PROCUREMENT
The UNIVERSITY of OKLAHOMA

The Board of Regents of the University of Oklahoma invites interested parties to submit Bids for the Goods or Service identified below. Please read carefully. All communications, clarifications, questions, or any other matter relating to the Solicitation must be made only through the University Contact. Bids must be submitted to OUBIDS@ouhsc.edu.

Solicitation Title:	**Purchase and Install AHU**
Solicitation No.:	**B-23197-23**
Issue Date:	**March 13, 2023**

☐**Request for Proposal** ☒**Invitation to Bid**

Schedule of Events (all times Central)	
Pre-Bid Conference	**Wednesday, March 29, 2023 at 9:00 AM CST**
Site Visit (Locations, Date, Time) Check if Mandatory ☐	**To follow Pre-Bid Conference immediately after. Meeting will take place at the College of Pharmacy. We will meet in the lobby of the building, please enter through the west doors off Stonewall Ave. Bidders can park in front of the Student Union at 1106 N Stonewall Ave, Oklahoma City, OK 73117 and walk next door for the meeting.**
Pre-Bid Question Deadline	**Tuesday, March 28, 2023 by 5:00 PM CST**
Answers Available	**Thursday, March 30, 2023 by 5:00 PM CST**
Bid Deadline	**Wednesday, April 12, 2023 by 2:00 PM CST**
Interview/Demonstration	**N/A**
Tentative Award Date	**Wednesday, April 19, 2023**
Bid must be emailed to OUBIDS@ouhsc.edu	

University Information	
University Contact:	Roy Goodson
Address (Street, City, Zip):	840 Research Parkway, Suite 172
	Oklahoma City, OK 73104
Contact Email:	floyd-goodson@ouhsc.edu

THIS SOLICITATION CONSISTS OF THIS SOLICITATION PACKET, THE INSTRUCTIONS, GENERAL TERMS, DEFINITIONS, AND INSURANCE REQUIREMENTS AS SET FORTH BELOW. BIDDERS SHOULD CAREFULLY READ EACH DOCUMENT.

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SCOPE OF WORK

1. Overview, Purpose, and Summary

PART 1 – OVERVIEW

The Board of Regents of the University of Oklahoma is seeking a qualified vendor to include removal of existing then installation of new to include piping and ductwork for a turnkey job located at the College of Pharmacy at 1110 N Stonewall Ave, Oklahoma City, OK 73117.

PART 2 – DRAWINGS AND SPECIFICATIONS (see following Attachments)

- AHU Drawing and Specifications Attachment A
- Weather Louver Specification Attachment B

PART 3 – CONTRACTOR RESPONSIBILITY

- Demo old air handler and sound muffler in penthouse and dispose.
- Purchase and install new air handler. Prior to purchase review with University and local distributor, As to the accuracy of the unit, and any discrepancies. All work must meet any and all local mechanical codes.
- During demo remove existing Danfoss VFD and retain for future needs of the University.
- Remove all pneumatic and electronic control lines back to control cabinet and cap/terminate ends. Provide controls contractor if necessary.
- Remove low pressure steam and condensate lines and cap.
- Drain glycol from heat recovery loop to level that work can be accomplished and refill when loop re-piping is complete.
- Remove and retain steam heat exchanger from heat recovery loop, control valves and steam trap and retain for future use of the University. Remove tees from heat recovery loop and replace with straight pipe.
- Remove and retain 2 steam pressure reducing valves and pilots.
- Install two new chilled water gear operated isolation valves and flanges in existing chilled water lines serving the AHU.
- Contractor shall purchase and install a new 4” Belimo energy valve EV400SU-317+GRB24-EV and install per manufacturer's specifications. Re-pipe chilled water with reverse return from coil and provide temperature wells for gauges and building automation in piping. Provide isolation and balancing valves for each chilled water coil.
- Install new floor drains as necessary for equipment and apply epoxy coating to floor around concrete work to seal any joints to prevent water penetration through floor into building.
- All hydronic piping shall have drains and vents in low and high points.
- Current steam line needs to be lowered and new taps installed to accommodate new locations of coils

and equipment.

- Provide and install new gate valve and y-strainer on steam service. Contractor shall field verify size. Install new control valves "university will provide" and install new pressure gauge and siphon tube with ball valve prior to steam coil, re-pipe steam service to new coils.
- Provide and install 2 new float and thermostatic condensate traps sized for the new steam coils re-pipe condensate to existing condensate return with bypass lines.
- Any steam or chilled water outage needed for this project will need to be scheduled and approved and may be dependent on weather conditions.
- Install new outside air louver for unit, along with installation of double walled insulated sheet metal panels to fill in where old louver will be removed. Panels shall reasonably match the louvers as to blend in with aesthetics of the building.
- Reconnect supply ductwork to existing ductwork in penthouse.
- Reconnect return duct to return air chase in penthouse. And install relief damper in ductwork sized to match airflow of outside air intake volume.
- Contractor shall reinsulate all ductwork and piping with like material and thickness as existing, duct liner is not acceptable.
- Provide electrical contractor for all conduit runs, disconnect connections and to make all field electrical connections for the AHU (lights, plugs, UV bulbs, VFD, and field connections of demounts). All work must meet any and all local electrical codes.
- Remove electrical bypass switch and dispose.
- Factory startup of AHU.

2. Schedule

Please provide lead times for parts and equipment as well as a timeline of all work from start to finish. We will be maintaining building occupancy for the duration of this project and work will need to be expedited once the project has begun.

3. Expected Budget. (Based on the University's understanding, expectations, background, and knowledge of scope, the Expected Budget is neither a minimum nor maximum amount for this Solicitation.)

Estimated Budget for this project is $450,000.00.

Please review the SOLICITATION SPECIFICATIONS for additional criteria, requirements, and information.

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SOLICITATION INSTRUCTIONS

BIDDERS MUST COMPLY WITH THE SOLICITATION INSTRUCTIONS. The Solicitation Instructions ("Instructions") govern the bidding and selection process for the University's acquisition of Goods and Services through a competitive process. Compliance with the Instructions is material to determining whether a Bid is responsive. Bidders should read all parts of these Instructions carefully. All terms, conditions, provisions, requirements, and language may be stated or phrased differently than in previous Solicitations, irrespective of past interpretations, practices, trade usage, or customs. In no event shall the Bidder's failure to read and understand any Solicitation, Contract, Contract Document, or other documents, part, specification, or requirement included with, referenced in, or incorporated into a Solicitation provided by the University constitute grounds for a claim during or after a Solicitation or Contract award. Please see the University's Formal Competition policy located here (Policies and Procedures (ou.edu)) for more information.

The Solicitation Instructions are available for review and download at the following link
Solicitation Instructions

BID RESPONSE

Bids are required to be structured into separate, labelled, and easily identifiable sections using the Bid packet structure below. A Bid submitted using any other structure may be determined to be non-responsive as set forth in the Instructions. Any section of the Bid packet that is not applicable to the Bid shall have a page inserted to denote the section is not applicable. As way of example, if business references are not required, the Bid should contain a page after the "Business References" section heading that reads "Not Applicable", "N/A" or some similar notation. **All forms, attachments, and other required documents referenced in the Solicitation are available for review and download at the following link** Solicitations (ou.edu)**.**

- **Section One – Administrative Documents**
  - A completed and executed Bid Proposal Cover Page
  - All documents requested in this Solicitation Packet or the Bid Proposal Cover Page
  - A brief summary of the company and marketing information and materials relevant to the Solicitation.
  - Signed Amendment(s), if any, located at the same online link as the Solicitation. The Bidder shall acknowledge agreement with each Amendment, if any, by inserting the Amendment in this section, signed by or on behalf of the Bidder.
- **Section Two - Response to Specifications and Requirements shall be limited to *essential* pages only.**
  - The Bid shall show the ability of the Bidder to meet or exceed the qualifications, specifications, and other matters set forth in the Solicitation.
  - The Bid must reflect for each requirement or specification whether they can be met by an out-of-the-box solution or whether customization is required.
  - If service level agreements are required, the proposed service level agreements shall be inserted in this section.
  - A list of all Subcontractors included as part of a submitted Bid.

- **Section Three – Pricing**
  - Unless otherwise stated in the Scope of Work or Solicitation Specifications, the Bid shall include a firm, fixed price for the term, including optional renewal terms, Travel and Subsistence Expenses, warranties, subscriptions, ongoing maintenance and support, and other costs, fees, charges, or expenses of any kind that will be charged by the Bidder.
    - The Bidder shall guarantee unit prices are correct.
    - For hourly work, the Bidder shall provide a breakdown of hourly rates for each service or occupation.
- **Section Four – Proposed Exceptions**
- **Section Five – Additional Bidder Terms**
  - Any additional terms that the Bidder requests be applicable to the Contract shall be inserted in this section and shall be provided in Word format. THE UNIVERSITY HAS NO RESPONSIBILITY TO INDEPENDENTLY REVIEW AN ENTIRE BID FOR ADDITIONAL TERMS AND ANY SUCH TERMS NOT SUBMITTED IN THIS SECTION OF THE BID SHALL NOT BE CONSIDERED. Should a Bidder be awarded a Contract, the University shall not be required to execute additional documents not included in a Bid. For example, if a Bidder typically uses an ordering document in connection with an acquisition, the ordering document template shall be included in the Bid.
- **Section Six - Offer of Value-Added Goods or Services**
  - If a Bid includes an offer of value-added Goods or Services, such offer shall be inserted in this section and include associated pricing and any other information relevant to such value-added offer. However, the University is not obligated to purchase value-added Goods or Services.

BID FORMAT

- The font shall be 12-point Times New Roman. The top, bottom, left and right margins shall be at least one inch, excluding headers and footers. All pages must be numbered.
- Responses must be submitted on the forms provided, where applicable. Where a form is not provided, responses must be submitted in MS Word format (.doc or .docx) or Adobe PDF (.pdf).
- Each Bidder shall submit a complete proposal in clear, concise language.
- Proposals should be tabbed and organized in easily identifiable parts mirroring the organization of this RFP.
- The Bidder shall not submit any items other than those requested in the Attachments/forms. The additional information will not be considered in the evaluation.

GENERAL TERMS AND CONDITIONS
INSURANCE REQUIREMENTS
RULES OF USAGE AND DEFINTIONS

The University's General Terms and Conditions ("General Terms") sets forth the terms and conditions for Contracts resulting from Solicitations issued or awarded by the University. The University's Insurance Requirements ("Insurance Requirements") sets forth all required Insurance types and limits (as applicable), conditions, and requirements for Solicitations issued or awarded by the University. The Rules of Usage and Definitions ("Definitions") set forth the way all terms, conditions, provisions, requirements, specifications, and other language set forth in the Solicitation, Solicitation Packet, Instructions, General Terms, Insurance Requirement Contract, or Contract Documents are used and defined unless specifically stated otherwise therein. The General Terms, Insurance Requirements, and Definitions apply to all Solicitations issued or awarded by the University and are incorporated by reference to all Bids and resulting Contracts. They may only be amended as set forth therein or in the Instructions.

The General Terms are available for review and download at the following link

Invitation to Bid

Request for Proposal

The Insurance Requirements are available for review and download at the following link
Insurance Requirements

The Definitions are available for review and download at the following link
Rules of Usage and Definitions

THIS SOLICITATION CONSISTS OF THIS SOLICITATION PACKET, THE INSTRUCTION, GENERAL TERMS, DEFINITIONS, INSURANCE REQUIREMENT, AND AMENDMENTS OR ATTACHMENTS THERETO. EACH IS HEREBY INCORPORATED BY REFERENCE.

Bid must be emailed to OUBIDS@ouhsc.edu.

Do NOT submit Bids directly to the University Contact or the Bid will be deemed non-responsive.

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SOLICITATION SPECIFICATIONS

In addition to the **SCOPE OF WORK**, these Solicitation Specifications set forth additional qualifications, specifications, pricing, evaluation criteria, and other information relating to the Solicitation.

1.1 Requirements.

AHU basis of design is Temtrol to meet campus standards. All others will have to be approved after submittal package received. Submittals will be reviewed by heat transfer performance as well as electrical and acoustical performance. And will have to meet tight dimensional and clearance requirements for its intended location.

Unit description:

Provide factory-fabricated air handling units with capacity as indicated on the schedule and specifically designed for INDOOR application with construction features as specified below. Units shall have overall dimensions as indicated and fit into the space available with adequate clearance for service. Air handling unit shall be constructed as 'KNOCK-DOWN' to include demounts as required to allow all panels/components to enter the existing mechanical room without space wall deconstruction. Air handling unit shall come assembled from the factory (with minimal hardware in place as necessary for shipment). Multiple sectioned units shall be shipped as a single factory assembled piece (except where shipping limitations prevent) de-mounted into modular sections in the field by the contractor, Units shall be furnished with sufficient gasket, caulking material and bolts for final reassembly in the field by the contractor.

Unit shall be provided with a full perimeter welded base frame manufactured with structural steel tubing and C-Channel cross support members on close centers. Formed metal base rails with bolted or screwed support members are not acceptable. Base and unit frame shall be painted with a lacquer resisting phenolic, corrosion inhibitive primer. Base rails shall be fitted with lifting lugs at the corner of the unit or section (if demounted). The base shall include a minimum of 4-inch-thick polyurethane foam insulated "double bottom" floor with minimum 20-gauge G-90 galvanized outer and minimum 16-gauge G-90 galvanized inner walk-on surface. All floor seams shall be caulked and sealed for an airtight unit.

Where access is provided to the unit interior, floor openings shall be covered with walk on steel safety grating. Single wall floors with glued and pinned fiberglass insulation are not acceptable. Base frame shall be attached to the unit at the factory.

Unit shall have double wall construction with minimum 20-gauge solid galvanized steel interior liner and minimum 16-gauge exterior material. With minimum 3" thick non-compressed fiberglass insulation with an acrylic coating facing the airstream.

The unit shall be equipped with solid double wall insulated, hinged access doors, same construction as unit cabinet. The doorframe shall be extruded aluminum with a built-in thermal break barrier and full perimeter gasket. The door hinge assembly shall be die-cast zinc with stainless steel pivot mechanism,

completely adjustable. There shall be a minimum of two heavy duty cast; UV rated; nylon handles per door. Provide OSHA approved tool operated safety latch on all fan section access doors. Windows shall be rated for UV protection in all sections.

Contractor shall disassemble, reassemble, and caulk and gasket unit in accordance with manufacturer's instructions.

Fans:

Unit shall have multiple direct-drive fans that create a fan wall consisting of multiple, direct driven arrangement plenum fans constructed per AMCA requirements for the duty specified, minimum Class III. All motors shall be standard pedestal mounted type, TEAO, T-frame motors. All motors shall include shaft grounding, like AEGIS or BALDOR. Shaft grounding system for each three-phase AC motor to prevent electrical damage to motor bearings and to extend motor life by safely channeling harmful shaft currents to ground. Provide shaft grounding on all motors controlled by variable frequency controllers and as indicated. Each fan cube shall be able to fit through a 30" door. The maximum wheel size should be no larger than 20" in diameter. The fan wall array shall be provided with acoustical silencers that reduce the bare fan discharge sound power levels by a minimum of 15 db. Each fan cube shall be individually wired to a motor overload panel for the total connected HP for all fan motors contained in the fan wall array. Wire sizing shall be determined, and installed, in accordance with applicable NEC standards. Each fan/motor "cube" will be provided with an individual back-draft damper with a net zero effect on air pressure drop to the fan system. Damper bearings shall be corrosion resistant. Shut-off plates are not acceptable. Horizontal backdraft dampers with or without actuators are not acceptable. A NEMA 4 motor overload protection panel shall be provided. The panel shall include independent overload protection for each individual fan motor to include H-O-A switch, input motor terminal lugs and output terminal lugs for each fan assembly.

Variable Frequency Drives (VFDs) shall be provided, quantity of two (2) to be factory mounted and wired. VFD's may be shipped loose to be installed on site. Each VFD shall control 50% of the provided fans. VFDs shall be Yaskawa or ABB to meet campus standards and shall include an independent input fusing and service disconnect.

Coils:

All coils shall match the scheduled dimensions and capacity. Coils shall be small enough to fit into building without demolition of walls or other structure. Provide proper coordination required by coil manufacturer to ensure fit.

Chilled Water Coils:

Tubes: 5/8-inch OD seamless copper arranged in parallel or staggered pattern, expanded into fins, with silver brazed joints, with a minimum 0.025 Tube Wall Thickness and fins shall be an Aluminum continuous plate type with full fin collars, minimum 0.01" thick. Coil casings shall be die-formed channel frame of 16 gage 304 stainless steel with 3/8-inch mounting holes on 6-inch centers. Provide tube supports for coils longer than 42 inches. Header construction shall be seamless copper tube with silver brazed joints. All coils shall be tested by air test under water to 350 psi for working pressure of 250 psi and 300 degrees F. Coils shall be drainable, with threaded plugs in headers for drain and vent: threaded plugs in return bends and in headers opposite each tube. With a 304SS IAQ Drain Pan installed underneath chilled water coil.

Steam coils:

Unit shall have a steam Integral Face & Bypass Coil for heating with minimum 2 Rows 9 fins per inch coil with 0.035 Tube Wall Thickness with Copper Tube / Aluminum Fin construction with a 304SS IAQ Drain Pan installed underneath the steam coil.

UV lights:

The unit shall come factory equipped with UV lights mounted on the drain pan side of the cooling coil for purpose of coil cleaning and shall including all safety switches and electronics needed for proper function and operation.

Filter box:

Provide 24" x 24" and/ or 12" x 24" frames to house the pre-filters for a front load arrangement. Other sizes will not be acceptable to maintain campus standards. And shall be 15" MERV 15 Bag Filter, to be AAF Model GX. Unit shall have 2-inch diameter diaphragm actuated dial magnehelic gauge in metal case to read pressure drop across filters.

Two sets of filters will need to be provided with unit.

Electrical:

The unit shall be equipped with 115volt 15W LED light fixtures with guards in every access section. All lights shall be controlled by one light switch mounted adjacent to the supply air fan access door along with a 115-volt GFI power outlet. Air handling unit to be provided with 460/3/60 service disconnect, VFDs, motor overload protection panel. Termination of factory provided conduit and wire to be completed in field at each demount by installing contractor for single phase and three phase factory wiring.

Piping:

Contractor shall make connections to coils with unions or flanges. Connect water supply to leaving air side of coil. Provide shut-off valve on supply line and balancing valve with memory stop on return line. Provide manual air vents at high points complete with stop valve. Ensure water coils are drainable and provide drain connection at low points.

Start up:

Contractor shall provide factory start up of VFD's to ensure fans and drives work as intended. As well as all other electric systems and components.

1.2 Pricing.

1.	PARTS / EQUIPMENT	**$**
2.	LABOR	**$**
3.	MISCELLANEOUS (PLEASE SPECIFY)	**$**
4.	DELIVERY / FREIGHT	**$**
5.	**TOTAL COST FOR PROJECT**	**$**
6.	**PLEASE ATTACH A PROPOSED SCHEDULE FOR PROJECT COMPLETION**	

1.3 References.

Please provide the names and phone numbers of five (5) customer references using the products or services specified in the section titled "Detailed Specifications." The University of Oklahoma cannot by used as a reference.

Customer Company Name	Contact Person	Telephone Number

1.4 Evaluation Criteria.

Proposals will be evaluated based on proposal pricing, time to complete request, and quality of the bid/did bid meet specifications.