



Township of
FERGUSON
Pennsylvania

REQUEST FOR PROPOSAL

Photovoltaic System Services

November 25, 2020

Overview

Ferguson Township is soliciting proposals for the design, construction, financing, and operation of a solar photovoltaic (PV) system for the roof of the new Public Works building currently under construction. The solar developer/contractor (“proposer”) is responsible for all project permitting and if Ferguson Township decides to move forward with a solar power purchase agreement (PPA) or a solar lease financed project, the proposer is expected to maintain the system for the term of the agreement.

Respondents shall have demonstrated experience designing, planning, scheduling, permitting and constructing complete solar PV systems, have relationships with/knowledge of local utilities, provide project financial analysis and rebate support, providing system monitoring and maintenance, and have established onsite safety standards.

RFP Schedule

The schedule for this RFP is as follows:

RFP Issued	November 25, 2020
RFP Advertised/released	November 25, 2020
Building Site Visit No Later Than	December 22, 2020
Requests for Information (RFIs) Due	December 30, 2020
Answers to RFIs distributed	January 8, 2021
Notice of Intent to Submit Proposal	January 12, 2021
Proposal Due	January 15, 2021
Notice of Intent to Award	February 16, 2021
Fully Executed Contract	February 19, 2021
Project Notice to Proceed	March 15, 2021
System Operation Date	June 15, 2021

Site Visit

The Proposer is responsible to make himself familiar with the project site conditions. Pre-bid site visits can be scheduled by appointment only by contacting David Modricker, Public Works Director at 814-238-4651 in advance. Familiarization with the site is mandatory and a prerequisite for the Proposer to submit a Proposal. No site visits will be scheduled after December 22, 2020. Technical questions will not be answered at the site visit. Please submit the names and contact information for those attending the site visit. Hard hats, closed toe shoes, safety vests, and face masks are required for the visit. Do not visit the site if you feel sick, or exhibit symptoms of COVID-19 or have been

exposed to anyone who tested positive for COVID-19. Follow COVID-19 safety practices as recommended by the CDC.

Request for Information

Please submit questions via email to Marcus Sheffer, Consultant, sheffer@sevengroup.com by December 30, 2020. Responses to questions will be shared with all bidders.

Notice of Intent to Submit Proposal

Respondents must present their notice of intent to submit a proposal to the Consultant, Marcus Sheffer sheffer@sevengroup.com to ensure receipt of all addendums and other project documents. Addendums to this RFP based on submitted technical questions, along with changes to the proposal schedule, will be issued via email.

RFP Submission Guidelines

One paper proposal must be submitted in a sealed envelope to the Public Works Director, David Modricker, P.E.3147 Research Drive, State College, PA 16801 no later than January 15, 2021 at 1:30pm. Submit one electronic proposal via email to dmodricker@twp.ferguson.pa.us or via USB portable drive.

Selection Process

Depending on the number and quality of the proposals received, Ferguson Township reserves the right to either select a vendor or shortlist two to three firms. Selected firms will be asked to meet with Ferguson Township to present their proposal to the decision team and answer any outstanding questions. Once received by Ferguson Township, proposals are considered valid and may not be withdrawn, cancelled or modified for ninety (90) days after the Proposal Submission Date to provide sufficient time to review the proposals, investigate the Proposer's qualifications, and execute the pertinent contracts with the selected Proposer.

Project Objective

Ferguson Township's interest in pursuing solar photovoltaic projects reflects the following prioritized goals:

1. To ensure that the Township's new public works garage is net positive energy
2. Meet the Township's sustainability goals/ minimize impact on the environment
3. To contribute to the project's LEED v4 Gold certification

Project Description

The project site is located at: 3147 Research Drive, State College, PA 16801

Description of Site: The potential project is proposed as a grid-tied, roof mounted system on the new public works garage currently under construction. It is expected that this project would produce at least 125,000 kWh annually. Existing roof plans and building elevations are included as Exhibit A.

Description of Desired Solar System: Roof mount ballasted system with no roof penetrations. The calculated additional structural load allowance of the system is 4-5 PSF. The System is to be interconnected with Ferguson Township's electricity accounts and the West Penn Power distribution system.

Electrical Rates: The Township currently purchases 100% national wind Green-e Energy Certified green power from Constellation at a cost of \$0.0525/kWh for generation. The Township currently pays approximately \$0.073kWh for electricity including distribution and generation. Electricity is supplied by West Penn Power on their General Power Service rate for transmission. The price to compare for generation on this rate is \$0.056/kWh. The total approximate cost of electricity under this rate is \$0.0765/kWh.

RECs: Since the project is pursuing LEED certification the sRECs associated with this arrangement must be retained by Ferguson Township or replaced with an equal quantity of Green-e Energy Certified RECs.

Project Financing: The Township requests bidders propose financing options that include either a lease, lease/purchase, Power Purchase Agreement (PPA), or other procurement options that do not involve an outright purchase.

System Ownership Information: Ownership is dependent upon the financing option selected.

Operation & Maintenance: The selected Company will provide O&M services for 25 years following installation of the project.

Scope of Work

Ferguson Township is soliciting proposals from qualified solar providers to design, build and finance services for the installation of a roof-mount solar photovoltaic project at the site address. The goal of this RFP is to identify a solar partner with the necessary experience to ensure a fully managed and well executed process. The successful respondent will have demonstrated experience financing, designing, planning, scheduling, permitting and constructing, interconnection and owning a solar PV system. Proposer is responsible for all permitting. Respondents must have worked with interconnection regulations, provide project financial analysis and have established onsite safety standards.

Design Guidelines

Proposer should consider the following guidelines when designing the solar system.

Roof-Mounted Solar

The proposer shall develop a design for a new solar PV system. It is the responsibility of the proposer to assess site topography and applicable attributes to estimate costs related to project installation. Proposer is responsible for securing the electrical and any other permits necessary to install a ballasted roof-mounted solar PV system.

- Mounting system shall be ballasted on the surface without roof penetration. Mounting system design needs to meet applicable local building code requirements with respect to snow, wind, and earthquake load factors, as well as set backs.
- Solar PV arrays azimuth shall be south-facing with the solar PV modules tilted 5 to 10 degrees; however, approved ballasted racking structures with East/West facing arrays are also allowed.

Solar PV System Components

Proposals shall provide evidence that the proposed technology and equipment would meet or exceed all currently applicable and proposed safety and interconnection standards including the applicable provisions of the Centre Region Building Safety and Property Maintenance Code. All equipment components must be listed or recognized by an appropriate safety laboratory (e.g., Underwriter's Laboratory [UL]), and meet existing facility structural and fire safety requirements.

Solar PV modules shall be a commercial off-the-shelf product, shall be UL listed, and shall be on the California List of Eligible Photovoltaic Modules (http://www.gosolarcalifornia.ca.gov/equipment/pv_modules.php). PV modules shall have a 25-year limited warranty that modules will generate no less than 80% of rated output under standard testing conditions (STC). PV modules that do not satisfy this

warranty condition shall be replaced. System wiring shall be installed in accordance with the provisions of the NEC 2014.

Inverters shall be commercial off-the-shelf product, listed to UL 1741 and IEEE 1547, and shall be on the California List of Eligible Inverters (<http://www.gosolarcalifornia.org/equipment/inverters.php>).

The inverter(s) shall have at a minimum the following features:

- UL/ETL listed
- Peak efficiency of 96% or higher
- Inverters shall have operational indicators of performance and have built-in data acquisition and remote monitoring.

The inverter(s) shall be capable of parallel operation with the existing AC power. Each inverter(s) shall automatically synchronize its output waveform with that of West Penn Power upon restoration of West Penn Power.

System Monitoring

All monitoring hardware and monitoring equipment shall be provided by the selected Proposer and maintained for the term of the PPA/lease. The monitoring system should include a Bacnet compliant (Modbus compliant is second preference) system that can be integrated with the building automation system (BAS). The BAS will include a monitor in the foyer that will show building energy consumption and renewable energy production. The system should display and analyze historical and live solar electricity generation data. Additionally, the regularly collected data should reflect, but not be limited, to the following:

- Average and accumulated output (monthly and annual kWh/kW and total kWh)
- Air quality emissions averted (and real world equivalents conversion)

The system meters should be utility grade and tested for accuracy periodically. Meters will be calibrated if in error by more than 2%.

Code Specifications

All power generation equipment must be UL listed for its designed use. Construction must comply with current adopted State Building Code, which includes: International Building Code (IBC 2015), National Electric Code (NEC 2014).

Proposer Responsibilities

Proposer must meet the following requirements:

- The Proposer shall provide a complete and full functional installation, including the furnishing, installation, supervision, commissioning, maintenance or repair and operation of the solar PV system.
- The Proposer shall give notices, file plans, obtain permits and licenses, pay fees and back charges, and obtain necessary approvals from authorities having jurisdiction as required to perform work in accordance with all legal requirements and with Specifications, Drawings, Addenda, and Change Orders. Ferguson Township shall be notified in advance of any submissions and be given reasonable opportunity to review any documents submitted to any third party on behalf of Ferguson Township.
- Proposer shall be responsible for any tax obligations related to the projects.
- At all times during performance of this contract, until the work is completed and accepted, the Bidder shall directly superintend the work, and there must be a NABCEP certified contractor on site when any installation work is being conducted.
- The Proposer shall be responsible for all damages to persons or property that occurs as a result of the Proposer's fault or negligence.
- The Proposer shall verify and accept existing roof conditions with Ferguson Township prior to installation. Ferguson Township will review all roof details associated with the PV system, and the manner in which the roofing manufacturer requires those details to be executed to ensure warranty continuity.
- The Proposer shall at all times keep the work area, including storage areas, clean and orderly. Any waste, excess material or packaging shall be removed promptly and disposed or recycled properly.
- The Proposer is responsible for any damages to the existing roof systems and interior/exterior building systems and finishes and is responsible for the prompt repair of any damage to these systems, resulting from the work at the project at no additional cost to Ferguson Township.
- It is expected that the selected Proposer will pursue tax credits and incentives, rebates, and other benefits that are available and/or may become available in the future. The selected Proposer shall comply with any requirements (such as insurance, reporting, etc.) that are associated with available programs.

Provide final design package and documents which shall include the following but are not all required in the proposal stage. Please reference the proposal requirement section for detailed bid submission requirements:

- Description of the solar PV system
- Construction documents and engineering calculations that are signed and sealed by a licensed engineer

- Layout drawing of installation site providing location of all equipment
- Equipment details and specifications (i.e., spec sheets of solar PV module, inverter, AC or DC disconnect switches, and any other devices)
- Schedule for equipment procurement and installation
- Staging plan for transferring racking structures and solar PV modules onto building roof
- Description of where the point of interconnection (POI) is located and how grid interconnection requirements will be met
- Description of controls, monitors, and instrumentation to be used for the solar system
- Equipment and installation manuals
- Safety plan
- Quality control plan and commissioning procedure
- Proposer should coordinate with the roof installer/manufacturer to ensure that the system to be installed will not adversely affect the roof's warranty. Provide such assurances in writing. Roofing installer - Blair Roofing, Inc., Jody Creamer, 509 Chimney Rocks Rd, Hollidaysburg, PA 16648, 814-693-9000, jcream@blairroofinginc.com Roofing Manufacturer - Carlisle SynTec Systems, 1285 Ritner Hwy, Carlisle, PA 17013, 800-479-6832, info@carlisesyntec.com
- Documentation required for submission of the LEED v4 Renewable Energy Production credit to the US Green Building Council
- Operations and Maintenance manuals for system operations and performance monitoring over the life of the contract
- Web-based monitoring for 25 years
- Close out report including the following information: system nameplate size, the overall installed cost of the system and estimated monthly and annual kilowatt hour (kWh) production in the first year.

Operation and Maintenance of System

The successful respondent will be required to provide operation and maintenance of the entire solar electric system for 25 years for the term of the PPA or lease. Operations and maintenance services include:

- These services include cleaning inverter filters, if needed; look over all the PV modules, checking for possible breakage of the module glass; assess and correct any wire management issues, broken wire ties, and conduit repairs; clear any accumulated leaf/stick or vegetation debris caught up in the ballasted racking structures (i.e., clear roof drain paths); correct if any slip sheets are out of place or missing; spot check PV modules are securely fastened onto the ballasted

racks; and check ballast material (i.e. patio block) for deterioration; and clean PV module glass, if necessary

- Online monitoring and integration with the building automation system
- Performance monitoring, notification, and troubleshooting – must have personnel available to notify Ferguson Township of an outage or decrease in system production
- Corrective maintenance to mitigate any risk to the system or minimize down time
- System Performance Reports that compares actual production to predicted production
- Preventative maintenance and inspections to identify and fix problems before they occur, including infrared photography for hot spots, IV curve tracer tests (if applicable), manufacturer recommended maintenance, hardware torque checks, and other O&M measures.

The successful Proposer shall supply Ferguson Township two copies of all Component Product Data/Specification Sheets and Component Operation and Maintenance manuals. The information shall be sufficient to evaluate and ensure appropriate O&M is being completed over the life of the system. Examples of components include solar PV modules, conduit, inverter, AC and DC disconnects, etc. Project as-built drawings including detail locations of all components shall be submitted within 30 days of system start-up.

Warranties

The solar provider's standard system warranty coverage should cover modules, inverter, racking and workmanship.

- *Modules*: 25-Year Power Output & 10 Workmanship Limited Warranty
- *Inverter*: 10-Year Limited Warranty, Provide a price and/or plan for inverter replacement in year 11 and beyond
- *Racking*: 10-Year Limited Warranty priority
- *Workmanship*: 1 Year Limited Warranty

Proposal Requirements

Please provide 1 original paper proposal with electronic files and an email response to:
David J. Modricker, P.E.
Public Works Director

Ferguson Township
3147 Research Drive
State College, PA 16801
dmodricker@twp.ferguson.pa.us

Type "Proposal for Solar PV System" on the bottom left corner of the envelope. Please print double sided on recycled paper. Hard copies must be delivered no later than 1:30pm on January 15, 2021. Proposals received after this time will be returned to the respondent un-opened. Proposals will not be considered for award unless submitted in the format described below. It is the responsibility of the respondent to ensure that the submittal is received in a timely manner. Fax proposals will not be accepted.

Proposal Format

Please include the following sections in your proposal submittal in the following order.

- *Cover/Transmittal letter:* Cover letter must be addressed to Ferguson Township and signed by a legally authorized representative of the respondent. Cover letter must summarize key provisions of the proposal and must include name, address, phone and email of the respondent contact.
- *Executive Summary:* Include key provisions of the proposal, including understanding of the project's goals, pricing, respondent's role on project, brief description of proposed system, financing, relevant experience of respondent/company, and key timeline dates.
- *Company Profile:* Years in business, description of respondent/company background, applicable state licensing, OSHA background and safety protocol, Insurance, Quality Assurance/Quality Control documentation.
- *Project Experience:* Include projects completed in the last 3 years similar in scope and size to the proposed project. Include project name, system size, location, and brief 2-3 sentence project description. Highlight companies permitting and interconnection experience with local utility.
 - References: Provide 3 project references with direct client phone numbers.
- *Project Team:* Organization chart and bios (length of time with firm, key projects) of key team members, capability to perform work/workload capacity. Please only profile individuals that will directly be working on this project, including those with NABCEP certification. Clearly identify the project manager.
- *Technical Solution/Scope of Work:* Describe your technical approach to the design and construction of the solar project including:
 - Technical Approach, Design, Equipment, Installation

- PV module, inverter, racking specifications
 - Equipment and workmanship warranties
 - Exhibits showing proposed layouts, string maps and system single line diagrams
 - Overall system size in kW (DC and AC)
 - PVWatts Report (or equivalent) indicating production of the proposed system
 - Proposed monitoring system/solution
 - Operations & Maintenance Plan offered for the project. Please price O&M plan separately from cash purchase option
- *System Production:* Expected annual energy production in kWh by month. Provide PVWatts (or equivalent) output and inputs.
- *Production Guarantee:* Provide at least a 90% kWh guarantee for year 1, degrading by a maximum of 0.7%/year for 25 years. Performance guarantee should be measured and damages should be paid on an annual basis.
- *Incentives:* The Proposer's proposal shall include a plan for the disposition and/or assignment of: (a) any environmental or other attributes (such as sRECs, greenhouse gas offsets, etc.) that are generated in connection with the operation of the System; (b) any tax credits or incentives generated in connection with the operation of the System; and (c) any grants or rebates obtained in connection with the installation of the System.
- *Price Proposal:* Provide a PPA and lease price for the system.
 - Present year 1 and 25 year financial savings
 - Present the NPV using the avoided cost provided by Ferguson Township
 - PPA proposal should include a percent escalator for the PPA rate, if applicable, or the PPA price increases should not be higher than the annual percentage change with West Penn Power's price-to-compare
- *Safety* – Please include a brief description of the safety practices of your firm, as well as the OSHA Reporting Indicators for the last 3 years.
- *Proposed Schedule* – Identify key project milestones and include any necessary review periods for Ferguson Township.
- *Proposed Terms and Conditions* - Each respondent should provide a copy of their Terms and Conditions to Ferguson Township based on the RFP provided.

Evaluation/Selection Criteria:

Ferguson Township will evaluate proposals according to the evaluation criteria below. Result of this step will be the identification of the selection of a proposal for negotiation of a contract. Points will be awarded based on the relative merit of the information provided in the response to the solicitation. Selection based on the total number of points awarded by the evaluation committee. The following criteria will be used to evaluate the proposals.

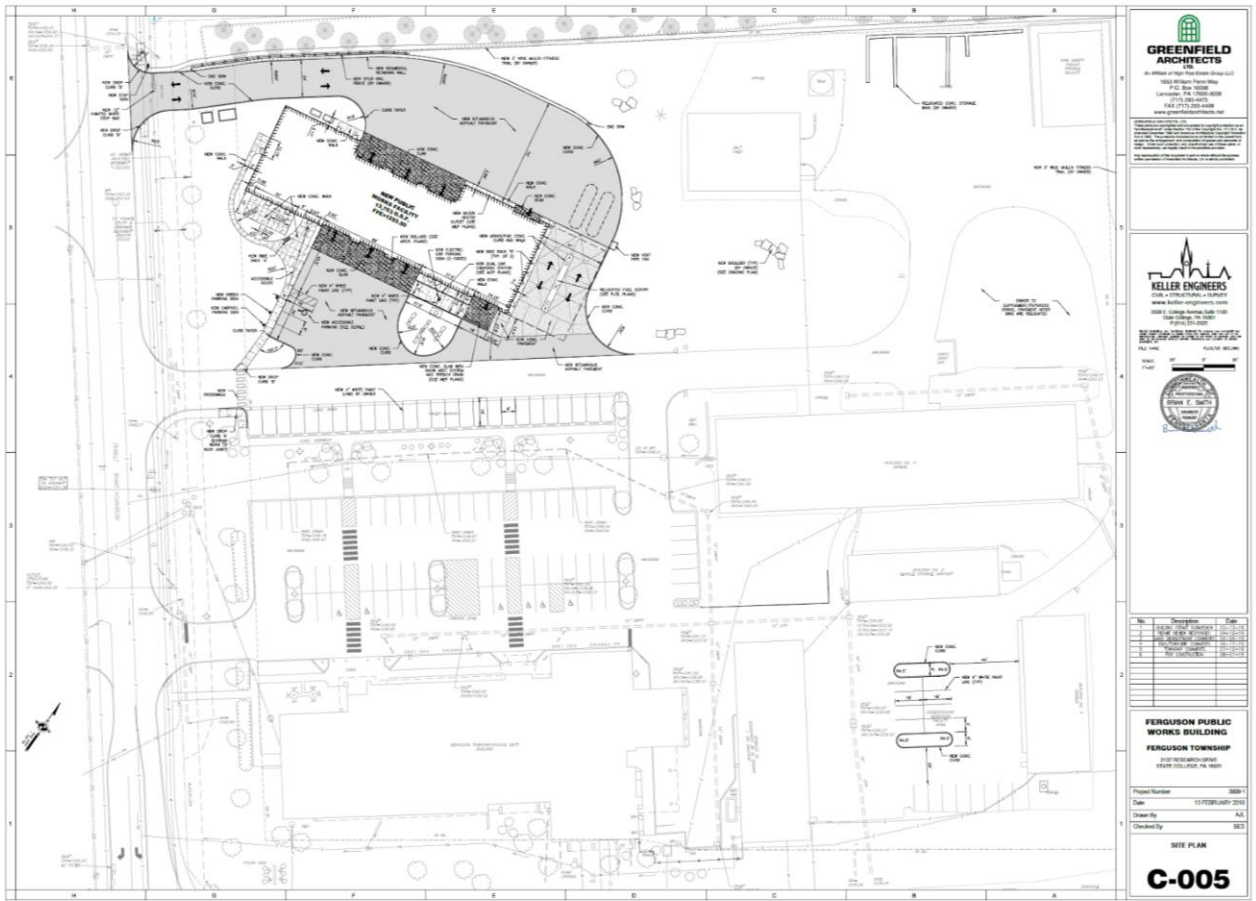
- Proposal Cost Effectiveness
- Technical Approach/ Implementation Schedule
- Company Qualifications/Project Experience
- Project team, team experience and approach

Ferguson Township may elect to conduct interviews with selected respondents to ask questions or for more detail on the proposed project. Ferguson Township reserves the right to seek supplemental information from any respondent at any time after official proposal opening and before award. This will be limited to clarification or more detail on information included in the original proposal. Upon acceptance of a proposal and intent to award, the successful respondent will be required to execute and return all required project documents and certificates of insurance within 90 days from the Notice of Award. Should the selected firm fail or refuse to execute the project documents, Ferguson Township reserves the right to accept the proposal of the firm offering the next best value to Ferguson Township.

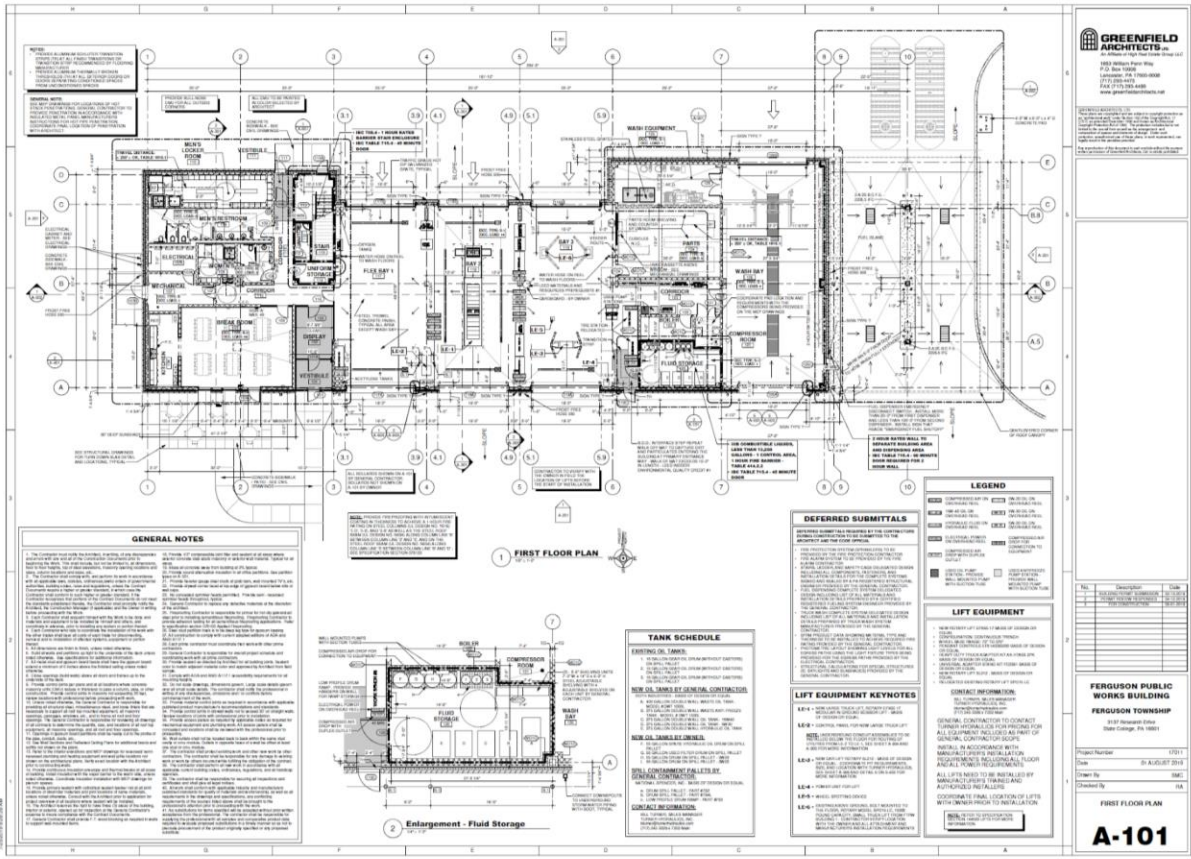
RFP Exhibits

Exhibit A: Site plan, first floor plan, roof plan, elevations

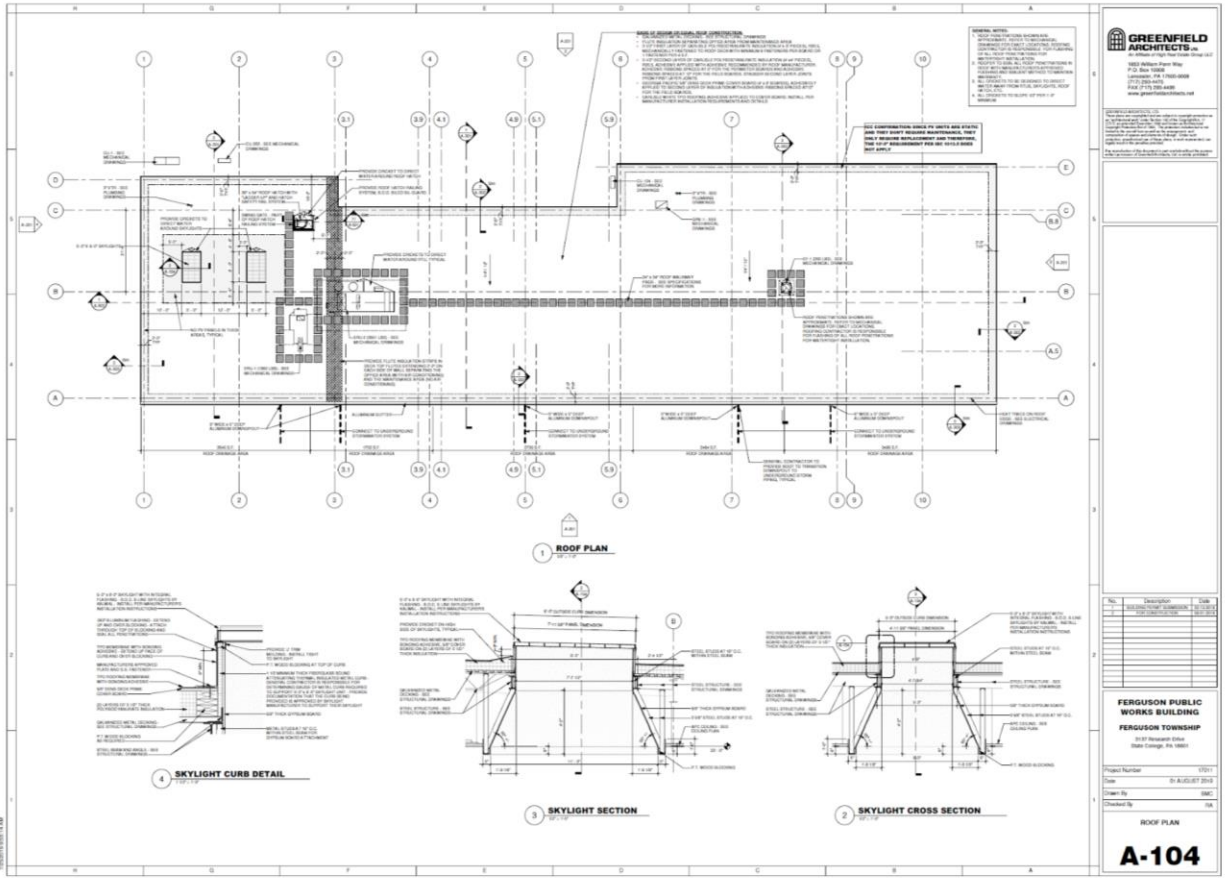
Exhibit A: Drawings



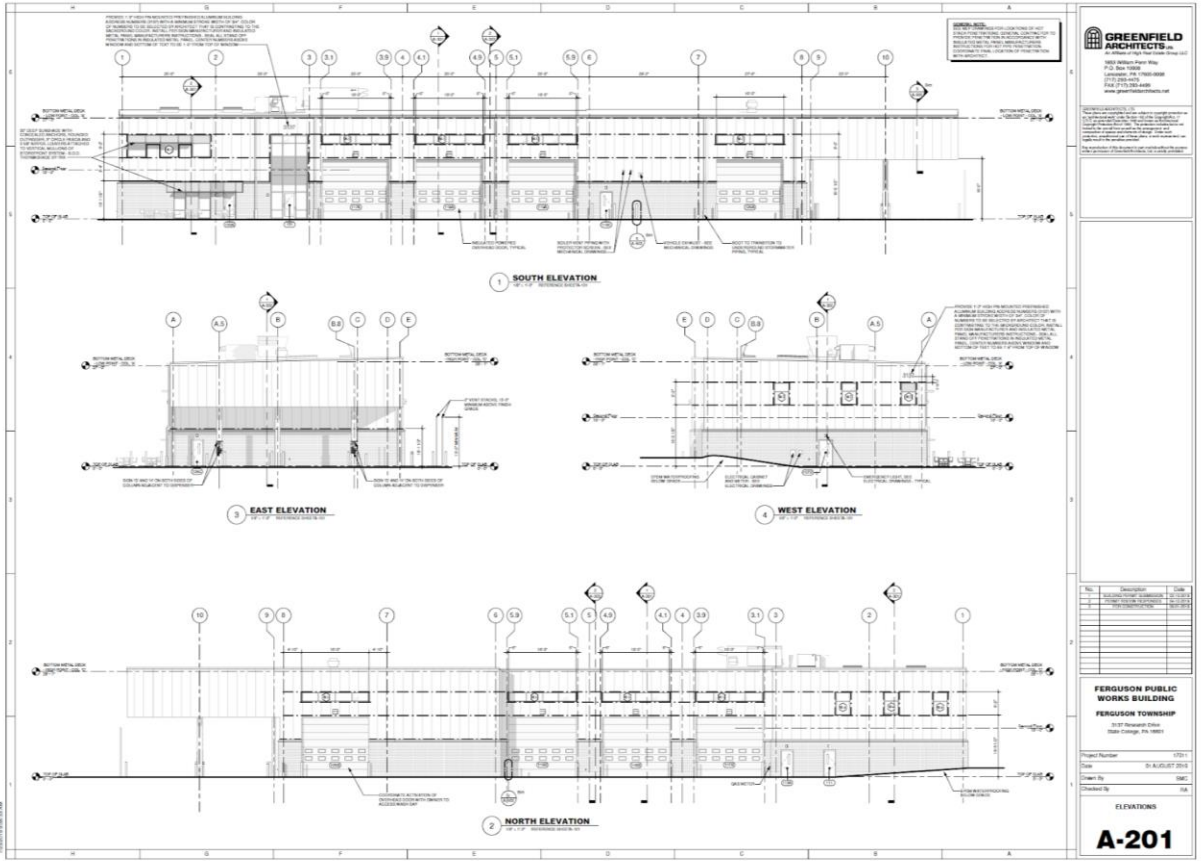
Site Plan



First Floor Plan



Roof Plan



Elevations