently the Department Manager for our Civil/Transportation Design Section and a Project Manager for the St. Albans office of Triad. In this capacity, he is responsible for the oversight of our civil engineering staff as well as the technical and management aspects of civil design and transportation projects within the office. Mr. McCoy has designed and managed projects in numerous disciplines including landfills civil, structural and transportation engineering, site development, planning and surveying. These projects have included streets/highways, bridges, retail/commercial site preparation, airports, parking lots, buildings, retaining walls/foundations, sanitary structures, as well as recreational facilities. Duties included field surveying, drawings and specification preparation, design, design drafting, construction inspection, quality control testing, shop drawing review, project management, contract administration and report preparation.

REGISTRATIONS, LICENSES & TRAINING

Professional Engineer

West Virginia [REDACTED]

No. [REDACTED] Kentucky

No. [REDACTED] Ohio

Certified Flood Plain Manager

HIS PROJECT EXPERIENCE INCLUDES:

Bayer CropScience Phase I West Landfill Closure Project– Institute, WV

As Project manager and Lead Civil Designer, Mr. McCoy prepared permitting and construction documents for the closure of the Phase I West portion of Bayer CropScience's Hazardous Waste Landfill in Institute, WV. The project included grading, drainage and the design of landfill liner and closure components including both earthen and synthetic liners and drainage features.

Bayer CropScience Phase IIA and Phase IIB West Expansion Project – Institute, WV

As Project manager and Lead Civil Designer, Mr. McCoy prepared permitting and construction documents for two phased expansions of Bayer CropScience's Hazardous Waste Landfill in Institute, WV. The project included grading, drainage and the design of landfill liner and components including both earthen and synthetic liners and drainage features.

Bayer CropScience Permit Compliance Repair Project – Institute, WV

As Project manager and Lead Civil Designer, Mr. McCoy prepared permitting and construction documents for two repair projects to remain in compliance with the landfill permit for Bayer CropScience's Hazardous Waste Landfill in Institute, WV. The projects consisted of collecting and properly removing Polyox seeps and repairs to the paved access roads that became damaged during construction.

Momentive Performance Products, Hazardous Waste Disposal Study – Sistersville, WV

As Project Manager and Lead Civil Designer, Mr. McCoy performed a study to determine the most cost effective and feasible method of providing 10 additional years of waste sludge storage for the No. 2 Landfill. The options explored consisted of constructing an entirely new landfill, dewatering sludge to gain more vertical storage, expanding the existing embankment and landfill, or hauling all waste to an offsite disposal facility. The option chosen consisted of expanding the existing embankment and landfill.

Momentive Performance Products, No. 2 Landfill Expansion Project – Sistersville, WV

As Project Manager and Lead Civil Designer, Mr. McCoy prepared permitting and construction for the expansion of the No. 2 Landfill. The project consists of raising the height of the permitted waste area by adding earthen berms and walls. The project also includes the expansion of the clay and synthetic liner.

Devonshire Development, Scott Depot, WV

As Project Manager and Lead Engineer, Mr. McCoy, is responsible for the project design and construction administrative services for a large resort style mix use residential development located in Scott Depot, WV. This development consists of apartments, townhouses and condominiums, assisted living facility, state-of-the-art 6500 sq ft clubhouse as well as swimming pools, Jacuzzis, sport courts, tot lots, and dog exercise areas. This project includes grading, drainage, permitting, parking lot design, as well as many other aspects.

Federal Express Ground Distribution Center – Cross Lanes, WV

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the development and construction of a 10 acre site to accommodate a distribution center and associated parking and access drives. This project included grading, drainage, detention, roadway expansion, parking lot design, utility design including water and sanitary sewer, water quality design as well as many other aspects.

Relevant Experience with Other Firms

Mr. McCoy served as construction Engineer for construction of new sanitary treatment facility at AK Steel's Ashland Works facility. In this role, Mr. McCoy provided direct oversight of multiple contractors and fabricators, coordinated with AK Steel personnel and maintained up to date records of the project during construction.

Mr. McCoy served as construction Engineer for construction of new sanitary treatment facility at New Boston Coke Corporation's New Boston, Ohio facility. In this role, Mr. McCoy provided direct oversight of multiple contractors and fabricators, coordinated with New Boston Coke personnel and maintained up to date records of the project during construction.

Randy L. Moulton, PE, LEED Green Associate

Chief Engineer

PROFESSIONAL EXPERIENCE

37 Years

HIGHLIGHTS OF EXPERIENCE

As Chief Engineer for Triad Engineering, Inc., Mr. Moulton is responsible for corporate contract administration and overall quality control and technical quality assurance of projects undertaken by the company. Specific technical activities include preparation of geotechnical proposals, review and/or preparation of subsurface exploration programs, evaluation of geotechnical data and review and preparation of detailed geotechnical reports. Technical specialties also include design of deep foundations, in particular rock-socketed caissons, design of various types of retaining walls, evaluation of groundwater and seepage problems, and design of earth and earth-rock dams. Mr. Moulton has also been responsible for managing design of corrective measures at sanitary landfills under the Landfill Corrective Action Program (LCAP) in West Virginia and characterization and design of remedial measures for an old landfill in Virginia.

REGISTRATIONS, LICENSES & TRAINING

Registered Professional Engineer

WV, VA, MD, PA, NC

HIS PROJECT EXPERIENCE INCLUDES:

Grant County Landfill, Petersburg, WV

Served as manager for several design projects for this LCAP facility. Work initially included design of interim corrective measures for fugitive leachate seeps, failing leachate collection lagoons, and inadequate stormwater management. Further work included design of a leachate sewer system including two grinder pump stations, force main and gravity line to eliminate pump and haul expense and deliver leachate to the local sewer system. The final design and construction project included a permanent closure cap, additional leachate interceptor trenches, passive gas vents, and additional stormwater management facilities to comply with NPDES requirements.

Old Shenandoah County Landfill, Edinburg, VA

Project Manager for characterization of old unlined landfill which was contributing to contamination of the underlying groundwater table. The work included design of passive gas vents, leachate interceptor drainage blankets, additional cap grading and drainage, and design of a gravity sewer to carry leachate to an existing treatment lagoon.

New Shenandoah County Solid Waste Landfill, Shenandoah County, VA

As Principal Engineer, served as the project manager for detailed geotechnical investigation of an area for construction of a new sanitary landfill situated in karst geologic terrain. Field explorations included test pits, conventional test borings, seismic refraction surveying, microgravity surveying and air-track probes to explore anomalies detected by geophysical methods. The work also included

design of preventative reinforcement measures for specific areas underlain by solutioning channels and seams so that the double liner system would remain intact in the event of subsidence. This was the first sanitary landfill proposed in a documented karst setting to be approved for construction by the Commonwealth of Virginia Department of Environmental Quality (DEQ).

Morgan County Landfill, Morgan County, WV

Project Manager and Senior Engineer for design of permanent closure measures for this 17-acre landfill under the WVDEP LCAP program. The project included design of a leachate collection system, a leachate storage tank, a new permanent access road, a surface water collection system, two new stormwater management ponds and a final closure cap. The project also required permitting through several state agencies and construction monitoring and materials testing services.

Lakewood Dam, Mineral County, WV

Prime designer for a 72-foot high earth dam with a normal 60-foot water depth, creating a 43-acre reservoir for a lakefront residential community south of Cumberland, Maryland. Comprehensive services included surveying and aerial mapping, subsurface exploration, laboratory testing, hydrologic and hydraulic analyses, seepage analyses, stability evaluations and preparation of construction drawings and contract documents. Special considerations included a dam break analysis with routing of the flood wave downstream to evaluate impact on an existing railroad embankment. An innovative pond drain device, consisting of high strength HDPE pipe with a hydraulically actuated valve, eliminated the need for a typical reinforced concrete riser and reinforced concrete pressure pipe. A principal spillway weir and concrete lined channel were nested in an open emergency spillway channel excavated into hard bedrock. This combination resulted in appreciable construction cost savings for the Owners. Triad also provided construction monitoring, materials testing and contract administration during construction of the project.

James R. Criniti, EIT

Staff Engineer
Southwest Region

PROFESSIONAL EXPERIENCE

8 Years

EDUCATION

BA Chemistry, WVU, 1995
BS Civil Engineering WVUIT, 2008

HIGHLIGHTS OF EXPERIENCE

Mr. Criniti is responsible for Staff Support of civil and surveying projects. He has participated in the design and management of numerous projects. These projects have included retail/commercial site preparation, airports, parking lots, buildings, retaining walls, foundations, sanitary structures, as well as boundary and topographic and photogrammetric surveys. Duties have included hydrologic and hydraulic analysis and design, erosion and sediment control plans, storm water management, field surveying, preparation of construction and as-built drawings, project specifications and preparation of various permit applications. Mr. Criniti also performs construction management, construction inspection, quality control testing, shop drawing review, project management, contract administration, and report preparation. He performs engineering calculations, studies, plans, reports and data analysis, all under the supervision of a licensed engineer. Mr. Criniti assists in the coordinating of construction projects including conducting pre-bid, pre-construction and progress meetings, schedule review and pay request review and approval. He also assists in conducting interim and final inspections of construction projects to determine compliance with applicable laws, regulations, and specifications.

REGISTRATIONS, LICENSES & TRAINING

Professional Engineer In Training, West Virginia

HIS PROJECT EXPERIENCE INCLUDES:

Bayer CropScience Phase I West Landfill Closure Project– Institute, WV

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the permitting and drainage design for this project. Mr. Criniti assisted the projected manager in the preparation of construction documents for the expansion for Bayer CropScience's Hazardous Waste Landfill in Institute, WV. The project included grading, drainage and the design of landfill liner and closure features including both earthen and synthetic liners and drainage features.

Bayer CropScience Phase IIA and Phase IIB West Expansion Project – Institute, WV

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the permitting and drainage design for this project. Mr. Criniti assisted the projected manager in the preparation of construction documents for the expansion for Bayer CropScience's Hazardous Waste Landfill in Institute, WV. The project included grading, drainage and the design of landfill liner components including both earthen and synthetic liners and drainage features.

Bayer CropScience Permit Compliance Repair Project – Institute, WV

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the permitting

and drainage design for this project. Mr. Criniti assisted the project manager in the preparation of permitting and construction documents for two repair projects to remain in compliance with the landfill permit for Bayer CropScience's Hazardous Waste Landfill in Institute, WV. The projects consisted of collecting and properly removing Polyox seeps and repairs to the paved access roads that became damaged during construction.

Momentive Performance Products, Hazardous Waste Disposal Study – Sistersville, WV

As a Staff Engineer, Mr. Criniti assisted the project manager in performing a study to determine the most cost effective and feasible method of providing 10 additional years of waste sludge storage for the No. 2 Landfill. The options explored consisted of constructing an entirely new landfill, dewatering sludge to gain more vertical storage, expanding the existing embankment and landfill, or hauling all waste to an offsite disposal facility. The option chosen consisted of expanding the existing embankment and landfill.

Momentive Performance Products, No. 2 Landfill Expansion Project – Sistersville, WV

As a Staff Engineer, Mr. Criniti assisted the project manager in the preparation of permitting and construction documents for the expansion of the No. 2 Landfill. The project consists of raising the height of the existing embankment by adding earthen berms and walls. The project also includes the expansion of the landfill by expanding the existing clay and synthetic liner.

Devonshire Housing Development, Scott Depot, WV

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for site development design and permitting for various portions of this large residential development. In this capacity he has to coordinate with the project architect, local municipalities, the WVDOH and the project developer. Work on these projects includes building pad positioning and elevation, access road layout including grading design, parking lot layout, utility routing, storm drainage feature layout and design. Permitting work on these projects includes WVDOH encroachment permitting, health department permitting and NPDES permitting for handling surface water during construction. Mr. Criniti is also responsible for attending and conducting project meetings with the project contractor, the developer and associated agency.

Amazon Call Center – Huntington, WV

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the drainage design and permitting for this project. Mr. Criniti assisted the projected manager in the preparation of construction documents for the construction of a 70,000 square foot call center with 9 acres of parking in Huntington, WV. This facility houses over 800 customer service employees. This project includes grading, drainage, detention, roadway expansion, parking lot design, utility design including water and sanitary sewer, water quality design as well as many other aspects.

Daniel H. Lipscomb, PE

Project Manager

PROFESSIONAL EXPERIENCE

11 Years

EDUCATION

BS, Civil Engineering Technology, Fairmont State College, WV

HIGHLIGHTS OF EXPERIENCE

Mr. Lipscomb is currently a Project Engineer at the St. Albans branch of Triad. In this capacity, he has been involved in development and management of subsurface exploration projects and development of geotechnical engineering reports providing recommendations based on field observations and laboratory results for bearing capacity, earthwork operations, earthen dam embankments, slope stability, flexible and rigid pavement design, lateral earth pressures, sinkhole remediation, geophysics (electrical resistivity and ground penetrating radar), and rock excavation. These projects have included freshwater dams, shopping centers, roadway/bridges, buildings, retaining walls, residential communities, water storage tanks, waste water treatment facilities, and structures for coal mining facilities. Duties included assignment of laboratory testing, visual inspection of soil/rock specimens, geophysics, and earthen embankment evaluation. Mr. Lipscomb has additional experience in areas relating to civil site design, hydrologic and hydraulic design, grading plans, water line plans, sewer line plans, hydraulic calculations, storage tank sizing, booster station design, roadway layout and design, storm water management plans, technical specifications, environmental and regulatory permitting, blast monitoring, and construction quality control.

REGISTRATIONS, LICENSES & TRAINING

Registered Professional Engineer, West Virginia

HIS PROJECT EXPERIENCE INCLUDES:

Subsurface and Foundation Investigations (West Virginia, Virginia, Maryland, Kentucky, and Ohio)

Mr. Lipscomb has performed subsurface and foundation investigations for various private business and industrial firms. The projects consisted of performing subsurface investigations and analysis and recommending appropriate foundation types based on the results of the subsurface investigation. The projects also involved estimating potential settlement, delineating potential subsurface problems, and providing related recommendations regarding the geotechnical aspects of the projects. A geotechnical report was prepared and provided to the client for each project. Mr. Lipscomb has also designed foundation systems for buildings and other structures.

Dominion Transmission, Inc. (Chelyan, West Virginia)

As project engineer, Mr. Lipscomb processed information gathered during drilling activities and developed a report of subsurface exploration to aid in the design of a horizontal directional drilling project under the Kanawha River in Kanawha County, West Virginia. This included providing rock core unconfined compression test results, and performing a review of rock core samples to observe their Mohs Scale of Mineral Hardness values. Regional geologic information was also given to aid in the project's design.

United Coal Company (Crab Orchard, West Virginia)

As project engineer, Mr. Lipscomb performed geotechnical analysis of the site subsurface conditions and provided foundation recommendations for new coal preparation plant components planned to improve an existing facility. New coal preparation plant components included in the project consisted of a main coal preparation plant building, a raw coal reclaim tunnel, raw and clean coal stock piles (including stacker tubes), a loadout unit, and a refuse bin. Mr. Lipscomb recommended the use of cast-in-place concrete caissons for the majority of the proposed components due to underlying fill of unknown origin and variable content. Cast-in-place concrete caisson design parameters were provided for each of the proposed components, and spread foundation design parameters were provided for the refuse bin as an alternative to cast-in-place concrete caissons.

Putnam County Schools (Putnam County, West Virginia)

Mr. Lipscomb served as the project engineer for the subsurface exploration at multiple Putnam County School projects. His responsibilities on the projects included scheduling and coordination of drilling activities, oversight of assignment for laboratory analysis of soil samples collected during drilling activities, developing boring logs, performing estimated settlement calculations, developing foundation recommendations, and composing a report of subsurface exploration for the individual projects.

Water Distribution System Upgrades (Boone, Wayne, Berkley, Lincoln, and Logan Counties, West Virginia)

Mr. Lipscomb has served as the project engineer for the detailed design of over 30 miles of water line extensions and associated appurtenances, including the preparation of construction drawings, water storage tank sizing and design, booster station design, hydraulic calculations, technical specifications, cost estimates, contractor's bid documents, review and recommendation of contractor's bids, and review of shop drawings.

Civil/Site Design Projects (West Virginia, and Virginia)

Mr. Lipscomb has civil/site design experience related to the development of grading plans, cut/fill analysis, utility design/layout, hydrological analysis, hydraulic evaluations of open channel flow systems, storm sewer design, stormwater retention/detention design, sediment control structure design, preparation of permit applications, and consulting with clients, architects, regulatory agencies, and municipalities.

Heather A. Metz, LRS

Environmental Services Manager
Senior Environmental Scientist

PROFESSIONAL EXPERIENCE

13 Years

EDUCATION

B.S., Environmental Science, Marshall University, WV

HIGHLIGHTS OF EXPERIENCE

Ms. Metz is currently the Environmental Services Manager and Senior Environmental Scientist at the Scott Depot office of Triad. In this capacity, Ms. Metz has assisted the USEPA and WVDEP, OER by performing various site assessment tasks at numerous Superfund sites in West Virginia. Tasks have included performing Preliminary Assessments (PA), Site Inspections (SI), combined Preliminary Assessment Site Inspections (PA/SI), Expanded Site Inspections (ESI), and Site Inspection Reassessments (SIR) under CERCLA. Specific tasks have included performing regulatory file reviews, site reconnaissance's, Hazard Ranking System (HRS) site scoring using USEPA software, USEPA Contract Laboratory Program (CLP) data management using USEPA software, providing electronic laboratory data deliverables for the WVDEP in EQulS® data management format, Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) generation, field sampling, and report preparation. Ms. Metz has also performed Phase I and Phase II environmental site assessment (ESA) investigations at commercial facilities and operating manufacturing plants. These tasks have included performing subsurface investigations, multi-media sampling, data analysis, and report generation. Ms. Metz also performs a variety of tasks for sites in the West Virginia Voluntary Remediation Program (VRP). Tasks have included preparation of VRP Applications, Agreements, Sampling and Analysis Plans, extensive site characterization activities, and report preparation.

REGISTRATIONS, LICENSES & TRAINING

Licensed Remediation Specialist
Monitoring Well Driller
OSHA HAZWOPER 40 Hour Training
OSHA 8 Hour Supervisor Certification

No. [REDACTED], West Virginia
No. [REDACTED], West Virginia

HER PROJECT EXPERIENCE INCLUDES:

Special Metals, Inc., Burnaugh, KY

As Project Environmental Scientist, performed a Phase II Voluntary Investigation under a RCRA Facility Assessment for the Kentucky Division of Waste Management. Tasks included preparation of the sampling and analysis plan, field investigation, multi-media sampling, monitoring well installation, report preparation.

As Field Scientist, assisted in performing a metal translator study as part of a variance request before the WV Environmental Quality Board. Tasks included collecting samples during storm events directly downstream of the culvert portion of Pats Branch below the Outfall 001 discharge. Additionally, assisted in performing a water effects ratio (WER) study. Tasks included collecting samples during storm events from receiving waters of Pats Branch and from Outfall 001 and collecting water chemistry and flow measurements.

West Virginia Department of Environmental Protection, multiple locations, WV
As Project Manager and Project Environmental Scientist, responsible for performing various assessment tasks at USEPA Superfund sites in West Virginia. Tasks have included performing Preliminary Assessments, Site Inspections, Combined Preliminary Assessment/Site Inspections, Expanded Site Inspection, and Site Inspection Reassessments under CERCLA. Specific tasks have included performing regulatory file reviews, site reconnaissance's, Hazard Ranking System (HRS) site scoring using USEPA software, USEPA Contract Laboratory Program (CLP) data management using USEPA software, providing electronic laboratory data deliverables for the WVDEP in EQulS data management format, Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) generation, field sampling, and report preparation. These tanks have been performed at over 50 Superfund sites throughout West Virginia.

West Virginia Brownfields Assistance Center, Huntington, WV
As Project Manager, implementing the WVDEP Statewide Petroleum Brownfield Assessment grant program. Tasks include acting as liaison between the Brownfields Assistance Center, WVDEP and the USEPA, conducting Phase I ESAs, preparing site assessment work plans, conducting Phase II ESAs, preparing reports, reporting status to the Brownfields Assistance Center, WVDEP and USEPA, monitoring budgets, and managing field activities.

City of Huntington, Huntington, WV
As Project Manager, implementing the City's Brownfields Assessment Grant program. Tasks include completing an inventory of candidate sites, preparing site assessment work plans, acting as liaison between The City and USEPA, conducting Phase I ESAs, conducting Phase II ESAs, preparing reports, reporting status to The City and USEPA, monitoring budgets, managing field activities, and managing community outreach.

Fayette County Commission, Fayetteville, WV
As Project Manager, implementing the City's Brownfields Assessment Grant program. Tasks include completing an inventory of candidate sites, preparing site assessment work plans, acting as liaison between The City and USEPA, conducting Phase I ESAs, conducting Phase II ESAs, preparing reports, reporting status to The City and USEPA, monitoring budgets, managing field activities, and managing community outreach.

Marshall University, Joan C. Edwards School of Medicine, Huntington, WV
As Project Manager and Environmental Scientist, performed various site characterization tasks at the VRP site. Responsibilities included preparation of the Sampling and Analysis Plan, performing subsurface soil and groundwater investigations, data analysis, and report preparation. In addition, researched, designed, and implemented a soil gas vapor field investigation to investigate potential migration of VOCs, methane, and hydrogen sulfide from an abandoned, former MSW landfill underlying a portion of the Site.

Matthew C. Wright, LRS

Project Geologist-Licensed Remediation Specialist

PROFESSIONAL EXPERIENCE

24 Years

EDUCATION

BS, Geology, Morehead State, KY

HIGHLIGHTS OF EXPERIENCE

Mr. Wright is currently a Project Geologist-Licensed Remediation Specialist with Triad's Scott Depot, West Virginia office. In this capacity, he is responsible for designing and implementing technical investigations, which include Phase I and II, Brownfields, Voluntary Remediation Program (VRP), Uniform Environmental Covenants Act (UECA), Leaking Underground Storage Tank (LUST), and Superfund environmental site assessments. Assessment activities include installation of direct-push technology and auger drill rig borings and monitoring wells, as well as collection of soil, groundwater, soil vapor, surface water, and sediment samples. In addition, Mr. Wright develops sampling and analysis plans, evaluates environmental data, and prepares reports and documents.

REGISTRATIONS, LICENSES & TRAINING

Licensed Remediation Specialist	No. [REDACTED]
Monitoring Well Driller Certification	No. [REDACTED] West Virginia
Monitoring Well Driller Certification	No. [REDACTED] Kentucky
OSHA HAZWOPER 40 Hour Training	
OSHA HAZWOPER 8 Hour Update (Current)	
West Virginia UST Worker Class B	
West Virginia UST Class A/B Operator Training	

HIS PROJECT EXPERIENCE INCLUDES:

Dow Chemical Corporation, Charleston, West Virginia

As a direct push technology rig operator, collected soil, groundwater and soil vapor samples during performance of environmental site assessments at production facilities, landfills and decommissioned facilities.

Ashland Branded Marketing, Inc., Ohio, Kentucky and West Virginia sites As Project Manager, supervised underground storage tank (UST) system removals and closure activities at 10-20 sites. Removed and cleaned USTs at each site. Excavated and disposed of any contaminated soils and completed site restoration activities. Installed groundwater monitoring wells, collected soil and groundwater samples and prepared site assessment reports.

American Electric Power, Cabin Creek Substation, WV

As Project Geologist, performed quarterly sampling of groundwater monitoring wells as part of the ongoing remediation of the property. As the LRS, prepared the LUST/UECA Application, Agreement and Sampling and Analysis Plan.

British Petroleum, Lima, OH

As Project Geologist, installed vapor monitoring wells at a hazardous waste landfill.

Columbia Gas Transmission Corp., Various States

Project Manager on a natural gas transmission project that characterized and remediated several sites contaminated by PCBs, and/or pipeline liquids. Also served as field activities coordinator and characterization team member. Additional duties included client relations, field cost accounting, field equipment/supplies management, site health and safety and QA/QC of final reports. As a direct push technology rig operator, collected soil and groundwater samples during performance of environmental site assessments at compressor stations, production facilities, and decommissioned facilities.

Chesapeake Energy Corporation, Eagan, Tennessee

As a project Geologist, provided oversight for oil recovery from a ruptured oil well pipeline. Supervised installation of underflow dams, oil recovery and placement of absorbent materials.

Dominion Transmission, Inc., Hastings, West Virginia

As a LRS, prepared the VRP Application and Sampling and Analysis Plan. Conducted the site assessment which included monitoring well installation, soil, groundwater, sediment and surface water sampling. Prepared the Site Characterization Report. As a project Geologist, collected groundwater samples for quarterly monitoring. Provided oversight for LNAPL recovery.

Dominion Transmission, Inc., Weston, West Virginia

As a project Geologist, provided oversight for LNAPL recovery. Installed LNAPL recovery trenches.

Dow Chemical Corporation, Charleston, West Virginia

As a direct push technology rig operator, collected soil, groundwater and soil vapor samples during performance of environmental site assessments at production facilities, landfills and decommissioned facilities.

West Virginia Division of Highways, Mineral Wells, WV

As a LRS, prepared the LUST/UECA Application, Agreement and Sampling and Analysis Plan. Conducted the site assessment which included monitoring well installation, soil, groundwater, sediment and soil vapor sampling. Prepared the Site Characterization Report. Conducted oversight of contaminated soil removal.

West Virginia Division of Highways, Various Sites throughout WV

As a LRS, prepared Site Characterization Reports, Remedial Action Work Plans, Final Reports, Land Use Covenants for petroleum contaminated VRP sites.

West Virginia Division of Highways, Various Sites throughout WV

As a Project Geologist, conducted oversight of UST removals and prepared closure assessment reports.

John B. Hope

Field Services Manager
QC Project Manager

PROFESSIONAL EXPERIENCE

24 Years

EDUCATION

West Virginia State College

HIGHLIGHTS OF EXPERIENCE

Mr. Hope is currently the Field Technician Supervisor for the St. Albans office of Triad. In this capacity he oversees the field staff, by handling calls from technicians on technical matters, staffing and scheduling and serving as the branch RSO. Mr. Hope also handles and in house QA/QC, schedules training classes, keeps all records of inspections and calibrations. In addition, he also writes proposals for perspective jobs, assigns new jobs and lab work and writes all QC plans.

REGISTRATIONS, LICENSES & TRAINING

- WVDOH Certifies Tech Training Classes – Compaction, Aggregate, Portland Cement and Bituminous Concrete
- Troxler 8 Hour Nuke Safety and Operation
- Troxler Radiation Safety Officer Training
- 40 OSHA Training
- MSHA Training
- MSHA Impoundment Inspector Training
- ACI Training and Classes
- USACOE – Contractor QC Training
- WVDOT/DOH Compaction Inspector
- WVDOT/DOH Portland Cement Inspector
- WVDOT/DOH Aggregate Inspector
- WVDOT/DOH Bituminous Inspector
- ACI – Grade I Field Tech
- ACI – Grade I Lab Tech
- 40 OSHA HAZWAPER Certification
- MSHA –Certified Impoundment Inspector
- MSHA –Above Ground Hazard Trained
- US Army COE – Construction QC Manager for Contractors
- PCI Level I and II
- F-Number Measurement/Floorflatness
- Pervious Concrete Technician
- Licensed Asbestos Inspector, WV
- Trenching and Excavation Competent Person

HIS PROJECT EXPERIENCE INCLUDES:

Bayer CropScience Phase I West Landfill Closure Project– Institute, WV
As Triad's Field Service Manager, Mr. Hope had the responsibility of oversight of quality control testing and construction monitoring during construction for this project. The project included grading, drainage and the design of landfill liner and closure features including both earthen and synthetic liners and drainage features. Mr. Hope provided consulting on earthen materials used for all aspects of the project including low permeability soil for the cap and liner.

Bayer CropScience Phase IIA and Phase IIB West Expansion Project – Institute, WV
As Triad's Field Service Manager, Mr. Hope had the responsibility of oversight of quality control testing and construction monitoring during construction for this project. The project included grading, drainage and the construction of landfill liner components including both earthen and synthetic liners and drainage features. Mr. Hope provided consulting on earthen materials used for all aspects of the project including low permeability soil for the cap and liner.

Bayer CropScience Permit Compliance Repair Project – Institute, WV
As Triad's Field Service Manager, Mr. Hope had the responsibility of oversight of quality control testing and construction monitoring during construction for these projects. The projects consisted of collecting and properly removing Polyox seeps and repairs to the paved access roads that became damaged during construction. Mr. Hope provided consulting on earthen materials used for all aspects of the project.

Marshall University Football Stadium, Huntington, WV
Duties included the Testing and Sampling of site concrete. Testing of utility line backfill for compaction. The testing of structural steel and light foundation connections for proper bolt torque.

Sixth Street Bridge, Huntington, WV
Duties included Testing and Sampling of all West Virginia Department of Highways (WVDOT) classes of concrete. The monitoring thickness and testing of both fills and backfills for compaction. The sampling and testing of the river water for clarity during construction. Maintaining Quality Control Charts.

Georgia Pacific Plant, Mount Hope, West Virginia
Duties included Testing and Sampling of all concrete. Testing and monitoring lift thickness of tills. Collection of new proctor samples when material changes occurred. Utilization of an onsite lab to cure and break the test cylinders at proper intervals. Reporting of all information.

King's Daughter Medical Center Addition, Ashland, Kentucky
Duties included the Testing and Inspection of auger cast pile foundation installation. Testing and Sampling of site concrete.

Anthony H. Keeney

Senior Engineering Technician

PROFESSIONAL EXPERIENCE

15 Years

HIGHLIGHTS OF EXPERIENCE

Mr. Keeney is currently a Senior Engineering Technician at the St. Albans office of Triad. In this capacity he performs field testing and inspection of various construction materials including: concrete, asphalt, steel and soil compaction. He is trained and experienced in the use of a nuclear moisture gauge for field compaction testing. He has served as the sole QC Technician on many projects as well as leading a team of up to three technicians. Additionally, Mr. Keeney is proficient in performing geotechnical laboratory testing on concrete, aggregates and soils. Mr. Keeney also has experience working in our drilling, environmental and survey departments.

REGISTRATIONS, LICENSES & TRAINING

West Virginia Department of Highways Compaction Technician, Aggregate Sampler

West Virginia Department of Highways Construction Inspector

ACI Level I Field Technician

Licensed Asbestos Inspector, WV

Troxler Nuclear Safety Training and Operation

MSHA Training, Roadway Worker Training, Trenching and Excavation Training

HIS PROJECT EXPERIENCE INCLUDES:

Bayer CropScience Phase I West Landfill Closure Project– Institute, WV

As a Senior Engineering Technician, Mr. Kenney performed quality control testing and construction monitoring during construction for this project. The project included grading, drainage and the design of landfill liner and closure features including both earthen and synthetic liners and drainage features. Mr. Keeney performed compaction testing of all clay liner materials and monitoring during all synthetic liner material placement to document compliance with the project specifications, quality assurance quality control plan, and owner directives.

Bayer CropScience Phase IIA and Phase IIB West Expansion Project – Institute, WV

As a Senior Engineering Technician, Mr. Kenney performed quality control testing and construction monitoring during construction for this project. The project included grading, drainage and the construction of landfill liner components including both earthen and synthetic liners and drainage features. Mr. Keeney performed compaction testing of all clay liner materials and monitoring during all synthetic liner material placement to document compliance with the project specifications, quality assurance quality control plan, and owner directives.

Bayer CropScience Permit Compliance Repair Project – Institute, WV

As a Senior Engineering Technician, Mr. Kenney performed quality control testing and construction monitoring during construction for this project. The projects consisted of collecting and properly removing Polyox seeps and repairs to the paved access roads that became damaged during construction. Mr. Keeney performed compaction testing during the placement of roadway components and monitoring of all construction features to document compliance with the project specifications, quality assurance quality control plan, and owner directives.

In addition to landfill projects, Mr. Keeney has performed Quality Control Testing and Inspection on a variety of different types of projects. He has provided these services throughout our area of operations as can be seen on the following representative project lists.

Highway/Bridge Projects

Possom Creek - Fayette County, West Virginia
Patrick Street Bridge - Charleston, West Virginia
Route 35 Upgrade - Teays Valley, West Virginia
Route 34 Upgrade - Hurricane, West Virginia
Route 10 Upgrade - Man, West Virginia
Darnell Road Overpass - Huntington, West Virginia
Harrison Bottom Bridge – McDowell County, West Virginia

Building Construction & Site Development

Ripley Middle School Addition - Ripley, West Virginia
Beech Fork State Park Pool - Lavalette, West Virginia
Lowe's Store - Kanawha City, West Virginia
Kinetic Business Park - Huntington, West Virginia
Lakin State Police Detachment - Lakin, West Virginia
Van Meter Apartments - Beckley, West Virginia
Hampton Inn - Gallipolis, Ohio
Alcon Facility – Greenbottom, West Virginia

Industrial

Thomas Dam - Thomas, West Virginia
Campbell's Creek Complex - Point Lick, West Virginia
St. Albans WWTP - St. Albans, West Virginia
Fayette Plateau Water Plant - Beckwith, West Virginia
Peach Fork Ponds - Bickmore, West Virginia
Mingo Logan Coal Complex - Horse Pen Mtn., West Virginia
WVANG Facility - Charleston, West Virginia
Grant County Airport - Petersburg, West Virginia
Ravenswood WWTP - Ravenswood, West Virginia
Cobb Compressor Station – Clendenin, West Virginia

Michael C. Davis

Construction Inspector, Southwest Region

PROFESSIONAL EXPERIENCE

28 Years

HIGHLIGHTS OF EXPERIENCE

Mr. Davis has served as a Senior Engineering Technician and Construction Inspector on various projects ranging from retail developments, commercial facilities, coal mine facilities, dams, chemical and industrial facilities. As a Construction Inspector, his duties include monitoring and documentation of construction activities. Other duties include monitoring and testing of engineered fills, concrete placement, structural steel installation and asphalt paving. Mr. Davis' duties have also included lead technician duties on projects requiring multiple technicians. His responsibilities included managing and coordinating field technician's onsite, organizing and review of test reports, and review of specifications to determine required tests. Mr. Davis has performed Quality Control Testing and Inspection on Numerous Highway/Bridges projects, Industrial and Commercial projects. He has provided these services throughout our service area of operations as can be seen on the following representative project list.

REGISTRATIONS, LICENSES & TRAINING

West Virginia Department of Highways Compaction Inspector/Technician

West Virginia Department of Highways Aggregate Technician

West Virginia Department of Highways Concrete Inspector/Technician

West Virginia Department of Highways Asphalt Technician

USACOE Contractors Quality Management for Contractors

ACI Level I

MSHA Hazard Certified

Troxler 8 Hour Nuclear Safety and Operation Certificate

Trenching and Excavation Competent Person

HIS PROJECT EXPERIENCE INCLUDES:

Industrial

Union Carbide Landfill - Marietta, Ohio

Goff Mountain Landfill, Institute, WV

Hurricane WWTP - Hurricane, West Virginia

Mingo/Logan Coal - Horse Pen Mtn., West Virginia

Georgia Pacific - Mount Hope, West Virginia

Catenary Coal, Campbell's Creek complex - Point Lick, West Virginia

Job Corps Center - Charleston, West Virginia

Highway / Bridge Projects

Route 119 Upgrades - Logan to Williamson, West Virginia

Sixth Street Bridge - Huntington, West Virginia

Krouts Creek Bridge - Huntington, West Virginia

Building Construction & Site Development

Mount Olive Correctional Facility - Fayette County, West Virginia

South Ridge Center - Charleston, West Virginia

Lowe's - Barboursville, West Virginia

Appendix C

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION CONSULTANT QUALIFICATION QUESTIONNAIRE																																																											
PROJECT NAME Elkins-Randolf Landfill Closure Cap		DATE (DAY, MONTH, YEAR) November 12, 2015																																																									
		FEIN 550592364																																																									
1. FIRM NAME Triad Engineering, Inc.		2. HOME OFFICE BUSINESS ADDRESS 10541 Teays Valley Road Scott Depot, WV 25560																																																									
		3. FORMER FIRM NAME Triad Engineering, Inc.																																																									
4. HOME OFFICE TELEPHONE 304-755-0721		5. ESTABLISHED (YEAR) 1975																																																									
		6. TYPE OWNERSHIP INDIVIDUAL, CORPORATION , PARTNERSHIP, JOINT-VENTURE																																																									
		6A. WV REGISTERED DBE (DISADVANTAGED BUSINESS ENTERPRISE) YES NO																																																									
7. PRIMARY OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. (Landfill Design) PERSONNEL EACH OFFICE 10541 Teays Valley Road, Scott Depot, WV 25560 / (304) 755-0721 / Dave Meadows, PE, PS - Regional Manager / 06																																																											
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Thomas Ali, P.E. - CEO 412.257.1325 Tina McPhail, CFO 304.755.0721 Dave Meadows, P.E. CTO, Regional Manager 304.755.0721		8a. NAME, TITLE, & TELEPHONE NUMBER-OTHER PRINCIPALS																																																									
9. NUMBER OF PERSONNEL BY DISCIPLINE (Bold Lettering Indicates Minimum Design Team Members) Detailed information On Team To Be Included																																																											
<table border="0"> <tr> <td>14 ADMINSIRATIVE</td> <td>ECOLOGISTS</td> <td>2 LANDSCAPE</td> <td>STRUCTURAL</td> </tr> <tr> <td>ARCHITECTS</td> <td>ECONOMISTS</td> <td>ARCHITECTS</td> <td>ENGINEERS</td> </tr> <tr> <td>BIOLOGIST</td> <td>ELECTRICAL</td> <td>MECHANICAL</td> <td>13 SURVEYORS</td> </tr> <tr> <td>8 CADD OPERATORS</td> <td>ENGINEERS</td> <td>ENGINEERS</td> <td></td> </tr> <tr> <td>CHEMICAL ENGINEERS</td> <td>8 ENVIRONMENTALISTS</td> <td>MINING</td> <td>26 OTHER</td> </tr> <tr> <td>23 CIVIL ENGINEERS</td> <td>ESTIMATORS</td> <td>ENGINEERS</td> <td></td> </tr> <tr> <td>50 CONSTRUCTION</td> <td>14 GEOLOGIST</td> <td>PHOTOGRAMMETRISTS</td> <td></td> </tr> <tr> <td>INSPECTORS</td> <td>HISTORIANS</td> <td>PLANNERS:</td> <td>185 TOTAL</td> </tr> <tr> <td>7 DESIGNERS</td> <td>2 HYDROLOGISTS</td> <td>URBAN/REGIONAL</td> <td>PERSONNEL</td> </tr> <tr> <td>DRAFTSMEN</td> <td></td> <td>1 SANITARY</td> <td></td> </tr> <tr> <td></td> <td></td> <td>ENGINEERS</td> <td></td> </tr> <tr> <td></td> <td></td> <td>17 SIOLS ENGINEERS</td> <td></td> </tr> <tr> <td></td> <td></td> <td>SPECIFICATION</td> <td></td> </tr> <tr> <td></td> <td></td> <td>WRITERS</td> <td></td> </tr> </table>				14 ADMINSIRATIVE	ECOLOGISTS	2 LANDSCAPE	STRUCTURAL	ARCHITECTS	ECONOMISTS	ARCHITECTS	ENGINEERS	BIOLOGIST	ELECTRICAL	MECHANICAL	13 SURVEYORS	8 CADD OPERATORS	ENGINEERS	ENGINEERS		CHEMICAL ENGINEERS	8 ENVIRONMENTALISTS	MINING	26 OTHER	23 CIVIL ENGINEERS	ESTIMATORS	ENGINEERS		50 CONSTRUCTION	14 GEOLOGIST	PHOTOGRAMMETRISTS		INSPECTORS	HISTORIANS	PLANNERS:	185 TOTAL	7 DESIGNERS	2 HYDROLOGISTS	URBAN/REGIONAL	PERSONNEL	DRAFTSMEN		1 SANITARY				ENGINEERS				17 SIOLS ENGINEERS				SPECIFICATION				WRITERS	
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*RPEs other than Civil must provide supporting documentation that qualifies them to supervise and perform this type of work.																																																											
10. If submittal is by joint venture, list participating firms & outline specific areas of responsibility (including administrative, technical, & financial) for each firm. Each participating firm must complete a "Consultant Confidential Qualification Questionnaire".																																																											

12. A. Is your firm experienced in (Solid Waste Landfill Closure Design)?

YES Description and Number of Projects: Triad has provided engineering and related services required for the successful completion of over 40 landfill projects over the last 25 years including Solid Waste Landfill Closure Design.

NO

B. Is your firm experienced in Solid Waste landfill site characterization assessment and evaluation?

YES Description and Number of Projects: A large portion (approximately 30 of our landfill projects required Solid Waste Landfill Site characterization assessment and evaluation.

NO

C. Is your firm experienced in landfill closure construction inspection?

YES Description and Number of Projects: Triad has performed construction inspection and materials testing on over 40 landfill projects over the last 25 years. Materials testing and inspection included both soils and synthetic liner and drainage materials.

NO

D. Is your firm experienced in Aerial Photography and the Development of Contour Mapping?

YES Description and Number of Projects: Triad typically subcontracts the aerial photography. However, Triad lays out the targets in the field and conducts the survey for establishment of horizontal and vertical control used to develop the final contour mapping. It is estimated that we have completed several hundred of these types of mapping projects since the inception of the firm in 1975.

NO

E. Is your firm experienced in evaluating ground water contamination, such as may be associated with landfills?

YES Description and Number of Projects: Our Environmental Engineers, Geologists, Licensed Remediation Specialists have investigated and evaluated ground water contamination on hundreds of sites since the inception of the firm in 1975.

NO

F. Is your firm experienced in Landfill Closure cost estimating?

YES Description and Number of Projects: Our engineers and designers are responsible for generating an engineering cost estimate on all of our design projects. Triad has performed cost estimating on the majority of our 40 plus landfill projects since 1990.

NO

13. PERSONAL HISTORY STATMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (describe project) (Furnish Complete data but keep to essentials)			
NAME& TITLE (Last, first, Middle Int.) Meadows, David F., PE, PS Regional Manager, CTO	YEARS OR EXPERIENCE		
	YEARS OF LANDFILL DESIGN EXPERIENCE: 5	YEARS OF GROUNDWATER AND HYDROLOGY EXPERIENCE: 40	YEARS OF CIVIL, GEOTECHNICAL ENGINEERING EXPERIENCE: 40
<p>Brief Explanation of Responsibilities:</p> <p>Mr. Meadows will serve as principal in charge. Mr. Meadows brings over 40 years of leadership, design and project management experience to Triad Engineering. Mr. Meadows joined Triad in 2013 to provide management to the southwest region which includes the southern West Virginia area and the Athens, Ohio office. Prior to coming to Triad he served in a number of technical and leadership positions at the US Army Corps of Engineers, Huntington District. His expertise includes civil design, geotechnical engineering, construction management, surveying, environmental remediation and water resources engineering.</p>			
<p>EDUCATION (DEGREE, YEAR, SPECIALIZATION)</p> <p>Bachelor of Science, Civil Engineering, West Virginia Institute of Technology 1974</p> <p>Masters of Science, General Engineering, WV College of Graduate Studies 1981</p> <p>Masters of Engineering, Geotechnical Engineering, Virginia Polytechnic Institute & State University 1987</p>			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS: S.A.M.E., ASCE, United States Society on Dams, WV Association of Land Surveyors		REGISTRATION (Type, Year, State) Registered Professional Engineer, 1980, West Virginia Registered Professional Surveyor, 1996, West Virginia	
13a. PERSONAL HISTORY STATMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)			
NAME & TITLE (Last, First, Middle Int.) Randy L. Moulton, PE Chief Engineer	YEARS OF EXPERIENCE		
	YEARS OF LANDFILL DESIGN EXPERIENCE 25	YEARS OF GROUNDWATER AND HYDROLOGY EXPERIENCE 37	YEARS OF EXPERIENCE CIVIL, GEOTECHNICAL ENGINEERING EXPERIENCE: 37
<p>Brief Explanation of Responsibilities:</p> <p>As Principal Engineer for Triad Engineering, Inc., Mr. Moulton is responsible for corporate contract administration and overall quality control and technical quality assurance of projects undertaken by the company. Mr. Moulton has also been responsible for managing design of corrective measures at sanitary landfills under the Landfill Corrective Action Program (LCAP) in West Virginia and characterization and design of remedial measures for an old landfill in Virginia.</p>			
<p>EDUCATION (Degree, Year, Specialization)</p> <p>MS, Civil Engineering (Geotechnical) West Virginia University, Morgantown, WV, 1980</p> <p>BS, Civil Engineering West Virginia University, Morgantown, WV, 1976</p> <p>Accounting Courses (15 hours) Lord Fairfax Comm. Coll., Middletown, VA, 2001-2003</p>			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASFE, ASCE		REGISTRATION (Type, Year, State) Registered Professional Engineer WV, VA, MD, PA, NC	

13b. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE QA/QC (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF LANDFILL DESIGN EXPERIENCE :	YEARS OF EXPERIENCE LANDFILL QA/QC EXPERIENCE :	YEARS OR CIVIL, GEOTECHNICAL ENGINEERING EXPERIENCE
McCoy, Larry L., Jr., P.E. Civil Department Manager/ Senior Engineer	5	5	19

Brief Explanation of Responsibilities:

Mr. McCoy is the responsible engineer for numerous projects including civil site, utilities, roadways, and landfill design. Mr. McCoy has performed design and QA/QC supervision tasks related to these projects which have included: closure cap design and liner design. Mr. McCoy also served as project manager on these and several related projects.

EDUCATION (Degree, Year, Specialization)

BS/ 1996/ Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

ASCE

REGISTRATION (Type, Year, State)

Registered Professional Engineer/2001/ WV
Registered Professional Engineer/2007/ Ohio
Registered Professional Engineer/2008/ Kentucky

13c. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR HEAVY EARTH WORK CONSTRUCTION PROJECTS (Furnish complete data but keep to essentials)

NAME & TITLE (last, first, middle Int.)	YEARS OF EXPERIENCE		
	YEARS OF LANDFILL RELATED EXPERIENCE:	YEARS OF HEAVY EARTH CONSTRUCTION EXPERIENCE:	YEARS OF GEOTECHNICAL ENGINEERING EXPERIENCE:
Daniel H. Lipscomb, PE Geotechnical Engineering Manager	5	13	13

Brief Explanation of Responsibilities

Mr. Lipscomb has formulated and implemented subsurface investigations on landfills, roadway/bridges, and structures for coal mining facilities. Mr. Lipscomb's responsibilities include development and implementation of subsurface programs, analysis of subsurface conditions and preparation of final reports including conclusions and recommendations based on subsurface conditions and proposed site use.

EDUCATION (Degree, Year, Specialization)

BSCE/ 2002/ Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

WVSPE

ASCE

REGISTRATION (Type, Year, State)

Registered Professional Engineer/2008/ WV

Equipment Listing

Drilling Equipment:

Track Mounted Rigs	3 - CME 55
All Terrain Drill Rigs	3 - CME 550 C
Truck Mounted Rigs	1 - CME 45C
Skid Mounted Rigs	1 - Diedrich D25
Transport Vehicles	2 - Peterbilt Tandem Axle Tiltbeds 1 - Peterbilt 378 Rollback 1 - Peterbilt 379L Road Tractor 1 - Peterbilt 379 Flatbed Tractor 1 - Ford F550 Water Truck 10 - 4WD ¾ Ton Support Trucks 1 - Pontoon Boat 1 - Barge 1 - John Boat
Portable Drilling Equipment	1 - Motorized Cathead/Tripod Unit 2 - Handheld Sampling Equipment

Miscellaneous equipment includes Dutch cone Penetrometer, Mobile Grout Pump (Chem-Grout), Steam Jenny (Whitco), Steam Jenny (Hotsy), 600 CFM Air Compressor (Sullair), various size utility trailers.

Protective Clothing & Equipment-Complying with EPA & OSHA Regulations Air Purifying Respirators & Supplied Air Respirators

Drilling Tools:

- Hollow Stem Augers (2 ¼" I.D., 3 ¼" I.D., 4 ¼" I.D., 6 ¼" I.D.)
- Continuous Flight Augers
- NQ2 Core Equipment
- AW Core Equipment
- Pressure Testing Equipment
- Water Pumps, Trucks and Tanks
- Shelby-Tube Samplers (2", 3" and 5" Diameter)
- Split-Spoon Samplers (2" and 3" Diameter)
- CME Continuous 5.0' Length Samplers

- Longyear Casing Advancer (HQ)
- Downhole Hammer

Laboratory Equipment:

- Triaxial Compression Machine
- Manual Proctor Devices (standard and modified)
- Automatic Proctor Hammer
- Turbidimeter
- Hydrometer
- pH Tester (soil & water)
- Electronic Scales
- Unconfined Compression Machine
- Atterberg Limits Devices
- California Bearing Ratio Devices
- Electrical Resistivity Devices
- Specific Gravity Devices (soils & aggregates)
- 2000 Degree Fahrenheit Oven
- Permeability Cells & Panels
- Consolidometers
 - Electronic Manometers
 - Concrete Compressive Strength Equipment
 - Aggregate Shakers
 - Sieve Shakers
 - Sample Splitters
 - Unit Weight Buckets
 - Slake Durability Machine
 - Gradation Sieves
 - L.A. Abrasion Test Equipment
 - Soiltest Loading Devices
 - Sodium Sulfate Soundness Test Equipment
 - Asphalt Test Equipment
 - Relative Density Determination Device

Field Testing Equipment:

Soil

- Nuclear Moisture/Density Gauges
- Sand Cone Equipment
- Support Compaction Testing Equipment
- Digitilt Slope Indicator
- Pocket Penetrometers
- Hand Augers
- Static Cone Penetrometers

Concrete

- Air Meters (pressure & volumetric)
- Slump Cones & Accessories
- Windsor Probes
- Rebound Hammers
- Concrete Core Drills & Accessories
- Concrete Slab Profiler

Water

- Pressure Transducer / Data Logger & Associated Software
- pH Meters
- Turbidity Meters
- Iron Test Kits
- Dissolved Oxygen Meter
- Water Test Kits

Structural Steel, Bolt, and Paint

- Torque Wrenches
- Magnetice Gauges
- Tooke Gauges
- Wet File Gauges
- Sling Psychrometers
- Dye Test Kits

Environmental Testing

- OVA Meters (Trace Gas Analyzer by Flame Ionization)
- HNU Meters (Trace Gas Analyzer by Photoionization)
- Air-Stripping Unit for Water Treatment
- LEL/Oxygen Meter
- Draeger Pump and Assorted Tubes
- pH/ Conductivity/ Temperature Meters
- Hammer Drill and Associated Sampling Equipment

Field Laboratory Trailer

- Equipped as Required for Specific Projects

Surveying and Mapping Equipment

- Total Station Survey Instruments (Topcon, Lietz, Hewlett Packard, various models, 25 total)
- Wild T2 Precise Theodolite
- 2 Trimble 4000ssi Total Station GPS Recievers
L1/ L2 dual frequency capability
OTF (On The Fly) Initialization
1.0MB static memory
- 2 Compact L1/ L2 frequency GPS Antenna w/ detachable geodetic groundplane
- 1 Pacific Crest 35w Data Transmitter
- 1 Pacific Crest 2w Data Reciever
- Trimble GPSurvey Software (v2.30b)
- Trimble TRIMNET Software (v92.11c)
- Dell Dimension XPS-D333 Computer w/ Dell Trinitron Monitor
- CTX – 300 MHz Laptop Computer
- Toshiba – 200 MHz Laptop Computer
- Thodolites (Dietzgen, 2 total)
- Engineer's Transits
- Data Collectors (SMJ – Construction V, HP 48 GX, Topcon, Leitz, various models, 20 total)

- Wild N3 Precise Level
- Automatic Levels (Lietz, Pentax, Wild, various models, 25 total)
- Planimeters (4)
- Various Lengths of Engineer Chains, Precision Leveling Rods
- 12 ft. Boat with Trolling Motor
- Pontoon Boat

Computer Equipment:

Software

- MicroStation J
- MicroStation SE
- MicroStation V8 – (2) Network Administered
- Bentley View (41) Network Administered
- InRoads v8.3 – Network Administered
 - InRoads Bridge
 - InRoads Site
 - InRoads Storm & Sanitary
 - InRoads Survey
- AutoCAD Civil 3D 2015 – (7) Network Administered
- Site SelectCAD Package
- SurvCADD 2000 (2)
- Corel WordPerfect 2000 (21)
- Corel WordPerfect 2002 (20)
- Microsoft Office 97 Professional (21)
- Microsoft Office 2000 Premium (3)
- Microsoft Office XP Professional (8)
- Microsoft Office Professional 2003 (9)
- Microsoft Windows 98SE (21)
- Microsoft Windows 2000 Professional (3)
- Microsoft Windows XP Professional (17)
- Adobe Photoshop 7 (2)

- Adobe PageMaker 7 (2)
- Adobe Acrobat 6 Pro (21)
- Adobe PageMill (2)
- Adobe Illustrator 7 (2)
- Adobe InDesign 2 (2)
- Adobe GoLive 6 (2)
- Macromedia Studio MX (2)
- PCSTABL6/STED – Slope Stability
- UTEXAS2 – Slope Stability
- COGOPC+ - Surveying and Mapping
- CONTOUR+ - Surveying and Mapping
- HEC1 – Flood Hydrograph Package
- HEC2 – Water Surface Profiles
- DAMS2 – SCS Structure Site Analysis
- PONDPACK – Urban Hydrology and Detention Pond Design
- GEOPRO – Geotechnical Engineering Software
- LPILE Plus 4.0 for Windows – Pile Design
- SHAFT 4.0 for Windows – Caisson Design
- HELPMODEL – Hydrologic Evaluation of Landfill Performance
- FLOWMASTER 7.0 - Network Administered Pipe and Ditch Sizing
- WaterCAD for AutoCAD – 6.5 – Network Administered
- StormCAD for Windows
- CULVERTMASTER – Culvert Design and Analysis
- EXXON I – Pavement and Subbase Thickness Design
- Trimble GPSurvey Software (v2.30b)
- Trimble TRIMNET Software (v92.11c)
- Q & A Database
- Peachtree Accounting (time & billing)
- Protrax Axium accounting
- Laboratory Test Data Reduction Programs

- GeoSystems – Geotech Engineering Materials Testing
- gINT 6 – (7)
- Lotus 123 Spreadsheet

- HWY – Asphalt Pavement Thickness for Streets and Overlays
- HWLOAD – Asphalt Pavement Thickness for Heavy Wheel Loads
- Government Forms Software '98 (SF 254/255)
- Deed Plotter for Windows
- HEC-HMS
- HEC-RAS
- HEC-Storm Sewers
- Hydraflow Hydrographs
- Hydraflow Storm Sewers
- CP-4 Asphalt
- Server Software
 - Windows 2000 Professional Server
 - Microsoft Exchange 2000 Server
 - Symantec Anti-virus Server
 - Symantec Mail Security AVF filter for MS Exchange
 - Symantec Web Security
 - Veritas Backup Exec 9.1 for Windows Servers
 - TripLite Power Alert

Hardware

- PIII (400MHz – 1 GHz), 21 Stations total, up to 40GB Hard Drives
- P4 (1 GHz – 2 GHz) (14)
- P4 (2 GHz – 3.4 GHz) (5)
- Notebook Computers (6)
- Digital Cameras (3)
- Printers
 - HP CP6015x

- KM 350
 - KM 600
 - KM C353
- Plotters
 - HP DesignJet 1050C
 - HP DesignJet 4020 PS
- Fax Machines
 - HP 3100
 - Brother MFC4600
- Copiers
 - KM 350
 - KM 600
 - KM C353
- Firewall
 - Cisco PIX 506E Security Appliance
- Compaq Proliant ML370 G2 Server
- TripLite UPS

15. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD ASSOCIATED WITH OR RELATING TO LANDFILL CLOSURE OR CONSTRUCTION.				
PROJECT NAME,TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESOPNSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
No. 2 Landfill Expansion Friendly, WV	Momentive Performance Products 3500 S. State Route 2, Friendly, WV 26146	Full expansion design, surveying and QA/QC during construction	1.8 million	50
West End Landfill Closure, Goff Mountain Landfill Institute, WV	Bayer Crop Science RR 25 Institute, WV 25112	Full expansion design, surveying and QA/QC during construction	2 million	75
AST Inspection and Certification	WVDEP, LCAP 601 57 th Street Charleston, WV 25304	Above Ground Storage Tank Inspection and Certification	\$131,110.00 Engineering Fee	25
TOTAL NUMBER OF PROJECTS:			TOTAL ESTIMATED CONSTRUCTION COSTS:	
#3			\$3.8 Million	

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS RELATING TO LANDFILL CLOSURE AND CONSTRUCTION.

[illegible]

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD (List 5 to 7)				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Marion County Landfill, Marion County, WV	WVDEP, LCAP 601 57 th Street Charleston, WV 25304		2014	Yes
Richardson Branch Complex Raleigh County, WV	WVDEP – AML&R 601 57 th Street Charleston, WV 25304		2012	100%
Goff Mountain Landfill Phase I West Closure Institute, WV	Bayer Crop Science RR 25 Institute, WV 25112		2013	Yes
Richardson Branch Complex Raleigh County, WV	WVDEP – AML&R 601 57 th Street Charleston, WV 25304		2012	Yes
Coaldale Refuse & Portals McDowell County, WV	WVDEP – AML&R 601 57 th Street Charleston, WV 25304		2010	Yes
Mullens Portals Project Wyoming County, WV	WVDEP – AML&R 601 57 th Street Charleston, WV 25304		2011	Yes
Water System Improvements Camden On Gauley, WV	Town of Camden on Gauley Mayor Avenue Camden on Gauley, WV 26208	2,000,000.00	2014	Yes

18. COMPLETED WORK WITHIN LAST 5 YEARS IN WHICH YOUR FIRM HAS BEEN A SUBCONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK WHICH YOUR FIRM WAS RESPONSIBLE) LIST 5 TO 7.

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
502 Junction Substation, Mt. Morris, PA & PREXY Substation, Cannonsburg, PA	Allegheny Energy Service Co. 800 Cabin Hill Dr., Greensburg, PA 15601		2011	Yes	Allegheny Energy Service Co.
Longview Power Plant Monongalia County, WV	GenPower Holdings, L.P. 1040 Great Plain Ave., Needham, MA 02492		2010	No	GenPower Holdings, L.P.
Raleigh Street Extension Berkeley County, WV	WVDOT / DOH 1900 Kanawha Blvd., East Charleston, WV 25305		2010	Yes	WVDOT / DOH
Nuttallburg Mine Complex, New River Gorge, WV	National Park Service PO Box 246 Glen Jean, WV 25846		2010	Yes	National Park Service
Sawmill Village Snowshoe, WV	Snowshoe Mountain Resort 10 Snowshoe Drive Snowshoe, WV 26209		2010	Yes	Snowshoe Mountain Resort

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the WV Department of Environmental Protection.

Triad Engineering, Incorporated (TRIAD) is a full service engineering firm specializing in the areas of geotechnical, civil and mining engineering and design, environmental assessment, surveying and mapping, construction monitoring, subsurface exploration, and laboratory testing, among other earth science disciplines. Our current work force includes civil, geotechnical engineers, environmental scientists, geologists, hydrologists, surveyors, trained Computer Added Design Drafting (CADD) draftsmen, field and laboratory technicians, drillers and support personnel.

TRIAD was founded in Morgantown, West Virginia (WV) in 1975 by three principals who molded the firm based on their belief that if the highest standards were maintained throughout all aspects of the company, they would earn their clients' respect, therefore ensuring the firm's continued growth. Today, TRIAD has a staff of 185 full-time employees and seven office locations in WV, Pennsylvania, Ohio, Maryland and Virginia. By providing an array of competent services, using modern equipment, and maintaining a well-trained professional staff, TRIAD has maintained the founders' philosophies and proven that customer satisfaction results in good relationships and repeat business.

Furthermore, TRIAD is an employee-owned company with an active Board of Directors. Current Officers and Board Members are:

- Chief Executive Officer (CEO) – Tom Ali, PE
- Chief Engineer – Randy Moulton, PE
- Chief Financial Officer (CFO) – Tina McPhail
- Chief Marketing Officer (CMO) – Rob Mooney
- Chief Technical Officer (CTO) – Dave Meadows
- Brad Reynolds, PE
- Keith Hutzell
- Nick Wolf
- Bill Ernstes
- David Cutlip (Outside Director)
- Chad Brinkley (Outside Director)

We are extremely proud of our performance under past contracts, including those we have held with the WVDEP. As of this date, 9 LCAP projects have been undertaken by TRIAD. The vast majority of these projects have been successfully completed on time and within the proposed cost estimate. As always, TRIAD will commit the necessary resources to meet the needs of this project.

20. The foregoing is a statement of facts

Signature: 

Title: Regional Manager, CTO

Printed

Name: David F. Meadows, PS, PE

Date: November 12, 2015

Appendix D

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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.

Addendum Numbers Received:

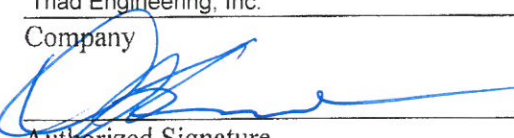
(Check the box next to each addendum received)

<input checked="" type="checkbox"/> Addendum No. 1	<input type="checkbox"/> Addendum No. 6
<input type="checkbox"/> Addendum No. 2	<input type="checkbox"/> Addendum No. 7
<input type="checkbox"/> Addendum No. 3	<input type="checkbox"/> Addendum No. 8
<input type="checkbox"/> Addendum No. 4	<input type="checkbox"/> Addendum No. 9
<input type="checkbox"/> Addendum No. 5	<input type="checkbox"/> Addendum No. 10

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.

Triad Engineering, Inc.

Company


Authorized Signature

11/12/2015

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

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 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.

"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 § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure 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 exceeds 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. Va. 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.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Triad Engineering, Inc.

Authorized Signature: [Signature] Date: 11/12/2015

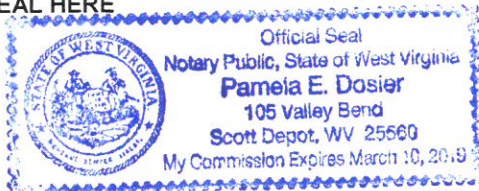
State of West Virginia

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 12 day of November, 2015.

My Commission expires March 10, 2015.

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with **West Virginia Code, §5A-3-37**. (Does not apply to construction contracts). **West Virginia Code, §5A-3-37**, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. Application is made for 2.5% vendor preference for the reason checked:

- ☐ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
- ☒ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
- ☐ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or**,

2. Application is made for 2.5% vendor preference for the reason checked:

- ☒ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,

3. Application is made for 2.5% vendor preference for the reason checked:

- ☐ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,

4. Application is made for 5% vendor preference for the reason checked:

- ☒ Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or**,

5. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- ☐ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or**,

6. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- ☐ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.

- ☐ Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Triad Engineering, Inc.

Signed: 

Date: 11/12/2015

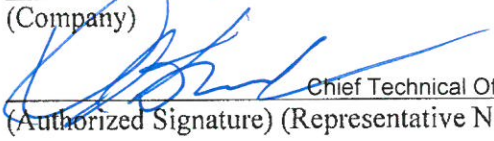
Title: Chief Technical Officer, Regional Manager

CERTIFICATION AND 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.

Triad Engineering, Inc.

(Company)



Chief Technical Officer, Regional Manager

(Authorized Signature) (Representative Name, Title)

304-755-0721 304-7551880 11/12/2015

(Phone Number) (Fax Number) (Date)

OUR SERVICES

- ⇒ Civil Engineering
- ⇒ Geotechnical Engineering
- ⇒ Environmental Services
- ⇒ Survey and Mapping
- ⇒ Landscape Architecture
- ⇒ Mine Permitting
- ⇒ Construction Monitoring
- ⇒ Drilling and Sampling
- ⇒ Laboratory Testing



PENNSYLVANIA

500 Bursca Drive, Suite 504
Bridgeville, PA 15017
(412) 257-1325

MARYLAND

1075-D Sherman Avenue
Hagerstown, MD 21740
(301) 797-6400

VIRGINIA

200 Aviation Drive
Winchester, VA 22602
(540) 667-9300

21641 Beaumeade Circle
Suite 300
Ashburn, VA 20147
(703) 729-3456

WEST VIRGINIA

1097 Chaplin Road
Morgantown, WV 26501
(304) 296-2562

10541 Teays Valley Road
Scott Depot, WV 25560
(304) 755-0721

OHIO

1005 East State Street
Suite 10
Athens, Ohio 45701
(740) 249-4304



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