

Request for Qualifications

The Ohio State University
400 Central Classroom Building – 2009 Millikin Road
Columbus, OH 43210



fod.osu.edu
v: 614.292.4458 • f: 614.292.2539

Project Name	Campus Electrical Capacity, Phase 2 (New Substation) - Project Engineer	Response Deadline	10 / 05 / 2009 4:30 p.m. local time
Project Location	West Campus Kenny Rd	Project Number	OSU-081042
City / County	Columbus / Franklin		

Local Administration

Owner/Agency	The Ohio State University	Owner/Agency	The Ohio State University
Project Manager	Thomas Carmody	Inquiries to*	Bernard Costantino, University Architect
Street	400 Central Classroom Bldg	Street	2009 Millikin Road, room 400
City	Columbus Ohio	City	Columbus Ohio
Zip	43210	Zip	43210
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*Mail 6 copy(ies) of the Statement of Qualification(s) (SAO Form #F110-330 available via the State Architect's Office Web site at <http://www.das.ohio.gov/gsd/sao/documents.htm>) directly to this contact.

Project Overview

A. Project Description

This project will construct a new 138kv electrical substation necessary to meet current and future campus electrical needs within a 420'x400' site located on OSU's West Campus. The project will include site preparation and configuration of the initial two transformers with expansion capabilities for as many as three additional transformers and one additional AEP transmission line in the future.

The site will initially be secured with a fence (approx. 20' high) with provisions for architectural screening features consistent with planned campus development in the area, to be added as the project progresses into the latter phases of site development. **Because of the highly specialized technical nature of the project, an architect will be selected by OSU and subordinate to the project engineer (AE).**

AEP will terminate the Roberts Rd./OSU Substation 138kv transmission line in the proposed substation, as well as design and construct the 138 kV portion of the switchyard along with the entire site preparation, grounding and grading. The project engineer will design and coordinate all aspects of the Medium Voltage station design with OSU Utilities and AEP Substation Engineering to provide a complete and functional integration of the AEP maintained and operated substation High Voltage switchyard and the OSU maintained and operated Medium Voltage substation transformer and distribution facility.

B. Scope of Services

The AE will develop a full schematic design for the project Medium Voltage portion of the station from the point of connection to AEP's 138 kV switchyard and including the distribution system modifications and additions required to integrate the new substation into the existing Medium Voltage distribution system. The design will be coordinated with AEP Substation Design and share key operational and maintenance design features with the existing campus distribution system and the OSU substation.

Long lead time equipment delivery will govern a portion of the equipment procurement. The two main transformers and the arc-resistant Medium Voltage switchgear with integral environmentally regulated control enclosures will require direct purchase by the University. Working from the approved schematic design, the AE will develop a Transformer Specification and a Switchgear Specification and initiate purchasing well in advance of bidding and awarding the construction specification.

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B. Scope of Services continued

Project design documentation will be developed by the AE at a level of detail suitable to support specification and purchase of control panels. This includes detailed panel layouts, schematics, wiring and physical steel fabrication drawings. All panel mounted equipment will have to be pre-selected by the AE and included on a detailed Bill of Material and shown on detailed wiring diagrams. Switchgear shall likewise be documented with fully detailed outline and assembly documents, detailed schematics, detailed wiring and a full bill of materials. All electrical equipment shall be documented with a comprehensive set of cross referenced and integrated schematics, wiring, and where appropriate, physical outline drawings, mounting and fabrication details.

The AE will be responsible to produce the following in conformance with the OSU Building Design Standard Division 33:

- 15 kV Distribution Station bus configuration design
- Transformer configuration design and detailed purchase specification
- Distribution Feeder Reactor detailed procurement specification
- Power Factor CAP bank design and detailed procurement specification
- MV Switchgear layout and detailed procurement specification
- 125 V Battery sizing, battery system design and detailed procurement specification
- Station Service equipment sizing and detailed design
- Station and equipment grounding design and related studies
- Station Lightning Protection Design
- Station perimeter, yard and security Lighting Design
- Station oil retention and drainage
- Station fire monitoring
- Station security system
- Distribution system fault study and Protective relay coordination and settings
- Load Tap Changer Controls design
- Transformer high side switching equipment controls design
- Interface to AEP for station service, Relay Protection and control, and communications
- Detailed and complete substation drawing package for panel fabrication, construction and operation detailing physical design and detailed wiring conformant to and consistent with the University Utilities Drawing system's conventions, practices and formats
- Informational materials accumulation and presentation for Utility Personnel training

Commissioning will be provided through the services of an independent Relay Check-out Organization (RCO) reporting directly to the University Utilities Department and the project organization. The Engineer shall provide engineering support and as-building services as required by the RCO to manage installation record documents and maintain design control throughout the course of the project.

The Engineer shall conduct all engineering, purchasing and construction support activities in conformance with the University Utilities Quality Plan and incorporate Quality Plan conformance requirements and Safety Guide adherence into the Project Construction documents.

For projects advertised with an appropriately-developed Program of Requirements (POR), upon award of the Agreement, commence with Design. For projects without such a POR, upon award of the Agreement, commence by developing the Program of Requirements. The selected Architect/Engineer (A/E), as a portion of its required Scope of Services and prior to submitting its proposals, will discuss and clarify with the Owner the cost breakdown of the Architect/Engineer Agreement detailed cost components to address the Owner's project requirements. Participate in the Encouraging Growth, Diversity and Equity (EDGE) Program as required by statute and the Agreement. Design must comply with the requirements of House Bill 251 Inter-University Council guidelines for energy use reduction and the University's Green Build Policy.

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B. Scope of Services continued

As required by the Agreement, and as properly authorized, provide the following categories of services: Program Verification, Schematic Design, Design Development, Construction Document Preparation, Bid and Award Support, Conformed Documents, Construction Phase, Post-Construction Phase, and Extra Services and Additional Services of all types. Refer to *The SAO Manual* for additional information about the type and extent of services required for each.

During the construction period, provide not less than 16 hours (excluding travel time) on-site construction administration services each week, including (1) attendance at progress meetings, (2) a written field report of each site visit, (3) on-site representation comprised of the A/E and its consultant staff involved in the primary design of the project, all having relevant and appropriate types of construction administration experience.

Major Scope of Work requirements to be used (as a minimum) in section F, Relevant Project Experience Matrix are:

1. Accommodation the State of Ohio standard requirements for public facility construction as applicable
2. Medium Voltage substation design
3. AEP interface and design with AEP design requirements
4. Construction Administration of medium voltage substation
5. Site design and integration into a university or comparable Medium Voltage Distribution system
6. Enhanced design of architectural treatment of the perimeter screening walls

Architect/Engineer Selection Rating

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Project Name Campus Electrical Capacity, Phase 2 Proposer Firm _____
(New Substation) City, State, Zip _____

Project Number OSU-081042

Selection Criteria		Value	Score
1. A/E Firm Location			
Proximity of primary A/E firm office where majority of work is to be performed in relationship to project site	0 – 150 miles	4 - 5	
	150 – 300 miles	2 - 3	
	Over 300 miles	0 - 1	
2. A/E Firm Size			
Number of relevant licensed professionals within primary A/E firm available to perform the work	Small = < 5 licensed professionals	1	
	Medium = 5 – 10 licensed professionals	3	
	Large = > 10 licensed professionals	5	
3. Current Workload			
Amount of fees awarded by the Contracting Authority to the primary A/E Firm in the previous 24 months (exclude projects on hold)	< \$ 100,000	4 - 5	
	\$ 100,000 - \$ 500,000	2 - 3	
	> \$ 500,000	0 - 1	
4. Primary A/E Qualifications			
a. Project Management Lead	Experience / ability of project manager to manage scope / budget / schedule / quality	0 - 10	
b. Project Design Lead	Experience / creativity of lead designer to meet needs of owner	0 - 5	
c. Technical Staff	Experience / ability of technical staff to develop quality construction documents	0 - 5	
d. Construction Administration	Experience / ability of field representative to identify / solve issues during construction	0 - 10	
5. A/E Consultant Qualifications			
Key Discipline Leads	Experience / ability of all key discipline leads to effectively perform the work	0 - 10	
6. Project Team Qualifications			
a. Previous Team Collaboration Number of projects that a majority of the team members have worked together	< 2 projects (Low)	0 - 1	
	2 – 4 projects (Average)	2 - 3	
	> 4 projects (High)	4 - 5	
b. LEED* Experience within Team	LEED AP(s)** on Team	0 - 1	
	LEED Registered Project(s)	0 - 2	
	LEED Certified Project(s)	0 - 2	
	Satisfies ALL above Criteria	Sum = 0 - 5	
c. Team Organization	Clarity of responsibility / communication demonstrated by table of organization	0 - 5	
7. Overall Project Team Experience			
a. Budget & Schedule Management	Performance in completing projects within original budget and schedule limitations	0 - 5	
b. Experience with Similar Project Type	< 3 projects (Low)	0 - 3	
	3 – 6 projects (Average)	4 - 6	
	> 6 projects (High)	7 - 10	
c. Past Performance	Level of performance as indicated by past A/E evaluations / letters of reference	0 - 5	
d. Knowledge of State of Ohio Capital Project Administration Process	< 3 projects (Low)	0 - 3	
	3 – 6 projects (Average)	4 - 6	
	> 6 projects (High)	7 - 10	
		Subtotal	

* LEED = Leadership in Energy & Environmental Design developed by the U.S. Green Building Council
** LEED AP = LEED Accredited Professional credential by the Green Building Certification Institute

Notes:

Owner Evaluation:

Name _____

Signature _____ Date _____