



Huttonsville Correctional Center
Randolph County, WV

Expression of Interest

For

Emergency Power Systems and Electrical Issues
COR61694

Submitted by:
Tower Engineering
115 Evergreen Heights Drive
Suite 400
Pittsburgh, Pennsylvania 15229
(412) 931-8888



Huttonsville Correction Center
Randolph County, WV

SECTION 1
LETTER OF INTEREST



May 15, 2014

Ms. Tara Lyle
Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

**RE: EOI COR61694
Emergency Power Systems and Electrical Issues
Huttonsville Correctional Center
Randolph County, West Virginia**

Dear Ms. Lyle,

Tower Engineering is pleased to submit this expression of interest to provide professional engineering services for upgrade of the emergency power system at the Huttonsville Correctional Center in Randolph County, WV. Given our firm's past experience with the design of electrical distribution and emergency power system in various types of facilities, we feel that Tower Engineering is uniquely qualified to provide services to the Division of Corrections because:

Quality Service - We work with each client's operating personnel and the contractor to ensure that systems are installed in accordance with plans and specifications; that they operate properly in relationship with their subsystems; that they operate through a wide range of operating conditions as well as design conditions; and, that the operating and maintenance personnel have been properly trained.

Past Performance & Experience - Tower Engineering has experience providing engineering design on numerous emergency power system projects. Our extensive design experience insures that we will be familiar with all aspects of each project's electrical design including generator systems, switchgear, and primary and secondary distribution systems. Our firm has provided services for many types of facilities and clients involving emergency power systems up to 6MW, and distribution system voltages up to 23kV. Examples of these are included in this package.

Personal Approach to Project Design – As a medium-sized engineering firm, we feel that this provides a number of significant advantages. Unlike a small firm, our office can easily accommodate the rigorous design schedules of a major project without significant disruption. Unlike a large firm, Tower Engineering stresses active principal involvement on all projects and does not require the involvement of "middle-level" employees whose responsibility is to convey information between the client and design engineers. Our principals are not devoted primarily to marketing activities, allowing ALL projects to include significant design participation of at least one of our three principals.

Ms. Tara Lyle
Division of Corrections
May 15, 2014
Page 2

Familiarity with West Virginia - Over the past 20 years, we have provided mechanical, electrical, plumbing, and fire protection engineering services on a vast number of facilities (both renovation projects and new) throughout the state of West Virginia. We are very familiar with the code issues that apply to construction projects in West Virginia and have excellent working relationships with major mechanical and electrical contractors who routinely bid projects located in the state.

We have reviewed the Expression of Interest, and we feel we are uniquely qualified to provide services because of our proven quality of service, successful past performance and experience, and familiarity with design of emergency power systems and their associated distribution systems.

We trust that following your review of our qualifications, you will agree that Tower Engineering is a qualified candidate to serve as the engineer for any project that may arise from this expression of interest. We look forward to having a relationship with the Division of Corrections, and thank you for your consideration.

Very truly yours,
TOWER ENGINEERING



Stephen J. Kisak, PE
Principal



Huttonsville Correction Center
Randolph County, WV

SECTION 2
CERTIFICATION & SIGNATURE PAGE

CERTIFICATION AND SIGNATURE PAGE

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

Tower Engineering

(Company)


(Authorized Signature)

Stephen J. Kisak, Principal

(Representative Name, Title)

(412) 931-8888

(Phone Number)

(412) 939-2525

(Fax Number)

5-12-2014

(Date)



Huttonsville Correction Center
Randolph County, WV

SECTION 3
PROJECT APPROACH



Project Approach - Methodology

Initial Phase:

In order to determine the best method for updating the existing emergency system at the Huttonsville Correction Center, it will be important to first accurately assess the existing system and conditions. In order to do this, a thorough survey of the existing system would need to be performed in order to determine the existing conditions and loading of the existing system. This preliminary work would include:

- Review of existing single line and electrical drawings
- Survey of existing generator systems and distribution equipment
- Survey of existing electrical rooms to determine available space for equipment locations
- Review of load reports for the generator system. If these are not available, load readings on the emergency system will be performed.
- Review of existing utility bills for the services into the facility in order to determine overall load for the entire facility.
- Meeting with facility personnel to determine current issues with the system

Once this information is compiled, it would then be reviewed with the Owner to verify that no existing issues with the system have been overlooked, and to establish the criteria for the new system that will be designed and installed.

Based on the information collected and these discussions, two or three appropriate options for the upgrade of the emergency system would then be developed and presented to the Owner. The options presented would meet the criteria established earlier, and would include the following information for review with the Owner:

- Narrative of system upgrade and design for each option
- Equipment that would be upgraded/installed as part of each option
- Benefits and shortcomings in reliability and maintenance for each option
- Impact on facility during construction (outages, etc.)
- Rough estimate of construction cost for each option.

Upon review and discussion of these options, a final decision would then be made for which option would be designed for the upgrade to the emergency system at the facility. Once this decision was reached, the initial phase of the project would be completed and the project would move into the design phase.

Design Phase:

Based upon the option chosen in the initial phase, a schematic design for the new system would be developed. This design would include single lines for the new system, equipment layouts in the rooms, a written description of the scope of work and the phasing of the work, and an estimate of construction cost for the project. This design would then be presented to the Owner for review and comment. This phase would include meeting the Owner to review the

design, and establish phasing for the project and impacts to the facility during the construction process. Any design would take into consideration the need to limit the impact to the electrical system during construction, and maintain system reliability. Once consensus was reached regarding the design and implementation, the schematic design would be completed, and the basis for the detailed design of the new system would be established.

Design of the construction documents would then proceed based upon the approved schematic design. During the design process, formal meetings with the Owner will be held at 50% construction document completion and 100% construction document completion in order to review the details of the design and receive Owner feedback and comment. All throughout the design process, communication with the Owner would continue with regards to specific design considerations for parts of the system, staging of equipment, need for scheduled outages during construction, movement of equipment within the facility, etc., so that the final design will meet the needs of the Owner and have the least impact possible on the facility during construction. Once review, comment, and approval is received for the 100% construction documents, a full set of drawings and specifications would be issued to the Owner for bidding purposes.

Bidding and Construction Phase:

During bidding, any necessary clarifications or answers to questions would be issued. Once bids are received, any necessary scope review of the low bid requested by the Owner would be performed prior to award of the construction contract.

Once construction begins, attendance at weekly or bimonthly construction meetings would be performed as requested by the Owner. Review of the construction would occur after each of these meetings, and meeting minutes and any construction notes would be issued at that time. It should be noted that the person performing the construction phase services for Tower Engineering would be the same person that did the design in order to provide the best level of service and understanding of the project during the construction phase.

Additional services during the construction phase would include:

- Review of shop drawing submittals
- Answering of RFI's
- Review of any change order requests
- Issuing any construction change directives
- Ongoing review of the construction
- Review of startup and testing reports

Once substantial completion for the project was completed, a formal punchlist would be issued for any outstanding issues or items on the project, and final review of all O&M manuals and as-built documents would be performed.



Project Approach - Possible Options

Based upon our initial visit to the site during the pre-bid, the following are three possible options that could possibly be looked at with regards to the upgrade of the emergency system at the facility. It should be noted that these options are based on a limited review of the facility, and could certainly change based upon the information that would be collected during the initial phase of the project. They do however, based upon our experience with emergency power system design, represent three options we feel would be worth looking into.

Option 1 – Upgrade of the Existing System:

This option would essentially involve replacement of the existing equipment in order to address the reliability issues that are being experienced with the existing system. Any necessary modifications to the capacity of the system would be made based upon the load analysis of the system, and additional review would be performed regarding the issue with equipment burning up during transfer switch operation.

Equipment involved with this option would include any necessary upgrade to the existing transfer switches and generators. Space and locations would be chosen to allow for installation of as much of the new equipment as possible without affecting the existing installation in order to limit the effect on the electrical system and correction center during changeover to the new system. Use of temporary generators would also be considered to maintain system reliability during construction.

This option would address the current reliability issues, and should represent the least cost option for upgrade and replacement of the existing equipment in order to obtain a reliable emergency power system at the facility. This option, however, does not allow for increasing the coverage of the emergency power system to the entire facility. If this is desired, then Option 2 or Option 3 should be considered.

Option 2 – Upgrade and Expansion of the Existing Emergency System:

This option is essentially an expansion to Option 1. Upgrade of the existing generators would take into account the load for the entire facility in order to size the new generators. The new generators would be sized to backup the entire facility under loss of utility power in lieu of the partial backup that is currently in service.

Key to this option would be the reuse of as much of the existing distribution system and conduits as possible in order to keep the construction costs down. Once the amount of possible re-use of the distribution system was established, sizing of the replacement generators would initially occur in order to pick up as much of the facility as possible within in limitations of the existing distribution system. Incorporation of the remainder of the facility would then be looked at from two design possibilities: further expansion of the existing system, or placement of addition generators at locations throughout the facility. These two design possibilities would be considered for each part of the facility being added and would incorporate consideration for cost, ultimate reliability, maintenance, and impact on the facility during construction.

Due to the likely amount of additional distribution work and additional equipment, this option will probably be the most expensive and would result in the most equipment to be maintained, but will also result in the most reliable emergency system for the correction center. The emergency system would be distributed through multiple units and locations in the facility, and at a fairly low level on the distribution system, which would result in increased the reliability. Any single points of failure on the system would be limited in effect to part of the facility, which would be the advantage of this system over Option 3. It will, however, result in a more complicated construction process, and would probably have the most effect on the facility during construction.

Option 3 – New Primary Service and Generator System:

This option would involve the installation of a new switchgear and generating system at the primary 12.47kV voltage level to the facility. New 12.47kV switchgear would be installed on the primary coming into the site, along with generators sized to accommodate the entire load for the facility. This switchgear and generators would be located along the incoming overhead utility line into the site. The existing primary would be routed through the new switchgear and the generators would provide the backup power to the switchgear under loss of utility power.

This option would involve coordination with the utility company to move the metering point for the facility from the multiple existing services to the primary level, in addition to assuming ownership of the existing primary facilities and transformers within the facility.

The advantages of this option include the ability to completely install the new system without effecting the existing system, the limited amount of equipment to maintain, and the ease of establishing complete back up of the entire facility on a new generator system. Depending on the amount of distribution work necessary in Option 2, this option may also be a lower cost option of providing backup power to the entire facility, and will result in far less effects on the facility during construction.

Possible disadvantages of this option would include the need to maintain primary facilities, and a relatively lower level of reliability compared to Option 2 due to the location of the generator system tie-in to the distribution system.



Huttonsville Correction Center
Randolph County, WV

SECTION 4
PROJECT TEAM OVERVIEW



Roles and Responsibilities:

James N. Kosinski, P.E., LEED AP – Principal-in-Charge

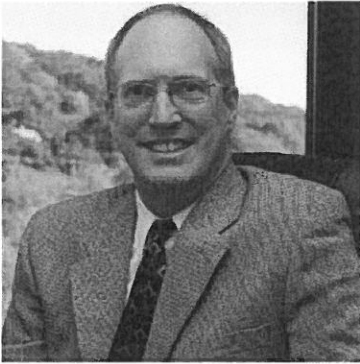
- Principal/Vice President

Steven J. Kisak, P.E. – Electrical Engineering Department Head

- Principal/Vice President

Don E. Rugh – Electrical Engineering Department

- Designer II



JAMES N. KOSINSKI, P.E., LEED AP

PRINCIPAL, VICE PRESIDENT SENIOR PROJECT MANAGER, MECHANICAL ENGINEERING

Mr. Kosinski's primarily responsible for the design of HVAC systems and their components for hospitals, schools, universities, laboratories, office buildings, and commercial and light industrial facilities. He has experience with the design of numerous types of HVAC systems, including constant and variable air volume air handling, geothermal heat pump and exhaust systems; chilled water and hot water; electric/electronic, pneumatic and DDC control systems.

Jim's design responsibilities include load calculations, equipment selection, system layout, project specifications, cost estimates, direction of project drafting efforts, coordination with other engineering disciplines, and construction administration. Additional responsibilities include system analysis and energy studies, client contact, and project management and scheduling. He has performed energy conservation analyses, evaluated HVAC system performance, and justified the installation of DDC control systems and other energy saving measures. As a Mechanical Engineering Group Leader, Mr. Kosinski coordinates the efforts of a team of staff engineers, designers and CAD operators.

EDUCATION

Bachelor Architectural Engineering
Penn State University 1989

REGISTRATION

PE, Pennsylvania
PE-O45741-E

PE, West Virginia 016993
PE-O16993

PE, New York
PE, Maryland

NCEES Registered

LEED Accredited Professional
2009

AFFILIATION

American Society of Heating,
Refrigeration & Air Conditioning
Engineers (ASHRAE)

REPRESENTATIVE EXPERIENCE

Fairmont State University - Fairmont, West Virginia

Engineering Technology
New Dorm Attic Classrooms
Multiple HVAC Systems Studies in Multiple Buildings
Electro-Optics Center Addition
Musik Library Renovation

Fairmont, West Virginia

Public Safety Building Renovations

Allegheny Energy - Fairmont, West Virginia

New Operations Center (LEED)

West Virginia University - Morgantown, WV

New Recreation Center
Brooks Hall - Lab Renovation
Honors Hall
Law Building Phase I
Parkersburg Applied Technology Center (Parkersburg, WV Campus)

Department of Energy - Morgantown, West Virginia

New Record Storage Facility (LEED)

Morgan County Board of Education - Bath, West Virginia

Berkeley Springs High School Renovation/Addition





West Virginia State Board of Registration
for Professional Engineers

JAMES N KOSINSKI
[REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

EXPIRES June 30, 2014

Commonwealth of Pennsylvania
Department of State
Bureau of Professional and Occupational Affairs
PO Box 2649 Harrisburg PA 17105-2649

12 0241648

License Type
Professional Engineer

License Status
Active

Initial License Date
08/01/1994

JAMES N KOSINSKI
115 EVERGREEN HEIGHTS DRIVE
SUITE 400
PITTSBURGH PA 15229

License Number
[REDACTED]

Expiration Date
09/30/2015

Kathy J. Barley

[Signature]
Signature

Acting Commissioner of Professional and Occupational Affairs



EDUCATION

BS Electrical Engineering
University of Pittsburgh 1988

MBA Frostburg University 1997

REGISTRATION

PE, Pennsylvania
PE-052645-E

PE, Virginia
PE-0402-026204

STEPHEN J. KISAK, P.E.

PRINCIPAL, VICE PRESIDENT
ELECTRICAL ENGINEERING DEPARTMENT

Mr. Kisak has provided engineering services for the design of educational facilities, office buildings, college and university facilities, health care, assisted living/nursing homes, and commercial facilities. His primary responsibility is for the preparation of technical specifications, engineering drawings, field observation, and coordination with architectural and other engineering disciplines. He also has responsibility for engineering and fieldwork associated with power system/arc flash studies.

Steve's design responsibilities include lighting, power, and system designs for buildings; design of medium voltage distribution systems for college campuses; data center power system design; low voltage power system and switchgear design; industrial power system design; emergency power systems design; and short circuit/coordination/arc flash hazard studies. Additional responsibilities include client contact, field observation, and project management.

REPRESENTATIVE EXPERIENCE

Power System/Arc Flash Studies

6 years of experience with power system and arc flash studies for commercial, institutional, educational, industrial, data center, and medium voltage systems, using SKM and ETAP software.

Management Science Associates - Pittsburgh, Pennsylvania

Evergreen Heights Data Center
West Deere Data Center Expansion

Siemens Industry - Large Drives Division, Pittsburgh, Pennsylvania

15 MVA Test Transformer
25 MVA Test Transformer
VFD Plant Expansion

University of Pittsburgh - Pittsburgh, Pennsylvania

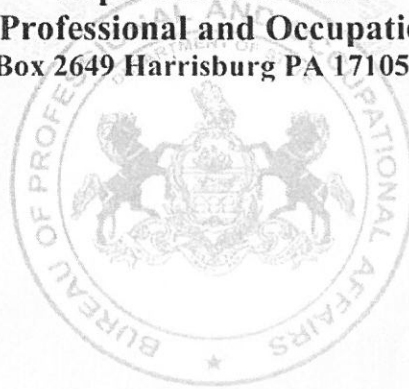
5kV Feeder LRDC to Nuclear Physics
5kV Backup Feeder Salk Hall to Trees Hall
5kV Cable Infrastructure Replacement (Phases 1 and 2)
5kV Backup Power to Posvar Chiller Plant
Campus PCB Equipment Replacement
Cathedral of Learning New Risers and Panels
Cathedral of Learning Upper Floor Electrical Upgrade
Miscellaneous Power System Studies
Salk Hall Dental 5kV Transformer Replacement & Emergency Risers
Scaife 5kV Substation Switchgear Replacement
Sutherland Hall to Trees Hall Ductbank and 5kV Feeders
Trees Hall 5kV Switchgear Replacement
Upper Campus Housing (Phases 1 and 2)
Upper Campus 5kV Substation

West Virginia University - Morgantown, West Virginia

Evansdale and Downtown Campus Switchgear Replacements
Fieldcrest Switchgear Replacement
Evansdale Campus Utilities and Infrastructure Improvements

12 0150688

Commonwealth of Pennsylvania
Department of State
Bureau of Professional and Occupational Affairs
PO Box 2649 Harrisburg PA 17105-2649



License Type
Professional Engineer

License Status
Active

Initial License Date
04/28/1997

STEPHEN J KISAK
213 VILSACK ROAD
GLENSHAW PA 15116

License Number



Expiration Date
09/30/2015

Katie True

Commissioner of Professional and Occupational Affairs

Stephen J Kisk
Signature



EDUCATION

BS, Electrical Engineering
Penn State University 2008

DONALD E. RUGH

DESIGNER II

ELECTRICAL ENGINEERING DEPARTMENT

Mr. Rugh has provided engineering services for the design of educational facilities, office buildings, and college and university facilities. His primary responsibilities include the preparation of technical specifications, engineering drawings, field observation, and coordination with architectural and other engineering disciplines.

Don's responsibilities include short circuit/coordination/arc flash hazard studies; design of medium voltage distribution systems for all applications including college campuses; low voltage power system and switchgear design; data center power system design; power and system designs for buildings; emergency power systems design; field observation and field survey work.

REPRESENTATIVE EXPERIENCE

POWER SYSTEM/ARC FLASH STUDIES:

Three years of experience with power system and arc flash studies for commercial, institutional, educational, data center, and medium voltage systems, utilizing the most up-to-date ETAP and SKM software platforms available.

ENGINEERING DESIGN WORK:

University of Pittsburgh - Oakland Campus (Pittsburgh, Pennsylvania)

- Emergency Generator Replacement - Victoria Hall
- Electrical Distribution System Upgrade - William Pitt Union
- 480Y/277V Distribution System Upgrade - Chevron Science Center
- 5kV Feeder Breaker Replacement - Schenley Quad Substation
- 5kV Switchgear Replacement - Scaife Hall Substation
- 5kV Cable Infrastructure Replacement - South and East Campus Area
- Motor Control Center Replacement and VFD Upgrade - Hillman Library
- VFD Upgrade and Replacement - Posvar Hall Chiller Plant
- Fire Alarm System Upgrade for Mass Notification - most University owned buildings
- CSSD Manhole Survey Study

West Virginia University - Evansdale Campus (Morgantown, West Virginia)

- 23kV Utility Replacement - Evansdale Coliseum
- Campus wide 23kV and 5kV Utility and Infrastructure Upgrade
- Library Stacks Lighting Upgrade - Wise Library

ARC FLASH/POWER SYSTEMS STUDIES:

University of Pittsburgh - Oakland Campus (Pittsburgh, Pennsylvania)

- Allegheny Observatory
- BioTech Facility
- Carillo Steam Plant
- Cost Sports Center
- Eureka Building
- Melwood Facility
- O'Hara Garage
- Sennott Square
- Space Research Coordination Center
- Thackeray Hall
- Thaw Hall
- University Child Development Center

Siemens Industry, Incorporated (Pittsburgh, Pennsylvania)

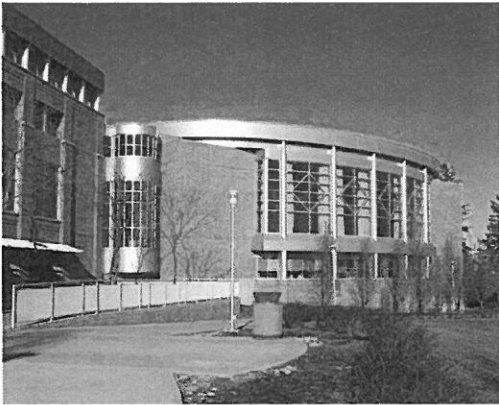
- HVII Large Water-Cooled Drives Production Facility
- HVI Production Facility and Office Building
- Sagamore Test Facility and Office Building

Allegheny College (Meadville, Pennsylvania)

- Doane Hall/Steffee Hall - Science Building

TOWER ENGINEERING OVERVIEW AND SERVICES

*AT TOWER ENGINEERING, OUR GOAL IS NOT TO JUST MEET OUR CLIENTS' NEEDS...
BUT TO EXCEED THEIR EXPECTATIONS.*



Tower Engineering has been providing innovative mechanical, electrical, plumbing, and fire protection solutions and unparalleled client service since 1931. Primary markets of the firm include educational, health care, environments for the aging, and commercial renovations and new construction.

Tower Engineering's highly-trained staff of project managers, designers, and technical support personnel is capable of providing consulting services for every type of project - from a small, single-family residence to a high tech research facility incorporating redundant mechanical and electrical systems, DDC energy management and thermal storage.



Our engineers utilize state-of-the-art computer software programs for the design of lighting, electrical power and mechanical systems. Lighting analysis includes point-by-point calculations, ESI analysis, exterior lighting analysis, and life cycle cost comparisons. Electrical power analysis includes fault current and load flow analysis.



Mechanical analysis includes energy economy analysis, thermal storage analysis, heating and cooling load calculations, refrigerant piping design, water piping design, and duct work design. Our professional staff utilizes computer selection of air handling units, coils, pumps, terminal devices, fans, cooling towers, chillers, heat exchangers, kitchen hoods, hydronic and steam specialties, humidification equipment and heat recovery equipment.

SPECIFIC ENGINEERING SERVICES

HVAC

- Heating and cooling system design
- Ventilation system design
- Building automation systems
- Control systems and energy monitoring
- Geothermal heat pumps
- Heat recovery systems
- Kitchen and laboratory exhaust systems
- Smoke evacuation systems
- Computer room environmental control systems
- Building commissioning services

ELECTRICAL

- Interior and exterior lighting design and studies
- Lighting controls
- Primary and secondary voltage power distribution systems
- Fire detection and alarm systems
- Computer data and power systems
- Uninterruptible power supply systems
- Reinforced and masking sound systems
- Lightning protection systems
- Fault current studies
- System over-current protection coordination

TELECOMMUNICATIONS

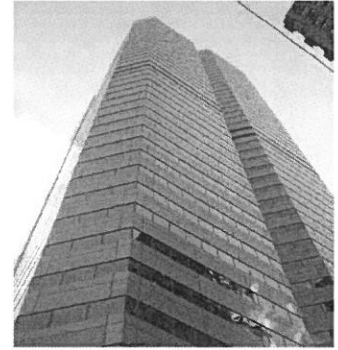
- Voice communication systems
- Data network systems

PLUMBING

- Water resource efficiency analysis
- Sanitary drainage systems
- Storm water management
- Domestic water systems
- Waste water treatment systems
- Hospital and laboratory piping systems
- Fuel oil piping systems
- Irrigation systems

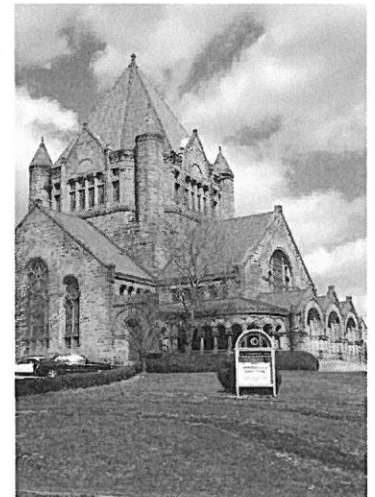
FIRE PROTECTION

- Standpipe and sprinkler systems
- Fire protection systems



DESIGN EXPERIENCE

- Agricultural & Science Buildings
- Airport Terminals & Hangars
- Athletic Facilities & Stadiums
- Auditoriums & Theaters
- Call Centers
- Classrooms
- Clean Rooms & Special Environments
- DataCenters
- Dining Halls
- Dormitory Buildings
- Environments for the Aging
- High-Rise & Low-Rise Office Buildings
- Historic Preservation & Adaptive Reuse
- Hotels/Motels
- Judicial & Courtroom Facilities
- Manufacturing & Industrial
- Movie Theaters
- Municipal Complexes
- Museums, Galleries & Libraries
- Nuclear Facilities
- Outpatient & Hospital Facilities
- Parking Garages
- Postal Facilities
- Prisons & Correctional Institutions
- Public Safety Buildings
- Recreational Facilities
- Religious Facilities
- Research/Laboratories
- Residential & Multi-Unit Housing
- Retail & Shopping Centers
- Schools
- Student Unions
- TV/Radio Stations
- Vehicle Maintenance Facilities
- Warehouses & Depots



Tower Engineering maintains full CAD capabilities utilizing AutoCAD Release 2013, which is compatible with most micro and mini based computer systems. Our AutoCAD software has been modified in-house to further enhance productivity per discipline. Firm-wide CAD standards are also in place to ensure uniformity.

ARC FLASH AND POWER SYSTEM STUDIES

Safety is an industry requirement that is both emphasized and strived for in the engineering community. Tower Engineering has become one of the area's leading industry providers of power systems studies and arc flash labeling. An arc flash occurs when a high level of current passes through air during a short circuit event. This can be an incredibly dangerous event with extreme pressures, very high temperatures, and explosions. Often times, temperatures are high enough to instantly vaporize metals. The result is destruction of the equipment involved and nearby equipment, and more importantly severe injury or possibly death to any nearby personnel.

Avoiding these events by not working on energized equipment is one way to cut down on their frequency. However, there are many times when a piece of equipment is unable to be shut down for a variety of reasons. It is these times that a proper arc flash study can protect personnel from potential harm. Tower Engineering provides a full in-depth Power Systems Study based on the client's needs and expectations. We analyze the electrical system from top-to-bottom and provide recommendations based on safety and overall functionality.

We examine several aspects of the electrical system based on the client's needs and provide a comprehensive analysis that includes short circuit information, arc flash information and an updated single-line. Additionally, we provide the industry mandated arc flash labeling for all required pieces of equipment based on our results. We have substantial experience in the collection and analysis of electrical systems and it is our commitment to safety and accuracy that continues to see us as one of the industry leaders in arc flash analysis and labeling.

Our Arc Flash and Power System Experience Includes:



Arc Flash and Shock Hazard Appropriate PPE Required NORMAL POWER

FLASH PROTECTION

Flash Hazard at 18 in
Min. Arc Rating: 13 cal/cm²
Flash Protection Boundary: 76 in
Glove Class: 00
PPE Required: Level 3
Available Fault Current: 6.67 kA
Equip. Tag: 25DP-ELEV

SHOCK PROTECTION

Shock Hazard when
cover is removed 480 VAC
Limited Approach 42 in
Restricted Approach 12 in
Prohibited Approach 1 in

October 25, 2013

Salem Tube, Inc.:

Additional Services
Arc Flash Study
Power System Study

Siemens Industry, Inc.:

Siemens HVI - Arc Flash Study
Siemens HVI - Power System Data Collection
Siemens HVII - Arc Flash Data Collection
Siemens HVII - Power System Study
Siemens HVII - Power System Study
Siemens HVII - Power System Study Update
Siemens Sagamore - Data Collection
Siemens Sagamore - Power System Arc Flash Study
Siemens Sagamore - Testing Data Collection

Square D Company:

Elmira Correctional Facility Power System Study
Transystems Power System Study
University of Connecticut Psychology Building Power System Study
VA Syracuse Power System Study

University of Pittsburgh:

SkV Network Power System Study Update
Biotech Arc Flash Study
Biotech Power System Study Survey
Bouquet Gardens Expansion Power System Study
Carrillo Street Steam Plant Power System Study
Chevron Science Center Distribution System Study
Cost Sports Center Arc Flash Study
Eukeka Building Arc Flash Study
McGowan Institute Power System Study
Melwood Power System Study
O'Hara Garage Arc Flash Study
Sennott Square Power System Study
SRCC Arc Flash Study
Sustainable Office Arc Flash Study (Greensburg Campus)
Thackeray Hall Arc Flash Study
Thaw Hall Arc Flash Study
UCDC Arc Flash Study



LEED RATED DESIGN

Working together with our clients, Tower Engineering takes great pride in implementing environmentally conscious solutions to building issues. To sustain our environment, we design building systems that use material, energy and water resources efficiently, minimize site impacts and address health issues relating to the indoor environment.

Over the last decade, various groups have worked to develop strategies to promote and facilitate the design of sustainable, high performance buildings. One such organization, The **U.S. Green Building Council**, has created a nationally recognized certification process for evaluating sustainable and high performance buildings, a program called “**Leadership in Energy and Environmental Design,**” commonly known by its acronym “**LEED**”. In addition to being a member of the U.S. Green Building Council (USGBC), Tower Engineering’s staff includes LEED accredited professionals.

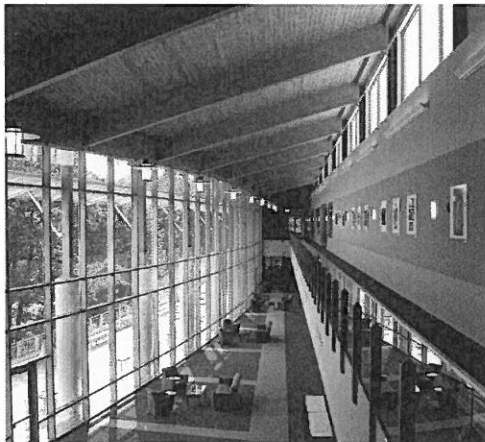
The LEED certification process rates the levels of sustainability achieved in a building: LEED Certified, LEED Silver, LEED Gold, and the highest rating, LEED platinum. Awards are based upon achieving “sustainability points” in the areas of Site, Water, Energy & Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation & Design Process.



Our LEED Project Experience Includes:

Felician Sisters Motherhouse, Coraopolis, PA (LEED Gold)

- Super-high efficiency modular boilers to maintain 60 degrees F low-end water temperature.
- Carefully sized individual heat pumps to provide adequate compressor runtimes to ensure summer dehumidification and cooling without short cycling.
- Specification of premium efficient motors for pumps and larger RTU fans.
- Specification of Ventilation Heat Pump Rooftop Units with factory-installed energy recovery sections.
- Utilization of carbon dioxide sensors to reduce outside air quantities in multi-use spaces when not fully occupied.
- Specification of fully automated temperature controls system to provide computerized monitoring and control of mechanical equipment for maximum energy savings and systems optimization.
- Engineered lighting levels to exceed ASHRAE 90.1-1999 using the most efficient lamp and fixture combinations.



Regional Learning Alliance (LEED Silver)

Tower Engineering provided mechanical and electrical consulting engineering services for the Regional Learning Alliance, an innovative educational and workforce development facility just north of Pittsburgh. This \$18 million, “educational mall” is a highly-adaptive, full-service training facility, combining 12 institutes of higher learning under one roof. In addition to high-tech classrooms, the facility houses specialty-manufacturing training centers, flexible meeting rooms to accommodate groups of up to 400, and a tiered seminar room with wireless, touch-panel audio-visual controls. The facility also contains a cafeteria, computer labs, wireless Internet and a workout center that offers wellness planning.

LEED RATED DESIGN CONTINUED



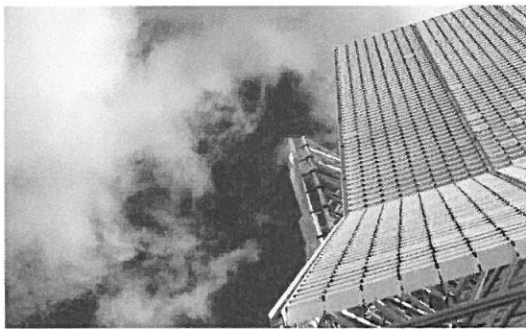
Pittsburgh Children's Museum (LEED Silver)

Tower Engineering recently provided mechanical and electrical engineering services for the 80,000 square foot renovation/expansion of the Children's Museum of Pittsburgh. This project included the construction of a facility to link a 1897 Post Office building with a 1939 Art Deco Planetarium.

It was the goal of the Museum, as well as the design team to make this facility the first LEED Silver children's museum in the country, along with the priority of preserving two important historic buildings.

Green features incorporated into the design of this project include:

- Occupancy light sensors
- Dual Flush Toilets
- "Fuzzy Logic" controlled low flow urinals
- Motion sensor faucets
- Heat recovery wheels
- Heat exchangers
- 3 Kwh photovoltaic system
- Carbon dioxide sensors
- Two week fresh air flush out prior to occupancy
- Humidity control
- DDC Controls



ADDITIONAL LEED PROJECT EXPERIENCE INCLUDES:

- Three Rivers Rowing Association Boat Storage & Maintenance Building (LEED Certified)
- Carnegie Mellon University Henderson House (LEED Silver)
- Carnegie Mellon University Posner Conference Center Rare Books Room (LEED Certified)
- West Virginia Army National Guard - Buckhannon Readiness Center (LEED Certified)
- Carnegie Science Center (LEED Certified)
- Monongalia County BOE New Primary School (LEED Silver)
- Berkeley County Board of Education New Spring Mills Primary School (LEED Gold)
- Canaan Valley Institute New Headquarters/Education Building (LEED Certified)
- Department of Energy Morgantown Record Storage (LEED Gold)
- Fairmont State Office Building (LEED Silver)
- Allegheny College Carr Hall (LEED Silver)
- Allegheny Energy Operations Center (LEED Certified)
- Kaufman Program Center (LEED Certified)

PROJECTS DESIGNED IN ACCORDANCE WITH LEED RATING (DID NOT PURSUE LEED CERTIFICATION) :

- Millcreek School District J.S. Wilson Middle
- Corry School District New Elementary School
- Holy Sepulcher Parish New Church
- National Guard Stryker Center
- North Hills McIntyre & Highcliff Elementary Schools
- Pine Richland New Upper Elementary School
- West Virginia Army National Guard - Fairmont Readiness Center
- Pine Township Recreation Center
- Pittsburgh Children's Home
- Sisters of St. Joseph New Office Building
- Southwest Butler County YMCA (Cranberry)
- Upper St. Clair Community Center
- Watson Institute, Craig Academy

SUSTAINABLE BUILDING DESIGN

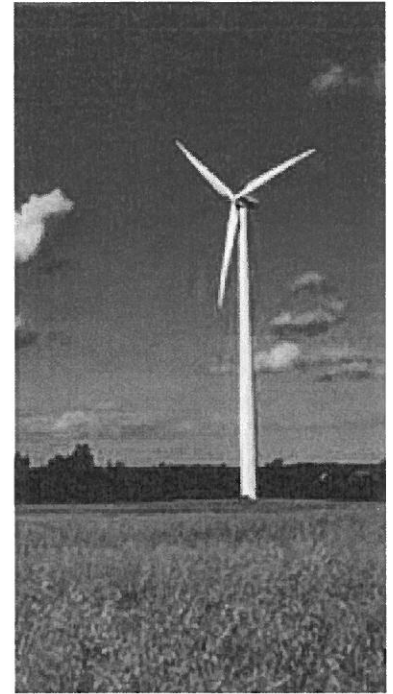
U.S. BUILDINGS USE ABOUT 1/3 OF ALL U.S. ENERGY FOR HEATING, COOLING, LIGHTING AN OPERATION. IN ADDITION THEY PRODUCE MORE THAN 35% OF ALL GREENHOUSE GASES.

A sustainable building, also referred to as a green building, is a structure that is designed, built, renovated, operated, or reused in an ecological and resource-efficient manner. Green buildings are designed to meet certain objectives such as protecting occupant health; improving employee productivity; using energy, water, and other resources more efficiently; and reducing the overall impact to the environment.

A sustainable building may cost more up front, but saves through lower operating costs over the life of the building. The sustainable building approach applies a project life cycle cost analysis for determining the appropriate up-front expenditure. This method calculates costs over the useful life of the asset.

Some benefits of sustainable design, however, are not easily measured. Improved occupant health, comfort, productivity, reduced pollution and landfill waste are just a few of the hidden benefits of sustainable design.

Even with a tight budget, many green building measures can be incorporated with minimal or zero up front costs and they can yield enormous savings.



AT TOWER ENGINEERING WE BELIEVE IT IS OUR RESPONSIBILITY TO OFFER ARCHITECTS AND OWNERS SUSTAINABLE DESIGN ALTERNATIVES IN ADDITION TO CONVENTIONAL CHOICES, AND TO HELP OUR CLIENTS MAKE THE MOST INFORMED DECISIONS.

ENGINEERING EXPERTISE

Our engineers carefully consider preservation of site features, indoor air quality, natural lighting, energy efficiency and strategies to provide the best quality systems within limited budgets. Focusing on whole systems, not isolated components, our engineers determine the most efficient mechanical and electrical equipment properly sized for building needs. We have been involved with the design of numerous buildings which have implemented Green Building/ Sustainable Design features. Features considered and/or utilized include:

Engineering Services

- HVAC Energy Analysis
- Mechanical and Electrical Systems Monitoring
- Building Commissioning

Equipment

- Direct-Fired Double-Effect Absorption Chiller/Heater
- Desiccant Dehumidification Units
- Heat Recovery Wheel
- Geothermal Heat Pumps
- Underfloor Air Distribution Systems
- Building Automation Systems

GREEN BUILDING DESIGN STRATEGIES

- Install high-efficiency heating and cooling equipment. Well-designed systems including high-efficiency furnaces, boilers, and air conditioners; variable speed pumping; and premium motors not only save the building owners money, but also produce less pollution during operation. Install equipment with minimal risk of combustion gas spillage, such as sealed combustion appliances.
- Install high-efficiency lighting systems with advanced lighting controls. Include motion sensors tied to dimmable lighting controls.
- Install water-efficient equipment. Water conserving toilets, shower heads, and faucet aerators not only reduce water use, but also reduce demand on septic systems or sewage treatment plants. Reducing hot water use also saves energy.
- Install mechanical ventilation equipment. Mechanical ventilation is usually required to ensure safe, healthy indoor air. Heat recovery ventilators should be considered in cold climates because of energy savings, but simpler, less expensive exhaust-only ventilation systems are also adequate and should be analyzed.

COMMISSIONING EXPERIENCE

Tower Engineering has experience providing design and commissioning services on numerous projects. Our extensive design experience insures that we will be familiar with all aspects of each project's mechanical, electrical and plumbing design.

Systems or technologies for which our firm has provided commissioning services include:

- Packaged or split HVAC
- Chiller System
- Boiler System
- Network/Technology
- Hydronic Systems
- Variable Air Volume Systems
- Energy Management System
- CCTV Access Control
- Variable Speed Pumping
- Variable Speed Fans
- Lighting Controls
- Electrical, Emergency Power



Our Commissioning Project Experience Includes:

Gateway School District - Gateway High School

This project involved commissioning services for approximately 200,000 SF of new and renovated space. As part of this project, Tower Engineering provided full commissioning services for all HVAC equipment including air handling units, variable volume boxes, chillers, boilers, pumps, unit ventilators, fan-coil units and DDC controls.

West Virginia University - Student Recreation Center Commissioning

Tower Engineering provided commissioning services for the 160,000 square foot Student Recreation Center. Systems commissioned included: chiller, cooling tower, glycol, heat exchanger, pumps, air handling units, pool water, witness start up and controls.

Moon Area School District - Bon Meade Elementary School

Tower Engineering provided retro-commissioning of rooftop units, air handling units, unit ventilators, chiller, and boiler, for renovation of 66,000 square feet.

Barbour County Board of Education - Philip Barbour High School Complex

Systems commissioned for this 180,000 square foot renovation/addition project included rooftop units, unit ventilators, heat recovery units, chiller, and boiler.

Pleasant County Board of Education - Middle School

Tower Engineering commissioned rooftop units and pool dehumidification units associated with this 60,000 square foot renovation project.

Upshur County Board of Education - Buckhannon High School

Tower Engineering is currently providing HVAC commissioning services associated with a full replacement of the original HVAC system in this 142,000 square foot renovation project.

Verizon Call Center

Commissioning of this 120,000 square foot new facility was completed in 2002. Systems commissioned included rooftop units, fan-powered boxes, computer room air conditioning units, exhaust systems and DDC controls.

Cranberry Woods III

Rooftop units, fan-powered boxes, exhaust fans and DDC controls were commissioned for this new 120,000 square foot office building.

Moon Area School District - High School

Commissioning of a new 200,000 square foot High school, with a WSHP HVAC system.

Moon Area School District - Middle School

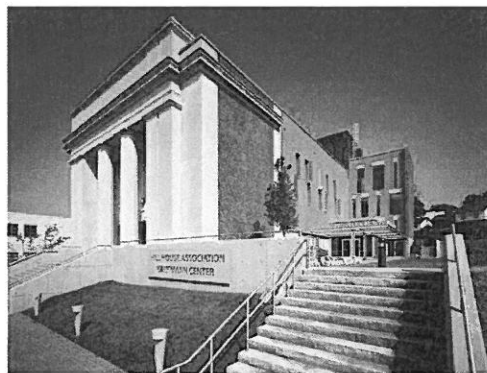
Renovation and addition of the former high school. The HVAC system is a VAV system with multiple RTU's.

Cannan Valley Institute

This project is a Research and Education Center comprised of staff offices, laboratories, conference rooms, and a tiered classroom. LEED Silver Certification.

Kaufman Program Center

A four story 19,411 SF community center with a large multi-purpose space. Work began in November 2009, which included renovation of the existing 16,893 SF facility with the addition of 2,518 SF. Tower Engineering was chosen as both the MEP design firm and the Commissioning Agent.





Huttonsville Correction Center
Randolph County, WV

SECTION 5
PROJECT TEAM EXPERIENCE



References:

University of Pittsburgh

Ms. Mary Rugh, P.E.
Director of Engineering
3400 Forbes Avenue
Pittsburgh, PA 15260
Phone: 412-624-2250

Management Science Associates, Inc.

Thomas J. Carlin Sr.
Senior Facilities Manager
400 MSA Drive
Tarentum, PA 15084
Phone: 724-265-6539

West Virginia University

Mr. George Hall
Facilities Management
P.O. Box 6570
Morgantown, WV 26505
Phone: 304-293-2817

MANAGEMENT SCIENCE ASSOCIATES, INC.

EVERGREEN HEIGHTS DATA CENTER

PITTSBURGH, PA

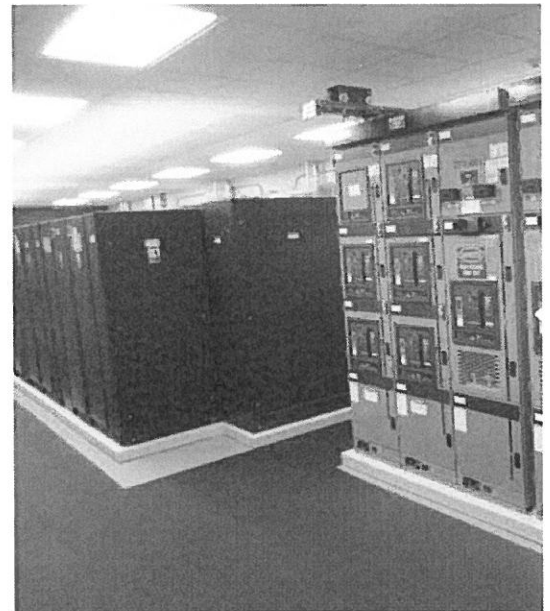
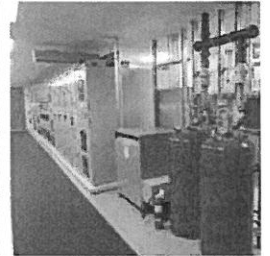
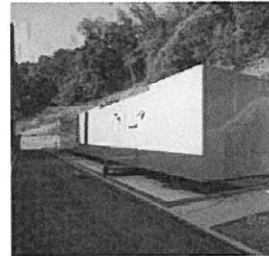
YEAR COMPLETED:
2013

SQUARE FOOTAGE
10,000

TOTAL CONSTRUCTION COST
\$16 million



This project involved the creation of 10,000 square feet of data center space in an existing building, with provisions for 10,000 square feet of additional data center space in the future. The electrical system design included providing two new 480V services, 4MW parallel N+1 generator plant (with provisions for expansion to 6MW), redundant UPS systems, and all associated distribution equipment out to the PDU's on the data center floor. The system was designed to allow for easy expansion to feed the additional 10,000 square feet of future data center space without affecting the operation of the first phase. Detailed design work was required in order to work within limited building space for electrical equipment, and to provide for future expansion.



UNIVERSITY OF PITTSBURGH

Since 1977, Tower Engineering has provided mechanical and electrical engineering services for more than 100 renovation and new construction projects for the University of Pittsburgh, representing more than \$100 million in general construction costs. Tower Engineer also holds an open agreement with the University to provide electrical engineering services as needed. In fact, for several months one of Tower's electrical engineers was located in the Facilities Management office at the University.

Our projects at the University of Pittsburgh include:

- Barco Law Building 480V
- Bellefield Hall 2nd and 4th Floors Renovations
- Bouquet Gardens 5kV Service
- Bridgeside Vivarium
- BST-3 Emergency Power Study
- Center Plaza Apartments Generator
- Chevron Cafe; Data/Security Risers; Chevron/Eberly Classroom Renovation
- FASER System Replacement
- Forbes Craig Apartments Generator Replacement
- Franklin Complex Fire Alarm System
- Greensburg Campus Chambers Hall Addition/Renovation
- Langley Hall 513 Lab Renovation
- Mayflower Apartments Fire Alarm System
- Oakwood Apartments Fire Alarm System
- Generator Replacement
- Posvar 5kV Backup Feeder; Server Space
- Rena Sowell Lab Renovation
- Replacement of 5kV Infrastructure
- RIDC Data Center Expansion Study
- Salk Hall Annex Flood Mitigation
- Shenley Quad 5kV Switchgear Replacement
- Thackery Hall 3 Floor Renovations
- Thaw Hall Lecture Room HVAC System
- Trees Hall Data Room; Emergency Lighting
- Trees Hall Pool Lighting; Power Center Replacement; Switchgear Upgrade; Trees Hall/Fitzgerald Field House MEP Systems Renovations
- Trees Hall Pool Lighting; Power Center Replacement; Switchgear Upgrade; Trees Hall/Fitzgerald Field House MEP Systems Renovations
- University Club 5kV
- Upper Campus Housing Phase I and II
- Upper Campus 5kV Substation
- Victoria Hall FireAlarm/Security Tie; Generator
- WilliamPitt Union Emergency Generator



PROJECT EXPERIENCE

- LRDC to Nuclear Physics 5kV Feeder
- 5kV Cable Replacement
- ABC Towers Plaza/Lobby Expansion Study
- Allen Hall 4 and 5 Floors HVAC Renovations; 610- G17 Lab Renovation; Laser Lab Power Connection and Renovations
- Alumni Hall Kiosks; Storage Room Narratives
- Barco Law Building Generator Replacement; Fire Alarm System
- Bellefield Hall 1 and 4 Floors Renovations; 2 Floor Renovations; Room 412
- Benedum Hall B65 Lab Suite; B65 Renovations; Basement Reheat System; Classroom Renovations; Room 661 Renovations; B66/67 Renovations
- Biotech Center Renovations
- Campus Emergency Generator Replacement; Metering System; PCB Equipment Replacement; Emergency Phones Installation; Emergency Power/Steam Tunnels; Mechanical Standards
- Cathedral of Learning Room 124 Fire Alarm System; Electrical Upgrades to Upper Floors; Commons Room Lighting; Exterior Lighting; Risers; Suite 2400 Renovations; Blackbox Theater
- CLC Safety Shower Installation
- Chem Building Laser Lab Renovations
- Chevron Science Building NMR Lab (New) G-13 Study; Electrical Room Cooling; Phase II of 4 Floor Lab Renovations
- Clapp Hall 4 Floor Security
- Classroom Design FY08 (Multiple); FY98 (Multiple); Phase 8 (Frick and Thaw)
- Cogeneration Study
- Craig Hall Fire Alarm tie to Security Panel
- Eberly Hall UPS Panel; Vacuum Exhaust System
- Fitzgerald Field House Additions/Renovations; Wrestling/Weight Room Renovations
- Fire Alarm System Upgrades (Multiple Facilities)
- Forbes Craig Apartments Fire Alarm System Upgrade
- Forbes Hall Data Room
- Fraternity Houses 1-8 Buildings Generator Replacements; Sprinkler System; Fire Alarm System
- Frick Fine Arts Building Electrical Distribution System
- Greensburg Campus Millstein Library Feasibility Study; Millstein Library Room 101 Renovations; Recreation Center Feasibility Study
- Litchfield Towers Eddies Cafe Renovations
- Melwood Fire Alarm System Upgrade; Fire Pump
- Nuclear Physics Switchgear Upgrade
- OEH 3 Floor Renovations; HVAC System Modification; Laser Lab
- Posvar Hall 6th Floor UPS; 5kV Generator Study; Electrical Repairs; Generator
- RIDC Computer Center Fire Alarm System Replacement; Renovations (D/B);
- RTU Replacement; UPS Panels
- Ruskin Hall 5kV
- Salk Hall/Dental Transformers Replacement; Emergency Risers; Annex Cable Tray; 5kV Relay
- Scaife Hall 5kV Relay
- Schenley Quad Café Renovations; Generator Replacement; Lighting
- Sutherland Hall Generator Replacement; Sutherland to Trees Hall Ductbank

ALLEGHENY ENERGY NEW TRANSMISSION OPERATIONS HEADQUARTERS FAIRMONT, WV

YEAR COMPLETED:
2011

SQUARE FOOTAGE
148,000

TOTAL CONSTRUCTION COST
\$35 million

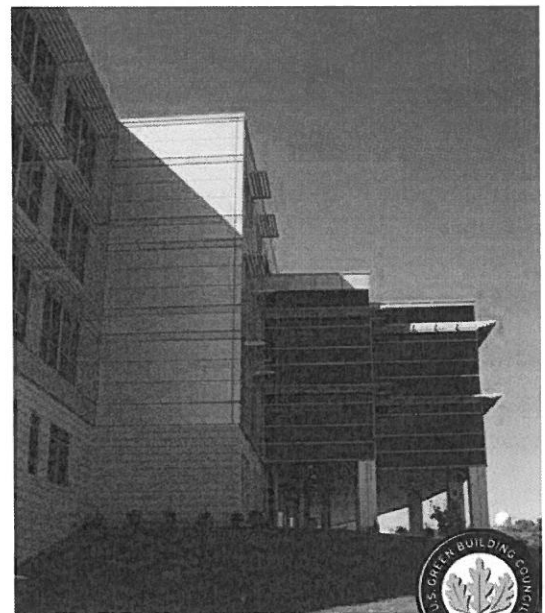
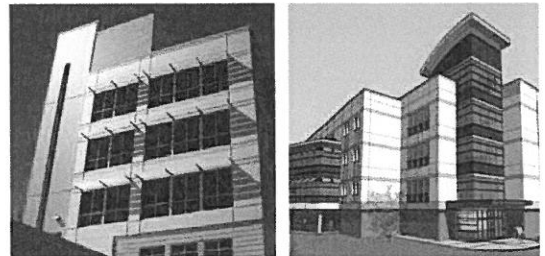


Tower Engineering provided mechanical and electrical engineering services for the new Allegheny Energy Transmission Operations Headquarters in Fairmont, West Virginia. The facility serves as the center for Allegheny Energy's multi state transmission functions, providing round-the-clock management of the electric grid. Totalling 148,000 square feet, the building contains the control center, data center, and approximately 85,000 square feet of Class A office space.

The state-of-the-art facility is specifically designed to meet the needs of Allegheny Energy's transmission business, which includes two new projects, the Trans-Allegheny Interstate Line (TrAIL) and the Potomac Appalachian Transmission Highline (PATH), as well as 4,600 miles of existing transmission line.

The environmentally friendly building is certified under the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

- (2) 1750 Kw, diesel fired emergency generators, not paralleled; complete N+1 design
- (2) 500 Kva UPS with battery packs for data center and command room; complete N+1 design





Huttonsville Correction Center
Randolph County, WV

SECTION 6
PROOF OF INSURANCE



Professional Liability Insurance:

Tower Engineering carries the following insurance coverage:

- Professional Liability Per Claim: \$2,000,000
- Professional Liability Aggregate: \$2,000,000
- Automobile Liability: \$1,000,000
- General Liability Per Claim: \$1,000,000
- General Liability Aggregate: \$2,000,000
- Workers Compensation: \$100,000 each accident, \$500,000 policy limit

A certificate of insurance can be provided upon request.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
3/11/2014

PRODUCER (201)262-1200 FAX: (201)262-7810

Fenner & Esler
467 Kinderkamack Road
P. O. Box 60
Oradell NJ 07649-0060

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

NAIC #

INSURER A: Wesco Insurance Company 25011

INSURER B:

INSURER C:

INSURER D:

INSURER E:

INSURED

Elwood S. Tower Corp., DBA: Tower Engineering
115 Evergreen Heights Drive
Suite 400
Pittsburgh PA 15229

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
		GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE	\$
						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
						MED EXP (Any one person)	\$
						PERSONAL & ADV INJURY	\$
						GENERAL AGGREGATE	\$
						PRODUCTS - COM/OP AGG	\$
		AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident)	\$
						BODILY INJURY (Per person)	\$
						BODILY INJURY (Per accident)	\$
						PROPERTY DAMAGE (Per accident)	\$
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT	\$
						OTHER THAN AUTO ONLY: EA ACC	\$
						AGG	\$
		EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE	\$
						AGGREGATE	\$
							\$
							\$
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y/N (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below				WG STATU-TORY LIMITS	OTH-ER
						E.L. EACH ACCIDENT	\$
						E.L. DISEASE - EA EMPLOYEE	\$
						E.L. DISEASE - POLICY LIMIT	\$
A		OTHER Professional Liability	ARA119712-00	3/1/2014	3/1/2015	Per Claim Limit	\$2,000,000
						Aggregate Limit	\$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

CANCELLATION

Sample Certificate

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Kevin Esler/MICHEL ACORD 25 (2009/01)
INS025 (200901).01© 1988-2009 ACORD CORPORATION. All rights reserved.
The ACORD name and logo are registered marks of ACORD



CERTIFICATE OF LIABILITY INSURANCE

ELWOO-1 OP ID: FISU

DATE (MM/DD/YYYY)

10/22/13

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

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

PRODUCER Pierson and Scott, Inc. 321 Castle Shannon Boulevard Pittsburgh, PA 15234 Bruce D. Thomas		Phone: 412-835-5660 Fax: 412-835-8130	CONTACT NAME: Bruce Thomas PHONE (A/C, No, Ext): 412-835-5660 FAX (A/C, No): 412-835-8130 E-MAIL ADDRESS: bruce@piersonandscott.com
INSURED Elwood S. Tower Corp. Suite 400 115 Evergreen Heights Road Pittsburgh, PA 15229		INSURER(S) AFFORDING COVERAGE INSURER A: Cincinnati Insurance Company INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	
		NAIC # 10677	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY		EBP 0027676	10/07/13	10/07/14	EACH OCCURRENCE \$ 1,000,000
	<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY		EBA 0211303	10/07/13	10/07/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS					BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	UMBRELLA LIAB		EUP 0168299	10/17/13	10/07/14	EACH OCCURRENCE \$ 4,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB DED RETENTION \$ <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE					AGGREGATE \$ 4,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input checked="" type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A				WC STATU-TORY LIMITS OTH-ER \$ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

CANCELLATION

SAMPLE COPY

FOR INFORMATION PURPOSES ONLY

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Bruce D. Thomas

SUMMARY OF INSURANCE



FOR:

ELWOOD S TOWER CORPORATION
 115 EVERGREEN HEIGHTS DR STE 400
 PITTSBURGH PA 15229
 Phone:

Prepared: 11/21/2013

FAX:

BY:

HOME OFFICE
 PAYCHEX INSURANCE AGENCY INC
 PO BOX 33015
 SAN ANTONIO TX 78265
 Phone:

210705

FAX: (888) 443-6112

ACCOUNT POLICY RECAP	Policy Number	Eff Date	Exp Date	Premium
Workers' Compensation Multiple Companies	76 WEG ER9894	01132014	01132015	

POLICY DETAIL Policy Workers' Compensation

Worker's Compensation Coverages

<u>Employer's Liability Limits</u>	<u>Limit</u>
Disease - Policy Limit	\$500,000
Disease - Each Employee	\$100,000
Each Accident	\$100,000
<u>Individual</u>	<u>Included/Excluded</u>

This summary and its attachments provides high level overview of policy coverages and does not include all conditions, limitation or exclusion. Please refer to the actual policy forms for detailed coverages, limits and deductibles.



Huttonsville Correction Center
Randolph County, WV

SECTION 7
ADDENDUM ACKNOWLEDGEMENT



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

Solicitation

NUMBER
COR61694

PAGE
1

ADDRESS: CORRESPONDENCE TO ATTENTION OF:
TARA LYLE
304-558-2544

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

Tower Engineering
 115 Evergreen Heights Drive
 Suite 400
 Pittsburgh, PA 15229

SHIP TO

DIVISION OF CORRECTIONS
 1409 GREENBRIER ST
 CHARLESTON, WV
 25311 304-558-8045

DATE PRINTED:
04/15/2014

BID OPENING DATE: 05/07/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				ADDENDUM NO. 1		
				SEE ATTACHED PAGES.		
				END OF ADDENDUM NO. 1		
0001	1	EA		906-00-00-001		
				ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL		
***** THIS IS THE END OF RFQ COR61694 ***** TOTAL:						

SIGNATURE 	TELEPHONE 412-931-8888	DATE 5-12-2014
TITLE Principal	FEIN 25-1258883	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: COR61694

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

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

Addendum Numbers Received:

(Check the box next to each addendum received)

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

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

Tower Engineering

Company



Authorized Signature

5-12-2014

Date

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



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

Solicitation

NUMBER
COR61694

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
TARA LYLE
304-558-2544

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

Tower Engineering
 115 Evergreen Heights Drive
 Suite 400
 Pittsburgh, PA 15229

SHIP TO

DIVISION OF CORRECTIONS
 1409 GREENBRIER ST
 CHARLESTON, WV
 25311 304-558-8045

DATE PRINTED
04/23/2014

BID OPENING DATE: 05/13/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		906-00-00-001		
ADDENDUM NO. 2 SEE ATTACHED PAGES. END OF ADDENDUM NO. 2 ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL						
***** THIS IS THE END OF RFQ COR61694 ***** TOTAL:						

SIGNATURE 	TELEPHONE 412-931-8888	DATE 5-12-2014
TITLE Principal	FEIN 25-1258883	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: COR61694

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

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

Addendum Numbers Received:

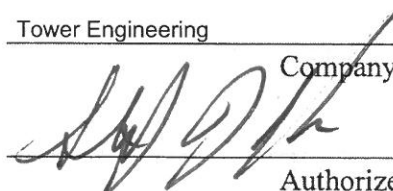
(Check the box next to each addendum received)

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

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

Tower Engineering

Company



Authorized Signature

5-12-2014

Date

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



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

Solicitation

NUMBER
COR61694

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
TARA LYLE
304-558-2544

RFQ COPY
 TYPE NAME/ADDRESS HERE

V
E
N
D
O
R

Tower Engineering
 115 Evergreen Heights Drive
 Suite 400
 Pittsburgh, PA 15229

S
H
I
P
T
O

DIVISION OF CORRECTIONS
 1409 GREENBRIER ST
 CHARLESTON, WV
 25311 304-558-8045

DATE PRINTED
05/06/2014

BID OPENING DATE: 05/20/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		906-00-00-001		
ADDENDUM NO. 3 SEE ATTACHED PAGES. END OF ADDENDUM NO. 3 ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL ***** THIS IS THE END OF RFQ COR61694 ***** TOTAL:						

SIGNATURE	TELEPHONE 412-931-8888	DATE 5-12-2014
TITLE Principal	FEIN 25-1258883	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: COR61694

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

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

Addendum Numbers Received:

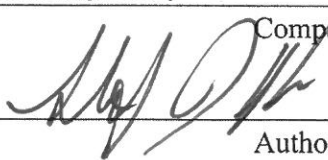
(Check the box next to each addendum received)

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

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

Tower Engineering

 Company



 Authorized Signature

5-12-2014

 Date

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



Huttonsville Correction Center
Randolph County, WV

SECTION 8
PURCHASING AFFIDAVIT

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

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

DEFINITIONS:

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

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

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Tower Engineering

Authorized Signature: [Signature] Date: 5/15/14

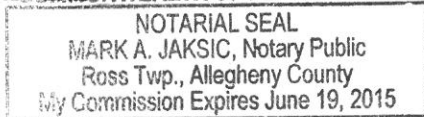
State of PA

County of Allegheny, to-wit:

Taken, subscribed, and sworn to before me this 15 day of May, 2014.

My Commission expires 6-19-15, 20 .

AFFIX SEAL HERE COMMONWEALTH OF PENNSYLVANIA



NOTARY PUBLIC

[Signature]
Purchasing Affidavit (Revised 07/01/2012)