

EOI—Engineering Design Services

Richard Mine Drainage Access CRQS: DEP 19*05
CEOI 0313 DEP190000005



Jessica S. Chambers
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, WV 25305

Triad Engineering, Inc.

1097 Chaplin Road, Morgantown, WV 26501

304-296-2562 | www.triadeng.com



October 9, 2018

Jessica S. Chambers
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305

RE: **EOI – Engineering Design Services**
Richard Mine Drainage Access CRQS: DEP 19*05
CEOI 0313 DEP190000005
TRIAD Proposal No. 01-18-0383

Dear Ms. Chambers:

Triad Engineering, Inc. (Triad) is pleased to submit this Expression of Interest to provide engineering design and other related professional services to design permanent access from WV Rt. 7 across Deckers Creek to the Richard Mine Drainage Treatment System.

We are confident that the enclosed documentation will illustrate how the team that we have identified (Triad Engineering and the Markosky Group) we will work with you to develop the best solutions for this project. This information will display the team's level of expertise and experiences with similar projects. The team will provide all necessary services for your project.

We trust this submittal provides the information you require. Should you have any questions or require additional information, please contact the undersigned.

Very truly yours,

TRIAD ENGINEERING, INC.



William M. Ernstes, PLA
Civil Engineering Services Manager
wernstes@triadeng.com
304-296-2562 Office
304-216-8186 Cell



Benjamin G. Campbell, PE
Senior Geotechnical Engineer
bcampbell@triadeng.com
304-296-2562 Office
304-859-3150 Cell

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COMPANY BACKGROUND

Triad Engineering, Inc. (Triad) is a multi-disciplinary engineering firm based in the Mid-Atlantic region specializing in the areas of geotechnical engineering, civil and utility engineering, surveying, construction materials engineering and testing and inspection, environmental consulting services, drilling, and other earth science related disciplines. Since its founding in Morgantown, West Virginia in 1975, Triad has provided engineering consulting services on thousands of projects of varying size and complexity.

Triad is a 100% Employee Owned (ESOP) firm maintaining approximately 175 technically sound employee-owners located in seven offices across five states. Our work force includes environmental scientists, geologists, hydrologists, civil, geotechnical and mining engineers, landscape architects, chemists, surveyors, trained Computer-Aided Design (CADD) draftsmen, field and laboratory technicians, drillers, and support personnel. We pride ourselves on a very low turnover rate, which adds to continuity and enhances the level of productivity and experience afforded by Triad.

With over 43 years of service in West Virginia and surrounding states, facilities and equipment available to support our staff have continued to evolve through the years to adapt to the changing needs of the market. We have developed a fleet of drill rigs and support vehicles to meet the needs of our field operations. Well-equipped and accredited material testing laboratories are maintained to provide support for our geotechnical engineering and construction monitoring projects.

Each office maintains networks to support CADD functions, hydrogeologic evaluations, water balance modeling, roadway design, storm water management and surface water drainage, design, stability analyses, risk assessment, survey data reduction, and mapping. These broad, in-house capabilities give Triad better control over project schedule, quality, and cost, thereby minimizing problems that can occur during the various contract phases.

Triad Office Locations include:

Morgantown, WV

1097 Chaplin Road
Morgantown, WV 26501
304-296-2562 Phone

Scott Depot, WV

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

Winchester, VA

200 Aviation Drive
Winchester, VA 22604
540-667-9300 Phone

Pittsburgh, PA

201 Penn Center Boulevard
Suite 400
Pittsburgh, PA 15235
412-257-1325 Phone

Northern Virginia

46040 Center Oak Plaza
Suite 180
Sterling, VA 20166
703-729-3456 Phone

Hagerstown, MD

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

Athens, OH

1005 East State Street Suite 10
Athens, OH 45701
740-249-4304 Phone

Markosky Engineering (Markosky) is a Woman-Owned Business Enterprise (WBE) certified in West Virginia as a Disadvantaged Business Enterprise with an approved audited overhead rate in effect. Markosky has provided engineering services for over 19 years to both public and private clients. Markosky's experience with a variety of bridge projects including new structures, rehabilitations, and replacement structures enables them to anticipate design issues that will need to be addressed to ensure that a cost-effective product is constructed. Markosky has worked on projects ranging from roadway design support services on interstate projects to completing the final design of multi-span, multi-girder bridges over the Allegheny River.

To date, Markosky has over 300 PennDOT Consultant Evaluations for transportation projects ranging from Prime Consultant on bridge replacement projects to providing Construction Inspection services as a subconsultant. The performance evaluations reflect experience with similar projects and their ability to complete projects on time and within budget. Markosky has received "**Consistently Exceeds Expectations (CE)**" on 36 projects, "**Exceeds Expectations (EE)**" on 80 projects and "**Expected Performance (EP)**" on the remaining 203 projects.

Markosky currently has no outstanding projects in West Virginia but are enthusiastic about working with the department.

The Markosky Engineering Group will ensure Triad Engineering, Inc. (and the WV DEP) that quality design will be provided by developing and implementing a **Project-Specific Quality Management Plan (PSQMP)**. The PSQMP will include provisions for audits, checklists, cross-discipline reviews, peer reviews, and a variety of management tools to ensure project tasks adhere to the requirements of Triad Engineers, Inc. and the WV DEP.

Markosky's Civil Engineering Division consists of 25 dedicated employees inclusive of **12 Registered PEs**, who are extremely familiar with bridge design and hydrologic studies.

Markosky Office Locations include:

Charleston, WV

232 Capitol Street
Charleston, WV 25301
304-223-5205 Phone

Ligonier, PA

3689 Route 711
Ligonier, PA 15658
724-238-4138 Phone

Canonsburg, PA

1900 Main Street, Suite 255
Canonsburg, PA 15317
724-238-4138 Phone

PROJECT OVERVIEW AND BRIEF APPROACH

Project Scope

Based on the published request for expression of interest, we understand the project mission is to provide permanent access from WV Rt. 7 across Deckers Creek to the site of the Richard Mine Drainage Treatment System. Additionally, it is understood that the Triad / Markosky team is responsible for the following project goals and objectives:

- Develop construction plans and technical specifications to access the abandoned mine land project area known as Richard Mine Drainage
- Design plans and develop specifications for site access
- Design plans and develop specifications for a bridge crossing Deckers Creek (approximately 100 foot span and a clear roadway width of 16 feet which is capable of carrying all legal highway loads)
- Design plans and develop specifications for limits of disturbance, storm water control, and erosion and sediment prevention
- Design plans and develop specifications for all conditions encountered on a project site

Upon notice to proceed, Triad's Project Manager will review the work directive, discuss the project with WV DEP personnel, and perform site visits to become more familiar with the project and objectives. Available site information and data, such as results of previous borings, geologic reports, or old maps will be reviewed. Based on this information, the Project Manager will plan the scope of work required to meet the above stated goals and objectives.

Following is an anticipated Phase-in task schedule that Triad and Markosky have developed for this project.

Approach

Phase I – Initial Planning and Surveying

Initial Project Planning Meeting

At the onset of the project, Triad's Project Manager (William Ernstes) will meet with your identified stakeholders who will be part of the project team. A discussion will commence regarding your goals and criteria for the project. The discussion will include design team review and approval process as well as any anticipated concerns that may arise during the project.

Survey / Mapping

Triad will perform a field run topographic survey to create base mapping at an appropriate scale with two foot contour intervals. The finished product will depict the

property outline, surface mapping, existing features, utility locations (with available inverts) and Miss-Utility markings. The topographic survey will include the location of existing improvements, appropriate stream cross sections, above ground evidence of utilities, and available invert elevation where accessible. Triad will locate the extents of Earl Core Road frontage and required sight distances. Results of the field survey will be input to a computer data base to serve as the basis for final design.

Phase II – Preliminary Site Plan Design and Permitting Services

Triad's Design Team will review the project intent with applicable agencies to determine the general acceptance of the project concept and limiting factors or requirements that may affect the Project. Upon completion of these items, the Design Team will report the results of the meetings to the project stakeholders. The Design Team will draft a Preliminary Site Plan depicting the probably road and bridge location layout and grading for the Project.

If necessary, the team will modify the Preliminary Site Plan based on the WV DEP's input prior to proceeding with the final design. The Design Team will provide a preliminary cost estimate with the preliminary site plan.

Environmental Services

Triad will assess environmental concerns at the site and design a plan to ensure environmental protection of the area(s). Prior to any site disturbance, Triad will incorporate any Environmental concerns in accordance with the requirements of the National Environmental Policy Act (NEPA).

Geotechnical Exploration

Triad will perform a geotechnical exploration for the proposed bridge crossing Deckers Creek. Four test borings will be drilled, two on each side of Deckers Creek. The borings will be accomplished with a track- or ATV-mounted rotary auger drill, with Standard Penetration Testing and sampling at 2.5-foot sample intervals to a depth of 10 feet and at 5-foot intervals thereafter to bedrock. We assume that bedrock will be encountered at a depth of 30 feet or less below the existing ground surface. Borings will be extended beyond auger refusal to obtain 5 to 10 feet of bedrock in each boring using a double tube core barrel sampler with a diamond cutting bit.

The boreholes will be checked for groundwater upon completion and then backfilled with auger cuttings. Please note that some settling of this backfill may occur over time. A geotechnical engineer or geologist from Triad will be present during the drilling to supervise the field exploration program and log the test borings. The boring locations and surface elevations will be determined in the field by Triad survey personnel.

Triad plans to collect a sample from the streambed for grain size analysis to determine the d_{10} size as required for scour analysis. There are instances where a grain size analysis alone does not produce a d_{10} value. If this occurs, we will complete a

hydrometer analysis to determine the d_{10} of the streambed sample. Laboratory testing will be conducted on representative samples to supplement field classifications, assess potential volume change characteristics, and establish foundation design parameters.

The following types and numbers of tests are planned for the project:

- Moisture Content (8)
- Sieve Analysis (4)
- Atterberg Limits (4)
- Hydrometer Analysis (1)
- Rock Compression (2)

Upon completion of the field exploration and laboratory testing, Triad will prepare a geotechnical report which will include the following:

1. A detailed discussion of the site geology and subsurface conditions encountered
2. Test boring logs with a Boring Location Plan
3. Laboratory soil test results
4. Foundation recommendations with specific references to bearing capacity and settlement potential
5. Foundation construction procedures
6. Recommendations for site preparation and controlled fill construction

Structural

The proposed structure over Deckers Creek will be designed to minimize impacts to the creek while considering superstructure depths to facilitate tie in to WV Rt. 7. The noted parameters in the proposal of 16' clear width and approximately 100' span length can be achieved with single span bridges of various types. A traditional steel or prestressed concrete beam bridge with a concrete deck would require a total superstructure depth of at least 36" to 42". The combination of required freeboard for hydraulics and geometric tie in to Rt. 7 for this type of bridge may result in an unfavorable vertical profile for the structure and the approaches. Consideration will be given to through girder arrangements with floorbeams, pony truss structures, and prefabricated panel type through truss structures. For pony truss structures, additional consideration will be given to commercially available bridge systems. Markosky will investigate all four options and develop a cost and advantage / disadvantage matrix for the superstructure type selection and present the findings in a report submitted to the State. The selected alternate will be advanced to final design.

Substructure design will focus on the selected superstructure alternate as well as anticipated foundation type based on soil exploration and testing. If driven steel piles are found to be feasible for the site, both integral and semi-integral abutments will be considered. If geotechnical conditions preclude the use of steel piles, only semi-integral abutments will be considered.

Hydrogeological Services

The proposed structure over Deckers Creek will be in an area that was studied using detailed methods and is designated as FEMA Zone AE with base flood elevations, according to the effective FEMA FIRM for Monongalia County and Incorporated Areas (Community Panel 54061C0235E). There is also a FEMA Zone X within the project area that has a 1% annual chance flood with average depths of less than 1 foot. With the proposed structure being a brand new structure in a Zone AE with base flood elevations, but no mapped floodway, an increase in water surface elevation of more than 1 foot will require coordination with FEMA and potentially a Conditional Letter of Map Revision (CLOMR). The drainage area for the project site is approximately 47 square miles. Reproductions of the previous FEMA model for Deckers Creek will be required to establish downstream known water surface elevations. The USGS stream gage at Morgantown (USGS 03062500) will be investigated for use in determining the design discharges at the structure site; otherwise an appropriate hydrologic method will be used. Markosky will perform the H&H study concurrently with the preliminary structure design to accurately determine the required waterway opening and structure type.

Phase III – Final Construction Drawings and Project Specifications

Final Design

Triad's Design Team will work with the WV DEP to develop and refine the Preliminary Design into a Final Design involving analysis and critique of topography, prospective storm drainage and BMP improvements, jurisdictional requirements, hydraulics and hydrology, wetlands, and subsurface conditions. The Design Team services will include consultation, analysis, design, and preparation of site drawings and associated specifications. The Design Team will provide technical project specifications for the project scope.

Triad's Design Team will submit the Final Design plans to regulatory agencies having jurisdiction over this project within the scope identified herein. We will respond to inquiries of regulatory and permitting agencies and make revisions to the documents as required in a timely manner to maintain established schedules.

Triad's Design Team will provide all required design calculations and documents bearing the seal and signature of a licensed Professional Engineer in the State of West Virginia to the authorities having jurisdiction over the project. The Design Team will provide an engineer's cost estimate for the project scope items.

Final Construction Documents

Triad's Design Team will prepare a construction package for the project. We anticipate the following drawings to be included in the package:

- Legend and General Notes
- Existing Conditions Plan
- Demolition Plan
- Layout Plan
- Grading and Drainage Plan
- Erosion and Sediment Control Plan, Narrative and Details
- Site Construction Details

Meeting, Approval, and Permitting Process

Triad's Design Team will meet with all agencies having jurisdiction over the project to secure necessary approvals to proceed with construction of the project in an expeditious and timely manner.

Phase IV – Other Service as Requested for Construction Phases

Should it be determined, the Design Team can provide engineering support in the evaluation of construction bids and will assist you in selecting the best responsible bid.

Bid Phase Services

The Design Team can provide the following services as part of the Bid Phase:

- Attend the pre-bid conference
- Answer questions of bidders relating to the engineering design and assist the WV DEP in the preparation of necessary addenda
- Assist the WV DEP in evaluation of the bids, as requested

Construction Phase Services

Triad's team can provide administration services for the construction phase of the project. Should services be requested, Triad can review shop drawings and perform inspection of construction activities to ensure compliance with plans and specifications. Triad has in-house capabilities for compaction testing, concrete testing, and asphalt paving testing. Triad can perform a final inspection and prepare for you a punch list.

QUALIFICATIONS

Triad and Markosky have assembled a team of individuals with broad experience to bring unmatched knowledge and expertise to your project. The professional staff assigned to this project possess the necessary qualifications and proficiency in their areas of expertise. Triad's footprint stretches across seven offices in five states and Markosky's footprint stretches across three offices in two states. Should the need arise; we can call upon those resources at any time.

William Ernstes, PLA will oversee the project in total and will be the first point of contact for the WV DEP. He will work with the WV DEP, Triad professionals, and the Markosky group to ensure that standards are exceeded, budgets are maintained, and schedules are kept. Mr. Ernstes will have a wealth of Triad resources to call upon (from the Chief Engineer, Randy Moulton, P.E. to the Chief Technical Officer, David Meadows, P.E., P.S.) should the need arise.

Matthew Walerysiak, P.E., will oversee Markosky's QA/QC efforts through the design and construction phases of the assigned work orders. Mr. Walerysiak will ensure the PSQMP is properly implemented throughout the life of the project. Mr. Walerysiak will have a wealth of experience to draw from inclusive of Markosky's Principal (Mark Markosky) who brings 32 years of experience in roadway and bridge design to the project.

Project Team: Triad Engineering, Inc.

William M. Ernstes, PLA, brings over 23 years of leadership, design construction, and project management experience to Triad Engineering as the Northwestern Area Manager and Land Development Services Manager. His expertise consists of site analysis, land and infrastructure design, permitting, utilities, stormwater management and storm drain design / best management practices, erosion and sediment controls plan design, high-end graphic presentations, construction document preparation and administration, project management, client coordination, quality control and quality assurance.

License: WV Landscape Architecture #279

Education: B.S. Landscape Architecture

Experience: 23 years

Benjamin G. Campbell, PE, is Triad's Northwestern Geotechnical Department's Senior Engineer. He is responsible for Geotechnical investigations and evaluation of exploration results, foundation recommendations and reporting, laboratory testing, field inspections, and special inspections.

License: WV Professional Engineer #20492

Education: M.S. Engineering; B.S. Civil Engineering Technology

Experience: 11 years

Heather Metz, LRS, is the Environmental Services Manager and Senior Environmental Scientist for Triad's Southwestern and Northwestern departments. She has worked as a Program Manager for the West Virginia Department of Environmental Protection for performing various assessment tasks at USEPA Superfund sites in West Virginia and implemented the WV DEP Statewide Hazardous Brownfield Assessment Grant program. Additionally, Ms. Metz is a Licensed Remediation Specialist (LRS) and performs a variety of tasks for sites in the West Virginia Voluntary Remediation Program (VRP).

License: WV Licensed Remediation Specialist #269

Education: B.S. Environmental Science

Experience: 15 years

David Graham, PS, oversees survey services inclusive of ALTA/NSPS Land Title, Boundary and Subdivision, FEMA Flood Surveys and Flood Plain Studies, Construction Stake Out / As Built, Heavy Industrial, Bridge and Highway, and Energy / Mining surveys.

License: WV Professional Surveyor #2117

Education: Woodston School of Surveying

Experience: 40 years

John Haynes, PE, serves as Triad's Senior Drilling Manager for drilling operations where he manages all drilling and sampling activities conducted by the firm's regional offices. His duties include design and implementation of the subsurface investigations, assignment of laboratory testing, approval of design drawings, development of technical specifications, and preparation of drilling and geotechnical engineering cost proposals and reports.

License: WV Professional Engineer #16856

Education: BS Civil Engineering; BS Mechanical Engineering

Experience: 26 years

Danny Blake, CET serves as Triad's Laboratory Services Manager. He oversees Triad's AASHTO accredited laboratory testing services and oversight for geotechnical engineering and construction projects involving soils, aggregates, concrete, and asphalt.

Certifications: NICET Level II Construction Materials Testing: Soil & Concrete; Level III Geotechnical Laboratory Testing

Education: AS Building Construction Technology

Experience: 35 years

Project Team: Markosky Group

Matthew Walerysiak, P.E., CBSI, service as Markosky's Civil Engineering Services Division Manager. Mr. Walerysiak manages the day-to-day operations of the Roadway, Structure and NBIS Departments. He has 25 years of project management and design experience including analysis and plans preparation for various types of bridge and roadway projects. He has prepared and reviewed all aspects of roadway designs including, but not limited to, traffic control, line and grade studies, erosion and sedimentation control, design field view plans, and PS&E submissions. His bridge design experience includes all aspects from Type, Size & Location Studies, Hydrologic and Hydraulic Studies, and Final Bridge Plans.

License: WV Professional Engineer #23197; Certified Bridge Safety Inspector

Education: BS Civil Engineering Technology

Experience: 25 years

Peter A. Molnar, P.E., CBSI, serves as Markosky's Senior Project Manager for bridge and structural design. Mr. Molnar has 18 years project experience including project management, design, analysis and plans preparation for various types of bridge projects. Superstructure design experience includes simple span and continuous applications of steel and prestressed concrete superstructures. Substructure design experience includes cast-in-place concrete abutments (Type 1, Type 2 and Integral abutments), wall piers on piles and spread footings. Steel design experience includes composite steel I-beams, composite steel plate girders, and horizontally curved plate girders (using finite-element design). Prestressed concrete design experience includes composite I-beams, composite adjacent box beams, and composite spread box beams. He has designed pre-cast and cast-in-place reinforced concrete box culverts.

License: PA Professional Engineer #PE-059746; Certified Bridge Safety Inspector

Education: BS Civil Engineering

Experience: 18 years

Thomas S. Anthony, P.E. (MSCE), serves as Markosky's Structures Department Manager for both bridge and roadway design projects. Mr. Anthony has 26 years of experience in the design and construction management of bridge, traffic and other types of structures. He has extensive experience in the design of steel, prestressed concrete and reinforced concrete structures. Responsibilities included department supervision, design oversight, development of scopes of works and proposals, design of structures, supervision of structural detailing, review of designs and drawings, project management, field and shop inspection, client contract and problem resolution, and hard bid estimating of projects.

License: WV Professional Engineer #01-4441

Education: MS Civil Engineering; BS Civil Engineering

Experience: 26 years

Brandon K. Lankey, P.E., is a Project Engineer for Markosky. He is predominately responsible for the completion of structure and roadway tasks including Type, Size, and Location Studies, Hydrologic and Hydraulic Reports, Traffic Control Plans, Final Structure Design / Detailing and Roadway Design / Plan Preparation.

License: PA Professional Engineer #PE-086381

Education: BS Structural Design and Construction Engineering Technology; AS Architectural Engineering Technology

Experience: 10 years

MANAGEMENT AND STAFFING

Experience and Expertise

Each professional providing service for this project is registered / licensed in their area of expertise and is in good standing with their associated board. Each technical staff holds the specific certifications in his/her area of expertise.

Professional Liability Insurance

Triad Engineering, Inc. carries Errors and Omissions Professional Liability Insurance through Architects and Engineers Insurance Company of Winchester, Virginia.

All of the information under the *Related Prior Experience* tab will clearly show that Triad has extensive experience in similar projects. After examining the materials provided, the Triad team assembled for this project will show the expertise necessary to complete this particular project.

Capacity to Perform Project Scope

Triad provides a full range of in-house services including designing, surveying, drilling and testing, construction monitoring and environmental services. Our company maintains a staff of approximately 175 technically sound employees. Our footprint stretches across seven offices in five states where.

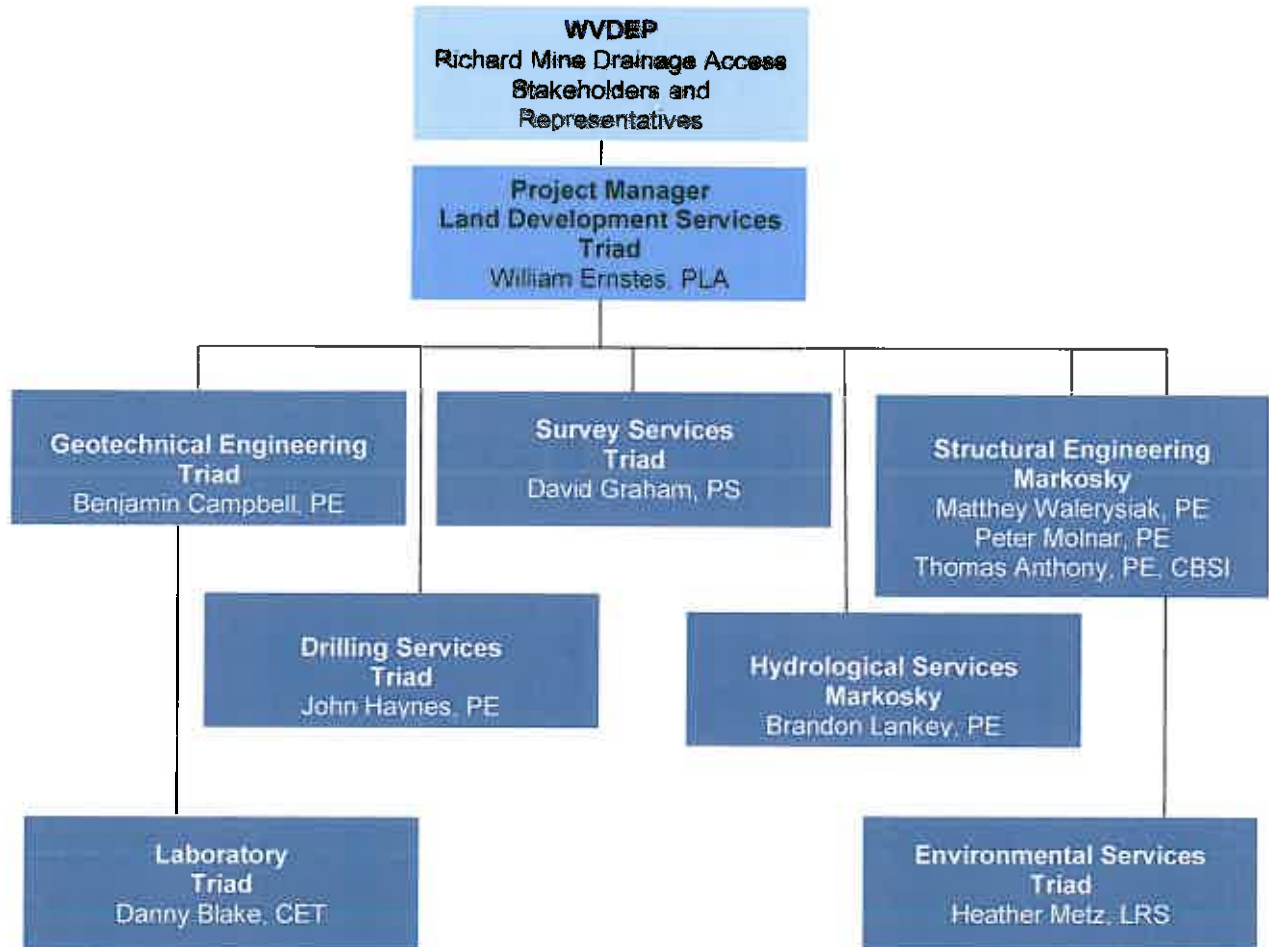
Additionally, Markosky's footprint stretches across two states with three offices and hosts a wealth of expertise. Key staff brought to this project includes professional engineers, certified bridge safety inspectors, and project management professionals.

Should the need arise; both Triad and Markosky can call upon those resources at any time.

Organizational Chart

The roles of personnel are illustrated on the organizational chart below.

Full resumes are provided in Attachment A.



SUMMARY

Triad Engineering, Inc., (Triad) proposes to perform Civil Design, Geotechnical Investigation, Surveying, Drilling, and Laboratory Testing for this project. Triad is teaming with the Markosky Engineering Group to perform Structural and Hydrogeological Engineering services for the project. Environmental Services along with Construction Monitoring and Inspection services will be provided by Triad if it is determined to be needed. The goal of the project is to design and develop engineering drawings, contract specifications and other contract documents as may be required for providing permanent access from WV Rt. 7 across Deckers Creek to the Richard Mine Drainage site. Factors that make Triad and Markosky a strong team candidate for consideration include:

- Past experience & complete familiarity with AML projects
- In-house capabilities
- Experienced professional and support personnel
- Triad is an employee owned and operated West Virginia firm
- Markosky is a registered DBE in West Virginia
- Strong geotechnical background
- Outstanding, AASHTO accredited laboratory facilities
- Expeditious & economical mobilization of drilling rigs, equipment and personnel
- Experience in major bridge and roadway design projects
- Strong structural background
- Strong hydrogeological background

Triad has completed over 400 projects for the WV DEP. Each project has involved various areas of expertise and problem types. In addition to WV DEP related projects, Triad has successfully completed major design projects for other government agencies, large coal mining concerns, chemical manufacturers, developers, and various other clients. Triad's direct responsibilities in these projects have included, but were not limited to:

- Permit Applications
- Surveying and Mapping
- Geotechnical Investigations and Analyses
- Hydrology and Hydraulics
- Design Development and Drawings
- Construction Specifications
- Construction Bid Packages
- Construction Observation and Monitoring
- Construction Management

REFERENCES

References: Triad Engineering, Inc.

WV High Tech Foundation (WVHTF)

Mr. James L. Estep
President and Chief Executive Officer
304.333.6814
jestep@wvhtf.org

Beitzel Corporation

Mr. Durrell Orendorf
Senior Project Manager
12072 Bittinger Road
Grantsville, MD 21536
durrellorendorf@beitzelcorp.com

WV Department of Environmental Protection

Mr. Paul Benedum
DLR – Landfill Closures Assistance Program
paul.l.benedum@wv.gov

References: Markosky Group

PennDOT District 12-0

Mr. James Sisul
825 N. Gallatin Avenue Extension
Uniontown, PA 15401
724.439.7470

Port Authority of Allegheny County

Mr. Greg O'Hare
345 Sixth Avenue
Pittsburgh, PA 15222
412.706.0405

ATTACHMENT A

Staff Resumes



EDUCATION

West Virginia University
BS, Landscape Architecture

PROFESSIONAL EXPERIENCE

23 Years

REGISTRATIONS & LICENSES

Registered Landscape
Architect

- [REDACTED] Pennsylvania
- [REDACTED] Virginia
- [REDACTED] West Virginia
- [REDACTED] Maryland

SKILLS

- Walkability Studies
- Feasibility Studies
- Site Inventory and Analysis Improvements
- Conceptual Design and Development Plans
- Utilities Design
- Roadway Infrastructure

HIGHLIGHTS OF EXPERIENCE

Mr. Ernstes manages Triad's Northwestern Regional Civil Engineering & Land Development department. He provides professional services in the areas of site inventory and analysis, planning, landscape architecture, and permitting. His responsibilities include project management, client project coordination, design production, quality control and quality assurance. Mr. Ernstes' experience includes land and infrastructure development, permitting, utilities, stormwater management and storm drain design / best management practices, and erosion and sediment controls.

RELEVANT PROJECT EXPERIENCE

I-79 Technology Park, Fairmont, WV

As Project Manager, Mr. Ernstes was responsible for the development of a Master Plan and detailed Retail / Commercial Plan for the expansion of the Park on behalf of the WV High-Tech Consortium (WVHTC). A preliminary Road and Utility Plan were created in 2016. 2018 expands the existing road infrastructure which includes at its completion will include 7,944 linear feet of roadway and associated utilities.

Cornerstone Commerce Park, Monongalia County, WV

As Project Manager, Mr. Ernstes has been responsible for the development of approximately 221 acres of mixed-use commercial and industrial park properties along the Grafton Road exit off Interstate 79, just south of Morgantown. Project services have included Master Planning for nine commercial and 17 industrial parcels and pad site development including grading concepts, costs estimates, and the preparation of construction plans and documents.

Petitto Mine Equipment Inc., Morgantown, WV

Project Designer responsible for preparation of Preliminary Site Plan and Development of Significant Impact Plan for thirteen acre industrial project located in Morgantown, WV. Work to include preparation of civil and surveying documents for a two building, 21,000 square foot expansion to the existing mine equipment manufacturing and servicing facility and presentation to the City of Morgantown Planning Commission for project approval. Providing client coordination and ongoing coordination related to Boundary Survey, Topographic Mapping, Consolidation Plat, and Geotechnical subsurface investigation.

The Crossings, Morgantown, WV

As Project Designer, Mr. Ernstes was responsible for the site civil design transition of a 15.1 acre hillside farm into an 180,000 square foot, four-story senior living facility. Included in the project was site selection to best locate the structure away from abandoned strip mines and wetlands and to create stormwater management best practice features which included moving 100,000 cubic yards of earth.

Miscellaneous Transportation and Parking Facilities

- WVU Campus Lots & Expansions - #6, 31, 34, 81
- WVU Mountainlair Parking Garage
- WVU Hospitals / Med Center Garage
- Monongalia General Hospital (Multiple Phases)
- DOE NETL (Multiple Phases)
- Mylan Pharmaceuticals, Inc. (Multiple Phases / Lots)



EDUCATION

Marshall University
MS, Engineering

Fairmont State University
*BS, Civil Engineering
Technology*

Potomac State College
AA, Civil Engineering

PROFESSIONAL EXPERIENCE

11 Years

REGISTRATIONS & LICENSES

Professional Engineer

- West Virginia
- Pennsylvania

SKILLS

- Project Management
- Soils Classification
- Construction Materials
Engineering & Testing

PROFESSIONAL AFFILIATIONS

- ASHE
- ASCE
- NSPE

HIGHLIGHTS OF EXPERIENCE

Mr. Campbell has over 11 years of engineering experience, with more than six years as a QC / Construction Services Manager. He is responsible to Triad's Geotechnical Engineering Services projects and supports the Construction Field and Laboratory Services projects. Mr. Campbell is responsible for performance of geotechnical investigations, assessments, and evaluation of exploration results, foundation recommendations and reporting, laboratory testing, field inspections, and special inspections.

Relevant Project Experience / Geotechnical

ATI Latrobe Plant Building Extension, Latrobe, PA

Mr. Campbell completed a geotechnical exploration for building additions to an existing flat rolled production group specialty steel manufacturing facility primarily for the Electric Arc Furnace. As project engineer, Mr. Campbell was responsible for supervision of the field exploration program, drilling inspection, logging of boring locations, and initial foundation recommendations.

Preparation Plant Expansion, Wana, WV

As project engineer, Mr. Campbell provided a geotechnical exploration for the expansion of an existing preparation plant. Mr. Campbell's responsibilities included providing baseline foundation and site preparation recommendations. Project challenges included undocumented fill, pyritic materials, and moisture sensitivity of site soils.

Rice Swohalla Well Site, Union Township, OH

As project engineer, Mr. Campbell provided geotechnical exploration and initial earthwork recommendations for the well pad site. Project challenges included fill slope stability, heavy vehicular traffic loads, and moisture susceptibility of site soils

Rice Dahn-Tham Well Pad, Wayne Township, PA

As project engineer, Mr. Campbell provided geotechnical exploration and initial earthwork recommendations for this well pad site. Project challenges included colluvial soils in relation to slope stability, site location in close proximity to landslide susceptible materials, vehicular traffic loads, and moisture susceptibility of site soils.

Tonkin Cell Site, Doddridge County, WV

As project engineer, Mr. Campbell provided geotechnical exploration and initial foundation recommendations for this 320' tall, 3 leg lattice steel tower. Challenges included structural loadings and uplift relative to the bearing strata.

CONSOL Midstream Green Hills Slide, Morris Township, PA

As project engineer, Mr. Campbell provided geotechnical exploration for landslide repairs of an approximate 300 cubic yard slip along trunk line right of way. Mr. Campbell's responsibilities included supervision of the field exploration program, drilling inspection, logging of boring locations, and initial slide repair recommendations.

Eclipse Resources Posey RUMA, Quaker City, OH

As project engineer, Mr. Campbell provided an evaluation and geotechnical exploration of local roads scheduled for a road use maintenance agreement. Included in the project was an assessment of current conditions, improvement needs, and FDR design recommendations.



EDUCATION

West Virginia Institute of
Technology
BS, Mechanical Engineering
BS, Civil Engineering

PROFESSIONAL EXPERIENCE

26 Years

CERTIFICATIONS

- Certified Monitoring Well Installer (N [REDACTED])

REGISTRATIONS & LICENSES

- Registered Professional Engineer (WV, MD)
[REDACTED]

SKILLS

- Managing Multiple Drill Crews
- Organizing drils, crews, and supplies for drilling projects
- Design of Subsurface Explorations
- Approval of Design Drawings
- Proposals
- Drilling Inspection
- Geotechnical Analysis & Reporting
- Geotechnical Engineering and Drilling Cost Estimating and Bid Preparation

HIGHLIGHTS OF EXPERIENCE

Mr. Haynes serves as the Senior Drilling Manager for Triad's drilling operations where he manages all drilling and sampling activities conducted by the firm's regional offices. Duties include design and implementation of the subsurface investigations, assignment of laboratory testing, approval of design drawings, development of technical specifications, and preparation of drilling and geotechnical engineering cost proposals and reports.

RELEVANT PROJECT EXPERIENCE

Statewide Geotechnical Drilling IDIQ, Various Locations, WV

This project consists of an as-needed, on-call 1 to 2 year contract for providing geotechnical drilling to the West Virginia Division of Highways. Triad has maintained this contract since 1998 and Mr. Haynes has managed the contract since 2012. Recent projects have included water borings (off shore drilling) for the I-64 Nitro, St. Albans, Bridge and borings for several bridge replacements in various locations in Berkeley and Hampshire Counties, WV.

Corridor H Drilling-Kerens to Parsons, Sections 2 and 1B, Tucker & Randolph Counties, WV

The project consists of the geotechnical drilling for a 3.69 mile and 5.62 mile section of a 4 lane Expressway which extends from Interstate 79 near Weston, WV east to the Virginia state line near Wardensville, WV. Mr. Haynes was the project manager for this project which consisted of 166 and 272 Borings for a total drilling footage of 10,616 and 15,757 feet. Steep terrain and strict environmental requirements contributed to obstacle based solutions for these two projects,

Appalachian Corridor "H", Tucker and Grant County, WV

As a Staff Geotechnical Engineer, Mr. Haynes worked closely with the field inspectors during the subsurface investigation phase by helping make decisions concerning boring locations, depths, and subsurface descriptions. He entered boring logs, assigned laboratory testing, and prepared geological stick bar borings to be placed on the project cross sections. Mr. Haynes designed cut and fill slopes, performed slope stability analysis on critical embankment fills, estimated shrink/swell factors for excavated materials, and tabulated probable sources of select embankment. Information was compiled into a final geotechnical roadway report. Bridge reports provided foundation recommendations and bearing capacity computations for each of the bridge abutments and piers.

Coalfields Expressway, Sophia, WV

As a Project Geotechnical Engineer, Mr. Haynes developed a boring layout based on the project cross-sections provided by the client. He worked with field inspectors during the subsurface investigation to design cut and fill slopes, perform settlement calculations for embankment fills, estimate shrink/swell factors for excavated materials, and tabulate probable sources of select embankment. After the original subsurface investigation and geotechnical report was completed, WVDOT decided to extend the project 800 ft. in an attempt to balance borrow and waste. Mr. Haynes then developed a recall boring list in order to continue the project.



EDUCATION

Woodson School of Surveying

PROFESSIONAL EXPERIENCE

40 Years

CERTIFICATIONS

- OSHA Certificate
- CADD Certificate

REGISTRATIONS & LICENSES

- Professional Surveyor – West Virginia [REDACTED]

SKILLS

- FEMA Flood Surveys
- ALTA / NSPS Land Title Surveys
- Boundary
- Subdivision
- Construction Stake Out
- As-Build
- Bridge & Highways
- Industrial

PROFESSIONAL AFFILIATIONS

WV Association of Professional Surveyors

HIGHLIGHTS OF EXPERIENCE

Mr. Graham brings over 40 years of diverse surveying and construction management experience to the Triad team. He is responsible for all survey services provided in our northwest region. Mr. Graham has provided survey services to municipalities, residential, commercial and industrial developments and construction groups. His background includes experience as a Professional Surveyor, Field Engineer, Consultant, Construction Supervision, and Project Management.

RELEVANT PROJECT EXPERIENCE

ALTA / NSPS Land Title Surveys

Surveys performed involved field run surveys to locate boundary, buildings, and all existing features including utilities such as electric, telephone lines, cable, fiber optics, waterlines, sanitary system (including pipe inverts) and storm water systems (including structure inverts, Storm Water Management Ponds, and outfall structure details).

- Mountain State Alta, Beckley, WV
- Jackson Hills / Stonegate Alta, Martinsburg, WV

Boundary and Subdivision Surveys

Duties included direction of field and office staff in the preparation of record research and initial computations, field run surveys, and assessment of field collected information to make final resolution of project boundary and certified plat preparation for recordation.

- Sago Mine Right of Way, Tallmansville, WV
- Falling Waters subdivision, Morgantown, WV

Bridge and Highway Surveys

Mr. Graham managed all phases of survey for over 14 bridges throughout West Virginia for the WVDOH and the U.S. Fish and Wildlife department. Bridge and road projects consisted of single span, multi-span, and walking bridges. Highway rights of ways were determined and field staked as well as stakeout for roadway construction.

- US 522 Bypass, Berkeley Springs, WV
- North River Mills Bridge and road way, Slanesville, WV
- Camp Buckeye Bridge, Alvon, WV
- Swago Creek Bridge, Marlinton, WV
- Little Kanawha Bridge, Charleston, WV
- King Coal Highway, Abingdon, VA

Heavy Industrial Surveys

Mr. Graham managed all phases of survey as chief of field engineers for several heavy industrial projects throughout the United States. Project responsibilities included coordination of multiple survey crews, data computations, quality control and review of data.

- Pumped Storage Project A 6 unit Hydro-Electric Power Plant, Bath County, VA
- Jenkinsville Nuclear Power Plant, Jenkinsville, SC
- Evanston Gas Sweetner Plant, Evanston, WY



EDUCATION

Gemett County Community College
AS, Building Construction Technology

PROFESSIONAL EXPERIENCE

35 Years:

CERTIFICATIONS

WVDOH:

- Aggregate Technician
- Portland Cement Concrete Inspector

APNGA:

- HAZMAT Refresher, Portable Nuclear Gauges

West Virginia:

- Certified Hazardous Materials Manager

NICET:

- Level II Construction Materials Testing: Soil & Concrete
- Level III Geotechnical Laboratory Testing

ASCET:

- Soil, Concrete & Asphalt Technician

SKILLS

- Field & Laboratory Testing & Monitoring
- Geotechnical Engineering and Construction Testing

HIGHLIGHTS OF EXPERIENCE

Mr. Blake has over 32 years of diversified experience performing and providing QA/AC construction monitoring and inspection and materials testing services for Triad Engineering. He has been a technician and supervisor for over 25 years gaining comprehensive project experience in all phases of construction and earthwork including infrastructure, highway, bridge, and building development. Mr. Blake has extensive experience in field work including monitoring and performance of compaction testing, steel inspections, concrete testing and verification of work completion according to plans and specifications. Currently, Mr. Blake leads Triad's regional materials testing laboratory providing testing services and oversight for geotechnical engineering and construction projects involving soils, aggregates, concrete and asphalt.

RELEVANT PROJECT EXPERIENCE

West Virginia Department of Highways (WVDOH), Various Locations

As a former WVDOH Inspector, Mr. Blake has provided construction monitoring and inspections, field materials testing, and/or laboratory testing services for WVDOH projects for over 30 years. As Triad's Laboratory Services Manager, Mr. Blake conducts laboratory testing for QC projects and for the firm's geotechnical engineering services. Some of his recent projects include, but are not limited to:

- Hartman Run Road Bridge, Monongalia County
- Evansville Road, Barbour County
- Kasson Dent Road, Harrison County
- Rt. 250 Mannington, Marion County
- West Farmington Road, Marion County
- River Road Slide, Monongalia County
- Monongalia County / I-79 Welcome Center

West Virginia University, Morgantown, WV

Mr. Blake has provided services for WVU projects for over 30 years. Some of his recent projects include, but are not limited to:

- Mountaineer Field (Construction, Expansion, Upgrades to Field and Facilities)
- Basketball Practice Facility (Construction)
- Downtown Residence Hall (Construction)
- Evansdale Greenhouse (Construction)
- Women's Soccer Practice Facility (Construction)
- Nursery School / Day Care Facility (Construction)
- Brooks and White Halls (Renovations)
- Mountaineer Station (Construction)

West Virginia Statewide Agreement, Districts 1 and 4

Served as Laboratory Manager and Senior Engineering Technician for a statewide contract with the WVDOH, for which we provided construction monitoring, inspections, field and laboratory testing, and data entry on an as-needed, per project basis. Triad was awarded the Department of Highways Engineering Excellence Award in the category of Construction Inspection for the years 2002, 2004 and 2007.



EDUCATION

Marshall University, WV
BS, Environmental Science

PROFESSIONAL EXPERIENCE

15 Years

REGISTRATIONS & LICENSES

- Licensed Remediation Specialist, No. [REDACTED] West Virginia
- Monitoring Well Driller Certification, No. [REDACTED] West Virginia
- OSHA HAZWOPER 40 Hour Training/8 Hour Update (current)
- OSHA 8 Hour Supervisor Certification

SKILLS

- Due Diligence
- CERCLA
- Hazard Ranking System (HRS) Environmental Assessments
- Permitting

HIGHLIGHTS OF EXPERIENCE

Ms. Metz is Triad's Environmental Services Manager and Senior Environmental Scientist. Ms. Metz is responsible for the personnel management of the Environmental Services Group as well as the technical quality and management control of Environmental projects. Additionally, Ms. Metz is a Licensed Remediation Specialist (LRS) and performs a variety of tasks for sites in the West Virginia Voluntary Remediation Program (VRP).

RELEVANT PROJECT EXPERIENCE

Huntington Alloys Corporation, Huntington, WV

As Field Scientist, assisted in performing a metal translator study and water effects ration (WER) 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.

Marshall University, Joan C. Edwards School of Medicine, Huntington, WV

As Project Manager and Environmental Scientist, performed various tasks under the WV VRP. Responsibilities included preparation of the Sampling and Analysis Plan, subsurface soil and groundwater investigations, data analysis, and report preparation. 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.

West Virginia Department of Environmental Protection, Multiple Locations, WV

As Program Manager, responsible for performing various assessment tasks at USEPA Superfund sites in West Virginia. Tasks 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.

West Virginia Department of Environmental Protection, Charleston, WV

As Program Manager, implemented the WVDEP Statewide Hazardous Brownfield Assessment Grant program. Tasks include preparing site assessment work plans, acting as liaison between WVDEP and USEPA, conducting Phase I ESAs, conducting Phase II ESAs, preparing reports, reporting status to WVDEP and USEPA, monitoring budgets, managing field activities, and managing community outreach.

West Virginia Division of Highways, Multiple Locations, WV

As Program Manager and LRS, responsible for field activities and report preparation for WVDOH properties in the LUST, WV VRP, and UECA programs of WVDEP. Site characterization tasks have include subsurface investigations to determine the extent of contamination, multi-media sampling, groundwater monitoring well and recovery well installation. Prepares and/or provides oversight during data evaluation, prepares remedial action work plans and final reports. Responsible for project personnel selection, overall project and technical quality, budget and schedule management.

Matthew Walerysiak, PE, CBSI
Civil Engineering Services Division Manager



Primary Responsibilities:

Staff Management and Project Management for bridge, roadway and NBIS projects

Education:

BS Civil Engineering Technology

Registration

WV [REDACTED]
PA [REDACTED]
VA [REDACTED]

Certified Bridge Safety Inspector

Mr. Walerysiak manages the day-to-day operations of the Roadway, Structure and NBIS Departments. He has 25 years of project management and design experience including analysis and plans preparation for various types of bridge and roadway projects. He has prepared and reviewed all aspects of roadway designs including, but not limited to, traffic control, line and grade studies, erosion and sedimentation control, design field view plans, and PS&E submissions. His bridge design experience includes all aspects from Type, Size & Location Studies, Hydrologic and Hydraulic Studies, and Final Bridge Plans.

Relevant Experience:

SR 1001, Section 013 Plank Road Interchange FD, Blair County – District 9-0
Project Manager: This project involves the reconstruction and rehabilitation of the I-99 / Plank Road Interchange (SR 1001) corridor from Sheraton Drive to the south of the interchange to Orchard Avenue / Goods Lane (SR 4004) Intersection to the north. As part of Final Design, Markosky is responsible for the completion of the Preliminary and Final Right-of-Way Plans including all deed research and property plot development. The Final ROW plan included the development of 42 properties with 10 partial takes. In addition to completing the ROW plans, Markosky is responsible for the drainage design throughout the corridor and sign analysis / caisson design of 3 new sign structures. Markosky is working closely with District 9-0 and Michael Baker, Inc. on the project

SR 0022, Section A05 Bridge Preservation FD, Mifflin County – District 2-0
Project Manager: Markosky assisted McCormick Taylor in completing this project by taking the lead on the Traffic Control Plans and the Erosion and Sedimentation Control Plans. The traffic control is a multi-phase plan including both detours and phased construction to complete the reconstruction of 5 structures and mainline rehabilitation along SR 22.

SR 913, Section 07B Shoups Run Bridge, Huntingdon County – PennDOT District 9-0
Project Manager – Lead Structural Engineer: As a subconsultant to Century Engineering, Markosky is responsible for the preliminary and final design on this bridge replacement project. We are responsible for all roadway and structures design tasks for this bridge, one of three bridges included in the overall contract. The project involves the replacement of a reinforced concrete T-beam bridge with a precast box culvert on existing alignment. The project will be constructed using phased construction.

SR 258, Section 250 Christley Mills #2, Butler County – PennDOT District 10-0
Project Manager: This project involved preliminary and final design for the superstructure replacement on a structure over Wolfe Creek in Slippery Rock Township. The design was completed as a Work Order on an Open End agreement. The prime consultant, Michael Baker Jr., assigned Markosky the lead role on this Work Order, and as such our tasks included all roadway and bridge design tasks required to complete the project. The selected bridge alternative was a 2 span, continuous steel I-beam bridge founded on the existing pier and new integral abutments.

SR 0376, Section A49 Final Design, Allegheny County – PennDOT District 11-0
Project Manager – Utility Coordination, Sign Preservation Plans: As part of Preliminary Engineering, Markosky assisted HDR Engineering, Inc. in completing the preservation inspection and TS&L studies on sign structures, bridge structures and culverts through the project area. As part of Final Design, Markosky is assisting HDR Engineering, Inc. in completing the final TS&L reports and preservation designs / plan preparation of 4 bridges, 5 culverts and 19 sign structures in the SR 376 Parkway West Corridor Preservation. Structure preservation items include, but are not limited to, bearing replacement, barrier modifications, beam repairs, concrete repairs, deck overlays, approach slab replacements, scour protection and miscellaneous sign structure repairs.

SR 0028, Sections A09/A10 Final Design, Allegheny County – PennDOT District 11-0
Project Engineer – Structural Design: Project involves roadway and structures preliminary and final design support to Michael Baker Jr., Inc. (Baker) for a high priority section of SR 0028 in the City of Pittsburgh. Tasks include preparation of a Gap Right of Way Plan and retaining wall design. The project also involves intensive coordination with Baker, PENNDOT District 11-0, and Norfolk Southern. As part of Final Design, Markosky is completing the design of 2 simple spans and a 3-span continuous portion of the 31st Street Bridge, which includes deck design, plate girder design, splice design, bearing design and all other components down to the beam seats as well as coordination and review of the final pier designs. Markosky completed the designs of 4 soldier pile and lagging retaining walls.



**Primary
Responsibilities:**

Project Management for both bridge and roadway design projects.

Education:

MS: Civil Engineering
BS Civil Engineering

Registration

WV
PA
OH
MD

Mr. Anthony has 26 years of experience in the design and construction management of bridge, traffic and other types of structures. He has extensive experience in the design of steel, prestressed concrete and reinforced concrete structures. Responsibilities included department supervision, design oversight, development of scopes of works and proposals, design of structures, supervision of structural detailing, review of designs and drawings, project management, field and shop inspection, client contract and problem resolution, and hard bid estimating of projects.

Relevant Experience:

SR 1038 New Kensington Bridge, Allegheny County – District 11-0

Project Manager / Lead Structural Engineer: Markosky is the Prime Consultant for the preservation of the New Kensington Bridge, a 14 span structure over the Allegheny River in Westmoreland and Allegheny Counties. The bridge features three Pratt truss river spans and multiple steel approach spans of various configurations supported on steel bents. Project is currently in Preliminary Engineering which includes design inspection, development of a preservation Type, Size and Location Report, utility coordination, and public official's coordination. As Project Manager, Mr. Anthony is responsible for all aspects of the project including active participation in the design inspection, development of repair details and costs, coordination with sub consultants, and coordination with PennDOT.

SR 0980, Section 139 (PA 980 Approach to PA 50) Intersection Re-alignment & Pedestrian Bridge, Washington County – PennDOT District 12-0

Project Engineer – Structure Design: Markosky provided preliminary design, final design and construction phase services as the prime consultant for a two-span steel plate girder structure over a new intersection for the Montour Trail. Design tasks included overall supervision of final design, checking of design calculations, check and QA / QC of plans, and development of special provisions. Tasks during construction phase include review of RFIs and construction submissions including shop drawings.

SR 1016-B03 over Blockhouse Run & SR 4002-B01 over Small Run, Beaver County – District 11-0

Project Engineer – Structural Design, QA/QC: Markosky is providing engineering services for the replacement of the SR 1016-B03 bridge over Blockhouse Run in Daugherty Township, Beaver County and SR 4002-B01 bridge over Small Run in Darlington Township, Beaver County. Markosky is the prime consultant for this agreement. Responsibilities include final roadway design, final structure design (SR 1016-B03), constructability review, permitting, utility coordination, drainage design, maintenance & protection of traffic plan, and signing & pavement marking plan.

SR 279 and SR 6279 Fort Duquesne to Camp Horne, Allegheny County – PennDOT District 11-0

Project Manager / Lead Structural Engineer – Structure Oversight, Design Review, Project Schedules, Cost Estimates, Special Provisions: This project consists of the resurfacing and bridge preservation work on SR 279 from the Fort Duquesne Bridge to the Camp Horne Road interchange. The bridge preservation work consists of expansion dam replacements, bearing repairs, steel and concrete repairs, and other associated preservation work as directed. As a subconsultant to JMT, Markosky is completing the inspection and conditions report for the entire roadway pavement including the mainline, the HOV lane and all of the on / off ramps through the project corridor. Markosky is completing the Type, Size and Location reports for the preservation of 50 sign structures within the corridor. Additional work on the sign structures includes structural analysis of 7 structures using the PennDOT SIGN program or STAAD and hand calculations. Final design plans and specifications will be developed for the sign structures. Markosky is responsible for the final design of four structure preservations for overhead bridges and the widening of a single span prestressed concrete mainline structure.



**Primary
Responsibilities:**

Project Manager
responsible for bridge
design and structural
design.

Education:

BS: Civil Engineering

Registration

PA [REDACTED]
OH [REDACTED]

Mr. Molnar has 18 years project experience including project management, design, analysis and plans preparation for various types of bridge projects. Superstructure design experience includes simple span and continuous applications of steel and prestressed concrete superstructures. Substructure design experience includes cast-in-place concrete abutments (Type 1, Type 2 and Integral abutments), wall piers on piles and spread footings. Steel design experience includes composite steel I-beams, composite steel plate girders, and horizontally curved plate girders (using finite-element design). Prestressed concrete design experience includes composite I-beams, composite adjacent box beams, and composite spread box beams. He has designed pre-cast and cast-in-place reinforced concrete box culverts.

Relevant Experience:

SR 4001, Section A10 over Rush Run FD, Fayette County – PennDOT District 12-0
Project Engineer/Lead Structural Engineer: This project consisted of improvements to three structurally deficient bridges in Fayette and Washington Counties. As a sub to CDM Smith, Markosky was responsible for the SR 4001-A10 site over Rush Run in Luzerne Township, Fayette County. Markosky completed the roadway design, Right-of-Way Plan, H&H, Environmental Clearance, permitting and utility coordination at the site along with the final PS&E package entry into ECMS. Mr. Molnar was responsible for the design and plan development of the replacement structure.

SR 0349, Section 007 Tioga Bridge Replacement, Tioga County – PennDOT District 3-0

Project Engineer/Lead Structural Engineer: Markosky provided roadway and structures support services to Dewberry. Markosky was responsible for virtually all roadway and structures tasks, handling this work order independently. Mr. Molnar performed task management with regards to the final structure plans. He was involved in taking the BRADD-generated structure plans and overseeing the creation of a final plan set, as well as review of the final plan set for submission.

SR 0982-X10 over Stony Run Bridge, Westmoreland County – PennDOT District 12-0

Project Engineer/Lead Structural Engineer: This project consists of Preliminary Engineering, Final Design, Right-of-Way Services and Construction Services for Bridge improvements to a structurally deficient bridge on SR 982 over Branch of Stony Run in Westmoreland County. As the Prime consultant, Markosky is completing the precast box culvert and roadway design, H&H, Environmental Clearance, permitting, utility coordination and overall project management at the site along with the final PS&E package entry into ECMS. Mr. Molnar is responsible for task management of the replacement structure design and plan development.

SR 0068, Section 360 Reidsburg Curve, Clarion County – PennDOT District 10-0

Project Manager/Lead Structural Engineer: Markosky was assigned preliminary and final design of a structure to replace an existing concrete T-beam structure carrying SR 68 over Reids Run in Monroe Township, Clarion County. The structure is being replaced with a 84'-0" single span, prestressed concrete bulb-tee superstructure and integral abutments. Markosky is a subconsultant to HDR Engineering, Inc. for this project. Preliminary design included investigation of structure alternates via PennDOT's Pro-Team approach and preparation of TS&L Report. Final design duties included preparation of final structure plans and assistance with the foundation investigation report. As project manager, Mr. Molnar provided all coordination with the prime consultant and he was responsible for the design of the replacement structure.

Westmoreland County Bridge #29 Brewery Bridge PE & FD, Westmoreland County Department of Public Works

Project Manager/Lead Structural Engineer: This project consists of structure repairs to a 3-span Westmoreland County Bridge #29 over Loyalhanna Creek in the City of Latrobe, Westmoreland County. The project includes Preliminary Engineering, Final Design, Right-of-Way acquisition services and Services during Construction. As the Prime Consultant, Markosky is completing the design for the replacement of the superstructure, roadway design, H&H, Environmental Clearance, permitting, and overall project management at the site along with the final PS&E package entry into ECMS. As project manager, Mr. Molnar is responsible for all aspects of the design included active participation in the design of the new superstructure, quality control review of all deliverables, coordination with sub consultants, Westmoreland County Dept. of Public works, PennDOT and other Agencies as needed.



**Primary
Responsibilities:**

Responsible for the completion of structure and roadway tasks including Type, Size and Location Studies, Hydrologic and Hydraulic Reports, Traffic Control Plans, Final Structure Design/Detailing and Roadway Design/Plan Preparation.

Education:

BS: Structural Design and Construction Engineering Technology
AS: Architectural Engineering Technology

Registration

PA [REDACTED]
OH [REDACTED]

Mr. Lankey has 10 years of experience providing plans preparation for various types of bridges and roadway projects. His bridge design experience includes all aspects from Type, Size & Location studies, Hydrologic and Hydraulic studies, and final bridge plans. Roadway design experience includes traffic control, design field view plans, E&SPC plans, and PS&E submissions.

Relevant Experience:

SR 0068, Section 361 Craggs Run No. 3, Clarion County – PennDOT District 10-0 Project Manager / Designer – Hydrologic and Hydraulic Report, E&SPC Plans:

This project includes preliminary engineering for the replacement of the bridge carrying SR 0068, Section 361 over Craggs Run in Clarion County. As a sub-consultant to Michael Baker International, Markosky was responsible for developing the Hydrologic and Hydraulic Analysis, Erosion and Sedimentation Control plan and the waterway permit.

PA 160 Trib Conemaugh River, PA 160 South Wilmore Little Conemaugh 160 Settlemyer Run Culvert, Cambria County, PA – PennDOT District 9-0

Designer – Hydrologic and Hydraulic Report: This project consists of the replacement of three structures carrying SR 0160 over North Branch Little Conemaugh River, Little Conemaugh River and Settlemyer Run in Cambria County. As a sub-consultant to Michael Baker International, Markosky is responsible for developing the H&H report, E&SPC plans, Preliminary Drainage, and Preliminary ROW Activities for all three structures.

SR 0982-X10 over Stony Run Bridge, Westmoreland County – PennDOT District 12-0 (E03813 WO 2)

Designer – Hydrologic and Hydraulic Report

This project consists of Preliminary Engineering, Final Design, Right-of Way Services and Construction Services for Bridge improvements to a structurally deficient bridge on SR 982 over Branch of Stoney Run in Westmoreland County. As the Prime consultant, Markosky is completing the precast box culvert and roadway design, H&H, Environmental Clearance, permitting, utility coordination and overall project management at the site along with the final PS&E package entry into ECMS.

SR 3015, Section 254 Watters Culvert – FD, Butler County – PennDOT District 10-0

Designer – Hydrologic and Hydraulic Report: The project involved final design for the rehabilitation of the existing 132-inch diameter pipe culvert carrying SR 3015 over an UNT to Breakneck Creek in Forward Township, Butler County. The existing culvert rehabilitation consisted of slip-lining the existing 132-inch AC Metal Plate Pipe Culvert with a 108-inch Steel Reinforced Polyethylene Pipe. In addition to the proposed slip-lining of the existing culvert, the existing headwalls and wingwalls will be reconstructed. In order to minimize excavation for the wingwall footings the existing culvert will be extended approximately 10 feet up and down stream.

SR 3015, Section 254 Washington Culvert – FD, Butler County – PennDOT District 10-0

Designer – Hydrologic and Hydraulic Report: Markosky was the prime consultant. The project involved final design for the complete replacement of the existing 96-inch diameter pipe culvert carrying SR 3015 over an UNT to Breakneck Creek in Forward Township, Butler County. The existing culvert is under 10 feet of fill and will be replaced with a pre-cast reinforced box culvert (8' rise x 8' span). This project was constructed using half width construction methods, temporary shoring and temporary traffic signals. As part of this project, the existing horizontal alignment will be maintained with minor modifications to the vertical alignment.

SR 0119, Section 454 Home Railroad Bridge - FD, Indiana County – PennDOT District 10-0

Designer – Hydrologic and Hydraulic Report: Realignment of SR 0119, Section 454 in Rayne Township, Indiana County. Existing single span structures over Pine Run and B&P Railroad was removed and replaced with a single 3-Span Continuous Steel Multi-Girder bridge on a new alignment. The project also included the realignment of McElhoes Road (T-761). Markosky tasks included final H&H report, Traffic Control, E&S and NPDES Permitting, Signing, Pavement Marking and Delineation and Utility Coordination.

ATTACHMENT B

AML Consultant Qualification Questionnaire

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AML CONSULTANT QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME EOI-Richard Mine Drainage Access		DATE (DAY, MONTH, YEAR) October	FEIN 550592364
1. FIRM NAME Triad Engineering, Inc.		2. HOME OFFICE BUSINESS ADDRESS 1097 Chaplin Hill Morgantown, WV 26501	3. FORMER FIRM NAME N/A
4. HOME OFFICE TELEPHONE 304.296.2562	5. ESTABLISHED (YEAR) 1975	6. TYPE OWNERSHIP Corporation	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) NO
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 1097 Chaplin Road, Morgantown, WV 26501 / (304)296-2562 /Bill Ernstes, PLA - Area Manager / 06			
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Brad Reynolds, P.E. - CEO 301.797.6400 Dave Meadows, P.E., P.S., - CTO 304.755.0721 Randy Moulton, P.E., - Chief Engineer 540.667.9300		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS	
9. PERSONNEL BY DISCIPLINE			
18 ADMINISTRATIVE — ARCHITECTS — BIOLOGIST	— ECOLOGISTS — ECONOMISTS — ELECTRICAL ENGINEERS	2 LANDSCAPE ARCHITECTS 1 MECHANICAL ENGINEERS 2 MINING ENGINEERS	1 STRUCTURAL ENGINEERS 8 SURVEYORS 2 TRAFFIC ENGINEERS
12 CADD OPERATORS — CHEMICAL ENGINEERS	8 ENVIRONMENTALISTS 3 ESTIMATORS	— PHOTOGRAMMETRISTS — PLANNERS: URBAN/REGIONAL	— OTHER 18 DRILLERS & HELPERS
11 CIVIL ENGINEERS	9 GEOLOGISTS	1 SANITARY ENGINEERS	8 LABORATORY TECHS.
33 CONSTRUCTION INSPECTORS	— HISTORIANS	18 SOILS ENGINEERS	3 LIC. REMEDIATION SPECS.
2 DESIGNERS — DRAFTSMEN	1 HYDROLOGISTS	2 SPECIFICATION WRITERS	
			172 TOTAL PERSONNELL
<p>TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: 1 Morgantown Triad / 7 Scott Depot Triad /11 Triad Corporate: Senior Engineer in the Morgantown Office (Ben Campbell, PE) will be the primary point of engineering contact for this project. However, he will be in constant supervisory contact with Triad's Scott Depot office (Chief Technical Officer - Dave Meadows, PE, PS along with Geotechnical Manager - Danny Lipscomb, PE</p> <p>*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to Supervise and perform this type of work.</p> <p align="center">*Documentation will is provided which supports Triad's qualifications to supervise and perform this work</p>			
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES X-NO			

11. OUTSIDE KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED TO BE USED. Attach "AML Consultant Qualification Questionnaire".

<p>NAME AND ADDRESS: Markosky Engineering Group, Inc. 3689 Route 711 Ligonier, PA 15658</p>	<p>SPECIALTY: Civil Engineering -- Structural design of bridges</p>	<p>WORKED WITH BEFORE ___ Yes X No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>
<p>NAME AND ADDRESS:</p>	<p>SPECIALTY:</p>	<p>WORKED WITH BEFORE ___ Yes ___ No</p>

12. A. Are your firm's personnel experienced in Abandoned Mine Lands Remediation/Mine Reclamation Engineering?

YES Description and Number of Projects: Triad has provided engineering and related services required for the successful completion of over 400 AML projects since the WVDEP gained primacy of the Program from the Office of Surface Mining. These projects have involved all problem types encountered on abandoned mine lands projects.

NO

B. Are your firm's personnel experienced in Soil Analysis?

YES Description and Number of Projects: Thousands of projects involving soil analysis have been performed since our inception in 1975. Our geotechnical materials testing labs are certified by the WVDOT-DOH / AASHTO

NO

C. Are your firm's personnel experienced in hydrology and hydraulics?

YES Description and Number of Projects: Triad has completed hundreds of projects in the areas of hydrology and hydraulics since our inception. Clients include the U.S. Army Corps of Engineers, WVDEP, and WVDNR.

NO

D. Does your firm produce its own Aerial Photography and Develop 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. Are your firm's personnel experienced in domestic waterline design? (Include any experience in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: Our firm has completed a total of 10 waterline design projects including: Norton Harding Jimtown, Alkol Phase 1 and 2, 14 Mile, 10 Mile, 9 Mile, 6 Mile, Gatlin Coal Waterline Extension, Mason Phase 1 and 2, and Moorefield. Numerous Phase I and Phase II water feasibility studies have also been conducted.

NO

F. Are your firm's personnel experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: Our firm has completed over 11 AMD designs ranging from active to passive treatment. These projects include: Kittle Flats, Childs Highwall and Portals, Martin Creek, Steadman AMD, Wayne Shreve Portals, Pumpkintown, Kingsville, & Mable Waterline Feasibility Study, Left Fork of Little Sandy, Tunnelton Mine Drainage, Brown Street Drainage, Blaser Highwall, Hawkins AMD, and Chief Logan State Park AMD.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Ernstes, William M., P.L.A.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:

Brief Explanation of Responsibilities:
Mr. Ernstes provides professional services in the areas of site inventory and analysis, planning, and permitting. His responsibilities include project management, client project coordination, design production, quality control and quality assurance. Additionally experiences include: land and infrastructure development and design, permitting, utilities, stormwater management and storm drain design / best management practices, and erosion and sediment controls.

EDUCATION (Degree, Year, Specialization)
B.S. / 1994 / Landscape Architecture / West Virginia University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State) P.L.A. / WEST VIRGINIA
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13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) McCoy, Larry L., Jr., P.E. Civil Department Manager/ Senior Engineer	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 3	YEARS OF AML RELATED DESIGN EXPERIENCE: 13	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 4

Brief Explanation of Responsibilities
Mr. McCoy is the responsible engineer for numerous projects including civil site, utilities, roadways, and AML remediation. Mr. McCoy has performed design tasks related to these projects which have included: stream restoration, portal/shaft closure, hydraulic/hydrologic analysis, AMD treatment design, grading, project specifications, project plans, and other related tasks. 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
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13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Campbell, Benjamin G., P.E. Senior Geotechnical Engineer	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities: Mr. Campbell is a registered professional engineer and performs all facets of geotechnical investigations, assessments, and evaluation of exploration results, foundation recommendations, and reporting. Other duties include laboratory testing, field inspections, and special inspections, AMD treatment design and retaining wall design.			
EDUCATION (Degree, Year, Specialization) A.A. /2000 / Potomac State College / Civil Engineering B.S./ 2007 / Fairmont State University / Civil Engineering Technology M.S. / 2009 / Marshall University / Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS ASCE, ASHE, NSPE		REGISTRATION (Type, Year, State) Registered Professional Engineer / 2013 / WV	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Lipscomb, Daniel H., P.E.	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
	0	12	0
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	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN (Furnish complete data but keep to essentials)

NAME & TITLE (Last, First, Middle Int.) Meadows, David F., PE, PS Regional Manager	YEARS OF EXPERIENCE		
	YEARS OF AML DESIGN EXPERIENCE: 5	YEARS OF AML RELATED DESIGN EXPERIENCE: 40	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 20
<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		REGISTRATION (Type, Year, State)	
S.A.M.E., ASCE, United States Society on Dams, WV Association of Land Surveyors		Registered Professional Engineer, 1980, West Virginia Registered Professional Surveyor, 1996, West Virginia	

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 - Military 5 Ton Water Truck
1 - Ford F550 Water Truck
10 - 4WD ¾ Ton Support Trucks
1 - Pontoon Boat
1 - Barge
1 - John Boat
- Portable Drilling 1 - Motorized Cathead/Tripod Unit
- Equipment 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

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

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

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 Receivers

- 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 Receiver
- 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
- Theodolites (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:

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

- 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

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST / (Triad Billing Only)	PERCENT COMPLETE
Alleghany County Teachers Concept Plan Federal Credit Union Romney, WV	Morgan Keller 70 Thomas Johnson Drive Frederick MD	Concept Plan	\$1,000,000	60%
Autism Center Morgantown, WV	Trulargo, LLC 33 Linwood Road Morgantown, WV 26505	Civil Site Plan / Topographic Survey Storm Drainage and Storm Water Management Plan E&S Plan	\$750,000	50%
Steak N Shake Morgantown, WV	Breezebay International, LLC 17 Mirimichi Trail Morgantown, WV 26508	Due diligence phase for proposed restaurant	\$1,250,000	50%
Martinkat Residence Quiet Dell, WV	Christian Martinkat 182 Northwood Drive Fairmont, WV 26554	Site Plan / E&S Plan / Grading Plan	\$1,000,000	50%
Summit Community Bank Granville, WV	Adrenalin Agency 195 New Hampshire Ave Portsmouth, NH	Feasibility Study and Concept Plan / Subsurface Investigation for Due Diligence	\$1,000,000	50%
84 Lumber Store Relocation Morgantown, WV	84 Lumber Company 1019 Route 519 Eighty Four, PA 15330	Geotechnical Drilling & Investigation	\$12,789	0%
WVHTF Fairmont, WV	WVHTF 1000 Galliher Drive, Suite 8400 Fairmont, WV 26554	Site Design for Road Expansion and Improvements Stability Analysis	\$245,000	80%
Henry Property Morgantown, WV	Brian Henry 2519 Fairmont Road, Morgantown, WV 26501	Mixed Use Concept Plan	\$3,000,000	25%

Cornerstone Commerce Park Morgantown, WV	Sora, LLC 276 Walnut Street Morgantown, WV 26505	Construction Plan E&S Plan Waterline Coordination Survey	\$750,000	80%
High & Willey Street Mixed Use Morgantown, WV	SunCap Property Group 6101 Carnegie Blvd Charlotte, NC	Field Exploration, Drilling Laboratory Testing Geotechnical Report	\$10,218	0%
Benton Grove Lot 15 Morgantown, WV	Bruce Lynn Teagarden 149 Locust Avenue Mt. Morris, PA	Geotechnical Exploration	\$8,640	100% on 1 st 2 Phases. 3 rd Phase is pending owner schedule
Phoenix Solutions Retaining Wall Morgantown, WV	Branch Energy, LLC 3748 Dents Run Blvd Morgantown, WV 26501	Geotechnical Exploration & Foundation Recommendations	\$8,349	95%
TOTAL NUMBER OF PROJECTS: 12			TOTAL ESTIMATED CONSTRUCTION COSTS: \$8,034,996	

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Newman Funeral Home Oakland, MD	Subsurface Exploration and Report	O'Connell & Lawrence 17904 Georgia Ave Olney, MD	70% Complete		\$15,535
DTI Longwall Monitoring Greensburg, PA	Gas Line subsistence monitoring	Dominion Transmission, Inc.	On-going		\$86,103
DTI Longwall Monitoring Proctor, WV	Pipeline Subsistence monitoring	Dominion Transmission, Inc.	On-going		\$37,964
Table Rock Tower Oakland, MD	Geotechnical Investigation and Reporting	Sabre Towers an Poles 7101 Southbridge Dr Sioux City, IA	0% Complete		\$7,595
WWTP Star City, WV	QC/QA Geotechnical Engineering / Geological Studies	Morgantown Utility Board 278 Green Bag Road Morgantown, WV 26501	40% Complete		\$60,000
George Ward Elementary School Huttonsville, WV	Site Plan / E&S Plan / Survey for 4000 sq. ft. addition to Elementary School	Randolph County BOE 40 11 th Street Elkins, WV 26241	95% Complete	\$500,000	\$16,000
Beverly Elementary School Beverly, WV	Site Plan / E&S Plan / Survey for 7,300 sq. ft. addition to Elementary School	Randolph County BOE 40 11 th Street Elkins, WV 26241	95% Complete	\$500,000	\$22,550
Harrison County Mine Harrison County, WV	Annual Certifications & Testing	Harrison County Coal Company	On-going		\$51,817

Marion County Mine Mannington, WV	Annual Certifications & Testing		On-going		\$15,776
Monongalia County Coal Company Mine Wana, WV	Annual Certifications & Testing	Monongalia County Coal Company	On-going		\$14,718
Hahn AMD Plant / Arden AMD Plant / Vesta 3 Butt AMD Plant Washington , PA	Quarterly Certifications	CONSOL Mining Co., LLC Consol Drive Southpoint, PA	On-going		\$7,500
Hutchinson AMD Plant Westmoreland County, PA	Quarterly Certifications	CONSOL Mining Co., LLC Consol Drive Southpoint, PA	On-going		\$2,500
Huff Run Dam Ohio County, WV	WVDEP Annual Certification	CONSOL Mining Co., LLC Consol Drive Southpoint, PA	On-going		\$1,500
44 Hollow & Hoglan Run Brooke County, WV	WVDEP Annual Certification	CONSOL Mining Co., LLC Consol Drive Southpoint, PA	On-going		\$3,200
Bailey Mine Refuse Graysville, PA	Annual testing	CONSOL Mining Co., LLC Consol Drive Southpoint, PA	On-going		\$73,386
Proposed Coal Mine Elizabeth, PA	Geotechnical / Drilling / Laboratory	Navigator Environmental & Technical Services	0% completed		\$32,000

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST (Triad's Billing)	YEAR	CONSTRUCTED (YES OR NO)
DTI Blacksville Panel 11 Subsidence Monitoring Green County PA	Dominion Transmission, Inc.	\$59,119	2017	Yes
WVBRIM Miscellaneous Claims / AML West Virginia	WV BRIM	\$43,662	2017	Yes
WVBRIM Miscellaneous Claims / AML West Virginia	WV BRIM	\$2,715	2018	Yes
Bradshaw Site Test Pitting Smithfield, WV	EQT Midstream	\$1,363	2017	Yes
New Meadow Run Health Care Clinic Geotechnical Exploration Farmington, PA	Church Communities PA, Inc.	\$14,405	2017	Yes
Switz 27 Well Pad Geotechnical Exploration Switzerland Township, OH	CNX Gas Company	\$47,652	2017	Yes
Dominion Microwave Tower Buckingham, VA	Dominion Transmission, Inc.	\$14,174	2017	Yes
4 West Bleeder Fan Geotechnical Exploration Ohio County, OH	The Ohio County Coal Company	\$6,218	2017	Yes
Pipeline at Bridge and Tunnel Crossings Geotechnical Exploration Greene, WV	Contura Energy, Inc.	\$15,600	2017	Yes

Pierpont Commercial Development Conceptual Plan Monongalia County, WV	Union Properties, LLC	\$4,465	2017	Yes
Rice Brometheus Well Pad Geotechnical Flushing, OH	Rice Drilling D, LLC	\$9,236	2017	Yes
WV University End Zone Stadium Morgantown, WV	West Virginia University	\$12,972	2017	Yes
EQT H-316 318 Realignment Jefferson/Morgan Township	EQT Midstream	\$60,128	2017	Yes
Miscellaneous Property Surveys Monongalia County, WV	WV Land Trust, Inc.	\$30,000+	2017	Yes
Rice Corsair Well Pad Geotechnical Exploration Waynesburg, PA	Rice Drilling, LLC	\$10,908	2017	Yes
NWV Slide Composite Sampling West Union, WV	EQM Gathering OPCO< LLC	\$6,480	2017	Yes
Cumberland Mine Harbor Road Slide Geotechnical Greene County, PA	Contura Energy, Inc.	\$10,796	2017	Yes
Jeannette McKee Middle School Retaining Wall Jeannette, PA	Jeanette City School District	\$32,371	2017	Yes
1100 Frederick Lane Site Plan Monongalia County, WV	Glenmark Holding, LLC	\$8,750	2017	Yes

Timber Lake Recreation Improvements Venetia, PA	Timber Lake Community Services Association	\$21,500	2017	Yes
Longwall Monitoring TL 590 Glen Easton, WV	Dominion Transmission, Inc.	\$89,505	2017	Yes
Longview Power Shanopin Dock Load Out Facility Monongahela, PA	Longview Power Plant	\$7,542	2017	Yes
Sentinel Complex Refuse Conveyor Barbour County, WV	Wolf Run Mining Company	\$5,046	2017	Yes
Crayne Station Addition QC Testing Waynesburg, PA	Dominion Transmission, Inc.	\$41,075	2018	Yes

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)					
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Sovern Run Bridge Preston County, WV	WV DOH	\$8,522	2017	Yes	RK&K
Fort Martin Unit 1 Cooling Tower Repairs Maidsville, WV	First Energy	\$142,917	2017	Yes	Pullman Power, LLC
Purdy Run Quarry Rock Corring White Hall, WV	Tall Grass Management Corporation	\$5,868	2017	Yes	Purdy Run Aggregates
Westridge Phase 4 Package 2A Granville, WV	Westridge	\$4,380	2017	Yes	Thrasher Engineering
Tunnel Ridge Mine Shaft Geotechnical Investigation Valley Grove, WV		\$4,800	2017	Yes	Beitzel Corporation
WVU Stadium Quads Morgantown, WV	WV University	\$1,500	2017	Yes	March Westin
H-152 TP-7575 Relocation Subsurface Exploration Bridgeville, PA	Equitrans, LP	\$26,113	2017	Yes	HDD
East Side Development T Hangar Morgantown, WV	Morgantown Municipal Airport	\$27,899	2017	Yes	Michael Baker Internationl, Inc.
Scotch Hill WVDEP 17 105 Newburg, WV	WV DEP	\$60,128	2017	Yes	Howard Concrete Pumping

Morgantown City Paving Morgantown, WV	City of Morgantown Spruce Street Morgantown, WV	\$2,933	2017	Yes	Anderson Excavating, LLC
Mudlick Run Bridge Testing & Inspection Hardy County, WV	WV DOH	\$7,648	2017	Yes	Orders Construction
Axiall Brine No 14 Testing & Inspection Proctor, WV		\$3,565	2017	Yes	Beitzel Corporation
1-68 Overpass Expansion Joint Replacement Testing & Inspection Morgantown, WV	WV DOH	\$1,860	2017	Yes	Orders Construction
Mt. Storm Fly Ash Testing & Inspection Mt. Storm, WV	Electrical Power	\$22,939	2017	Yes	Trans Ash, Inc.
Rocky Gap WWTP Testing & Inspection Rocky Gap, MD	Rocky Gap PSD	\$6,766	2017	Yes	Carl Belt, Inc.
Western Conveyance Pump Station Testing & Inspection McHenry, MD	MD PSD	\$10,805	2017	Yes	Beitzel Corporation
River Road / Dupont Ave Testing & Inspection Morgantown, WV	WV DOH	\$7,229	2017	Yes	Alan Stone Company
Waynesburg Waterline	Waynesburg PSD	\$16,511	2017	Yes	Kukurin Construction
Herods Run AMD / AML Mapping, Geotech Upshur County, WV	WV DEP	\$13,040	2016	Yes	Skelly & Loy

Donnie Thorn Highwall / AML	WV DEP	\$44,785	2015	Yes	Eastern Arrow Corp, Inc.
Hawkinberry Hollow Piezometer Abandonment / AML Fairmont, WV	WV DEP	\$4,056	2013	Yes	JL Pretzel Contracting
Lilbern Pritt Highwall Redrill Barbour County, WV	WV DEP	\$6,455	2013	Yes	Terradon Corporation
Pepper Portals & Drainage / AML Barbour County, WV	WV DEP	\$6,974	2013	Yes	Hatch Mott MacDonald

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.

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 and mining engineers, environmental scientists, geologists, hydrologists, chemists, 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 over 172 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.

TRIAD has successfully performed thousands of projects utilizing its professional expertise. TRIAD employees pride themselves on their ability to provide the firm's clients with top-quality work that is on schedule and within budget. Our company is small enough to be responsive to the needs of our customers and large enough to remain at the forefront of scientific solutions.

We are extremely proud of our performance under past contracts, including those we have held with the WVDEP. As of this date, more than 400 AML&R 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: Area Manager

Date: October 9, 2018

Printed Name: William M. Ernstes

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AML CONSULTANT QUALIFICATION QUESTIONNAIRE

Attachment "B"

PROJECT NAME Richard Mine Drainage Access		DATE (DAY, MONTH, YEAR) 10-2-18	FEIN 25-1844227
1. FIRM NAME The Markosky Engineering Group, Inc.		2. HOME OFFICE BUSINESS ADDRESS 3689 Route 711 Ligonier, PA 15658	3. FORMER FIRM NAME
4. HOME OFFICE TELEPHONE (724)238-4138	5. ESTABLISHED (YEAR) 1999	6. TYPE OWNERSHIP Individual <u>Corporation</u> Partnership Joint-Venture	6a. WV REGISTERED DBE (Disadvantaged Business Enterprise) <u>YES</u> NO
7. PRIMARY AML DESIGN OFFICE: ADDRESS/ TELEPHONE/ PERSON IN CHARGE/ NO. AML DESIGN PERSONNEL EACH OFFICE 3689 Route 711 Ligonier, PA / 724-238-4138 / Joyce V. Markosky / 0			
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS OF FIRM Joyce V. Markosky, PE Mark A. Markosky, PE		8a. NAME, TITLE, & TELEPHONE NUMBER - OTHER PRINCIPALS	
9. PERSONNEL BY DISCIPLINE			
9 ADMINISTRATIVE			
— ARCHITECTS	— ECOLOGISTS	— LANDSCAPE ARCHITECTS	4 STRUCTURAL ENGINEERS
— BIOLOGIST	— ECONOMISTS	— MECHANICAL ENGINEERS	— SURVEYORS
— CADD OPERATORS	— ELECTRICAL ENGINEERS	— MINING ENGINEERS	2 TRAFFIC ENGINEERS
— CHEMICAL ENGINEERS	14 ENVIRONMENTALISTS	— PHOTOGRAMMETRISTS	11 OTHER
8 CIVIL ENGINEERS	— ESTIMATORS	— PLANNERS: URBAN/REGIONAL	
5 CONSTRUCTION INSPECTORS	— GEOLOGISTS	— SANITARY ENGINEERS	
9 DESIGNERS	3 HISTORIANS	— SOILS ENGINEERS	
— DRAFTSMEN	— HYDROLOGISTS	— SPECIFICATION WRITERS	65 TOTAL PERSONNEL
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: <u>6</u>			
*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.			
10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES <input type="radio"/> NO <input checked="" type="radio"/>			

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

YES Description and Number of Projects: _____

NO

B. Is your firm experienced in Soil Analysis?

YES Description and Number of Projects: _____

NO

C. Is your firm experienced in hydrology and hydraulics?

YES Description and Number of Projects: Markosky has completed over 100 Hydrologic and Hydraulic Studies on bridge replacement and preservation projects. We are familiar with all methods of computations and computer software including HY-8, HEC-RAS, StreamStats, regression equations, etc. used in developing the H&H reports.

NO

D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?

YES Description and Number of Projects: _____

NO

E. Is your firm experienced in domestic waterline design? (Include any experience your firm has in evaluation of aquifer degradation as a result of mining.)

YES Description and Number of Projects: _____

NO

F. Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

YES Description and Number of Projects: _____

NO

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

Structure Modeling: OpenBridge Modeler

Steel Girders: AASHTOWare BrR, LEAP Bridge Steel and / or PennDOT STLRFD for preliminary design only.

Prestressed Concrete Beams: LEAP Bridge Concrete and / or PennDOT PSLRFD for preliminary design only

Abutment Design: LEAP Bridge Concrete and / or ABLRFD for preliminary design only

General Structural Analysis: STAAD, L-Pile, COM624

Drainage / Stormwater Design: Hydraflow, HydroCAD, VTPSUHM

CADD Software: MicroStation & AutoCAD

Hydrologic and Hydraulic: GeoHEC-RAS, HEC-RAS, HY-8, PSU-IV, StreamStats, PeakFQ, EFH-2, WinTR-55, WMS

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

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
E04271 D10 SR 28 Coder Bridge #2	PennDOT District 10-0 2550 Oakland Avenue P.O. Box 429 Indiana, PA 15701	Bridge Replacement	\$1.4M	10%
E03626 Home#3 and Pollock Bridge Replacement	PennDOT District 10-0 2550 Oakland Avenue PO Box 429 Indiana, PA 15701	Bridge Replacement	\$1.2M	98%
L00141 WCB #29 Brewery Bridge	Westmoreland County DPW 194 Donohoe Road Greensburg, PA 15601	Bridge Replacement	\$1.5M (est)	40%
E03813 D12 Bridge Groups 2017	PennDOT District 12-0 825 N. Gallatin Ave Ext Uniontown, PA 15401	Bridge Replacement	\$1.6M	45%
TOTAL NUMBER OF PROJECTS:			TOTAL ESTIMATED CONSTRUCTION COSTS: \$	

16. CURRENT ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUB-CONSULTANT TO OTHERS

PROJECT NAME, TYPE AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
Public Private Partnership (P3) Rapid Bridge Replacement Engineering Support	Bridge Replacement	Walsh/Granit JV 929 W. Adams St Chicago, IL 60607	2020	\$32M	\$3,682,183 (Engineering)
PAAC 13-01-A North Braddock Avenue	Bridge Replacement	Port Authority of Allegheny County 345 Sixth Avenue Pittsburgh, PA 15222	2019	\$1.8M	\$548,196 (Engineering)
E03768 District 12-0 2018 Bridge Replacement - CDM	Bridge Replacement	PennDOT District 9-0 1620 Juniata Street Hollidaysburg, PA 16648	2019	\$800K	\$280,697 (Engineering)
E02196 Liberty Bridge Ramps - Blvd. of the Allies Rehab	Bridge Replacement	PennDOT District 11-0 45 Thoms Run Road Bridgeville, PA 15017			\$229,593 (Engineering)
E03963 D9 SR 0160 Bridge Replacement - Baker	Bridge Replacement	PennDOT District 9-0 1620 Juniata Street Hollidaysburg, PA 16648	2021	\$4.5M	\$151,419 (Engineering)
E03770 District 12-0 2018 Bridge Replacement - TPD	Bridge Replacement	PennDOT District 12-0 825 N. Gallatin Avenue Extension Uniontown, PA 15401			\$125,570 (Engineering)

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
E02895 Blockhouse Run & Small Run	PennDOT District 11-0 45 Thoms Run Road Bridgeville, PA 15017	\$1.6M	2017	YES
E02869 SR 3015 Group Bridge Replacement	PennDOT District 10-0 2550 Oakland Avenue P.O. Box 429 Indiana, PA 15701	\$2.6M	2018	YES
ECMS 31681 - Beatty County Road D/B	PennDOT District 12-0 PO Box 459 825 N. Gallatin Avenue Extension Uniontown, PA 15401	\$670K	2014	YES

18. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Public Private Partnership (P3) Rapid Bridge Replacement Engineering Support	Walsh/Granite JV 929 W. Adams Street Chicago, IL 60607	\$32M (Construction) \$3,682,183 (Engineering)	2020	YES	HDR Engineering, 11 Stanwix Street Suite 800 Pittsburgh, PA 15222
E03770 District 12-0 2018 Bridge Replacement - TPD	PennDOT District 12-0 PO Box 459 825 N. Gallatin Avenue Extension Uniontown, PA 15401	\$125,570 (Engineering)	2018	NO	Traffic Planning and Design, Inc. 2500 East High Street, Suite 650 Pottstown, PA 19464
PAAC 13-01-B Engineering/Inspection on Open End Neville Ramp	Port Authority of Allegheny County 345 Sixth Avenue Pittsburgh, PA 15222	\$5.9 M (Construction) \$121,680 (Engineering)	2015	YES	Mackin Engineering Company 117 Industry Drive Pittsburgh, PA 15275
E03282 SR 0038 North of Oneida Bridge	PennDOT District 10-0 2550 Oakland Avenue P.O. Box 429 Indiana, PA 15701	\$2.2M (Construction) \$85,546 (Engineering)	2018	YES	Rettew Associates, Inc. 3020 Columbia Avenue Lancaster, PA 17603
E02689 Trout Run SR 0879-A10 Superstructure Replacement	PennDOT District 2-0 70 PennDOT Drive Clearfield, PA 16830	\$3.5M (Construction) \$56,142 (Engineering)	2017	YES	AECOM Four Gateway Center 20th Floor Pittsburgh, PA 15222
E02884 Henry Mancini Bridge	PennDOT District 11-0 45 Thoms Run Road Bridgeville, PA 15017	\$52,707 (Engineering)	2016	YES	SP&K Engineering, Inc. 126 Kaider Road Uniontown, PA 15401

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Abandoned Mine Lands Program.

20. The foregoing is a statement of facts.

Signature: Matthew Walerysiak, PE

Title: CIVIL ENG. DIVISION MNG

Date: OCTOBER 2, 2018

Printed Name: MATTHEW WALERYSIK, PE

ATTACHMENT C

AML Related Project Experience Matrix

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Exp. Basis (C=Corp. P=Personnel)	Additional Info Provided In Section (s) **	PROJECT EXPERIENCE REQUIREMENTS														PARTICIPATION/CAPACITY *** M=Management			
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation/Mitigation	Hazardous Waste Disposal	Project Specifications	Water Quality Evaluation/Mitigation/Rc placement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Benjamin Campbell, PE	David Graham, PS	William Ernest, PLA
WVBRIM Heston Claim	C							X									P			
WV BRIM Cheripko Claim	C							X									P			
Crooked Run Emergency	C																P			
Herods Run AMD	C		X														P	P/M		
Albert Highwall 1	C											X					P/M	p		
Donnie Thom Highwall	C		X										X					P/M		
WV High Technolog Park	C			X		X		X		X					X			P	P/M	
Scotch Hill Mine Fire	C		X																	P/M
McCoole Subsidence	C		X																	P/M
Deepgreen Pneumatic Piezometer Installation	C		X																	P/M
I-68 Overpass Expansion Joint Replacement	C													X						P/M
Mudlick Run Bridge	C													X						P/M
Sovern Run Bridge	C													X						P/M

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

AML and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Exp. Basis C=Corp. P=Personnel	Additional Info Provided in Section (s)	PROJECT EXPERIENCE REQUIREMENTS													PRIMARY STAFF PARTICIPATION/CAPACITY *** M=Management P=Professional				
			Abandoned Surface Mine Reclamation	Abandoned Deep Mine Reclamation	Portal/Shaft Closure	Hydrologic/Hydraulic Design/Eval.	Remining Evaluation	Mine/Refuse Fire Abatement	Subsidence Investigation/Mitigation	Hazardous Waste Disposal	Project Remediation	Water Quality Evaluation/Mitigation/Re- placement	Construction Inspection/Management	Water Treatment	Equipment/Structure Removal	Stream Restoration	Geotechnical/Stability	Matthew Walerysiak, PE	Thomas Anthony, PE	Peter Mohler, PE
E003826 Home #3 and Pollock Bridge Replacement	C					X											Q	M	P	P
LD0141 WCB #29 Brewery Bridge	C					X											Q	M	P	P
E03813 D12 Bridge Groups 2017	P					X												M	P	P
P3 Rapid Bridge Replacement	C					X											Q	M	P	P
PAAC 13-01-A North Braddock Avenue	P					X											Q	M	P	P
E02869 SR 3015 Group Bridge Replacement	C					X											Q	M	P	P
ECMS 31681 - Beatty County Road D/B	C					X											M		P	P
E03282 SR 0038 North of Oneida Bridge	C					X											M		P	P
E03768 Distict 12-0 2018 Bridge Replacement - CDM	C					X											Q	M	P	P

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

ATTACHMENT D

Past Project Experience

YEAR COMPLETED:
1975 to present

PROJECT TYPE:
Highways and
Roadways

TRIAD SERVICES:

- Geotechnical Engineering
- Subsurface Drilling and Sampling
- Materials Testing
- Surveying
- Environmental Services
- Construction Inspection

TRIAD CUSTOMERS:
Various

OVERVIEW

Triad has been involved in numerous bridge and roadway projects across the state of West Virginia since its inception in 1975. As a result of over 43 years of experience Triad holds / has held / shares Master Services Agreements / On-Call Consultant Contracts to provide these services across the State of West Virginia for the WVDOH / DOT.

- Geotechnical Drilling Services – Since 1998
- Surveying & Mapping – Intermittent since 1999
- Environmental Assessment & Remediation – Since 1999
- Asbestos Inspection – Since 2002
- Construction Monitoring & Inspection – Intermittent since 1999

Current (2018) DOH state-wide contracts include:

- Construction Inspection:
 - District Specific IDIQs for Resurfacing, Small Structures, and Slide Repair - Districts 1 and 4
- Construction Material Testing:
 - District Specific IDIQ - Districts 1, 4, and 8
- Drilling:
 - Statewide Geotechnical Drilling
- Asbestos
 - Statewide Asbestos Inspection
- Environmental Assessment and Remediation
 - Statewide Environmental Assessment and Remediation

Following is a sampling of projects for which Triad has provided services:

Hartman Run Bridge Replacement, Monongalia County, WV

As a subcontractor, Triad provided geotechnical engineering evaluations and surveying services in support of the demolition and re-design and construction of the Hartman Run Road Bridge which connects the City of Morgantown with State Route 7 via Richwood and Sabraton Avenues. Triad's engineers prepared subsurface investigation plans, assisted and supervised the collection of field data, assigned laboratory testing for soil and rock materials, provided foundation and cut and fill slope recommendations, performed settlement and slope stability analyses, and prepared subsurface investigation reports for the approximate 372 foot span.

Appalachian Corridor H, Kerens to Parsons, WV

The project consisted of geotechnical drilling for the preliminary design (30%) of a 5.62 mile section of the Appalachian Corridor H highway. Included were 272 borings consisting of 13,647 linear feet of roadway borings and 2,110 lf of structure borings, for a total drilling footage of 15,757 lf.

The project was in steep terrain and in an environmentally sensitive area with the majority of the alignment extending through the Monongahela National Forest. Protection of identified endangered plant species and native Brook trout was a focus of concern. Care was taken to minimize disturbance, tree cutting, and to avoid stream impacts. Erosion and sediment control measure were installed to minimize sediment laden water from leaving disturbed areas including access roads and drilling sites.

Triad services included subsurface drilling and sampling including both soil and rock coring. Triad was responsible for installing erosion and sediment control measures as well as full reclamation of drill sites, access roads, and disturbed areas upon completion. Erosion and Sediment Control Plans for the project were submitted. Work was completed with the agreed upon time frames and project budget.

Raleigh Street Extension, Berkeley County, WV

This was a multi-phase WV DOT project in which Triad worked as a subcontractor. The project was conducted in order to extend the existing Raleigh Street 1.2 miles northward to intersect with State Route 9 and US 11 in the Opequon District. Included in the scope were the Forbes and Tavern Road connectors. Triad prepared subsurface investigation plans, assisted and supervised in collection of field data, assigned laboratory testing for soil and rock materials, performed settlement analysis, provided foundation recommendations for six bridges, provided cut and fill slope recommendations, performed slope stability analysis, and prepared subsurface investigation reports applicable to the karst terrain. The analysis included analyzing the behavior of piles subjected to lateral loads and performing pile drivability studies. Because the construction of the abutments for four bridges were being developed over railroads and creeks along the site, Triad provided the design of box culverts to convey water from the floodways located near the roadway connectors.

- **Bridge #1:** Extends from Station 615+07.53 to Station 616+92.77
A 181 foot single-span structure supported by skew abutments carries the street extension over the Winchester and Western Rail line.
- **Bridge #2 & 3:** Extends from Station 622+06.95 to Station 627+25.96
Carries the street extension over Tuscarora Creek, Oatesdale Park, and the CSX Railroad tracks. The three-span structure is supported by two piers and two abutments, which have been supported by piles behind MSE walls / wing walls.
- **Bridge #4:** Extends from Station 639+79.59 to Station 641+62.59
Located in the central portion of the Raleigh Street alignment carries the street extension over the Winchester and Western Railroad tracks. The 180 foot, single span structure is supported by abutments supported by cast-in-place concrete wing walls.

- **Bridge #5:** Extends from Station 41+37.20 to Station 43+43.03
Carries the street extension over the CSX Railroad tracks and is part of the new Tavern Road Connector. The 200 foot, single-span structure is supported at each end with abutments with cast-in-place wing walls, which provide grade transitions. This portion of the project involved the relocation of the Oatsdale Park access roadway, which was needed for the northern abutment foundation.
- **Bridge #6:** Extends from Station 651+17.96 to Station 652+73.59
Carries Raleigh Street over Dry Run Creek. The single-span bridge is 179 feet and supported by integral abutments with cast-in-place wing walls at each end. The abutments are located just outside the defined floodway within the delineated 100-year flood plain.

Little Sandy Bridge Design Build, Frame, WV

Triad provided geotechnical engineering services for this design-build bridge replacement project. The original bridge was damaged by a severe flooding event in June, 2016. Services provided by Triad consisted of the following:

- Designed of boring program including locations and depths of roadway approach and structure borings
- Inspected drilling activity and logged boring samples
- Performed laboratory testing to characterize soils and determine engineering properties
- Provided recommendations for the design of bridge foundations, including foundation types and estimated depths, allowable bearing pressures or loads, and other necessary geotechnical design information
- Provided recommendations for boring logs and foundation for use in designing bridge substructure and roadway earthwork
- Performed topographic survey for use in generating existing conditions map
- Performed QC testing during construction consisting of aggregate sampling and testing, compaction testing during backfill and embankment construction, and concrete testing during concrete placement

All work for each project was performed in accordance with generally accepted geotechnical engineering practice and applicable West Virginia Department of Transportation / Division of Highways Design Directives.



NORTH BRADDOCK AVENUE BRIDGE

CITY OF PITTSBURGH
ALLEGHENY COUNTY, PA



Project Profile

Services Provided:

Development of
Structure and Roadway
Plans
Traffic Control Plans
Utility Coordination
Technical Provisions

Client References:

Mr. Greg O'Hare
Port Authority of
Allegheny County
345 Sixth Avenue
Pittsburgh, PA 15222
(412)706-0405

Key members of Markosky's staff:

Tom Anthony, P.E. —
Project Manager
Bryan Vogelsang, PE —
Lead Roadway Engineer

Completion Date:

Construction Cost: \$2.7
Million

This project was a superstructure replacement of the Port Authority of Allegheny County East Busway over North Braddock Avenue Bridge. Markosky completed a Preliminary Design study to investigate the cost of using Accelerated Bridge Construction (ABC) techniques for this location and the Port Authority authorized the use of these techniques.

Final Design used modular construction with a single span rolled steel beam superstructure with precast concrete deck units and ultra-high performance concrete closure pours. The structure will be built using phased construction to maintain bus traffic. Other tasks included development of all structure and roadway plans, coordination of traffic control plans, utility coordination and development of technical provisions. This bridge is scheduled for construction in 2019.

**SR 980, SECTION 139 (980 APPROACH TO PA 50)
INTERSECTION RE-ALIGNMENT & PEDESTRIAN BR**

CECIL TOWNSHIP, PA



WASHINGTON COUNTY, PA

The SR 0980, Section 139 project is located in Cecil Township, Washington County. The project scope included re-aligning the PA 980 northbound approach to PA 50 to make a 'plus' intersection with the existing PA 980 southbound approach to PA 50 providing a safer and more efficient operation. The project also included the design of a three-span pedestrian bridge that carries the Montour Trail over both PA 980 and PA 50. As the prime consultant, Markosky was responsible for overall project management, roadway design, traffic analysis and design, structure design, public involvement, utility coordination, H&H studies, E&S design, and permitting. **This project was featured in the 2017 Fall Edition of the American Society of Highway Engineers Scanner.**

As part of our consultant After Action Report and Consultant Evaluation, the following statements were provided by Mr. Sisul:

A quote from our PennDOT District 12-0 Project Manager:

"Rachel, Thanks to the hard work of the District Support Units in Design/Maintenance and Markosky Engineering (Jon Balko-PM) we were able to advertise the SR0980-139 (SR0980 Approach to PA50) Project today and advance the let date 4 months. This project is the re-alignment of the southern leg of S.R. 0980 with the existing S.R. 0980/S.R.0050 intersection and replacement of the Montour Trail Bridge located in Cecil Township, Washington County."

Project Profile

Services Provided:

Roadway Design
Traffic Analysis & Design
Structure Design
Utility Coordination
H&H Studies
E&S Design and
Permitting

Client References:

Mr. James Sisul
PennDOT District 12-0
825 N. Gallatin Ave Ext.
Uniontown, PA 15401

**Key members of
Markosky's staff:**

Jon Balko, P.E. – Project
Manager
Tom Anthony, P.E. – Lead
Bridge Engineer
Brian Watkins, PE – Lead
Roadway Engineer

Completion Date: Fall
2015

Construction Cost: \$2.4
Million

PENNSYLVANIA STATEWIDE RAPID BRIDGE REPLACEMENT PROJECT



VARIOUS COUNTIES – VARIOUS DISTRICTS

As a Design Squad on the RBRP, Markosky performed civil engineering services on **26 project sites** throughout Pennsylvania. Engineering services included bridge design, roadway design, traffic control, right-of-way plan development, environmental studies and construction consultation support services for all **26 sites**. Structure types included single span prestressed concrete spread / adjacent box beam bridges, a multi-span prestressed concrete spread box beam bridge and several folded steel plate girder modular bridges which is used for Accelerated Bridge Construction (ABC). The substructure designs included both integral and reinforced concrete cantilever abutment types. In addition, we completed 1 precast box culvert at one of our project sites.

In addition to our roadway / structure design, Markosky performed overall project management of the design components including review of all submissions, checking of design calculations and plan submissions, coordination with the prime consultant and support consultants (i.e. geotechnical and hydraulic engineers), interdisciplinary reviews, and active participation in bridge design management. Additionally, Markosky completed over **60 Right-of-Way plans** and performed over **225 Automated Permit Routing and Analysis System (APRAS) Ratings**. We also assisted in finalizing over **200 Chapter 105** permit packages including E&S plans, PCSM plans, and H&H reports.

Project Profile

Services Provided:

Project Management
Interdisciplinary Reviews
Bridge Design Mgmt.
Right of Way plans
Permit Package including
(E&S, PCSM and H&H reports)

Client References:

Mr. Robert J. Allen, PE
(914) 789-3215

Key members of Markosky's staff:

Brian Watkins, P.E. –
Project Manager
Tom Anthony, PE – Lead
Bridge Engineer
Jon Balko, P.E. – Traffic
Control
Bryan Vogelsang, PE –
Environmental
Matthew Walerysiak, PE –
Roadway

Completion Date:

Construction Cost: \$34
Million

ATTACHMENT E

Signed Forms

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Name, Title) William Ernstes, LPA, Regional Manager

(Printed Name and Title) William M. Ernstes, PLA, Regional Manager


(Address) 1097 Chaplin Road, Morgantown, WV 26501

(Phone Number) / (Fax Number) 304-296-2562 / 304-296-8739

(email address) wernstes@triadeng.com

CERTIFICATION AND SIGNATITRL': By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated 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.

(Company) Triad Engineering, Inc.

(Authorized Signature) (Representative Name, Title)  Regional Manager

(Printed Name and Title of Authorized Representative) William M. Ernstes, PLA, Regional Manager

(Date) 10/9/2018

(Phone Number) (Fax Number) 304-296-2562 / 304-296-8739

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: Triad Engineering Address: 10541 Teays Valley Road
Scott Depot, WV

Name of Authorized Agent: Dave F. Meadows, PE Address: 25560

Contract Number: DEP1900000003 Contract Description: E01-Lake (Bell) Portals

Governmental agency awarding contract: WV DEP

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract

Check here if none, otherwise list entity/individual names below.

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)

Check here if none, otherwise list entity/individual names below.

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

Check here if none, otherwise list entity/individual names below.

Signature: [Handwritten Signature]

Date Signed: 9/11/18

Notary Verification

State of WEST VIRGINIA, County of PUTNAM:

I, DAVID F. MEADOWS, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 11TH day of SEPTEMBER, 2018

Pamela E. Dosier
Notary Public's Signature
Official Seal
Notary Public, State of West Virginia
Pamela E. Dosier
105 Valley Bend
Scott Depot, WV 25560
My Commission Expires March 10, 2019

To be completed by State Agency:

Date Received by State Agency: _____

Date submitted to Ethics Commission: _____

Governmental agency submitting Disclosure: _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: 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: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, 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: Dave F. Meadows, PE, PS

Authorized Signature: [Signature] Date: 9/11/18

State of WEST VIRGINIA

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 11th day of September, 2018

My Commission expires March 10, 2019.

NOTARY PUBLIC Pamela E. Doster

Purchasing Affidavit (Revised 01/19/2018)

