

# **REQUEST FOR QUALIFICATIONS SPECIAL TESTING AND INSPECTION SERVICES**

## **Helios Energy Research Facility – Project #12313D**

### **I. PROJECT NOTICE**

The University of California (Berkeley) seeks statements of qualifications to perform special testing and inspection services as described under Item III below for the Helios Energy Research Facility for the University of California, Berkeley campus. Project Specifications and Project Drawing Set are available at the Oakland branch of Ford Graphics and proposing companies may call 510-451-9060 to order documents at their own expense. Plans are also available for review at the Capital Projects office.

#### **GENERAL DESCRIPTION OF WORK:**

The proposed project will construct a five story plus basement laboratory and office building of approximately 113,000 gross square feet, comprised of wet research laboratory space, research support space, and office and administrative support space.

The building structural system will be a steel frame and a mat slab foundation.

Building systems in the proposed facility would include HVAC, plumbing, electrical, fire and life safety, telecommunications, gas, compressed air and security. Utility service will be provided from a combination of municipal utilities, the City of Berkeley and the University campus. Utilities will need to be extended and upgraded.

The building site encompasses the site of the existing Department of Health Services building at 2151 Berkeley Way. Hearst Avenue fronts the north property line, Oxford Street fronts the east property line and Berkeley Way fronts the south property line. A privately owned property is located at the southeast corner of the site. The Helios structure will occupy the northeast corner of the site along Hearst Avenue and Oxford Street.

The project will include the demolition of the existing building.

Construction costs are estimated to be \$92,000,000.

Rudolph and Sletten Construction Group is the Construction Manager/General Contractor.

### **II. SCHEDULE**

Site demolition will begin in April 2010. Expected date of completion is November, 2012

### **III. PROPOSED SCOPE OF SERVICES**

The scope of services to be provided will comply with the California Code of Regulations — Title 24 Requirements and all other related applicable standards. The inspector(s) will report to and work with UCB Inspection Services (including forms and policies) and will perform services including but not limited to the scope outlined below.

A. Observe Contractor's operations to ensure conformance with applicable standards, and perform special testing and inspections in accordance with the State Fire Marshal approved Contract Documents, including but not limited to the following:

1. Foundation Concrete, Building Concrete, and Site Concrete:

- a. Verification of mix designs and certificates of compliance.
- b. Compaction testing of aggregate base course, crushed rock, pea gravel and/or sand.
- c. Testing of material samples, including but not limited to aggregate base, aggregate and cement.
- d. Concrete batch plant inspections.
- e. Verification of size, type and placement of reinforcement, including welding inspection if applicable.
- f. Verification of concrete placement and curing, including placing sequence.
- g. Concrete cylinder and slump tests including handling, delivery and testing of cylinders.
- h. Shotcrete operation including certification, test panel cores, verification of operator certificates, full-time observation of placement, and written reports.
- i. Verification of surface finish tolerances (FF and FL).
- j. Torque tests as required.
- k. Asphalt mix design, testing of mix designs and installation.
- i. Testing associated with the installation of the shoring system including grout sampling, tie back and soil nail load testing

2. Reinforcing Steel: Verification of all reinforcing steel placement, material tags, installation methods, clearances, connections and laps. Testing of couplers and testing of samples as required.

3. Structural Steel, Miscellaneous Metal & Prefabricated Metal Stairs:

- a. Fabrication plant inspections – Monitor fabrication operations and verify welder certifications, welding procedures, shop inspections and tests and Contractor's quality control plan and records.
- b. Field inspections – Qualify welding operators and procedures and inspect all steel erection and field connections as specified, including magnetic particle testing and ultrasonic testing of field welds.
- c. Metal decking – Witness welding procedure for metal decking and qualify each welder as specified. Verify shear stud welding and installation.
- d. Metal fabrications – Inspect field welding as specified.
- e. Bolting – Torque tests as required.

- f. Testing of shear studs
- 4. Pull Tests:
  - a. Hanger and rods
  - b. Epoxy dowels (if required)
- 5. Fireproofing: Thickness, density and bond strength testing of cementitious fireproofing.
- 6. Sitework: Compaction testing of subgrades and utility trenches.
- 7. Existing Conditions: Field verification and monitoring of existing building datum point.
- 8. Possible visual welding and x ray of interior and exterior utility piping
- 9. Other: Identify items that may have been omitted and should be included as part of scope.

B. The following scope will be by others and is specifically EXCLUDED:

- 1. Hydrostatic or air pressure testing of pipes and fittings.
- 2. Observations of formwork and shoring operations.
- 3. Roofing and waterproofing inspections, including load testing of roof hatches and testing of gutters by flooding with water.
- 4. Inspection of sheet metal flashing and trim.
- 5. Inspection of firestopping work.
- 6. Façade mock-up testing.
- 7. Concrete moisture vapor emission testing.
- 8. Testing of exterior maintenance equipment.
- 9. Elevator testing.
- 10. Vibration isolation testing.
- 11. Sound attenuator testing.
- 12. Testing of mechanical, electrical, plumbing, security and telecommunication systems.
- 13. Testing of fuel oil storage and distribution system.
- 14. Testing of fire protection system.
- 15. Inspections for aesthetic acceptance.

#### **IV. CONTENT OF PROPOSAL**

- A. Cover Letter of introduction, indicating understanding of the project and proposed approach.
- B. Submittal responding to the following:
  - 1. Statement of Qualifications

2. Resumes of proposed personnel highlighting relevant qualifications and experience
3. At least three (3) references demonstrating firm and proposed inspector's experience with projects of similar scope and complexity.

C. Proposal to be based on the drawings, specifications, and schedule provided.

## **V. DOCUMENTS**

Drawings and specifications prepared by SmithGroup (Design Development package dated February 15, 2010) are available for review at UC's Capital Projects offices at no charge, or for purchase as noted above.

## **VI. PROPOSAL SUBMITTAL AND REVIEW PROCESS**

A. Three (3) copies of the proposal should be directed to:

Sally McGarrahan, Project Manager  
UC Berkeley Facilities Services/Capital Projects  
1936 University Avenue, Room 232  
Berkeley CA 94704-7027  
Fax: 510-642-7271

B. The proposal must be received no later than **4.00 PM on Thursday, March 11, 2010** in order to be considered. Please contact Sally McGarrahan, Project Manager at 510-643-5560 for inquiries.

## **VII. SELECTION CRITERIA**

A selection committee will review the submittals and rank the inspection/testing agencies. Selection will be based on the agency's understanding of the project scope, complexity and implications as well as the experience of the agency and the proposed inspectors.

The firm selected will be required to sign the University's Professional Services Agreement, which is available for review at <http://www.cp.berkeley.edu/PSA.pdf>.

The University of California is an equal opportunity Employer. Every effort will be made to ensure that all persons, regardless of race, religion, gender, color and national origin have equal access to contacts and other business opportunities with the University.