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Header 1

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Procurement Folder: 929712

SO Doc Code: CEOI

Procurement Type: Central Purchase Order

SO Dept: 0603

Vendor ID: 000000160372

SO Doc ID: ADJ2200000004

Legal Name: GAI CONSULTANTS INC

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Close Date: 9/9/21

Total Bid: \$0.00

Close Time: 13:30

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Response Time: 12:43

Solicitation Description: Transfer Switch Gear Design
Camp Dawson

Responded By User ID: GAIConsultants

Total of Header Attachments: 1

Total of All Attachments: 1

First Name: Charles

Last Name: Straley

Email: c.straley@gaiconsultants

Phone: 681-245-8866



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

**State of West Virginia
 Solicitation Response**

Proc Folder: 929712
Solicitation Description: Transfer Switch Gear Design Camp Dawson
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2021-09-09 13:30	SR 0603 ESR09092100000001724	1

VENDOR
 000000160372
 GAI CONSULTANTS INC

Solicitation Number: CEOI 0603 ADJ2200000004
Total Bid: 0
Response Date: 2021-09-09
Response Time: 12:43:35
Comments:

FOR INFORMATION CONTACT THE BUYER

Tara Lyle
 (304) 558-2544
 tara.l.lyle@wv.gov

Vendor Signature X **FEIN#** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Transfer Switch Gear Design Camp Dawson				0.00

Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments:

Extended Description:

Provide professional architectural and engineering design services per the attached documentation.



Charleston Office
500 Lee Street East, Suite 700
Charleston, West Virginia 25301
T. 304.926.8100
F. 304.826.8180

September 9, 2021

Ms. Tara Lyle
State of West Virginia
Department of Administration,
Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305

Expression of Interest
West Virginia Army National Guard
Camp Dawson Transfer Switch Gear Design
Solicitation Number: CEOI 0603 ADJ2200000004

GAI Project #R210707.00

Dear Ms. Lyle:

GAI Consultants, Inc. (GAI) welcomes the opportunity to provide our Expression of Interest (EOI) to the State of West Virginia to provide Engineering Services for the West Virginia Army National Guard's (WVARNG's) Camp Dawson Transfer Switch Gear Design Project (Project), per the State's Solicitation No. CEOI 0603 ADJ2200000004. Our EOI concisely addresses the issues indicated in the State's Centralized Expression of Interest (CEOI) issued August 26, 2021. We understand the importance of this Project to the State and have assembled a proven Project Team with strong capabilities in successfully completing electrical design services and construction documents. GAI believes our Team is exceptionally qualified to meet the needs of this Project based on the following considerations:

- **Expertise in Electrical Engineering and Construction Support.** Our project experience ranges from small renovation projects to conceptual designs to the design and start up of major sub stations and industrial plants. GAI is experienced in the design and implementation of many techniques that can be applied to this Project, including 3D modeling in Revit and specialty techniques like SKM power studies, and DiaLux lighting models. The GAI team also has experience in the design of various types of transfer switch gear solutions.
- **Key Personnel.** GAI's proposed **Project Manager, Craig Adams, PE**, is a licensed Professional Engineer (PE) in West Virginia with 39 years of experience specializing in project management and electrical engineering services for numerous similar projects and many projects throughout West Virginia. **GAI's top performers** specializing in Electrical, Mechanical, Structural, and Geotechnical Engineering will be provided to the WVARNG for this important Project.
- **Local Presence.** GAI has two offices located within the State of West Virginia, including Bridgeport and Charleston. GAI's Bridgeport Office is within an hour's drive from the Project. We are familiar with the region and have a thorough understanding of the regulatory approval process.
- GAI is **safety focused and schedule driven** with sufficient and flexible resources and staff to effectively provide the personnel for this Project.
- GAI understands the importance of this Project and we are dedicated to making this Project a **top priority**.

We look forward to the opportunity to work with the State of West Virginia and the WVARNG on this important Project. Should you have any questions or would like to speak with us about our EOI or services, please feel free to contact Project Manager, Craig Adams, at 412.399.5068 or via email at c.adams@gaiconsultants.com.

Sincerely,
GAI Consultants, Inc.

Craig Adams, PE
Project Manager

Aaron Benedict
Senior Director Engineering

CA:AB/bfs

Attachment: EOI - WVARNG Camp Dawson Transfer Switch Gear Design



EXPRESSION OF INTEREST

WVARNG Camp Dawson Transfer Switch Gear Design

Solicitation Number: CEOI 0603 ADJ2200000004

September 9, 2021

GAI Project No. R210707.00

Prepared for:

State of West Virginia

Department of Administration,

Purchasing Division

2019 Washington Street East

Post Office Box 50130

Charleston, West Virginia 25305

Attn: Tara Lyle

Prepared by:

GAI Consultants, Inc.

500 Lee Street East, Suite 700

Charleston, West Virginia 25301

304.926.8100 | gaiconsultants.com



gai consultants®



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GAI Consultants, Inc. (GAI) welcomes the opportunity to provide our Expression of Interest (EOI) to the State of West Virginia to provide Engineering Services for the West Virginia Army National Guard (WVARNG) Camp Dawson Transfer Switch Gear Design Project (Project). Our EOI concisely addresses the issues indicated in the State's Solicitation No. CEOI 0603 ADJ2200000004, issued August 26, 2021.

INTRODUCTION

GAI began providing personalized consulting services in soil mechanics and foundation engineering services in 1958 in Pittsburgh, Pennsylvania. By steadily broadening our range of services and expanding our office locations throughout the United States, GAI has evolved into a premier employee-owned, award-winning, full-service engineering, environmental, and planning consulting firm. Today, through growth, acquisition, and much success, GAI has over 600 employees in 25 office locations, spanning across 12 states throughout the Northeast, Midwest, and Southern United States (U.S.), including offices in Bridgeport and Charleston, West Virginia.

GAI is a highly focused firm specializing in many aspects of electrical, mechanical, and structural engineering, in addition to providing engineering services for a wide-array of civil and construction monitoring projects. These projects vary from renovations of small buildings to design and construction administration for large sub-stations and industrial plants.

GAI is currently ranked 145 out of **Engineering News Record's (ENR's)** Top 500 Design Firms, and 141 out of **ENR's** Top 200 Environmental firms. Our commitment to proactive employment of the most proficient and motivated talent helps our clients tackle the ever-changing challenges of our industry, technology, and regulatory practices. In the process, GAI has become an environmental and engineering hub of in-house engineers, geologists, scientists, and other professionals who are always accessible to our clients.

GAI personnel have worked in the State of West Virginia for over 60 years, serving the West Virginia Department of Administration, West Virginia Army National Guard (WVARNG), West Virginia Department of Transportation, Division of Highways (WVDOH), West Virginia Conservation Agency, West Virginia General Services Division, West Virginia Department of Environmental Protection (WVDEP), West Virginia Division of Arts, Culture, and History (WVDACH), and West Virginia Department of Natural Resources (WVDNR), among others. We are familiar with the region and have a thorough understanding of the regulatory approval process for various types of projects. With 63 years of experience providing local expertise to worldwide clients in the development, government, energy, transportation, and industrial markets, GAI has the knowledge needed to perform electrical engineering services during design and construction phases of various projects for the State of West Virginia



QUALIFICATIONS AND EXPERIENCE

ELECTRICAL ENGINEERING EXPERIENCE

Government, municipal, health care, industrial, and power plant facilities relies on electric power and control systems to operate and monitor processes that function within defined environmental and economic considerations. The electrical engineers at GAI Consultants help clients meet this critical need with safe and reliable electric power and control systems. Our innovative solutions for electrical systems and components benefit energy and industrial facilities—from campus style government and municipal facilities, to food processing and manufacturing, to power generation plants.

Developing control systems starts with system mapping and a detailed summary of operations. Turnkey power systems require precise substation sizing, detailed designs, and specialized equipment and structural components. GAI's services include equipment testing and validation, system testing and start-up, contractor selection, and O&M training for employees. Our job is not complete until start-up is successful and controls are fine-tuned.

GAI's substation and power plant services cover 5kV-138kV primary and 120V-15kV secondary voltage, and facility sizes ranging from 500kVA-50MVA. Our skilled electrical engineers address harmonic and power quality problems and conduct studies to evaluate equipment ratings, protective device coordination, system loading, and arc flash incident energy and flash protection boundaries.

GAI uses sophisticated software to conduct arc flash hazard studies. We quantify arc flash hazard information for plant workers to use when evaluating how to approach work tasks involving energized electrical equipment. These arc flash studies often reveal preventive



maintenance or equipment upgrades needed to help avoid catastrophic damage to electrical equipment caused by arcing between energized conductors. GAI also provides safety training and helps clients determine the level of Personal Protection Equipment (PPE) required for their maintenance staff. We address NFPA 70E and OSHA compliance and allowable approach distances for non-qualified personnel.

GAI's lighting system designs cover interior building systems, entire facilities, and highways. We follow standard illumination guidelines and use innovative concepts based on legacy/cutting edge technology. GAI also specializes in audio and visual system design, and provides design and analysis for security systems.

Focusing on reliability and sustainability, GAI conducts QA/QC, insulation coordination, harmonic analysis, and energy conservation studies. Our professionals evaluate power quality, and analyze power distribution system reliability and availability.

GAI combines the years of experience, project knowledge, and sector-specific familiarity of our electrical engineers with mechanical, structural, geotechnical, and environmental engineering to bring clients comprehensive cost-effective solutions.

Electrical Engineering Capabilities

- AC/DC power distribution system (PDS) design
- Emergency backup power and protection systems
- AC/DC substation design, layout, specifications
- Motor control system design and specifications
- AC/DC substation, PDS, and TPSS construction
- Lightning system and surge protection design
- Building and facilities security and access systems
- Program and construction management
- Control system design and construction
- Energy storage systems engineering and design
- Electrical testing/preventative maintenance
- System integration and procurement services
- Ground grid design/smart and micro-grid solutions
- Building information system coordination
- Copper, fiber, wireless voice data and networking
- Short circuit analysis/equipment rating evaluation
- Arc flash hazard analysis, labeling, training
- Electric load flow analysis/motor starting studies
- Power factor analysis/corrective mitigation design
- Switching transient analysis



MECHANICAL ENGINEERING EXPERIENCE

Government, municipal, health care, industrial, and power plant facilities benefit from seasoned mechanical engineers who are skilled in a broad range of disciplines. The design services and operations and maintenance support that GAI Consultants offers for building, in-plant, and power generation challenges keeps boiler systems, gas compressors, and entire manufacturing facilities and power plants operating efficiently. GAI's solutions improve efficiencies and reduce costs with a focus on preventative maintenance and safety.

Professionals that have career-long familiarity with industrial processes are the earmark of GAI's ability to provide mechanical engineering solutions that are both cost-effective and innovative. The applications we address for government, municipal, health care, industrial, and power plant processes include pump, motor, mechanical seal, air compressor, rotary lube blower, gearbox, instrumentation, and steam turbine design.

GAI designs practical piping solutions for compressed air and steam lines, industrial processes, manufacturing and food processing plants, power generation facilities, and water and wastewater treatment systems. Our design packages include specifications for instrument and control equipment, pumps, vessels, tanks, process equipment, and conveyor systems. We design vessels in accordance with ASME codes and standards, and tanks in accordance with American Petroleum Institute (API) standards.

From equipment selection and sizing to utility pipe system mapping, stress analyses, and distribution verification, GAI's electrical, structural, civil, and geotechnical engineers support our mechanical engineering staff. We deliver comprehensive solutions, from analysis and planning to startup and commissioning, that keep facilities running efficiently.

Pairing the skills of mechanical, structural, and electrical engineering professionals, GAI delivers a full array of disciplines to meet our clients' industrial and energy plant design and maintenance needs.

Mechanical Engineering Capabilities

- HVAC load calculation, system life-cycle cost analysis, constructed cost estimation, and design; equipment sizing and selection for industrial and commercial facilities
- ICC building code compliance studies
- 2D/3D AutoCAD and Microstation drawing creation and 3D Revit modeling capability
- Utilization of 3D scan data in design models to coordinate for existing conditions and avoid interferences in design and construction
- Construction administration
- Plumbing system sizing and construction drawings for sanitary, storm, domestic hot/cold water, natural gas, and compressed air piping systems
- Fluid dynamics simulation for optimization of piping systems and pump selection
- Fire protection, fire hazard analysis, and fire service system sizing
- Finite element analyses
- 3D machine design and modeling
- Facility piping and valve mapping
- Energy conservation studies and planning
- Combustion system design and safety review
- Steam and air load analysis and system sizing
- Equipment and facility layout



STRUCTURAL ENGINEERING EXPERIENCE

Since 1958, GAI has been utilizing advanced technology in applied structural engineering and mechanics to solve complex structural engineering problems and address analysis and design projects.

GAI's structural engineering staff utilizes their knowledge, experience, understanding of structural engineering and the latest codes and standards in their structural engineering practice. We are committed to providing proactive project management on every project.

GAI specializes in structural design for government, commercial, industrial, and municipal buildings and process structures, as well as existing structure evaluations and rehabilitation assessments. We are versed in various project delivery approaches, including Design-Bid-Build, Construction Management at Risk, Design – Build and Open Book (time and material).

GAI's structural engineering expertise encompasses design and analysis of a variety of unique specialty structures which include heavy industry support structures and foundations, steel and concrete storage tanks and process structures, spillway and dam structural support, metal structural design and fabrication support for steel stacks, rigging and safety equipment, walkways and service platforms. GAI's professionals identify and evaluate structural deterioration causes and develop remediation measures that solve space, capacity, and performance issues. We tailor structural assessments to each client's specific needs and provide alternative solutions with safety, economic, operational, and environmental considerations. Our structural engineering services are enhanced by our access to GAI's in structural, civil, geotechnical, mechanical, electrical, and transportation expertise.

Structural Engineering Capabilities

- Building structure and foundation analysis and design
- Existing structure investigations for current condition, rehabilitation, and capacity
- Construction phase structural engineering services, including construction monitoring.
- Soil-structure interaction studies
- Structural reliability studies
- Vibration and seismic analyses
- Heavy lift rigging consultation
- Fatigue analysis
- Noise and vibration problem design mitigation
- Theoretical and experimental stress analyses
- Analysis and simulation software development
- Load and stress determinations
- Instrument and on-site testing
- Failure investigations
- Catastrophic damage inspections and design
- Visual inspections
- Detailed deficiencies documentation
- Rehabilitation design
- Remedial measures analysis and design
- Engineer's construction estimates
- Life-cycle costing
- Underwater and tall structure inspection
- Hazardous waste site structural inspections
- Construction monitoring
- Materials and non-destructive testing
- Peer review of design by others
- Expert witness



GEOTECHNICAL AND SOIL MECHANICS EXPERIENCE

Since 1958, GAI has established itself as a premier engineering and consulting firm specializing in foundation and soil mechanics engineering. Over the following years, GAI has amassed formidable experience in full-scale load testing of foundations, calibrating analytical models, and developing computer programs for designing foundations. Our geotechnical engineers and geologists are highly proficient in the fundamentals of engineering, soil and rock mechanics, foundation and slope engineering, seismic analyses, underground and surface mining, mine fires, and mine subsidence, as well as dam design and inspection.

When structures are built in areas where the uneven rise of expanding subgrades can occur, structural damage that was not anticipated can be a major concern. GAI investigates subgrade movements, determines their causes, and designs repairs that stabilize structures or eliminates the problem.

With proven foundation analysis and design capabilities, GAI also focuses on construction – using detailed quality control procedures to monitor the construction of all types of structures and foundations. As a matter of routine, we perform pile, pier, or plate load-testing, and vibration monitoring. We also conduct pre-blast or pre-driving surveys of facilities near a construction or demolition project to determine the presence of pre-construction damage.

Operating out of office locations throughout the United States, our specialists bring with them a wealth of knowledge from years of academic training, research, and practical field experience – knowledge that is bolstered by expertise from GAI staff members in other disciplines, such as structural engineering, groundwater engineering, and hydrologic/hydraulic engineering.

Geotechnical Engineering and Soil Science Specific Capabilities

- Geologic, subsidence, and landslide assessments
- Landslide and subsidence studies and remediation design
- Subsurface studies, investigations, and stabilizations
- Geologic studies and reconnaissance
- Site characterization and undisturbed soil sampling
- Soil borrow investigations
- Foundation recommendations, design, and research
- Foundation testing, analysis, and detailed design
- Geogrid Reinforced Soil and Mechanically Stabilized Earth (MSE) design
- Slope stability analysis and embankment and cut slope design
- Catastrophic damage inspection and analyses
- Stress capacity investigations
- Shop drawing review
- Soil, rock anchors, and nails
- Concrete, rock, grout, and cone penetrometer testing
- Pile and caisson drilling inspection
- Drilled shaft and grillage design
- Wastewater disposal and agricultural utilization
- Soil improvement techniques
- Geoarchaeology, geomorphology, and pedology
- Construction monitoring



KEY PERSONNEL EXPERIENCE

GAI's key personnel for this Project specialize in electrical, mechanical, structural, and geotechnical engineering. A Project Organizational Chart and Key Personnel Resumes are located in **Appendix A**.

MANAGEMENT

Craig Adams, PE | Project Manager/Lead Electrical Engineer

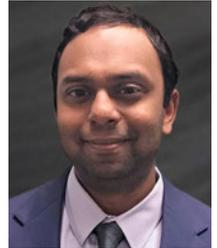
Mr. Adams is a Senior Electrical Technical Leader with GAI, managing GAI's Electrical Engineering Department. He is a licensed Professional Engineer in West Virginia, Pennsylvania, Florida, and Kentucky. Mr. Adams has worked as an engineer, supervisor, and manager at a variety of power plants and support positions. Mr. Adams' involvement in projects spans through all stages from conception to construction. His past projects include water and wastewater projects, numerous capital and maintenance improvement projects for various power plants, building renovations and project estimating and management. Mr. Adams will be readily accessible to the State of West Virginia, and he is committed to overseeing the successful completion of Project. He will oversee this project from GAI's Cranberry, Pennsylvania office. His management experience, combined with his 39 years of electrical engineering expertise, will aid in the successful completion of this Project in a timely, technically sound, and cost-efficient manner. Mr. Adams has worked on numerous projects throughout West Virginia. Mr. Adams holds a BS in Electrical Engineering from Pennsylvania State University.



ELECTRICAL ENGINEERING

Stephen Anthony, PE, MSEE | Electrical Engineering Support

Stephen Anthony is an engineering director with GAI and will provide electrical engineering support for this Project. He has over 17 years of experience and specializes in managing Substation and Protection & Controls Engineering projects. Mr. Anthony has experience in a full range of Substation projects from equipment replacement to large intricate multi-year substation expansions. He currently directs an organization of over 30 technical managers, engineers and designers on Protection and Controls design, Physical design, Procurement, Financials, Construction Support and Project Close-out. He is highly proficient in Substation Equipment Specification and Evaluation, as well as Witness Testing and Implementation. Additionally, Mr. Anthony serves as the Subject Matter Expert for internal and external requests. Mr. Anthony holds a MS in Electrical and Electronics Engineering – Power System Engineering from George Washington University and a BS in Electrical and Electronics Engineering from University of Maryland.



Nicholas Hartman, PE | Electrical Engineering Support

Mr. Hartman is a Senior Project Engineer with GAI and will support the electrical engineering team for this important Project. He has 8 years of experience specializing in electrical engineering within the government, substation, transmission, distribution, and nuclear power industries. He has a working knowledge of the installation of electrical systems and equipment in addition to having experience with various aspects of the modification design process, including conceptual design and analytical calculations. He is a licensed professional engineer in West Virginia and Delaware. Mr. Hartman has a working knowledge of various computer software programs, including ETAP, WinIIS, AutoCAD, and MicroStation. He holds a BS in Electrical Engineering from Pennsylvania State University.



Kenneth Bobish | Electrical Engineering Support

Mr. Bobish is an Electrical Technical Leader with GAI and will provide electrical engineering support for this Project. He specializes in electrical engineering and has over 30 years of experience with industrial and municipal clients in the energy, chemical, water, and nuclear industries. His experience includes project management; performing electrical engineering and design for single-line diagrams, Instrumentation and Control (I&C) schematics, equipment locations, underground plans, conduit and tray layouts, and cable schedules; electrical construction cost estimating, and evaluating bid proposals from electrical contractors. His software experience includes; AutoCAD 2018, Raster Design 2013, Clarkware Conduit/Cable Software, Access, and Microsoft Office Suite. He holds a BS in Electronics Engineering Technology - Power Concentration from Point Park University.



MECHANICAL ENGINEERING

Michael McNabb, PE, LEED® AP, MBA | Mechanical Engineering Lead

Mr. McNabb is an Engineering Manager with GAI and will lead the mechanical engineering team for this important Project. He has over 20 years of experience with technical and business knowledge, comprehensive project management experience, and complex design skills. He is LEED® AP certified and a licensed Professional Engineer in West Virginia, Pennsylvania, Ohio, New York, Texas, and Florida. He has held prominent engineering integration and leadership roles supporting the technical and business development plans for complex HVAC systems for modern commercial and industrial buildings. He holds a BS in Mechanical Engineering from the University of Akron and a MBA from Cleveland State University.



John Bubeck Jr., EIT | Mechanical Engineering Support

Mr. Bubeck is a Project EIT with GAI and will support the mechanical engineering team for this important Project. He has 9 years of experience specializing in mechanical engineering, HVAC system design, piping system design, and design and drafting of mechanical systems. His experience includes developing technical documentation for the implementation of mechanical systems, performing fluid flow calculations, and performing hydraulic pump sizing calculations using engineering software. He also develops technical specifications, bill of materials, scope of services, and construction cost estimates for mechanical projects. He holds a BS in Mechanical Engineering Technology from Pennsylvania State University.



Michael Winovich, EIT | Mechanical Engineering Support

Mr. Winovich is a Project EIT with GAI and will support the mechanical engineering team for this important Project. He has 6 years of experience specializing in mechanical engineering. His recent experience includes more than 21 projects in support of the maintenance and expansion of a confidential government campus. He is experienced with AutoDesk Mechanical, AutoDesk Inventor, AutoDesk Architectural, AutoDesk Revit, Creo Pro-Engineer, SolidWorks, Microsoft Excel, CES Materials Software, ANSYS APDL and Workbench, Carrier Hourly Analysis Program, and MathCAD. He holds a BS in Mechanical Engineering from Pennsylvania State University - Behrend College.



STRUCTURAL ENGINEERING

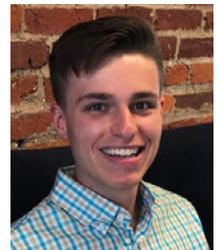
Joseph States, PE, MS | Structural Engineering Lead

Mr. States is an Assistant Engineering Manager with GAI and will lead the structural engineering team for this important Project. He has 13 years of experience and specializes in structural engineering and design of steel and concrete structures, structural assessments, and structural rehabilitation. His experience includes complex steel framing systems, mechanical and electrical equipment support, concrete mat foundations, clarifiers and other environmental concrete structures, parking garage assessment and rehabilitation projects, transmission line and substation structures. He is a licensed Professional Engineer in Pennsylvania and Ohio and has applied for and is awaiting his license in West Virginia. He holds a MS in Structural Engineering from Lehigh University and a BS in Civil and Environmental Engineering from Carnegie Mellon University.



Jacob Knepper, EIT | Structural Engineering Support

Mr. Knepper is a Senior EIT with GAI and will support the structural engineering team for this important Project. He has 2.5 years of experience and specializes in the design of structural systems for industrial, power, manufacturing, and electric utility projects. His experience includes the definition of design criteria, design of steel framing and concrete structures, and preparation of construction drawings, specifications, and detailed calculation packages. Additional experience includes development of construction cost estimates, development of 3D structural BIM models, and construction phase services. His experience includes the modeling, designing, and detailing of structural steel, reinforced concrete, spread foundations, retaining walls, and electrical transmission and substation structures. He has also assisted in preparing construction drawings using computer aided design and drafting software including AutoCAD and REVIT. He holds a BS in Civil Engineering from Geneva College.



GEOTECHNICAL ENGINEERING

Charles Straley, PE, PLS, MS | Geotechnical Engineering Lead

Mr. Straley is a Senior Engineering Manager with GAI and will serve as the Geotechnical Engineering Lead for this Project. He has over 35 years of engineering experience and is a licensed Professional Engineer (PE) in West Virginia, Ohio, Kentucky, and Indiana; and a Professional Licensed Surveyor (PLS) in West Virginia. Mr. Straley has over 35 years of experience specializing in geotechnical engineering, including all aspects of landslide investigations, subsurface exploration, foundation and embankment design, slope stability, material and construction specifications, laboratory testing, and construction administration, management, and monitoring. He will provide his geotechnical engineering services from GAI's Charleston, West Virginia office. Mr. Straley has worked on numerous landslide and other geotechnical projects throughout West Virginia. He was recently the Principal-in-Charge and Lead Geotechnical Engineer for the White Avenue Slip Project located in Morgantown, West Virginia. Mr. Straley is a native of West Virginia and holds an MS in Geotechnical Engineering and a BS in Civil Engineering from The University of Akron.



PROPOSED SUBCONSULTANTS

Cintar, Inc. | Power Coordination Studies



GAI is proposing to use Cintar, Inc. (Cintar) for the performance of power coordination studies for the project. Cintar is a full-service multidisciplinary engineering and consulting firm, located near Pittsburgh, providing specialized services and technical competence since 1983. With over 100 employees, Cintar's staff is comprised of senior level engineers and designers with vast experiences in engineering services. They are involved in all facets of small and large, complex projects and have extensive experience in planning, engineering, managing capital projects, plant start-ups, production, and facility asset evaluations and optimization.

OMNI Associates - Architects | Architectural Services



OMNI Associates - Architects (Omni) is an award-winning architectural firm located in Fairmont, West Virginia. Since the beginning in 1980, Omni has earned recognition for the programming, planning, and design of a variety of structures; which includes corporate office and governmental buildings, health care facilities and medical campuses, academic and educational buildings, recreational, religious, military and multipurpose facilities. Omni has a successful history of designing intimately with each client and creating collaborative solutions that meet the project goals, resulting in an impressive record of customer satisfaction. These are qualities that draw their clients back, resulting in lasting relationships. Omni provides clients with the results they value most: Innovative designs consistent with the building program, cost effective designs which meet the budget, and efficient project management to provide on-time deliverables.

EnviroProbe Integrated Solutions | Subsurface Drilling Services



GAI is proposing to use EnviroProbe Integrated Solutions (EnviroProbe) for Subsurface Drilling Services and to assist in engineering and testing services. Founded in 2006, EnviroProbe is a woman-owned small business located in Morgantown and Nitro, West Virginia. EnviroProbe's diverse staff includes engineers, environmental professionals, geologists, scientists, Licensed Remediation Specialists, certified well drillers Licensed Water Well Drillers, equipment operators, inspectors/field technicians, and laborers. EnviroProbe's experienced operators have provided direct-push, environmental drilling, and geotechnical drilling services since 1995. EnviroProbe's staff values industry-leading safety practices holding high standards for both employee and job site safety 24/7. EnviroProbe's drillers are certified, and all of their team members undergo strict protocols – ensuring safety is a number one priority at all times. EnviroProbe is a member of ISNetwork, Avetta, PEC Safety, and SafeLandUSA.

Geotechnics, Inc. | Construction Materials Testing Services



For more than 20 years, projects around the world have been built using Geotechnics, Inc. (Geotechnics). Their Geotechnical laboratories are equipped to handle any testing need, no matter the size or scope. From a few samples with basic classification tests to several hundred samples with a complex series of characterization, compaction, consolidation, strength and permeability tests. Their extensive facilities enable them to perform a myriad of tests simultaneously on samples of any size and their geotechnical laboratories are home to some of the most comprehensive test equipment in the country. The Geotechnics testing laboratory is recognized as being in compliance with NQA-1-1994 Edition Quality Assurance Requirements for Nuclear Facility Applications. Geotechnics has facilities near Pittsburgh, Pennsylvania; Raleigh, North Carolina; and Nashville, Tennessee.

PROJECT EXPERIENCE AND REFERENCES

The GAI Team has significant experience designing and repairing various electrical systems. GAI works on various projects for numerous clients, many of which are confidential in nature; therefore, we have reflected this confidentiality in our project descriptions, if necessary, by not giving out project names, specific locations, and confidential client information. If deemed essential, GAI may be able to discuss with our respective clients with whom there are confidentiality obligations and request written permission to make further disclosure.

Project Profile

25,000 Ton Chilled Water plant

Florida

Project Team:
GAI Consultants

Client:
Confidential

Year Completed:
2021

Project Management:
Mark Yankech, LEED® AP
Project Manager
GAI Consultants, Inc.
618 E. South Street
Suite 700
Orlando, Florida 32801
T. 321.319.3139
E. m.yankech@
gaiconsultants.com

Reference:
Confidential



* Representative photo. Construction not complete.

The project scope of services involved designing a new 25,000 ton chilled water plant for a district energy company in Florida. GAI's scope included site layout, design of the building, sizing of all equipment, writing all specifications, and all structural, mechanical and electrical engineering.

Electrical scope of work included designing a transformer yard with ten (10) 3,000 KVA transformers feeding ten (10) switchboards in the facility and all internal and process power requirements. Facility includes eight (8) large chillers with capacity to add two more, numerous pumps, most of which have Variable Frequency Drives, and 10 cooling towers. An Automatic Transfer Switch (ATS) was included in the design to ensure that power was not lost to critical systems and the failure of a single transformer or switchboard would not force the plant out of service.

GAI's scope also included a fire alarm system, lighting, emergency and exit lights, and interfaces to a Siemens building automation system and to the outside telephone and Internet services. GAI also designed a sewage lift station for the site and produced all permit documents.

Key Project Staff: Craig Adams, PE and Michael McNabb, PE



gai consultants

Project Profile

Project Team:

GAI Consultants

Client:

Confidential

Year Completed:

2020

Project Management:

Arica DiTullio, PE
Project Manager
GAI Consultants, Inc.
385 E. Waterfront Drive
Homestead, Pennsylvania
15120
T. 412.399.5455
E. a.ditullio@
gaiconsultants.com

Reference:

Confidential

Leachate Conveyance and Treatment System

West Virginia



GAI designed for an emergency generator and Automatic Transfer Switch (ATS) installation on an environmental project for a confidential client. The project involved the transfer of water from a Coal Combustion Byproducts (CCB) landfill for reuse at a power plant more than a mile away. A second phase of the project was to treat the water to remove various trace metals.

GAI sized the generator, the incoming transformer, and the associated switchgear, electrical room, and ATS. The project uses 2 generators with one sized to handle the first phase of the project and all of the building and maintenance requirements. The second generator was sized to meet the needs for the treatment system. The ATS was designed and sized to synchronize and parallel both generators when needed and to be able to start either generator to meet the initial load. Total load is approximately 1 MW.

Key Project Staff: Craig Adams, PE



gai consultants

Project Profile

Project Team:

GAI Consultants

Client:

GenOn

Year Completed:

2021

Project Management:

Arica DiTullio, PE
Project Manager
GAI Consultants, Inc.
385 E. Waterfront Drive
Homestead, Pennsylvania
15120
T. 412.399.5455
E. a.ditullio@
gaiconsultants.com

Reference:

Bryan Powell
GenOn
T. 571.255.9734
E. bryan.powell@genon.
com

Combustion Turbine Separation and Grid Export Maryland



GAI designed for an Automatic Transfer Switch (ATS) replacement at a substation for a confidential client. The existing outdoor ATS had failed and the client requested a replacement along with additional alarming. GAI performed a site visit and designed for the mounting, placement, wiring schematic and SCADA alarms per client request in accordance with their standards. GAI also assisted with construction support and provided engineering guidance during installation.

GAI specified and ordered all material for this project which was completed and in-serviced on time and on budget.

Key Project Staff: Stephen Anthony, PE and Nicholas Hartman, PE



gai consultants

Project Profile

Project Team:

GAI Consultants (prime)

Client:

Confidential

Year Completed:

2021

Project Management:

Stephen Anthony, PE
Program Manager
GAI Consultants, Inc.
600 Cranberry Woods
Drive, Suite 400
Cranberry Township,
Pennsylvania 16066
T. 412.399.5364
E. s.anthony@
gaiconsultants.com

Reference:

Confidential

ATS Replacement

Pennsylvania



GAI designed for an Automatic Transfer Switch (ATS) replacement at a substation for a confidential client. The existing outdoor ATS had failed and the client requested a replacement along with additional alarming. GAI performed a site visit and designed for the mounting, placement, wiring schematic and SCADA alarms per client request in accordance with their standards. GAI also assisted with construction support and provided engineering guidance during installation.

GAI specified and ordered all material for this project which was completed and in-serviced on time and on budget.

Key Project Staff: Stephen Anthony, PE and Nicholas Hartman, PE



gai consultants

PROJECT UNDERSTANDING

GAI understands that the State of West Virginia Purchasing Division, for the West Virginia Army National Guard (WVARNG), Construction and Facilities Management Office is soliciting EOI's from qualified firms to provide professional design services for a modern electrical transfer switchgear to parallel three (3) generators. GAI understands that the Project goals include the following:

1. GAI will design a system that will have the ability to seamlessly parallel back to the utility and will have the ability to load shed and add/delete generators as load dictates. It will have redundant control computers, and it s will have control power from current transformers, station batteries, and generator batteries. It will be compatible with the existing generation and utility power.
2. GAI will provide a design that will include conditioned space for transfer gear and/or components as required.
3. GAI will provide a design that will provide a remote monitoring control/annunciation computer for Post Maintenance.
4. GAI will provide a new power coordination study.
5. GAI will provide a design that brings the project and associated systems and buildings in compliance with current, federal, state, and local building codes, fire codes, and military construction regulations. GAI understands that we will be responsible for having the construction documents reviewed and approved by the proper authority.
6. The design will provide necessary geotechnical work, including drill borings. GAI understands that we would be responsible for researching and investigating the location of existing underground and above ground utilities and to provide drawings and specifications of utility and road infrastructure as needed and directed by the owner and/or state agency, utility company, or other utility approval authority for Kingwood West Virginia.
7. GAI understands that drawings, specifications, and cost estimates are to be submitted at the 35%, 65%, 95% and 100% design milestones. GAI further understands that we may submit the 35%, 65%, and 95% drawings and submittals digitally, but that the 100% construction documents are to be submitted both digitally and with three (3) hard copies. GAI will divide the cost estimates into three categories- sustainment, restoration, and modernization. We understand that these definitions will be provided to the awarded firm. GAI will further identify energy saving items, such as windows and LED lights and their associated costs.

PROJECT APPROACH AND METHODOLOGY

GAI will manage this project out of our Cranberry Township Pennsylvania office, with support from our Charleston office, which is a 15-minute drive from the WVARNG Joint Forces Headquarters, Construction Facilities Management Office. GAI has over 600 employees located in 25 offices across 12 states, including 4 offices that are within 100 miles of Kingwood, West Virginia (Bridgeport, West Virginia; Canonsburg, Pennsylvania; Homestead, Pennsylvania; and Cranberry Township, Pennsylvania). GAI's Bridgeport office is less than 45 miles from Kingwood, West Virginia. We have personnel and the ability to respond to all of the Project's needs and can be at the project location within two hours' notice or less when called upon. **Table 1** includes GAI Key Personnel for this Project by office location and credentials.

Table 1 - Key Personnel Office Locations and Credentials

Key Personnel	Role	Office	Yrs. Exp.	Credentials
Craig Adams	Project Manager/Electrical Engineering Lead	Cranberry Township, PA	39	PE: WV, PA, FL, KY BS, Electrical Engineering
Stephen Anthony	Electrical Engineering Support	Cranberry Township, PA	17	PE: MD, DC, VA, MA, CA, PA, TX MS/BS, Electrical and Electronics Engineering
Nicholas Hartman	Electrical Engineering Support	Pittsburgh, PA	8	PE: WV BS, Electrical Engineering
Kenneth Bobish	Electrical Engineering Support	Cranberry Township, PA	30+	BS, Electronics Engineering Technology

Table 1 - Key Personnel Office Locations and Credentials (continued)

Key Personnel	Role	Office	Yrs. Exp.	Credentials
Michael McNabb	Mechanical Engineering Lead	Orlando, FL	20+	PE: WV, PA, OH, NY, TX, FL BS, Mechanical Engineering MBA
John Bubeck Jr.	Mechanical Engineering Support	Cranberry Township, PA	9	EIT: PA BS, Mechanical Engineering Technology
Michael Winovich	Lead Construction Technician	Cranberry Township, PA	6	EIT: PA BS, Mechanical Engineering
Joseph States	Structural Engineering Lead	Cranberry Township, PA	13	PE: PA, OH, WV (<i>anticipated</i>) MS, Structural Engineering; BS, Civil and Environmental Engineering
Jacob Knepper, EIT	Structural Engineering Support	Cranberry Township, PA	2.5	EIT BS, Civil Engineering
Charles Straley, PE, PLS, MS	Geotechnical Engineering Lead	Charleston, WV	35	PE: WV, OH, KY, IN PLS: WV MS, Geotechnical Engineering

The Project will be managed out of GAI's Cranberry Township, Pennsylvania office. The electrical team in Cranberry Township and Homestead, Pennsylvania will be responsible for the electrical design including the new switchgear and automatic transfer system. Related mechanical and structural work would also be handled from these offices. Geotechnical work, if required, will be supported out of the Charleston, West Virginia office and other personnel from various offices will be utilized to support any other project needs.

GAI believes that understanding our client's requirements and ideas is key to successfully implementing any project. GAI would therefore plan to hold an initial kickoff meeting with the principal personnel from the WVARNG facility and other state personnel. We generally try to hold these meetings within a week of receiving a purchase order or as required by contract. In addition, key GAI personnel will conduct a site walkdown and review of available information to determine the project details.

GAI would further establish regular check in meeting schedules as early in the process as possible. GAI would recommend these be held about every other week. The GAI Project Manager or designee will provide a weekly update to the project lead for the state as well.

GAI proposes to contact a minimum of two automatic transfer switch suppliers to identify all information that will be required for the state to bid that equipment. If the state prefers to have GAI deal with a specific supplier, we can design a system with that supplier's direct input.

GAI proposes to provide the new power coordination study using SKM software. GAI can also provide Arc Flash and protection coordination studies if required. GAI also has ETAP software available. Depending on the number and scope of studies required GAI has a contract in place with Cintar to perform electrical studies as required.

GAI proposes to provide any incidental architectural work in house. Should more extensive architectural work be required GAI will utilize the services of OMNI Associates - Architects, a Fairmont, West Virginia firm.

PROJECT MANAGEMENT PLAN, QUALITY, AND COST CONTROL

GAI strives to perform as an extension of our Client's staff with a service-oriented approach. Our approach is focused on regular and effective communication and to keep the WVARNG informed of progress and to address Project challenges as they arise. GAI has set forth a number of communication, management, and monitoring systems to handle the Project and we look forward to implementing them on WVARNG's behalf. GAI's Project Management Plan (PMP) will be used to manage and communicate the Project scope, schedule, and budget to promote successful implementation of the Project. This PMP includes: Project initiation, Project status reports and meetings, Project controls, QMS, invoice management, data management, and Project closure.

Project Team Coordination and Scheduling

Project Initiation

GAI will meet with WVARNG personnel and appropriate Project stakeholders for a kick-off meeting to review the field safety and property access protocols, schedule, points of contact, and coordination and communication systems.

Project Communication

GAI will participate in routine (typically bi-weekly) conference calls with WVARNG and Project stakeholders, as required. GAI's Project Manager can lead the calls if requested. GAI will provide a conference call phone number to support the conference calls, which can be conducted using Microsoft Teams, which will allow sharing of the desktop to display data for discussion. During the calls, GAI will update WVARNG regarding the status of the Project and to identify information needs or anything that may affect the Project schedule and/or cost.

Project Scheduling

GAI uses either Primavera, Microsoft Project, or Excel scheduling spreadsheets for critical method scheduling, which tracks deliverables and keeps the project on time and on budget. GAI will work with the WVARNG to build a baseline schedule. The baseline schedule is then updated on a periodic basis, typically weekly or monthly, depending on the pace of the Project.

Quality Assurance/Quality Control

Project Controls Group

GAI has established a Project Controls group to monitor cost and manage reporting. This group utilizes Deltek Vision v7.6, GAI's enterprise management software, to monitor the cost of each project. Scope and budget must be agreed to prior to the task budget entry in Deltek. The Task Budget creation is the end result of the development and distribution of final scope, fee, budget, and schedule with the Project Team. The Task Budget establishes the base line to monitor and measure project progress and financial performance. Task Budget creation includes: Obtaining external scope, budget, schedule, and fee commitments; and distribution of labor, subconsultant/subcontractor fees, and direct expenses for the purposes of establishing baseline or supplemental task budgets using the Deltek Project Planning Module.

Quality Management System

GAI understands the importance of providing our clients with on-time, cost-effective, high-quality professional services. The continued success of our firm is directly related to our ability to continue to meet the cost, quality, and schedule requirements of our projects. We achieve this goal through our experienced professional staff and by utilizing our QMS. GAI's QMS is based upon a continuously improving project delivery strategy that reflects our client's needs and utilizes current technology. The Project Delivery System provides the quality assurance and quality control functions from project inception through project closeout. The Project Delivery System incorporates processes and procedures that describe how professional services are planned, executed, checked, verified, and delivered to our clients. The system is flexible so that it allows GAI to meet the needs of individual clients.

Data Management

GAI will store digital information on corporate servers, including Microsoft Office documents, GIS shape files, and PDFs of mapping. GAI will provide a means to share large files with the WVARNG through the use of a password protected FX site or by providing direct links to files on the server through the use of GAI's Newforma or SharePoint System.

Invoice Management

To track and manage the Project budgets, GAI proposes to use a Cost Tracking Spreadsheet. GAI will update the Cost Tracking Spreadsheet on a weekly basis, which includes the awarded value for each task, approved change order amounts, current invoice amount, amount invoiced to date, remaining amounts approved, and physical percent complete. Additional information can be added in coordination with WVARNG to support other key performance indicators that are important to WVARNG.

To manage and document the Projects' scope, if activities are determined to be required that are not part of this scope (change orders), GAI will provide work plans to be approved. GAI will incorporate these change orders into the Cost Tracking Spreadsheet as they are approved. GAI's proposed routine conference calls will include a review of the Project budget and change orders, as needed.

REQUIRED AND SIGNED FORMS

GAI has included the Solicitation Document No. CEOI 0603 ADJ2200000004, dated 2021-08-26, in its entirety, signed and notarized, where applicable, as **Appendix B**.

EXCEPTIONS AND CLARIFICATIONS

General Terms and Conditions

Section 8 - Insurance

Comment: Vendor's professional liability insurance policy provides for coverage on a claims-made basis and not per occurrence.

Section 20 - Time

Addition: Time is of the essence regarding all matters of time and performance in this contract. *Subject to any excusable delays for Force Majeure events.*

Section 36 - Indemnification

Comment: The "defend" obligation is not covered by Professional Liability insurance (PLI) as there is no "contractual liability" endorsement on PLI policies as there is on CGL policies. Vendor requests as an alternative a "split -indemnity" approach to indemnification. This alternative would be to retain the "defend" obligation as applicable to Auto, CGL, W. C., etc. type claims/suits which are addressed and covered by the "contractual liability endorsement" on GAI's CGL policy. With respect to PLI claims, vendor would indemnify and hold the State and Agency harmless from and against all such PLI claims without including the "defend" obligation in the indemnification clause.

Addition: Please add the following mutual disclaimer of consequential damages language: **IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF BUSINESS, INTERRUPTION OF BUSINESS OR FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, EVEN IF A PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**

HEALTH AND SAFETY

GAI believes all employees should go home in the evening just as healthy and safe as they were when they arrived in the morning. GAI is committed to a culture of safety. At GAI, project tasks are completed in accordance with all applicable state and federal regulatory requirements including Occupational Safety and Health Administration (OSHA) standards, client-specific health and safety requirements, and GAI policies and procedures. GAI employees are routinely provided health and safety training, particularly OSHA 10-hour and 30-hour construction awareness and/or SafeLand Training. New employees are introduced to GAI Health and Safety policies during employee orientation. GAI also provides OSHA 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training and the eight-hour HAZWOPER refresher classes as needed.

Health and Safety Plans are required to be developed and implemented whenever project staff are expected to conduct fieldwork, as well as whenever site reconnaissance activities expose employees to hazards that must be controlled. The purpose of the Health and Safety Plan is to identify, investigate, and mitigate potential hazards and unsafe conditions en route to/from and at the project site. The Health & Safety Plan defines the specific project tasks and appropriate control measures for safe completion of project tasks through the use of a Job Hazard Safety Analysis process. It also contains information about project personnel; required personal protective equipment; mandatory project staff training; and emergency response information and procedures. This procedure applies to all GAI staff as well as GAI subcontractors.

GAI's Health & Safety Director, William Gourdie, CSP, CET, with over 35 years of experience, is responsible for spearheading initiatives that help GAI comply with all applicable health, safety, and environmental regulations; client requirements; and corporate policies and procedures in order to maintain the safest possible working conditions for all employees. He embodies GAI's commitment to safety by coordinating the development, implementation, and continuous improvement of the company's Health & Safety Program to enhance its effectiveness and improve performance results.

COVID-19 Response Plan

GAI's COVID-19 Committee meets regularly, monitoring conditions. Our goal is to adapt the way we work to help keep our clients, stakeholders, staff, and public safe by incorporating best practices put forth by the Centers for Disease Control (CDC) and other qualified entities. GAI has developed a COVID-19 Response Plan with actions initiated to mitigate the risk of exposure to our employees, subcontractors, and clients, with the goal of maintaining business continuity. GAI has always held safety as the most important of our core values. We are committed and focused on the health and well-being of our employees, our customers, and the communities where we do business.

CLOSING

The GAI Team is excited about the opportunity to work with the WVARNG on this Project, and we look forward to speaking with you about our experience designing and repairing roadways damaged by landslides. We believe that we can be a strong partner with the WVARNG, working together towards the success of this and future projects.

Should you have any questions or would like to speak with us about our EOI or services, please feel free to contact Project Manager, Craig Adams, at 412.399.5068 or via email at C.Adams@gaiconsultants.com.

Electrical Engineering Services Contact

Craig Adams, PE
Senior Electrical Technical Leader
GAI Consultants, Inc.
T. 412.399.5068
E. C.Adams@gaiconsultants.com

APPENDIX

A



PROJECT ORGANIZATION & KEY PERSONNEL RESUMES



Health & Safety
William Gourdie, CSP, CET

Project Manager
Craig Adams, PE

Technical Personnel

Electrical Engineering
Stephen Anthony, PE, MSEE
Nicholas Hartman, PE
Kenneth Bobish

Mechanical Engineering
Michael McNabb, PE, LEED®
AP, MBA
John Bubeck Jr., EIT
Michael Winovich, EIT

Structural Engineering
Joseph States, PE, MS
Jacob Knepper, EIT

Geotechnical Engineering
Charles Straley, PE, PLS, MS

Subcontractors

Power Coordination Studies
Cintar, Inc.

Architecture
OMNI Associates - Architects

Subsurface Drilling
EnviroProbe Integrated Solutions

Construction Materials Testing
Geotechnics, Inc.

RESUME

CRAIG ADAMS, PE

Project Manager/Lead Electrical Engineer



Mr. Adams is a Senior Electrical Technical Leader with GAI, managing GAI's Electrical Engineering Department. He is a licensed Professional Engineer in West Virginia, Pennsylvania, Florida, and Kentucky. Mr. Adams has worked as an engineer, supervisor, and manager at a variety of power plants and support positions. Mr. Adams' involvement in projects spans through all stages from conception to construction. His past projects include water and wastewater projects, numerous capital and maintenance improvement projects for various power plants, building renovations and project estimating and management. Mr. Adams will be readily accessible to the State of West Virginia, and he is committed to overseeing the successful completion of Project. His management experience, combined with his 39 years of electrical engineering expertise, will aid in the successful completion of this Project in a timely, technically sound, and cost-efficient manner. Mr. Adams has worked on numerous projects throughout West Virginia. Mr. Adams holds a BS in Electrical Engineering from Pennsylvania State University.

EDUCATION

BS, Electrical Engineering, 1982,
Pennsylvania State University

LICENSES/REGISTRATIONS

Professional Engineer (PE): PA,
WV, FL, KY

CERTIFICATIONS/TRAINING

Six Sigma Green Belt Training,
Motorola University, 2010

SKILLS

Electrical Distribution System
Design

Project Coordination

AFFILIATIONS

American Society of Civil
Engineers, Pittsburgh Section

Deep Foundations Institute

INDUSTRY EXPERIENCE

GAI Consultants, 2018-Present

FirstEnergy, 2011-2018

Allegheny Energy, 1982-2011

RELEVANT EXPERIENCE

- **Full-Service U.S. Government Facilities Engineering Program.** Lead Electrical Engineer or Project Lead supporting electrical engineering efforts on multiple projects. Projects included both renovation projects and new construction projects, ranging from conceptual building design and cost estimating, to performance specifications for design-build projects and to final design projects. Building sizes ranged from 1,800 SF to 80,000 SF and electrical loads from 100kW to 20,000kW.
- **University Master Plan Update, Florida.** Lead Electrical Engineer. Assessed the existing campus electrical energy systems, the proposed campus expansion, and generated a detailed report to outline potential solutions to meet the growth needs of campus normal electric power, and emergency power systems. Developed a campus growth concept with the local electric utility providers and outlined options to fortify and consolidate the campus electrical services. The final report considered the order of facility types and construction priorities to guide the University in executing a planned expansion.
- **FDOT I-10 Rest Area Improvements Project, Columbia County, Florida.** Lead Electrical Engineer. Responsible for review of electrical drawings from other contractors, load calculations, site underground conduit drawings, and voltage drop calculations. Project included the replacement of two existing rest stop buildings, parking lot and ramp lighting, and power feed for the Intelligent Transportation system and for water and wastewater facilities.
- **Confidential Chilled Water Plant located in Orlando, Florida.** Electrical Engineer for a 25,000 refrigerated tons capacity chilled water production plant connecting three underground district chilled water piping system locations.
- **Soldiers and Sailors Parking Garage Project, University of Pittsburgh, Pittsburgh, Pennsylvania.** Lead Electrical Engineer. Responsible for reviewing the electrical work at this four-level, below grade parking garage for the University of Pittsburgh. GAI's electrical scope included evaluating corroded and damaged conduits and electrical boxes; replacing the power feeds and disconnect and control boxes to four existing sump pumps; power and control wiring for one new sump pump; and replacement of the heat trace system.
- **Power and Steam Utility Water Treatment Facility Design, Confidential Client, Pennsylvania.** Lead Electrical Engineer. GAI provided study and design services for a new Reverse Osmosis (RO) Water Treatment Plant (WTP) to treat river water to produce demineralized water for steam generation. The project evaluated two sizes of WTPs: a 3,500 gallons per minute (GPM) WTP that would accommodate 100% of the peak water demand; and a 1,500 GPM WTP that would accommodate the base load water demand and would be supplemented by the existing IX system for high water demand periods. Electrical studies and design responsibilities include Motor Control Center (MCC) sizing, one-line diagrams, electrical design criteria, and instrumentation and control design criteria.
- **Wastewater Facility Rehabilitation Project, Allegheny County Sanitary Authority (ALCOSAN), Allegheny County, Pennsylvania.** Lead Electrical Engineer. GAI is providing engineering design services, as needed to ALCOSAN, for various small to mid-size capital improvement projects at three sites. GAI's electrical scope includes observing the condition of the exterior electrical boxes and conduit (both rigid and flexible) connected to the process instrumentation and process electrical equipment that is observable, and recommending repair and replacement of any deficiencies observed.
- **Confidential Leachate Conveyance and Treatment System.** Lead Electrical Engineer. Developed initial electrical concept. Developed one-line diagram. Performed cable sizing and voltage drop calculations. Provided electrical specifications. Contacted vendors to verify equipment availability and costs. Developed cost estimates.



Stephen Anthony is an engineering director with GAI and will provide electrical engineering support for this Project. He has over 17 years of experience and specializes in managing Substation and Protection & Controls Engineering projects. Mr. Anthony has experience in a full range of Substation projects from equipment replacement to large intricate multi-year substation expansions. He currently directs an organization of over 30 technical managers, engineers and designers on Protection and Controls design, Physical design, Procurement, Financials, Construction Support and Project Close-out. He is highly proficient in Substation Equipment Specification and Evaluation, as well as Witness Testing and Implementation. Additionally, Mr. Anthony serves as the Subject Matter Expert for internal and external requests. Mr. Anthony holds a MS in Electrical and Electronics Engineering – Power System Engineering from George Washington University and a BS in Electrical and Electronics Engineering from University of Maryland.

EDUCATION

MS, Electrical and Electronics Engineering – Power System Engineering, 2011, George Washington University

BS, Electrical and Electronics Engineering, 2006, University of Maryland

LICENSES/REGISTRATIONS

Professional Engineer (PE): MD, DC, VA, MA, CA, PA

CERTIFICATIONS/TRAINING

IEEE Transformer Committee

IEEE Senior Member

SKILLS

Electrical Substation Physical and P&C Design

Substation Engineering and Project Management

Equipment Evaluation and Specification

AutoCAD, Micro Station, WINIGS,

Expert Witness Testimony

INDUSTRY EXPERIENCE

GAI Consultants, 2018-Present

Pepco Holdings Inc., an Exelon Company 2014-2018–Manager Substation Engineering

Pepco Holdings Inc., 2004-2014–Senior Supervising Engineer; Senior Substation Engineer

RELEVANT EXPERIENCE

- **Confidential Client 1: Substation, Western Pennsylvania.** Engineer of record for the upgrades at the substation performing final QA/QC checks and sealing of the designed Issue for Construction (IFC) package. The physical upgrades included the replacement of a 69-8.87kV 11/14 MVA transformer including a sound wall, adding SATEC transformer metering and SCADA to the transformer alarms. This scope involved the design of all one-line diagrams, electrical plan and section views, conduit plan and details, grounding plan and details, BOM development, nameplates, AC and DC schematics, wiring diagrams, civil structural design and foundation details as well as sound calculations.
- **Confidential Client 1: Substation, West Virginia.** Final QA/QC checker and overall project manager. Project involved installing a dual 46kV grounded wye shunt capacitor bank with an effective rating of 5.6MVAR at 46kV. This project was in a flood zone which necessitated soil borings and piers to raise the cap bank above the flood levels. Additional challenges included using previously ordered equipment and identifying which parts were missing, retesting the equipment to ensure it operates properly, shortened project schedule, and the addition of circuit breakers instead of cap switchers due to lead times. By use of a synchronizing device, the breakers were able to operate in place of the cap switchers.
- **Confidential Client 1: Substation, Pennsylvania.** Engineer of record for the upgrades at the substation performing final QA/QC checks and sealing of the designed Issue for Construction (IFC) package. The upgrades included the expansion of the existing station with a new ground grid and the installation of a two (2) 115kV MOABs, bus work, dead-end structures, and 4kV distribution outside ladder tray and all associated protection and controls. This scope involved the design of all one-line and three-line diagrams, electrical plan and section views, conduit plan and details, grounding plan and details, BOM development, nameplates, AC and DC schematics, wiring diagrams, civil structural design and foundation design. The above station also included an AC, DC load and grounding study/calculations.
- **Confidential Client 1: Substation, Pennsylvania.** Engineer of record for the upgrades at the substation performing final QA/QC checks and sealing of the designed Issue for Construction (IFC) package. The design called for installing a 36 MVAR capacitor bank, independent pole operated (IPO) synchronous breakers, and associated equipment. Construction sequencing and construction support was also provided to accommodate an aggressive outage window.
- **Confidential Client 2: Black Start Combustion Turbine Separation Projects in Maryland.** Project Manager and lead preparer of engineering report containing conceptual layouts, one-line diagrams, schedules, and engineer's estimates of probable construction costs for an investigation in separating black start combustion turbines from the remainder of the plant equipment in order to directly export power to the grid. Study involved analysis of the turbines as well as ancillary electrical equipment to determine a relocation strategy or leave-in-place strategy to provide an optimal export path. Multiple design options and pricing scenarios were developed.
- **Confidential Client 3: Asset replacement and analytics.** Led the entire substation asset replacement portfolio for the system ranging from 4kV to 500kV. Design engineer for a 500kV substation expansion. Performed design for overall single line, physical layout and developed P&C philosophy. Created specifications for bulk electric equipment and performed economic cost evaluation for one (1) 500/230kV Transformer, two (2) 500kV breakers, two (2) 230kV breakers, relaying and all misc. equipment. Designed, Reviewed, approved and red-lined design drawings for compliance to client standards and specifications, as well as IEEE, NEC and NESC. Coordinated design, construction and close out efforts between engineering, construction and construction management, as well as subcontracted engineering and construction firms. Project duration of three and half (3.5) years with annual spend of 200 million USD.



Mr. Hartman is a Senior Project Engineer with GAI and will support the electrical engineering team for this important Project. He has 8 years of experience specializing in electrical engineering within the government, substation, transmission, distribution, and nuclear power industries. He has a working knowledge of the installation of electrical systems and equipment in addition to having experience with various aspects of the modification design process, including conceptual design and analytical calculations. He is a licensed professional engineer in West Virginia and Delaware. Mr. Hartman has a working knowledge of various computer software programs, including ETAP, WinIGS, AutoCAD, and MicroStation. He holds a BS in Electrical Engineering from Pennsylvania State University.

EDUCATION

BS, Electrical Engineering, 2013,
Pennsylvania State University

LICENSES/REGISTRATIONS

Professional Engineer (PE): WV

SKILLS

Electrical Engineering

Substation Protection & Control
Engineering

Electrical Substation Physical
Design

Electrical Systems and Equipment

Engineering Standards (including
IEEE, NESC, NEC, NEMA, ANSI
and RUS)

INDUSTRY EXPERIENCE

GAI Consultants, Inc.,
2019-Present

Enercon Services, 2013-2019

RELEVANT EXPERIENCE

- **Substation Bulk Electric System (BES) and Transmission System Upgrades located in the Northeastern U.S.** Completed and/or assisted in the development of Physical and Protection and Controls design packages for multiple substations. Protection and controls designs consisted of relay upgrades including line protection schemes, breaker failure schemes and bus differential schemes. Physical designs consisted of replacement of breakers, batteries, motor operated disconnect switches, bus PTs and CTs, wave traps, power line carriers, line tuners and relay panels. In addition, compiled and ordered BOMs, nameplates, revised or added SCADA control & indication points, updated circuit/conduit/cable schedules, field construction support and participated in regular project status meetings to ensure adherence to scope, schedule, and budget.
- **Sub Transmission System Upgrades located in the Northeastern U.S.** Completed and/or assisted in the development of Physical and Protection and Controls design packages for multiple substations. Protection and controls designs consisted of relay upgrades including line protection schemes, breaker failure schemes and bus differential schemes. Physical designs consisted of replacement of breakers, batteries, motor operated disconnect switches, bus PTs and CTs, wave traps, power line carriers, line tuners and relay panels. In addition, compiled and ordered BOMs, nameplates, revised or added SCADA control & indication points, updated circuit/conduit/cable schedules, field construction support and participated in regular project status meetings to ensure adherence to scope, schedule, and budget.
- **SCADA Additions, Upgrades, and Retrofits located in the Northeastern U.S.** SCADA additions, upgrades, and retrofits. Replaced Legacy Data Concentrators such as Cybectecs and SEL-2020s with SEL RTACs. Replaced legacy RTUs such as GE-D20s, Systems North West (SNW), and Harris SEL AXIONS. Retrofitted RTUs using existing cabinets and panels as marshalling cabinets to reduce outage times. Replaced legacy alarming devices such as SACOs and Seekirks with SEL-2523s, SEL-2533s, and SAM-900 HMLs, programing relays as necessary.
- **Substation Combustion Turbine Studies located in Maryland.** GAI worked on multiple studies to generate an option to disconnect black start combustion turbines from the stations and exporting them straight onto the grid.
- **138kV Substation Engineer-Procure-Construct (EPC) Projects.** GAI prepared an EPC Scope of Work document for the Protection and Control and Physical Substation Projects.
- **Western Farmers Electrical Cooperative Switch Station and Substation Physical Design Projects.** Project Electrical Engineer. Tasks included developing one-line diagrams, conduit plans, conduit and cable schedules, conduit details, grounding plans, grounding reports, grounding details and coordinating efforts across multiple disciplines.
- **Wolf Creek Nuclear Operating Company Switchyard SPV Study.** Project Electrical Engineer. Tasks included evaluating schematics and wiring diagrams for the Switchyard to identify potential SPVs and provide or enhance mitigating actions.
- **Electrical Distribution Reliability Improvement Project at Calvert Cliffs Nuclear Plant.** Project Electrical Engineer. Tasks included coordinating electrical and physical design tasks on both the Switchyard and Nuclear scopes, developing the protective relaying design and developing procurement specifications.
- **22kV Breaker Replacements at Arkansas Nuclear One Switchyard.** Lead Responsible Electrical Engineer. Task included project coordination, preparing the engineering change package, updating load flow and short circuit calculations and sizing cable and conduits.
- **Contingency Replacement of the 4kV Transformers at Calvert Cliffs.** Lead Responsible Electrical Engineer. Tasks included retrofitting new transformer into the old design, validating protection relay settings, drawing creation and revision and engineering change package preparation.



Mr. Bobish is an Electrical Technical Leader with GAI and will provide electrical engineering support for this Project. He specializes in electronics engineering and has over 30 years of experience with industrial and municipal clients in the energy, chemical, water, and nuclear industries. His experience includes project management; performing electrical engineering and design for single-line diagrams, Instrumentation and Control (I&C) schematics, equipment locations, underground plans, conduit and tray layouts, and cable schedules; electrical construction cost estimating, and evaluating bid proposals from electrical contractors. His software experience includes; AutoCAD 2018, Raster Design 2013, Clarkware Conduit/Cable Software, Access, and Microsoft Office Suite. He holds a BS in Electronics Engineering Technology - Power Concentration from Point Park University.

RELEVANT EXPERIENCE

- **Chilled Water Plant Project, located in Florida.** Performing electrical design services for the Chilled Water Plant, including connections to the district chilled water piping system. GAI's tasks include developing electrical drawings and specifications for permitting and construction to be incorporated to the "contract documents," and will include the Chilled Water Plant design, meeting the requirements of the Florida Building Code.

Electrical Design Specialist, Jacobs (2015-2019)

- Tandem Mill Stand Upgrade Project, Blytheville, Arkansas. Project Lead. Designed single-line diagrams; equipment locations; underground plans; conduit and tray layouts; and cable schedules.
- New Continuous Galvanizing Line, Silao, Mexico. Project Lead.
- Nucor Yamato Quench Self Tempering System at Blytheville, Arkansas. Lead Designer.
- Cliffs Northshore Mining Company 2015 Pellet Project, Silver Bay, Minnesota. Lead Designer.

Sr. Electrical Design Engineer, R.T. Patterson Co. (2011-2014)

- Lead Design Engineer on bid phase of a new Melt Shop/Caster for TPCO (China) at Gregory, Texas.
- Lead Design Engineer on a new Melt Shop for ThyssenKrupp Steel at Calver, Alabama.
- Prepared conduit, cable, and cable tray take-offs for Contractor Bid purposes.

Electrical Design Engineer, JNE Consulting (2004-2011)

- Lead Design Engineer on the CPL for ThyssenKrupp Steel at Calvert, Alabama.
- Managed, designed, and drafted the electrical installation for a wastewater treatment plant at Reliant Energy's Cheswick facility.
- Prepared engineering and construction cost estimates for bid purposes.

Electrical Engineering Specialist, USFilter / Veolia Water NA (2001-2004)

- Lead Design Engineer on the electrical installation of a Stainless Steel Atomizing facility at the Electric alloy plant in Oil City.
- Evaluated electrical contractors' construction bid proposals.
- Performed electrical construction cost estimating.
- Performed engineering and design for the proposal and construction phases of DesignBuild water and wastewater facilities.

Electrical Project Engineer, Eichleay Engineers, Inc. (2000)

- Project Engineer on the electrical installation of a stainless steel atomizing facility at the Electric alloy plant in Oil City, PA.
- Evaluated OEM/Electrical supplier bid proposals for customer "Request for Authorizations."

Electrical Project Engineer, Salvucci Engineers, Inc. (1998-2000)

- Designed power distribution single-line and control schematic diagrams for an upgrade of General Electric's Engine Test Lab Facilities in Erie, PA.
- Prepared detailed technical specifications for transformers, switchgear, MCC's and VFD's.
- Designed and drafted single-line diagrams, I&C schematics, equipment location, underground plans, conduit and tray layouts, and cable schedules.
- Prepared engineering and construction cost estimates for bid purposes.
- Provided design for electric tracing on Dofasco's #2 BF.

EDUCATION

BS, Electronics Engineering Technology – Power Concentration, 1985,
Point Park University

SKILLS

Electronics Engineering
Project Management
Single-Line Diagrams
I&C Schematics
Electrical Construction Cost Estimating
Electrical Contractor Bid Evaluation

INDUSTRY EXPERIENCE

GAI Consultants, Inc., 2020-Present
Jacobs, 2015-2019
R.T. Patterson Co., Inc., 2011-2014
JNE Consulting, Inc., 2004-2011
USFilter/Veolia Water NA, 2001-2004
Eichleay Engineers, Inc., 2000
Salvucci Engineers, 1998-2000
Lockwood Greene Engineering & Construction, 1995-1998
Mannesmann Demag Corp., 1993-1995
Centerline Engineering Corp., 1988-1993
Sargent Electric Company, 1986-1987



Mr. McNabb is an Engineering Manager with GAI and will lead the mechanical engineering team for this important Project. He has over 20 years of experience with technical and business knowledge, comprehensive project management experience, and complex design skills. He is LEED® AP certified and a licensed Professional Engineer in West Virginia, Pennsylvania, Ohio, New York, Texas, and Florida. He has held prominent engineering integration and leadership roles supporting the technical and business development plans for complex HVAC systems for modern commercial and industrial buildings. He holds a BS in Mechanical Engineering from the University of Akron and a MBA from Cleveland State University.

RELEVANT EXPERIENCE

- **Steam Lateral Study, Healthcare Client, Florida.** Lead Mechanical Engineer. GAI provided design services related to a proposed replacement of district steam and condensate piping. Responsible for providing design/calculations, construction drawings, and specifications related to mechanical engineering, including: definition of piping materials, valves, installation methods, testing and cleaning of the proposed steam and condensate piping, plans and profiles of the proposed steam and condensate piping, valve vault details, and connections to existing piping systems.
- **Soldiers and Sailors Parking Garage Project, University of Pittsburgh, Pittsburgh, Pennsylvania.** Lead Mechanical Engineer. Performed mechanical and plumbing condition and deterioration investigation for ventilation and plumbing systems at this four-level, below grade parking garage for the University of Pittsburgh. Provided calculations to verify what the minimum air flows would be required in order to provide adequate equipment/fan sizes for the University to consider. Provided a mechanical assessment report and repair recommendations.
- **Mechanical Study - Heating and Cooling Systems, Healthcare Client, Florida.** Project Manager/Lead Mechanical Engineer. Provided mechanical engineering assistance to study the heating, ventilation, and air conditioning systems. The Client purchased a former warehouse facility and adapted it as an outpatient clinical occupancy, providing behavioral health counseling to adolescents. Since opening approximately five years ago, shortcomings in the HVAC systems ability were discovered. GAI studied the HVAC systems and made recommendations to further improve the facility's indoor environment.
- **Full-Service Confidential U.S. Government Facilities Engineering Program, United States.** Project Engineer. Supported the HVAC design efforts of over 25 projects, monitoring progress, providing analysis, and final design of HVAC, Plumbing, and Fire Protection System Design. GAI is providing facilities planning and design engineering services for building and campus, expansion, demolition and modification projects. Building sizes range from 5,000 SF to 96,000 SF.
- **Uptown District Energy Center, NRG Energy, Inc., Pittsburgh, Pennsylvania.** Sustainability Coordinator. Responsible for registering this project with the U.S. Green Building Council to pursue LEED® Certification. He developed a spreadsheet identifying attainable and feasible LEED® points for the project and developed a conceptual cost estimate for obtaining different levels of certification. GAI provided electrical and mechanical engineering design for the new Uptown District Energy Center, a district heating and cooling facility that will deliver steam, chilled water, and backup power to the University of Pittsburgh Medical Center, Mercy Hospital, and other customers.
- **Hilton Garden Inn, Cranberry Township, Pennsylvania.** Lead Mechanical Engineer for sizing, specification, and drafting of all HVAC building systems and associated air duct distribution systems. Performed all required heat gain/heat loss and energy code envelope calculations using Carrier HAP Load estimating software and COMcheck EZ software. Responsible for sizing, selecting and specifying all HVAC related equipment such as gas fired rooftop units, kitchen make-up air unit, kitchen and toilet room ventilation fans, hotel room PTAC units, and indoor pool dehumidification air handling units.
- **Saint Kilian's Parish Center and Elementary School in Cranberry Township, Pennsylvania.** Primary Design Engineer for HVAC, Plumbing, and Fire Protection Systems. Mr. McNabb was responsible for sizing, specification, and drafting of all HVAC building systems and associated air duct distribution systems. Performed all required heat gain/heat loss and energy code envelope calculations using Carrier HAP Load estimating software and COMcheck EZ software. Responsible for sizing, selecting and specifying all HVAC related equipment such as gas fired heating hot water plant (boilers, pumps, and distribution system) air cooled chiller (unit, pumps, ice storage tanks, and distribution system), multiple four-pipe fan coil units, and toilet room exhaust fan/energy recovery units. The building design also included a full service, student cafeteria/kitchen with rooftop make-up air units and grease exhaust fan systems.

EDUCATION

MBA, 2003, Cleveland State University

BS, Mechanical Engineering, 1996, University of Akron

LICENSES/REGISTRATIONS

Professional Engineering (PE):
Pennsylvania – 2005, [REDACTED];
Ohio – 2004, [REDACTED]; West
Virginia – 2012, [REDACTED]; Texas –
2012, [REDACTED]; New York – 2017,
[REDACTED]; Florida – 2018, [REDACTED]

CERTIFICATIONS

Leadership in Energy and
Environmental Design, Accredited
Professional (LEED AP),
Pennsylvania - 2009

SKILLS

Project Management
Planning, Scheduling, and
Implementation
HVAC System Design
Building Codes Studies
Resource Management
Plumbing System Design
Efficiency Improvements
Consultation and Integration

INDUSTRY EXPERIENCE

GAI Consultants, Inc., 2016 – Present

Cintar Inc., 2012 – 2016

AE Works Ltd., 2009 – 2012

L. Robert Kimball & Associates (A
CDI Company), 2006 – 2009

Burt Hill (STANTEC), 2005 – 2006

Carter & Burgess, 2000 – 2005



Mr. Bubeck is a Project EIT with GAI and will support the mechanical engineering team for this important Project. He has 9 years of experience specializing in mechanical engineering, HVAC system design, piping system design, and design and drafting of mechanical systems. His experience includes developing technical documentation for the implementation of mechanical systems, performing fluid flow calculations, and performing hydraulic pump sizing calculations using engineering software. He also develops technical specifications, bill of materials, scope of services, and construction cost estimates for mechanical projects. He holds a BS in Mechanical Engineering Technology from Pennsylvania State University.

RELEVANT EXPERIENCE

- **NRG Uptown District Energy Center, located in Pittsburgh, PA for NRG Energy.** Provided mechanical engineering support for the new Uptown District Energy Center, a district heating and cooling facility located on a 28-acre campus that delivers steam, chilled water, and backup power to the University of Pittsburgh Medical Center, Mercy Hospital, and other customers.
- **Full-Service Facilities Engineering Program, located at U.S. Government Facilities in the United States.** Mr. Bubeck has provided mechanical engineering support on over 20 projects for this client, which GAI is assisting as Owner's Engineer. Responsibilities have included creating equipment sizing calculations for pumps, expansion tanks, relief valves, HVAC systems, and piping using MathCAD; creating 3D models and production drawings of equipment layouts and pipe routings using Revis, AutoCAD, MicroStation, and SolidWorks; completing and analyzing flow analyses of piping systems using AFT Fathom; completing HVAC equipment sizing calculations and energy models using Carrier Hour Analysis Program (HAP); and creating fabrication drawings for manufacturing, maintenance, and restoration of rotating equipment using SolidWorks.
- **ACL Ventilation System located in Virginia.** GAI is providing engineering services to support a building renovation program. Tasks include evaluating airflow distribution concept indicated in a computerized fluid dynamics report; performing heating and cooling load calculations; analyzing existing hydronic heating and existing chilled water cooling systems and proposing solutions for additional capacity to support the renovation; developing an HVAC air system solution for renovation; and developing heating and cooling system solutions with the intention of reusing existing equipment assets where practicable.
- **Water Intake Structure Modifications for a Confidential Client located in Nevada.** Provided mechanical engineering support for the evaluation of options to extend intake piping approximately 80 feet further into a lake. GAI conducted a site visit to make observations and take photographs of the existing intake facility and developed cost estimates based on preliminary structural and geotechnical calculations. GAI provided evaluation of existing equipment and selection of new pumps, piping, and appurtenances; analysis of existing structure and development of extension options; and analysis of existing conditions, including existing foundations and modifications to allow for structure extension.
- **FMC Technologies – Intern/Rotational Engineer.** Serviced and performed factory acceptance tests on subsea manifold systems as well as drilling and wellhead equipment. Performed installation procedures and gained hands on experience with surface wellhead equipment in the field. Composed work instructions and routers for mobilization, demobilization, in-storage maintenance, periodic maintenance, overhaul, and recertification of running tools.

EDUCATION

BS, Mechanical Engineering Technology, Penn State Erie, The Behrend College, 2014

LICENSES/REGISTRATIONS

Engineer-in-Training (EIT), 2014

SKILLS

Mechanical Engineering
HVAC System Design
Piping System Design
Design and Drafting of Mechanical Systems

INDUSTRY EXPERIENCE

GAI Consultants, Inc., Project EIT, 2016-Present

FMC Technologies, Rotational Engineer 2014-2015

FMC Technologies, Engineering Intern 2012-2014

Dick Kernick's Auto Service, 2008-2012



Mr. Winovich is a Project EIT with GAI and will support the mechanical engineering team for this important Project. He has 6 years of experience specializing in mechanical engineering. His recent experience includes more than 21 projects in support of the maintenance and expansion of a confidential government campus. He is experienced with AutoDesk Mechanical, AutoDesk Inventor, AutoDesk Architectural, AutoDesk Revit, Creo Pro-Engineer, SolidWorks, Microsoft Excel, CES Materials Software, ANSYS APDL and Workbench, Carrier Hourly Analysis Program, and MathCAD. He holds a BS in Mechanical Engineering from Pennsylvania State University - Behrend College.

RELEVANT EXPERIENCE

- Mr. Winovich has worked extensively on over 21 projects for a Confidential Energy client, which GAI is assisting as “owner’s engineer”.
- Phase 3C Project 2, Florida (FL). Mr. Winovich assisted GAI in providing design services to a Florida City for infrastructure improvements. The Project included modeling and permitting; Phase 3C Construction Plans for two locations; and pump station improvements.
- Mr. Winovich has provided GAI’s clients with HVAC and piping system solutions per internationally recognized codes and standards. He has worked on large-scale HVAC projects in both large and small groups. On some projects, he worked alone and reported only to the Engineering Manager. He has written and modified specifications for contractor equipment selection as well as selected equipment for basis of design. He has specifically assisted in equipment selection for specialty fluid piping systems.
- Mr. Winovich is the lead educator in his department on using Revit Software.
- Mr. Winovich interfaces with clients on a regular basis to provide project status updates, discuss project planning and agendas, and to ensure clients’ needs are met.
- Mechanical Engineer, W.L. Winkle Engineering, Inc. Mr. Winovich performed research and design duties. He was charged with making creative design solutions and component selection and performed on-site research as necessary. He became familiar with design standards such as AISC, NEMA, and CMAA. He created and checked drawings, performed calculations, and interacted with fabricators and distributors. He also helped improve the company image by updating the company website while gaining more experience with .html code.

EDUCATION

B.S., Mechanical Engineering,
Penn State – Behrend College,
Pennsylvania, 2014

Associates of Science,
Engineering, Butler County
Community College,
Pennsylvania, 2012

LICENSES/REGISTRATIONS

Certified Engineer in Training
(EIT), 2015

SKILLS

Revit Software

Mechanical Engineering

INDUSTRY EXPERIENCE

GAI Consultants, Inc., 2016 –
present

W.L. Winkle Engineering Inc.,
2015



Mr. States is an Assistant Engineering Manager with GAI and will lead the structural engineering team for this important Project. He has 13 years of experience and specializes in structural engineering and design of steel and concrete structures, structural assessments, and structural rehabilitation. His experience includes complex steel framing systems, mechanical and electrical equipment support, concrete mat foundations, clarifiers and other environmental concrete structures, parking garage assessment and rehabilitation projects, transmission line and substation structures. He is a licensed Professional Engineer in Pennsylvania and Ohio and has applied for and is awaiting his license in West Virginia. He holds a MS in Structural Engineering from Lehigh University and a BS in Civil and Environmental Engineering from Carnegie Mellon University.

RELEVANT EXPERIENCE

EDUCATION

MS, Structural Engineering, 2011,
Lehigh University

BS, Civil and Environmental
Engineering, 2009, Carnegie
Mellon University

LICENSES/REGISTRATIONS

Professional Engineer (PE): PA, OH

SKILLS

Structural Engineering Design and
Analysis

Foundations Engineering Analysis
and Design

Retaining Wall System Design

INDUSTRY EXPERIENCE

GAI Consultants, Inc.,
2011-Present

Paul C. Rizzo Associates, Inc.,
2009

Geo-Solutions, 2008

- **ELG compliance support at two coal fired generation stations.** Engineer responsible for tank evaluation and structural design support relating primarily to tank repairs and foundations. GAI provided the clients with 30% design packages for storage and treatment of the flue gas desulfurization (FGD) wastewater to comply with the National Pollutant Discharge Elimination System permits that became effective in 2018 at the stations. The scope of the project included biological treatment vendor coordination, pump selection, existing tank evaluations, pipeline routing and design, and engineering estimates of probable costs. The 30% design package included process, mechanical, structural, and civil design drawings, preliminary specifications and design basis, and a project permitting matrix.
- **Nuclear Power Plant Module Wall Analysis for Confidential Client.** Analysis and qualification of the CA05 module wall (~100' x 30') in the nuclear power plant. Analysis included redlining of module drawings, development of local loads on the wall, and assisting with the calculation of required steel area in the composite module wall, and the design of connections between the module wall and the surrounding floor and wall modules.
- **Fender Design for 500kV transmission line structures in the James River in Virginia, for Confidential Client.** Designed fiber reinforced polymer fender structures to protect transmission towers from vessel impact.
- **Metal Finned Pipe Foundation Design for Industrial Client.** Updated the MathCAD metal foundation design electronic calculation worksheet. Calculations included the geotechnical design and structural design of pipes, bolts, welds, and steel plates.
- **Transmission Line Structural Component Analysis and Design for Confidential Client in Virginia and North Carolina.** Designed transmission line hardware including crossarms, distribution arms, pole bent plate assemblies and bayonets.
- **Substation Foundation Design for Confidential Client in Virginia.** Designed concrete pile cap and reviewed micropile design for 500kV breaker foundations.
- **Bradford Dam Rehabilitation in Pennsylvania for Bradford City Water Authority.** Provided structural design and assembled structural drawings for rehabilitation and extension of stilling basin.
- **Transmission Line Engineering for Confidential Client.** Produced construction package for transmission line maintenance work on various 230kV and 115kV lines. Assisted in the design of a new 230kV transmission line including structure sizing, and insulator selection. Produced construction packages and material orders for over 10 locations for North American Electric Reliability Corporation LiDAR remediation.
- **Substation Expansion Foundation Design in West Virginia for Confidential Client.** Designed pile and mat foundations for substation equipment with a leveling system to accommodate settlement due to anticipated long-wall mining.
- **Power Station Structural Condition Report in Pennsylvania for Confidential Client.** Conducted a structural assessment of concrete beams and roof slabs and developed a structural condition report.
- **Cross Creek Dam Sluice Gate Repair in Washington County, Pennsylvania for the Washington County Planning Commission.** Designed sluice gate replacement including the development of specifications and drawings.
- **Engineering services to assist in providing power for Confidential Client in West Virginia.** Prepared site maps and cost estimates to provide three-phase power to more than 30 gas pipeline Central Receipt Point and pump station locations.
- **Soldiers and Sailors Parking Garage Condition Assessment in Pittsburgh, Pennsylvania for the University of Pittsburgh.** Performed a structural assessment of the underground basement walls and floors as well as a forensic assessment to determine the source of water infiltration into the garage.



Mr. Knepper is a Senior EIT with GAI and will support the structural engineering team for this important Project. He has 2.5 years of experience and specializes in the design of structural systems for industrial, power, manufacturing, and electric utility projects. His experience includes the definition of design criteria, design of steel framing and concrete structures, and preparation of construction drawings, specifications, and detailed calculation packages. Additional experience includes development of construction cost estimates, development of 3D structural BIM models, and construction phase services. His experience includes the modeling, designing, and detailing of structural steel, reinforced concrete, spread foundations, retaining walls, and electrical transmission and substation structures. He has also assisted in preparing construction drawings using computer aided design and drafting software including AutoCAD and REVIT. He holds a BS in Civil Engineering from Geneva College.

RELEVANT EXPERIENCE

EDUCATION

BS, Civil Engineering, Geneva College, 2019

LICENSES/REGISTRATIONS

Engineer in Training (EIT)

SKILLS

Structural Engineering Design and Analysis

Foundations Engineering Analysis and Design

Computer Aided Design and Drafting

Structural Steel 3D Modeling

INDUSTRY EXPERIENCE

GAI Consultants, 2019 – present

RGS Associates, summer 2018

PennDOT, summer 2017

- **University Avenue Parking Garage, Morgantown, West Virginia for Morgantown Parking Authority.** Structural engineer responsible for a condition assessment of the 4-story post tensioned, cast-in-place concrete parking garage.
- **Power Station Structural Condition Reports in Pennsylvania and West Virginia for Confidential Client.** Structural engineer responsible for structural assessments of power station stacks, cooling tower walkways, and other structures. Developed structural condition reports based upon on-site assessment.
- **Full-Service Facilities Engineering Program, located at U.S. Government Facilities in the United States.** Structural Engineer responsible for providing conceptual and final design packages for structural and architectural systems. Projects range from assessment to design services for individual buildings and campus wide systems, with respect to facility expansion, modification, and demolition projects. Type of buildings include high bay testing laboratories, manufacturing facilities, office buildings, maintenance facilities, and emergency response/security facilities. Designs included RISA 3D and STAAD Pro analysis models.
- **Manufacturing Facility Equipment Platforms, multiple US locations.** Structural Engineer/Designer responsible for structural analysis and preparation of permit drawings/calculations for equipment platforms to support plastics processing equipment within manufacturing facilities. Included creation of permit drawings from client REVIT models, coordination with local building departments, and compliance with OSHA standards.
- **Chilled Water Plant, Orlando, Florida for Confidential Client.** Structural Engineer responsible for design of steel supports for mechanical and electrical equipment inside and outside of the building. Structural designs were created using a REVIT model for coordination of structural, mechanical, electrical, and civil designs. Structural Analysis was completed using RISA 3D and STAAD Pro to analyze mechanical and electrical equipment support system.
- **Transmission line pole pipe pile foundation design for Confidential Client.** Structural engineer responsible for design of pipe pile foundation drawings, specifications and calculations. Modeled transmission line pole in RISA 3D to develop seismic loads using time-history data for structural analysis.
- **Lifting Beam Analysis for Power Station in West Virginia for Confidential Client.** Structural engineer responsible for analysis and calculations for proposed mechanical equipment lifting beam. Developed drawings showing the installation of the proposed lifting beam.
- **United Refining Company, West Seneca Terminal, New Crude Oil Tank and Pipe Daylighting Project, West Seneca, New York.** Structural Engineer responsible for design of foundations for the new 158'-0" diameter x 70'-0" steel tank and a 1,500 foot long system of steel framed bents, T-posts, and bridge structure on drilled pier foundations to support the crude oil service lines, fire protection lines, and a cable tray. The project included modification of the existing control building, mat foundations to support pumps and electrical equipment, and steel framed access stair into the containment areas.
- **Wet Weather Equalization Facility Condition Assessment, Pennsylvania for Confidential Client.** Structural engineer responsible for a structural inspection of sites including above ground and underground tanks, and site buildings. Prepared a condition assessment report which included repair recommendations and classified each repair as immediate, or non-essential repair. GAI prepared an Engineers Opinion of Probable Construction costs for the proposed repairs. Assisted in creation of AutoCAD drawings showing extent of repairs.
- **Long Ridge Energy Terminal Dock Repairs, Hannibal, Ohio.** Structural Engineer responsible for the structural assessment and repair of an existing barge loading facility consisting of multiple steel sheet pile cells with a landside concrete slab-on-grade. The project included preparation of bid documents, an engineer's opinion of probable cost, and bid and construction phase services.

RESUME

CHARLES STRALEY, PE, PLS, MS

Geotechnical Engineering Lead



gai consultants



Mr. Straley is a Senior Engineering Manager with GAI and will serve as the Lead Geotechnical for this Project. He is a licensed PE in West Virginia, Ohio, Kentucky, and Indiana; and a Professional Licensed Surveyor (PLS) in West Virginia. Mr. Straley has over 35 years of experience specializing in geotechnical engineering, including all aspects of landslide investigations, subsurface exploration, foundation and embankment design, slope stability, material and construction specifications, laboratory testing, and construction administration, management, and monitoring. His management experience, combined with his 35 years of geotechnical engineering expertise, will aid in the successful completion of the geotechnical aspects of this Project in a timely, technically sound, and cost-efficient manner.

RELEVANT EXPERIENCE

- **White Avenue Slip Project, City of Morgantown, Morgantown, West Virginia.** Principal-in-Charge and Lead Geotechnical Engineer. Responsible for overseeing the remediation and design of a roadway damaged by a landslide located in Morgantown, West Virginia. The project required stabilization of the hillside with soldier pile and lagging wall, road repair, drainage upgrades, and remediation below the landslide.
- **On-Call Geotechnical Engineering Contract, Morgantown Utility Board (MUB), Morgantown, West Virginia.** Project Manager and Lead Geotechnical Engineer. Projects included performing geotechnical exploration and design of a secant retaining wall along the Caperton Trail following a landslide which impacted MUB pipelines. Project Manager for the repair of the slope failure along a recreation trail which also removed the main sanitary sewer line. The slope failure was remediated by the installation of two secant walls. The sewer line was also rerouted and replaced.
- **Saylor Run Road Slip Project, WVDEP, Laurel Point, Monongalia County, West Virginia.** Project Manager and Lead Geotechnical Engineer. GAI's scope included providing stabilization for Saylor Run Road, regrading and providing proper drainage controls for the refuse piles and installing mine seals and bat gates in the open mine portals. Streambank stabilization was also provided along the toe of the refuse along the stream to protect it from erosion.
- **Majesty Mine Complex Landslide Reclamation Project, WVDEP, Barber County, West Virginia.** Lead Geotechnical Engineer. Project included the reclamation of two landslide areas along WV Route 16/2, design of a soldier pile and lagging wall to support the landslide, and design of site drainage along WV Route 16/2.
- **Landslide and Slope Instability Evaluations for Pennsylvania State Route (SR) 279 4, SR 2796B, and SR 4029, Pennsylvania Department of Transportation.** Lead Geotechnical Engineer. Provided an evaluation of data from surveys and slope inclinometers to determine movement of the slopes. Performed analysis of the overall slope for stability.
- **Latrobe (Gibson) Landslide Emergency Evaluation, WVDEP, Abandoned Mine Lands, Logan County, West Virginia.** Lead Geotechnical Engineer. Provided design and preparation of construction documents for a landslide above a residence as an emergency project for the WVDEP, Abandoned Mine Lands. Activities included: site grading, subsurface investigation, hydraulics and hydrology analysis, valley fill design, COIE permitting, preparation of drawings and technical specifications, engineering cost estimate and pre-bid meeting presentation.
- **Access Road Landslide Investigation and Remediation, Confidential Client, West Virginia.** Lead Geotechnical Engineer. GAI evaluated the slope stability and landslide concerns identified along a substation access road located in West Virginia. GAI performed the investigation, conceptual design and coordination with our Client, development of recommendations and conceptual alternatives for addressing the landslide, final design of an approved alternative, and construction support to address the landslide.
- **Ven's Run Landslide #2, WVDEP, Abandoned Mine Lands, West Virginia.** Lead Geotechnical Engineer. Responsible for the design of and preparation of construction documents for a previously repaired landslide for the WVDEP, Abandoned Mines Lands. Activities included site grading, subsurface investigation, hydraulics and hydrology analysis, road re-design, preparation of drawings and technical specifications, engineering cost estimate and pre-bid meeting presentation.
- **Ned's Branch Impoundment Emergency Reclamation Project, WVDEP, Office of Surface Mine Reclamation & Enforcement, Mingo County, West Virginia.** Lead Geotechnical Engineer. Responsible for the design and preparation of construction documents for a 600,000 cubic yard failed impoundment dam as an emergency reclamation project.

EDUCATION

MS, Geotechnical Engineering, 1988, University of Akron

BS, Civil Engineering, 1986, University of Akron

LICENSES/REGISTRATIONS

Professional Engineer (PE): WV, KY, IN, OH

Professional Licensed Surveyor (PLS): WV

CERTIFICATIONS/TRAINING

Leaders to Watch, GAI Consultants, 2011

Advanced Project Management Training, GAI Consultants, 2009

Troxler Certified

40-hour Health & Safety Training

8-hour Supervisor Health & Safety Training

SKILLS

Project Management

Subsurface Exploration

Foundation & Embankment Design

Landslide & Slope Stability Engineering

Landfill Planning & Design

Water Feasibility Studies

Acid Mine Drainage

INDUSTRY EXPERIENCE

GAI Consultants, 1988-Present

University of Akron, Private Consulting and Testing, 1986-1987

APPENDIX

B

SIGNED SOLICITATION NO. CEOI 0603 ADJ2200000004



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

State of West Virginia
 Centralized Expression of Interest
 Architect/Engr

Proc Folder: 929712		Reason for Modification:	
Doc Description: Transfer Switch Gear Design Camp Dawson			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2021-08-26	2021-09-09 13:30	CEOI 0603 ADJ2200000004	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Customer Code: 000000160372
Vendor Name : GAI Consultants, Inc.
Address :
Street : 500 Lee Street East, Suite 700
City : Charleston
State : West Virginia **Country :** United States **Zip :** 25301
Principal Contact : Craig Adams, PE
Vendor Contact Phone: 412.399.5068 **Extension:**

FOR INFORMATION CONTACT THE BUYER
 Tara Lyle
 (304) 558-2544
 tara.l.lyle@wv.gov

Vendor Signature X  Digitally signed by Craig R. Adams
 DN: E=C.Adams@gaiconsultants.com,
 CN=Craig R. Adams
 Reason: I am approving this document
 Date: 2021.09.09 10:05:20-04'00' **FEIN#** 25-1260999 **DATE** September 9, 2021

ADDITIONAL INFORMATION

The West Virginia Purchasing Division, for the agency, the West Virginia Army National Guard, Construction and Facilities Management Office, is soliciting Expressions of Interest from qualified firms to provide professional design services to develop construction documents for a replacement electrical transfer switch gear at Camp Dawson, WV, per the attached documentation.

INVOICE TO	SHIP TO
ADJUTANT GENERALS OFFICE 1707 COONSKIN DR	CAMP DAWSON ARMY TRAINING SITE 240 ARMY RD
CHARLESTON WV 25311 US	KINGWOOD WV 26537-1077 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Transfer Switch Gear Design Camp Dawson		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description:

Provide professional architectural and engineering design services per the attached documentation.

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
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	Document Phase	Document Description	Page 3
ADJ2200000004	Draft	Transfer Switch Gear Design Camp Dawson	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

EXPRESSION OF INTEREST CEOI ADJ2200000004

Camp Dawson Electrical Transfer Switch Gear Design

Disclaimer: Effective July 1, 2020, the Purchasing Division will accept electronic proposals for Expressions of Interest via the Vendor Self-Service portal within wvOASIS. Paper submissions after this date are still acceptable.

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SECTION ONE: GENERAL INFORMATION

1. **PURPOSE:** The Acquisitions and Contract Administration Section of the Purchasing Division (“Purchasing Division”) is soliciting Expression(s) of Interest (“EOI” or “Bids”) for West Virginia Army National Guard, Construction and Facilities Management Office (“Agency”), from qualified firms to provide architectural/engineering services (“Vendors”) as defined herein.
2. **PROJECT:** The mission or purpose of the project for which bids are being solicited is to provide architecture and engineering design services and to provide construction bid documents suitable for advertisement using West Virginia state purchasing procedures. The design shall be prepared in such a manner that any alternate bid items are required for use. The electrical transfer switch gear located at Camp Dawson, near Kingwood, WV shall be replaced with a modern transfer gear that meets all current electrical codes and current force protection standards (“Project”).

3. SCHEDULE OF EVENTS:

Release of the EOI.....	08/26/2021
Expressions of Interest Opening Date.....	09/09/2021
Estimated Date for Interviews of Three Firms.....	TBD
Price Negotiations Commence with Highest Ranked Firm	TBD

**EXPRESSION OF INTEREST
CEOI ADJ2200000004**

Camp Dawson Electrical Transfer Switch Gear Design

SECTION TWO: INSTRUCTIONS TO VENDORS SUBMITTING BIDS

Instructions begin on the next page.

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting
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are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: N/A

Submit Questions to:

2019 Washington Street, East

Charleston, WV 25305

Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)

Email: Tara.L.Lyle@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:

Department of Administration, Purchasing Division

2019 Washington Street East

Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID:

BUYER:

SOLICITATION NO.:

BID OPENING DATE:

BID OPENING TIME:

FAX NUMBER:

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The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to a Request for Proposal is not permitted in wvOASIS.

For Request For Proposal ("RFP") Responses Only: In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal prior to the bid opening date and time identified in Section 7 below, plus one (1) convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: September 9, 2021 at 1:30 pm

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATE MODEL OR BRAND: Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at:
<http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

15A. RECIPROCAL PREFERENCE: The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: <http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference

for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

22. INTERESTED PARTY DISCLOSURE: West Virginia Code § 6D-1-2 requires that the vendor submit to the Purchasing Division a disclosure of interested parties to the contract for all contracts with an actual or estimated value of at least \$1 million. That disclosure must occur on the form prescribed and approved by the WV Ethics Commission prior to contract award.

A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

23. WITH THE BID REQUIREMENTS: In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.

24. E-MAIL NOTIFICATION OF AWARD: The Purchasing Division will attempt to provide bidders with e-mail notification of contract award when a solicitation that the bidder participated in has been awarded. For notification purposes, bidders must provide the Purchasing Division with a valid email address in the bid response. Bidders may also monitor wvOASIS or the Purchasing Division's website to determine when a contract has been awarded.

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Camp Dawson Electrical Transfer Switch Gear Design

SECTION THREE: PROJECT SPECIFICATIONS

1. **Background:** The Owner is seeking the services of a qualified professional architecture/engineering firm to design and develop construction bid documents to replace the electrical transfer switch gear that controls power on Camp Dawson. This project supports elements of the West Virginia Army National Guard Command during power outages.
2. **Project and Goals:** The project goals and objectives are listed below. Vendors should discuss any anticipated concepts and proposed methods of approach for achieving each of the listed goals and objectives:
 - 2.1. Provide a complete design including all engineering and architectural disciplines and supervision thereof to prepare construction bid documents for West Virginia State Purchasing. Key design elements include, a modern electrical transfer switch gear, transfer switch gear shall have the capability to parallel three (3) generators; capability to parallel with utility allowing for a seamless transfer back to utility power; shall have the ability to load shed and add / delete generators as load dictates; shall have redundant control computers; shall have control power from current transformers, station batteries, and generator batteries; transfer switch gear must be compatible with existing generators and utility power.
 - 2.2. Design shall include conditioned space for transfer gear and/or components as required.
 - 2.3. Provide a remote monitoring control / annunciator computer for Post Maintenance.
 - 2.4. Provide new power coordination study.
 - 2.5. The design shall bring the entire project and all associated systems and buildings in compliance with all current, federal, state, and local building codes, fire codes, and military construction regulations. The designer will be responsible for having the construction documents reviewed and approved by the proper authority.

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- 2.6. If required, designer to provide all geotechnical work to include any necessary drill borings. Designer shall be responsible for researching and investigating the location of existing underground and above ground utilities, and to provide drawings and specifications of any and all utility and road infrastructure as needed and directed by the owner and/or state agency, utility company or other utility approval authority for Kingwood, West Virginia.
- 2.7. Drawings, specifications and cost estimates are to be submitted at 35%, 65%, 95% and 100% design milestones. Designer may submit 35%, 65% and 95% drawings and specifications digitally; 100% construction documents are to be submitted both digitally and 3 hard copies. Cost estimates are to be divided into three categories sustainment, restoration and modernization; definitions of such will be provided to the awarded firm. Also, energy savings items, example, windows and LED lights are to be identified and their associated costs.
- 3. Qualifications, Experience, and Past Performance:** Vendors should provide information regarding its employees, such as staff qualifications and experience in completing similar projects; references; copies of any staff certifications or degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and the project goals and objectives and how they were met.
- 4. Oral Presentations/Interviews:** The Agency will conduct individual interviews with the three vendors that are determined to be the most qualified to provide the required service. During oral presentations/interviews, vendors may not alter or add to their submitted proposal, but only clarify information already submitted. A description of the materials and information to be presented is provided below:
- 4.1. Materials and Information Required at Oral Presentation/Interviews:**
- “Evaluation and Award Process” will be conducted with the three (3) firms selected as the most qualified by the WVARNG-CFMO selection committee. The Committee will schedule the interviews.

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The format for the interviews will be a 15-30 minute Power-Point presentation consisting, at a minimum, of the following:

- A) Corporation/Personnel experience as it relates to the project(s)
- B) Proposed project management plan
- C) Key personnel available for the proposed work
- D) Proposed subcontractors
- E) Product quality control
- F) Project cost control

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SECTION FOUR: VENDOR PROPOSAL, EVALUATION, & AWARD

1. **Economy of Preparation:** EOIs should be prepared simply and economically, providing a straight-forward, concise description of the firm’s abilities to satisfy the requirements and goals and objectives of the EOI. Emphasis should be placed on completeness and clarity of content. The response sections should be labeled for ease of evaluation.
2. **BIDS MUST NOT CONTAIN PRICE INFORMATION:** The State shall select the best value solution according to W. Va. Code §5G-1-3. In accordance with Code requirements, no “price” or “fee” information is permitted in the Vendor’s EOI response.
3. **Evaluation and Award Process:** Expressions of Interest for projects estimated to cost \$250,000 or more will be evaluated and awarded in accordance with W.Va. Code §5G-1-3. That Code section requires the following related to evaluation and award:
 - 3.1. **Selection Committee Evaluation and Negotiation:** A committee comprised of three to five representatives of the agency initiating the request shall:
 - 3.1.1. Evaluate the statements of qualifications and performance data and other material submitted by the interested firms and select three firms which in their opinion are the best qualified to perform the desired service.
 - 3.1.2. Conduct interviews with each of the three firms selected.
 - 3.1.3. Rank the three selected firms in order of preference
 - 3.1.4. And commence scope of service and price negotiations with the highest qualified professional firm.

If negotiations are successful, the contract documents will be forwarded to the WV Purchasing Division for review and approval, and then to the WV Attorney General’s office for review and approval as to form. Once approved, a formal contract will be issued to the Vendor.

Should the agency be unable to negotiate a satisfactory contract with the professional firm considered to be the most qualified at a fee determined to be fair and reasonable, the agency will then commence negotiations with the second most qualified firm, and so on, until an agreement is reached or the solicitation is cancelled.

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3.2. **Three Firm Evaluation Rankings:** The Agency will evaluate the three firms that have been determined most qualified to perform the desired service. The evaluation criteria are defined in the Procurement Specifications section and based on a 100 point total score. Points shall be assigned based upon the Vendor's response to the evaluation criteria as follows:

- Qualifications, Experience, and Past Performance (40) Points Possible
 - Goals and Objectives: –
Anticipated Concepts and Methods of Approach (20) Points Possible
 - Proposed project management,
Quality & Cost control plans (20) Points Possible
 - Oral Interview (20) Points Possible
- Total** 100

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SECTION FIVE: TERMS AND CONDITIONS

Terms and conditions begin on the next page.

GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: This Contract becomes effective on _____ and the initial contract term extends until _____.

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to _____ successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Alternate Renewal Term – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for _____ year(s) thereafter.

One Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Other: See attached AIA-B101-2017
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4. AUTHORITY TO PROCEED: Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for “Fixed Period Contract” or “Fixed Period Contract with Renewals” has been checked in Section 3 above. If either “Fixed Period Contract” or “Fixed Period Contract with Renewals” has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation/Award Document are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General’s office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

BID BOND (Construction Only): Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract. The performance bond must be received by the Purchasing Division prior to Contract award.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether that insurance requirement is listed in this section.

Vendor must maintain:

Commercial General Liability Insurance in at least an amount of: \$1,000,000.00 per occurrence.

Automobile Liability Insurance in at least an amount of: \$1,000,000.00 per occurrence.

Professional/Malpractice/Errors and Omission Insurance in at least an amount of: \$1,000,000.00 per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

Commercial Crime and Third Party Fidelity Insurance in an amount of: _____ per occurrence.

Cyber Liability Insurance in an amount of: _____ per occurrence.

Builders Risk Insurance in an amount equal to 100% of the amount of the Contract.

Pollution Insurance in an amount of: _____ per occurrence.

Aircraft Liability in an amount of: _____ per occurrence.

WV Statutory requirement- WV Code §23-4-2 (Mandolidis)

Please make Insurance Certificate Holder to Read
West Virginia Army National Guard
1707 Coonskin Drive, Charleston, WV 25311

Notwithstanding anything contained in this section to the contrary, the Director of the Purchasing Division reserves the right to waive the requirement that the State be named as an additional insured on one or more of the Vendor's insurance policies if the Director finds that doing so is in the State's best interest.

9. WORKERS' COMPENSATION INSURANCE: Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. [Reserved]

11. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

_____ for _____.

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

12. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

13. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

14. PAYMENT IN ARREARS: Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

15. PAYMENT METHODS: Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia, included in the Contract, or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

18. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

19. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

20. TIME: Time is of the essence regarding all matters of time and performance in this Contract.

21. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code, or West Virginia Code of State Rules is void and of no effect.

22. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

23. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

24. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

25. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

26. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

27. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

28. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

29. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

30. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

31. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

32. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

33. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

34. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

35. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

36. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

37. PURCHASING AFFIDAVIT: In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State, Vendors are required to sign, notarize, and submit the Purchasing Affidavit to the Purchasing Division affirming under oath that it is not in default on any monetary obligation owed to the state or a political subdivision of the state.

38. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

39. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.division@wv.gov.

40. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

41. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.
- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

1. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
2. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

42. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a “substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

43. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the vendor must submit to the Agency a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-award interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

44. PROHIBITION AGAINST USED OR REFURBISHED: Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

45. VOID CONTRACT CLAUSES – This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

**ADDITIONAL TERMS AND CONDITIONS
(Architectural and Engineering Contracts Only)**

1. PLAN AND DRAWING DISTRIBUTION: All plans and drawings must be completed and available for distribution at least five business days prior to a scheduled pre-bid meeting for the construction or other work related to the plans and drawings.

2. PROJECT ADDENDA REQUIREMENTS: The Architect/Engineer and/or Agency shall be required to abide by the following schedule in issuing construction project addenda. The Architect/Engineer shall prepare any addendum materials for which it is responsible, and a list of all vendors that have obtained drawings and specifications for the project. The Architect/Engineer shall then send a copy of the addendum materials and the list of vendors to the State Agency for which the contract is issued to allow the Agency to make any necessary modifications. The addendum and list shall then be forwarded to the Purchasing Division buyer by the Agency. The Purchasing Division buyer shall send the addendum to all interested vendors and, if necessary, extend the bid opening date. Any addendum should be received by the Purchasing Division at least fourteen (14) days prior to the bid opening date.

3. PRE-BID MEETING RESPONSIBILITIES: The Architect/Engineer shall be available to attend any pre-bid meeting for the construction or other work resulting from the plans, drawings, or specifications prepared by the Architect/Engineer.

4. AIA DOCUMENTS: All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the attached AIA documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein. The terms and conditions of this document shall prevail over anything contained in the AIA Documents or the Supplementary Conditions.

5. GREEN BUILDINGS MINIMUM ENERGY STANDARDS: In accordance with West Virginia Code § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July 1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

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.

Craig R. Adams Digitally signed by Craig R. Adams
DN: E=C.Adams@gaiconsultants.com, CN=Craig R. Adams
Reason: I am approving this document
Date: 2021.09.09 10:06:48-04'00'

(Name, Title)

Craig Adams, PE, Senior Electrical Technical Leader

(Printed Name and Title)

600 Cranberry Woods Drive, Suite 400, Cranberry Township, Pennsylvania 16066

(Address)

412.399.5068 / 724.772.2050

(Phone Number) / (Fax Number)

c.adams@gaiconsultants.com

(email address)

CERTIFICATION AND SIGNATURE: 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

GAI Consultants, Inc.

(Company)

Craig R. Adams Digitally signed by Craig R. Adams
DN: E=C.Adams@gaiconsultants.com, CN=Craig R. Adams
Reason: I am approving this document
Date: 2021.09.09 10:07:02-04'00'

(Authorized Signature) (Representative Name, Title)

Craig Adams, PE, Senior Electrical Technical Leader

(Printed Name and Title of Authorized Representative)

September 9, 2021

(Date)

412.399.5068 / 724.772.5050

(Phone Number) (Fax Number)

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: GKI Consultants

Authorized Signature: [Signature] Date: Sept. 9 2021

State of PENNSYLVANIA

County of BUTLER, to-wit:

Taken, subscribed, and sworn to before me this 09 day of SEPTEMBER, 2021.

My Commission expires 06/04, 2022.

AFFIX SEAL HERE

Commonwealth of Pennsylvania - Notary Seal
David C. Harkins, Notary Public
Butler County
My commission expires June 4, 2022
Commission number 1190259
Member, Pennsylvania Association of Notaries

NOTARY PUBLIC

[Signature]



500 Lee Street East, Suite 700
Charleston, West Virginia 25301
304.926.8100 | gaiconsultants.com