UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

UNIVERSITY OF KENTUCKY CAPITAL CONSTRUCTION PROCUREMENT SECTION FORM OF PROPOSAL RESEARCH BUILDING #2 - PHASE 2

Subcontract 23B – Controls			
Project No. <u>2538.0</u> Purchasing Officer: <u>Matt Spalding</u>	Project Title: RESEARCH BUILDING #2 - PH2		
	shall be followed exactly in submitting a st, an additional copy will be furnished upon Contract Documents.		
This Proposal is submitted by:	(NAME AND ADDRESS OF BIDDER)		
Date:			
Telephone:			
TO: BID CLERK	REQUEST FOR PROPOSAL: <u>UK-2113-21</u>		
UNIVERSITY OF KENTUCKY CAPITAL CONSTRUCTION PROCUREMENT RM. 322 SERVICE BUILDING	OFFER DUE DATE: 10/06/2020_ TRADE CONTRACT DESCRIPTION: Controls		
411 SOUTH LIMESTONE LEXINGTON, KY 40506-0005	TRADE CONTRACT NO.: 23B TIME: 3:00 PM		
Project, having carefully examined the s Contract Documents as defined in Articl Specifications affecting the work as pre- furnish all labor, materials, supplies and	equest for Proposal for the above referenced site of the Work, the Drawings and complete le I of the General Conditions, as well as the pared by the Consultant, hereby proposes to I services required to construct the Project in ts, within the time set forth therein, and at the		
The Offeror hereby acknowledges recei	pt of the following Addenda:		
ADDENDUM NO	DATED		
ADDENDUM NO			
ADDENDUM NO.			
(Insert the number and date of any Addissued and received, the word NONE sh	denda issued and received. If none has been nould be inserted.)		

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

FORM OF PROPOSAL

AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST I hereby certify:

- 1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);
- That the submitted Bid or Bids covering Capital Construction Procurement Section Invitation No. <u>CCK-2483-20</u> have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition; as prohibited by provision KRS 45A.325;
- 3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids and will not be communicated to any such person prior to the official opening of the Bid or Bids;
- 4. That the Bidder is legally entitled to enter into the contracts with the University of Kentucky and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 164.390, and 45A.330 to 45A.340 and 45A.455;
- 5. This offer is good for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that upon proper acceptance by the Capital Construction Procurement Section of any or all items Bid above, a contract shall thereby be created with respect to the items accepted;
- 6. That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.
- 7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful contractor.
- 8. That the bidding contractor and all subcontractors to be employed do not and will not maintain any facilities they provide for employees in a segregated manner and they are in full compliance with provisions of 41 CFR 60-1.8 that prohibits the maintaining of segregated facilities.
- 9. In accordance with KRS45A.110(2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

SIGNE	D BY		TITLE
PRINT	NAME		FIRM
ADDRE	:SS		PHONE ()
			FAX <u>()</u>
CITY	STATE	ZIP CODE	DATE

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

Contractor Report of Prior Violations of Chapters 136,139, 141, 337, 338, 341, and 342

Pursuant to KRS 45A.485, the Contractor shall, prior to the award of a Contract, reveal final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by the Contractor that have occurred in the previous five (5) year period.

This statute also requires for the duration of the Contract established, the Contractor be in continuous compliance with the provisions of Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor's operations. The Contractor's failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, or failure to comply with any of the above cited statutes for the duration of the Contract shall be grounds for the cancellation of the Contract, and the disqualification from eligibility for future contracts for a period of two (2) years.

The Contractor, by signing and submitting a Bid on this Invitation, agrees as required by KRS 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that have occurred in the previous five (5) years prior to the award of a Contract and agrees to remain in continuous compliance with the provisions of these statutes during the duration of any contract that may be established. Final determinations of any violations of these statutes, must be provided to the University by the successful Contractor prior to the award of a Contract.

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

LUMP SUM PROPOSAL

The Bidder, in compliance with the Invitation to Bid CCK-2483-20 having examined the drawings, specifications, related documents and having visited the site of the proposed work, and being familiar with all the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby submits the following bid to furnish all labor, materials, and supplies and to construct the project in accordance with the Bid Documents within the time set forth therein and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this Bid is a part.

The Bidder agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

Bidder hereby agrees that all escalation cost associated with materials and/or labor have been included in the stated unit cost, through the projected duration dates as stated in the preliminary project construction schedule.

FOR THE LUMP SUM OF		
_	(USE WORDS)	
	DOLLARS AND	CENTS.
(USE WORDS)	(USE WORDS	S)
(\$)		
(USE FIGURES)		

BID ALTERNATES

None

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

BUSINESS CLASSIFICATION

Please complete this form which is necessary for the University of Kentucky vendor database. Mark only one classification. Refer to "Definitions" for assistance in determining correct classification.

(01)Small Business	(06)Woman-Owned Large Business
(02)Large Business	(07)Disadvantaged Woman-Owned Small Business
(03)Disadvantaged Small Business	(08)Disadvantaged Woman-Owned Large Business
(04)Disadvantaged Large Business	(09)Other
(05)Woman-Owned Small Busin	ness

DEFINITIONS

- (01) SMALL BUSINESS: A business concern that is organized for profit, is independently owned and operated, is not dominant in the field of operations in which it is bidding and meets the size standards as prescribed in the Code of Federal Regulations, Title 13, Part 121. Consult your local or district Small Business Administration (SBA) office if further clarification is needed.
- (02) LARGE BUSINESS: A business concern that exceeds the small business size code standards established by SBA.
- (03) DISADVANTAGED SMALL BUSINESS: A business concern (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals (as defined below), or a publicly owned business, having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals; and (b) has its management and daily business operations controlled by one or more such individuals. Socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans and other minorities or individuals found to be disadvantaged by the SBA.
- (04) DISADVANTAGED LARGE BUSINESS: A concern that meets the definition of socially and economically disadvantaged individuals, but which is not a small business by the SBA's size standards.
- (05) WOMAN-OWNED SMALL BUSINESS: A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day to day management.
- (06) WOMAN-OWNED LARGE BUSINESS: A concern that meets the definition of woman owned and operated, but which is not a small business by the SBA's standards.
- (07) DISADVANTAGED, WOMAN-OWNED SMALL BUSINESS: A concern that meets the definition of both (03) and (05) above.
- (08) DISADVANTAGED, WOMAN OWNED LARGE BUSINESS: A concern that meets the definition of both (04) and (06) above.
- (09) OTHER: A concern that does not meet any of the above definitions.

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

THE FOLLOWING ITEMS ARE HEREWITH ENCLOSED AS REQUIRED BY KRS 45A.185

- 1. Bid Bond or Certified Check in an amount not less than five percent (5%) of total Bid.
- 2. List of Proposed Subcontractors and Unit Prices. (if required)
- 3. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
- 4. List of Materials and Equipment.
- 5. VENDOR NUMBER: It is imperative that you furnish your Federal Employer Identification Number in the space provided below. Failure to do so may delay the processing of purchase orders issued to your firm.



BIDDER'S QUALIFICATIONS

The Commonwealth of Kentucky Model Procurement Code (KRS 45A.080) requires contracts to be awarded, "to the responsive and responsible bidder whose bid offers the best value" to the University of Kentucky. In order to determine if the Bidder has the experience, qualifications, resources and necessary attributes to provide the quality workmanship, materials and management required by the plans and specifications, the Bidder may be required to complete and submit the information requested on the University of Kentucky Contractor Bidder Determination of Responsibility questionnaire. Failure to provide the information requested on the questionnaire or failure to provide any additional submittals or information that may be requested to make this determination may be grounds for a declaration of non-responsibility with respect to the Bidder. A copy of the Contractor Determination of Responsibility questionnaire is available upon request to all Bidders.

TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

It is further agreed, that in the event this Proposal is accepted by the Owner and the undersigned shall fail to execute the Contract and furnish satisfactory Payment and Performance Bond within ten (10) consecutive calendar days from the date of notification of the award of the Contract, the Owner may at his option, determine that the undersigned has abandoned the Contract and thereupon, the Proposal shall become null and void and the Bid guarantee, check or Bid bond which accompanied it shall be forfeited and become the property of the Owner as liquidated damages for each failure and no protest pursuant to such action will be made. If the Undersigned shall execute the Contract, and furnish satisfactory Payment Bond and Performance Bond, it is understood that the Bid Guarantee or Bid Bond will be returned to the undersigned by the Owner.

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

UNIT PRICES

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

All Bidders are required to complete and submit the following information with their bid.

<u>The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.</u>

ITEM	U	NIT	COST PER UNIT
Journeyman	Н	R	
Foreman	HI	R	

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

PRIMARY LIST OF PROPOSED SUBCONTRACTORS

All subcontractors are subject to the approval of the Capital Construction Procurement Section and Capital Project Management Division, University of Kentucky, Lexington, KY.

If certain branches of the Work are to be done by the Prime Contractor, so state.

The apparent low bidder will be required to complete and submit to the University the following information by twelve (12) noon of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.

Provide the address, phone number and contact information for the following subcontractor/suppliers:

DIVISION OF WORK	NAME AND ADDRESS OF SUBCONTRACTOR

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

LIST OF MATERIALS AND EQUIPMENT

Each item listed under the different phases of construction must be clearly identified so that the Owner will know what the Bidder proposes to furnish.

The use of a manufacturer's or dealer's name only, or stating "as per Plans and Specifications," will not be considered as sufficient identification.

Where more than one "Make" or "Brand" is listed for any one item, the Owner has the right to select the one to be used.

The apparent low bidder will be required to complete and submit to the University the following information by twelve (12) noon of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

<u>The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.</u>

ITEM DESCRIPTION	MANUFACTURER/SUPPLIER

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

IDENTIFICATION OF MINORITY SUBCONTRACTORS AND MATERIAL SUPPLIERS

Participation of Minority and Women owned Contractors and businesses.

The University of Kentucky encourages and supports the participation of minority and women owned businesses.

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

Revised 3/22/06

TRADE CONTRACT - 23B - Controls

This section defines in summary, without limitations by the descriptions, significant items of the scope of work to be performed by the Subcontractor and any special provision related to the Subcontractor's execution of the Work and the Project. The details of the scope of work are further defined in Drawings, Specifications, and other provisions contained in the Project Documents.

The work covered under this Contract includes but is not limited to the following specific work items:

The work covered under this Contract includes but is not limited to the following specific work items:

This work shall include all items indicated in **Section A: General Scope of Work**, as such items apply to this work unless specifically noted otherwise herein.

This work primarily includes, but is not limited to the following specification sections as well as related work specified or shown elsewhere in the Contract Documents:

HVAC Controls as specified in contract documents

***Note: This Subcontractor is responsible for the requirements of the <u>complete</u>
<u>Contract Documents</u> as they pertain to this Unit of Work.

- Scope of Work It is the intent for this project that this Subcontractor perform all work scoped herein and
 as specified in the Project Manual and Contract Drawings. This subcontract includes the Mechanical,
 Plumbing, Controls System and Testing and Balancing of all systems for the RB2 Phase 3 project,
 including engineering, testing and modifications required to existing active systems. Coordinate Fit Out
 with Core and Shell drawings and installation.
- Building Information Modeling (BIM) Coordination shall be 3-D VDC, based on the Construction
 Manager BIM Implementation Plan. Lay out work using 3-D surveying technology (Trimble or other).
 23B will be responsible for modeling and coordinating locations for power supplies, UPS boxes, conduit
 racks and large/critical junction/pull boxes above ceiling to ensure accessibility. Refer to BIM
 Implementation Plan for details.
- 3. <u>PlanGrid License</u> This Subcontractor has included the necessary license(s) to PlanGrid for their office and field staff for field reference and notifications. Please note that drawings posted on PlanGrid do not supersede the Contract Documents and should only be used for reference and notifications. All submittals, RFIs, and installation work should conform to the Contract Documents.
- 4. Provide cutting and patching, saw cutting and core drilling for any penetrations required for this scope of work. No core drilling will take place without the Structural Engineer's written approval.
- 5. Provide drawings showing all required in-wall blocking. Blocking to be provided by others. If blocking is not indicated in drawings and missed, this Subcontractor will be responsible for its installation.
- Access Doors Furnish all access doors required for access to controls systems. Access doors to be installed by others

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

- 7. <u>Fire Stopping</u> Provide fire stopping at all control's penetrations in floors, ceilings, and walls. This shall include fire stopping required when a new wall is built, and existing controls conduits penetrates the new wall. This subcontractor shall also touch-up or redo any floor firestopping at existing control's conduits that is damaged during this phase of construction.
- 8. <u>Caulking and Sealing</u> Provide caulking for all control's conduit/pathway installed in this subcontract. Subcontractor shall seal all penetrations where, Controls Conduit, and equipment penetrates interior or exterior partitions. This shall include sealing required when a new wall is built, and existing control's conduit penetrates the new wall. Ensure that all penetrations through exterior walls to receive waterproofing have been properly sealed according to the requirements of the Contract Documents and manufacturer's recommendations before waterproofing is installed.
- 9. Subcontractor is responsible for Coordination of HVAC, Plumbing, and electrical Contractor for interface between these systems and Building Automation System.
- 10. Coordinate with the Electrical Subcontractor the locations and requirements of power feeds and/or receptacles needed for all equipment provided by this scope of work. Provide electrical interconnect wiring for control's equipment to provide a single point electrical connection.
- 11. Coordinate any and all shut downs or tie-in work with The Construction Manager and the Owner's Representative 2 weeks prior to performing this work.

CONTROLS

- 12. This subcontractor is responsible to furnish and install a complete operating controls system, including but not limited to conduit, wiring, devices, controllers, panels, pneumatics, workstation, software and programming. Provide controls interconnect and interlock wiring between systems and components. All controls cabling and wiring is to be in conduit.
- 13. This subcontractor is responsible to furnish all control valves, control dampers, airflow stations, flow meters, and pressure sensors. Provide pressure independent control valves where indicated on documents. Provide controls conduit, wiring, interface, power and actuators to these devices.
- 14. Provide room differential pressure sensors, occupancy sensors, and other room sensors as required by the contract documents and controls sequences.
- 15. Coordination with Venturi Air Valves & Aircuity:
 - a. All Phoenix Air Valves, Phoenix Controls Hardware for sequences H,I,J,K,L, Phoenix sensors for sequences H,I,J,K,L (except occupancy sensors), and fume hood monitors and sensors will be purchased directly by the owner.
 - b. 23B subcontractor shall install all components required for a complete controls system for the Phoenix Air Valves including but not limited to controllers, controller enclosures, conduit, wiring, sensors, and power.
 - c. 23B subcontractor shall carry an allowance of <u>\$TBD</u> for the following to be done by Phoenix: controls software and programming for sequences H,I,J,K,L, wiring of fume hood monitors and sensors, controls testing for sequences H,I,J,K,L, and Phoenix Air Valve training, setup, commissioning, submittals, and warranty.
 - 23B subcontractor shall receive, offload, inventory, store and protect all Phoenix controllers, sensors and monitors prior to installation.
 - e. 23B subcontractor shall attend a pre-installation meeting with Phoenix Rep. before installing any conduit or wire.
 - f. All wiring for Phoenix Air Valves, controller and sensors shall be coordinated with and match Phoenix submittal drawings as shown. (i.e. 2C = 2 conductor, 8C = 8 conductor) No substitutions

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

- unless cleared with Whiting-Turner, owner and Phoenix Rep. Any variation will result in wire being replaced by 23B subcontractor.
- g. Phoenix will mount and wire the Phoenix Controls components on each Fume Hood. 23B subcontractor is responsible for conduit/wiring between the Phoenix air valve and the Hood itself, leaving enough wire coiled on the top of the Hood to reach the Phoenix monitor mounting location.
- h. 23B subcontractor shall provide support during Phoenix start-up exercises in order to quickly correct any wiring discrepancies.
- i. All Aircuity Equipment, Controllers and Sensors will be purchased directly by the owner and installed by 23B subcontractor for a complete and working installation. 23B subcontractor shall also be carried in the allowance noted above, in item c, for the Aircuity IMS Database Update and Optinet Assurance Plan. See Responsibility Matrix included in the Contract Documents for full coordination with this Aircuity equipment.

16. Coordination with Division 26A:

- a. 26A subcontractor shall provide power wiring from electrical panels to controls panels, power supplies and UPSs. Coordinate with division 26A for location and size of breakers for control power. 23B subcontractor shall provide all necessary transformers for this scope of work.
- b. Coordinate with Division 26A for Ethernet network cabling and drops for BMS network. 23B subcontractor shall provide network cabling between panels on each floor and individual control panels and devices.

17. Coordination with Division 23A:

- a. 23B subcontractor shall connect to and monitor duct smoke detectors and provide support for testing. This shall include retesting of existing duct smoke detectors within the project boundary as needed for commissioning.
- b. 23B subcontractor shall coordinate with Division 23A to locate differential pressure sensors. Submit locations for approval.
- 18. Testing & Balancing will be by others. Coordinate with Testing & Balancing contractor including opening & closing of control valves and VAVs. Review Testing & Balancing documents and provide comments for coordination.
- 19. Connect to and monitor owner-furnished equipment as required by the contract documents
- 20. Test and calibrate all devices and test/tune control loops prior to start of commissioning activities. Replace any devices found to be damaged, malfunctioning, or out of specifications prior to start of commissioning.
- 21. All alarming and trending is to be by UK through the Tridium system. Provide weekly updates of point to point check out status.
- 22. <u>Testing</u> This Subcontractor shall be responsible for all testing of systems installed under this scope of work. Provide factory testing and third-party testing as required. Coordinate all testing and inspections with Authority Having Jurisdiction and The Construction Manager. Provide multiple testing of installations as required to meet the project schedule. Extent of all testing is to be reviewed with The Construction Manager within one month of contract award to establish limits of testing and methods.
- 23. <u>Training</u> Subcontractor shall provide training and demonstrations per contract documents. Include videotaped records of training sessions. Coordinate training with W-T and owner.
- 24. Commissioning Provide commissioning support including but not limited to the following:
 - a. Completion of commissioning documentation
 - b. Attendance in commissioning meetings when directed by The Construction Manager
 - c. Onsite support during functional testing

UNIVERSITY OF KENTUCKY – RESEARCH BUILDING #2 UK Project No. 2538.0

- d. Onsite support to resolve any commissioning issues with installed work Controls
- e. Ladders, lifts, tools and any other equipment required to allow Cx agent to complete their work.
- f. Onsite support to resolve any commissioning issues with installed work
- g. Provide an additional allowance of 200 hours of onsite labor for Cx support. Any unused funds of the allowance will be returned to UK via deductive change order.
- 25. <u>Site Conditions</u> All existing site conditions are to be verified prior to start of construction. Any variances in conditions must be documented prior to construction. If the Construction Manager is not notified in writing, it shall be the responsibility of this Subcontractor to make any corrections or remediation necessary at no additional cost. In addition, this Subcontractor shall protect all existing conditions and surroundings as so not to damage during construction. This includes any damage that could result from surface water. If any existing items, which are to be left undisturbed, are damaged by this Subcontractor it shall be its responsibility to repair.
- 26. Traffic Control This Subcontractor is fully aware that the construction site is within a high traffic campus corridor with continuing operations throughout the construction process. To that end, this Subcontractor will work hand in hand with the Construction Manager to ensure deliveries, manpower, and general construction traffic are conducted in such a manner as to provide a safe and undisturbed environment for the pedestrian and vehicular traffic, which includes but is not limited to: cleanup of all vehicle debris, mud, materials, adjusting haul routes and hours, adjusting exit routes, parking in designated areas, deferring to campus traffic, etc.
- 27. Overtime Outages This Subcontractor has accounted for all outages, rework, or new work on existing floors to be performed during off hours or on weekends, and as a result, has accounted for all associated overtime.

END OF SPECIFIC SCOPE