REQUEST FOR PROPOSAL

Commissioning Services
College of Pharmacy Building Construct New Facility
University of Iowa
#0329501

Addendum #1

Issued Wednesday, February 10, 2016

Changes:

Item #01: Section 02 Scope of Work, Design Phase Deliverables: Commissioning Agent to attend 75% and Final Construction Document review meeting in person.

Item #02: Section 02 Scope of Work, Systems to be Commissioned and Sampling Rate: Replace entire section with the following:

   a. Test 100% sampling of the following systems.
      i. Domestic Water Pump Skid
      ii. Water Heater
      iii. Water Softener

   a. Test 100% sampling of the following systems.
      i. RO Supply Units
      ii. Humidifiers
      iii. Chilled Water Pumps
      iv. Heating Water Systems, including
         1. Heat Exchangers
         2. Heating Water Pumps
      v. Snowmelt System, including
         1. Heat Exchanger
         2. Pumps

3. HVAC Systems.
   a. Test 100% sampling of the following systems.
      i. Exhaust Fans
      ii. Stairwell and Elevator Pressurization Fans
      iii. Air Handling Units, including
         1. Energy Recovery Systems
         2. Fire Alarm emergency shut-down interface
   b. Conduct One (1) post-occupancy trend review of each unique sequence of operations for the following systems.
      i. Terminal Units, including Supply and Exhaust VAVs, and Computer Room Units. Review to include the following conditions
         1. Building schedule induced status change from unoccupied to occupied.
2. Occupancy sensor induced status change from unoccupied to occupied.

4. Mechanical and Electrical Sub-Metering.
   a. Test random sampling of up to five (5) utility sub-meters. Verify that unit is transmitting calibrated data to the Building Automation System.

5. Electrical.
   a. Test 25% random sampling of the following systems.
      i. Lighting Controls Systems

   a. Test 100% sampling of the following systems.
      i. Exhaust Hood System, including fans
      ii. Radioisotope Exhaust Hood System, including fans

7. Systems Commissioned by Others
   a. Campus Utility Interface Metering
   b. Fire Alarm Systems.
   c. Access Controls
   d. Audio/Visual Systems

Item #03 Section 06 Proposal Requirement: Replace Line Item 7 with the following:

“Limit submittal to twenty (20) single sided pages. Total page count includes resumes, cover, table of contents, and all supporting materials. Combine all requested materials in a single *.pdf file format.”

END OF ADDENDUM #1
January 29, 2016

Re: Request for Proposals- Commissioning Services
0329501 – College of Pharmacy Building Construct New Facility
University of Iowa

The University of Iowa, located in Iowa City, Iowa, intends to retain the services of a qualified Commissioning Agent (CxA) to provide Commissioning (Cx) Services for the above project. CxA firms are invited to submit a proposal based on the scope of services described below.

The scope of work for this project will include Design, Construction/Acceptance, and Occupancy/Operations Phase commissioning services.

1.0 Background

A new Pharmacy building will be constructed on the site of the existing Quadrangle Residence Hall. The original (north tower) building will be razed and the existing 1996 south addition (south tower) will be upgraded. The new building will contain laboratory, classroom and communal spaces as well as three alternates; fit out of UIP manufacturing area, expansion of the basement and a roof plaza.

UIP equipment will be purchased via Purchasing process and installed as owner-furnished equipment.

Project is seeking LEED v3 certification, with Enhanced Commissioning.

The Owner’s Project Requirement (OPR) for this project consists of the 2015 University of Iowa Design Standards and Procedures and the project Design Development Summary Document.

2.0 Scope of Work

The primary role of the successful CxA is to develop and coordinate the execution of a quality assurance plan pertaining to commissioned equipment and systems, observe and document performance, and determine whether systems are functioning in accordance with the Owner's Project Requirements and the Contract Documents. Additionally, the successful CxA will assist in identifying solutions to non-conforming work. Final resolution will remain the responsibility of the Contractor and Design Professional. Refer to ASHRAE Guideline 0-2013 for acceptable standard of care.
Commissioning Tasks

The Commissioning Agent (CxA) shall complete the following tasks during the Design, Construction, Acceptance, and Occupancy/Operations Phases of the project.

Design Phase

Commissioning during the Design Phase shall ensure that the Owner's Project Requirements are documented and captured within the Contract Documents. The CxA shall complete the following:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Deliverable</th>
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<tbody>
<tr>
<td>Coordinate with the Owner’s Representative and oversee the commissioning process during design.</td>
<td></td>
</tr>
<tr>
<td>Review the Owner’s Project Requirements (OPR) for clarity and completeness. The OPR consists of the applicable UI Design Standards and the project programming and scoping documents.</td>
<td>Complete Owner provided REVIEW COMMENT form</td>
</tr>
<tr>
<td>Review project Design Summary (Basis of Design or Design Build equivalent) document, for clarity and completeness.</td>
<td>Complete Owner provided REVIEW COMMENT form</td>
</tr>
<tr>
<td>Develop and implement a LEED compliant Commissioning Plan. Commissioning plans shall consist of a summary cover sheet outlining an overview of the commissioning process activities from predesign through occupancy and warranty. The remaining roles, responsibilities, and deliverables shall be documented in the project Commissioning Specifications.</td>
<td>Summary Cover Sheet and edited Commissioning Specifications</td>
</tr>
<tr>
<td>Perform a quality control design review of the Design Documents. Refer to ASHRAE Guideline 0-2013, Annex N and addendum, for expected standard of care. Reviews shall:</td>
<td>Complete Owner provided REVIEW COMMENT form</td>
</tr>
<tr>
<td>- Verify compliance with the OPR.</td>
<td></td>
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<tr>
<td>- Verify system control sequences against one-line diagrams, flow diagrams, and equipment details and specifications.</td>
<td></td>
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<tr>
<td>- Opportunities for making building operations and maintenance easier (i.e.: Equipment Accessibility, System Control, etc.).</td>
<td></td>
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<tr>
<td>- Opportunities for decreasing utility usage and/or increasing project quality.</td>
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<tr>
<td>Perform quality reviews at the following benchmarks:</td>
<td></td>
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<tr>
<td>- 75% Construction Documents</td>
<td></td>
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<tr>
<td>- Final Construction Documents</td>
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</table>
Participate in the following design review meetings. The primary function of the CxA is to note deviations and conflicts between the OPR, UI Design Standards and Procedures, and industry best practices.

- 75% Construction Documents
- Final Construction Documents

Perform a back-check of each subsequent design submittal to verify the agreed upon commissioning related corrections were implemented.

Edit University of Iowa standard Specification Section 01 91 13 COMMISSIONING. The commissioning specifications shall be transmitted to the Design Professional in electronic form and shall include review of the following:

- List of systems and assemblies included in the commissioning scope of work. Include sampling rates.
- Cross references to all applicable and related specification sections
- References for inclusion into individual equipment and systems specification sections
- Deferred and seasonal testing requirements

Provide sample Construction Checklist and Functional Performance scripts for issue with Bid Documents.

Updated REVIEW COMMENT form

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- 75% Construction Documents
- Final Construction Documents

Perform a back-check of each subsequent design submittal to verify the agreed upon commissioning related corrections were implemented.

Edit University of Iowa standard Specification Section 01 91 13 COMMISSIONING. The commissioning specifications shall be transmitted to the Design Professional in electronic form and shall include review of the following:

- List of systems and assemblies included in the commissioning scope of work. Include sampling rates.
- Cross references to all applicable and related specification sections
- References for inclusion into individual equipment and systems specification sections
- Deferred and seasonal testing requirements

Provide sample Construction Checklist and Functional Performance scripts for issue with Bid Documents.

Updated REVIEW COMMENT form

Construction Phase

Commissioning during the Construction Phase shall verify that the project achieves the objectives of the Owner’s Project Requirements, as expressed by the contract documents. The CxA shall complete the following tasks:

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<tr>
<td>Conduct a kick-off meeting with the Contractor, including installation subcontractors, to discuss commissioning scope, coordination and schedule as identified in the commissioning specifications. Prepare and distribute meeting minutes.</td>
<td>Meeting Minutes</td>
</tr>
<tr>
<td>Review Contractor Construction Schedule. Verify that schedule indicates the logical system, equipment, and component startup and commissioning sequence required to maximize schedule efficiency.</td>
<td>Review Comments</td>
</tr>
<tr>
<td>Review applicable Contractor submittals concurrent with the Design Team reviews. CxA will review submittals to create Commissioning Checklists and Functional Performance Testing forms.</td>
<td>Review Comments</td>
</tr>
<tr>
<td>Develop project specific Construction Checklists. Incorporate the manufacturer’s pre-start and start-up checks into the checklists. Provide checklists to contractors within two (2) weeks after system, equipment or component submittal approval.</td>
<td>Project specific Construction Checklists</td>
</tr>
<tr>
<td>Prepare Functional Performance Test scripts for the commissioned equipment and systems. Submit for Owner’s Representative and Contractor within two (2) weeks after system, equipment or component submittal is approved. Scripts shall: - be repeatable for use in subsequent existing building commissioning efforts - contain unambiguous pass/fail acceptance criteria - be fully customized for the project. Scripts shall not contain items that do not apply to the project.</td>
<td>Project specific Functional Performance Scripts</td>
</tr>
<tr>
<td>Perform site visits as needed, but at least monthly, during construction to observe component and system installations. Attend planning and job-site meetings to obtain information on construction progress as requested by Owner. Review construction meeting minutes for revisions and substitutions relating to the Owner’s Project Requirements. Assist in resolving any discrepancies identified during regular site inspections. Begin site visits at onset of ductwork installation.</td>
<td>Jobsite Observation Report</td>
</tr>
<tr>
<td>In conjunction with required site visits, conduct on-site Cx meetings to review progress, coordination, and issues resolution. Prepare and distribute meeting minutes.</td>
<td>Meeting Minutes</td>
</tr>
<tr>
<td>Maintain Commissioning Issues Log containing any items that do not meet the OPR or Contract Documents. The log must be detailed enough to provide clarity and point of future reference for the comment. CxA shall update and issue the log within two (2) days following a site visit and two (2) days prior to Cx meeting.</td>
<td>Updated Cx Log</td>
</tr>
</tbody>
</table>

**Acceptance Phase (Prior to Substantial Completion)**

Commissioning during the acceptance phase shall demonstrate the performance of the equipment and systems installed during the construction phase meet the requirements of the Contract Documents. The acceptance phase must occur prior to Substantial Completion. The CxA shall complete the following:
<table>
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<tr>
<td>Conduct functional testing to demonstrate that systems and components are operating according to the Owner’s Project Requirements, University Design Standards, Contract Documents and applicable industry standards. Functional testing shall include operating the system and components through each of the written sequences of operation, and verification of proper integration to other system or systems as required. The CxA shall manipulate the building automation system as indicated in the statement of qualifications section listed below.</td>
<td>Completed functional test reports</td>
</tr>
<tr>
<td>Update Commissioning Issues Log with any acceptance testing items that do not meet the OPR or Contract Documents. Provide the log and acceptance test results and recommendations to the Owner’s Representative and Contractors.</td>
<td>Updated Cx Log</td>
</tr>
<tr>
<td>Verify Owner training schedule and format. Refer to ASHRAE Guideline 0-2005 for expected standard of care.</td>
<td>Review Comments</td>
</tr>
<tr>
<td>Transmit to the Contractors one (1) electronic and two (2) hard copies of Commissioning Documentation to be inserted into the Operation and Maintenance (O&amp;M) Manuals. The intent is to provide a combined O&amp;M and Commissioning Systems Manual for use by the Owner’s personnel in Operations and Existing Building Commissioning activities. A separate Commissioning Systems Manual will not be required. Documentation shall include: - completed functional test reports, including as-commissioned setpoints, sequence of operation, operating parameters, etc. - ongoing optimization guidelines and detailed, equipment specific maintenance recommendations. - updated Design Summary from the design professionals.</td>
<td>Updated documents</td>
</tr>
<tr>
<td>Transmit to the Owner one (1) electronic copy of Commissioning Documentation listed above.</td>
<td>Updated documents</td>
</tr>
</tbody>
</table>

**Occupancy / Operations Phase**

Commissioning during the Occupancy / Operations Phase is intended to assist the facility operating staff in identifying any defects in the installed equipment or system operation. The CxA shall complete the following:

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</tr>
</thead>
<tbody>
<tr>
<td>Conduct seasonal and/or deferred systems testing.</td>
<td>Completed functional test reports</td>
</tr>
<tr>
<td>Task</td>
<td>Report/Meeting</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>Submit electronic copy of Summary Commissioning Report. Refer to LEED reference manual for required report contents. Report shall not contain material previously submitted, such as meeting minutes, closed issues items, etcetera.</td>
<td>Summary Commissioning Report</td>
</tr>
<tr>
<td>Participate in Lessons Learned meeting.</td>
<td>Project observation report</td>
</tr>
<tr>
<td>Schedule and attend warranty walkthrough two (2) months prior to end of warranty period.</td>
<td>Project observation report</td>
</tr>
</tbody>
</table>

**Systems to be Commissioned and Sampling Rate**

1. **Domestic Water Systems.** Test 100% sampling of the following systems.
   a. Domestic Water Pump Skid
   b. Water Heater
   c. Water Softener
2. **Hydronic Systems.** Test 100% sampling of the following systems.
   a. RO Supply Units
   b. Humidifiers
   c. Chilled Water Pumps
   d. Heating Water Systems, including
      i. Heat Exchangers
      ii. Heating Water Pumps
   e. Snowmelt System, including
      i. Heat Exchanger
      ii. Pumps
3. **HVAC Systems.** Test 100% sampling of the following systems.
   a. Exhaust Fans
   b. Stairwell and Elevator Pressurization Fans
   c. Air Handling Units, including
      i. Energy Recovery Systems
      ii. Fire Alarm interface
   d. Computer Room Units
4. **Mechanical and Electrical Sub-Metering.** Test 100% sampling of the following systems.
5. **Electrical.** Test 25% random sampling of the following systems.
   a. Lighting Controls Systems
6. **Laboratory Systems.** Test 100% sampling of the following systems.
   a. Exhaust Hood System, including fans
   b. Radioisotope Exhaust Hood System, including fans
7. **Systems Commissioned by Others**
   a. Campus Utility Interface Metering
   b. Fire Alarm Systems.
   c. Access Controls
   d. Audio/Visual Systems

**3.0 Schedule**
The project is currently in the CD Document phase.

To review the current documents, please send an e-mail request to:

facilities-dcs@uiowa.edu

The e-mail must include the subject line:

0329501 – College of Pharmacy Building Construct New Facility

The project anticipates the following schedule (Dates subject to change):

- 75% Construction Document Review Meetings: April 2016
- Final Construction Document Review Meetings: July 2016
- Begin On-Site Construction: Spring 2017
- Substantial Completion: May 2019

4.0 Test Equipment

The Contractor shall provide all tools required to start, checkout, and functionally test equipment and systems. CxA shall provide specialized testing equipment, such as supplemental portable data loggers.

Data logging equipment, monitoring devices, specialized equipment, and software not required to be provided by the Contractor in the Contract Documents, and provided by the CxA to monitor, confirm, or verify the contractor’s testing procedures, shall remain the property of the CxA. Equipment provided shall meet the minimum accuracy, calibration, and performance standards required by the performance test.

5.0 Statement of Qualifications

It is the Owner’s intent that the person designated as the commissioning authority (CxA), and the key staff members, exhibit the following:

1. Acted as the principal Commissioning Authority for at least five projects.
2. A bachelor’s degree in Engineering or related discipline is strongly preferred. Other technical training, past commissioning, and field experience will also be considered.
3. Hold ASHRAE CPMP Certification, NEBB BSC Accreditation, University of Wisconsin CxA, AABC CxA Certification, or BCxA CCP Certification.
4. Exhibit extensive experience in the operation and troubleshooting of HVAC systems and energy management control systems.
5. Demonstrate the ability to manipulate the Johnson Controls Metasys and Schneider BAS systems, including the following functions:
   1. Cycle equipment on and off.
   2. Establish and collect trend data.
   3. Manipulate individual devices, such as dampers and valves.
   4. Manipulate individual setpoints.
   5. Manipulate VFD and motor speeds.
6. Exhibit extensive field experience. A minimum of five full years in this type of work is required.
7. Exhibit extensive knowledge in testing and balancing of both air and water systems. NEBB, AABC or TABB certification preferred.
8. Exhibit experience in energy-efficient equipment design and optimization.
9. Exhibit direct experience in monitoring and analyzing system operation using energy management control system trending and stand-alone data logging equipment.
10. Exhibit excellent verbal and writing communication skills. Highly organized and able to work with both management and trade contractors.

6.0 Proposal Requirements

Include the following:
1. List the individual who will be the lead Cx Agent, with overall responsibility for the project.
2. Provide an organization chart indicating proposed project team.
3. Describe the proposed approach to managing the project.
4. Provide resumes for key staff members.
5. Briefly describe relevant experience of the proposed team in the following areas.
   List each person’s direct involvement in:
   a. Similar Projects.
   b. Testing and Balancing.
   c. Energy-efficient equipment design and control strategy optimization.
6. Fee: Provide the following fee breakout.
   b. Construction and Acceptance Phase: base contract work only.
   c. Construction Phase and Acceptance Phase: alternate work only.

After selection, the successful firm shall provide a written proposal on the University of Iowa Letter of Proposal form found on the University’s Facilities Management/Consultants web site. Note that hard copies of the agreement will not be required with the RFP.

http://www.facilities.uiowa.edu/pdc/consultants/agreement-form.html

7.0 Proposal Evaluation and Award

1. The Owner will consider and evaluate the following proposal components:
   a. Firm experience, qualifications, and ability to react to changing workloads
   b. Lead Cx Agent experience, qualifications, and accreditations.
   c. Key support personnel experience and qualifications.
   d. Project approach.
   e. Design Professional location.
f. Proposal quality.
g. Proposed fee.

2. The Owner reserves the right to negotiate and accept any proposal, or to reject all proposals, and to offer to accept any proposal subject to the deletion of any item or group of items of work from the scope of work.

3. The Proposer shall be prepared to attend an interview as part of the evaluation process. The Proposer shall bear all costs associated with preparing the RFP and subsequent interviews.

Respondents' proposals are due **no later than 12:00 pm (Noon) on February 17, 2016**.

Submit electronically to:

Jennifer Hoffman
Design Project Manager
University of Iowa
FM - Planning, Design & Construction
200 University Services Building
Iowa City, Iowa 52242-1922
jennifer-l-hoffman@uiowa.edu

Should you have any questions or comments, please contact:

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