

ADDENDUM #1

DATE: **April 30, 2018**

PROJECT MANUAL FOR: **SCHRENK HALL PHASE IIA RENOVATION**

PROJECT NUMBER: **264005**

ADVERTISEMENT DATE: **APRIL 9, 2018**

PREPARED FOR: **The Curators of the University of Missouri**

CONSULTANT: **THE CLARK ENERSEN PARTNERS
1251 NW Briarcliff Parkway, Suite 400
Kansas City, MO 54116
(816) 474-8237**

Drawings and Specifications for the above noted project and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect:

GENERAL NOTES:

Item 1-1: Pre-Bid Meeting Minutes and Attendance Sheet

The Meeting Minutes and Attendance Sheet from the April 26, 2018 Pre-Bid Meeting are attached for review.

SPECIFICATIONS:

Item 1-2: 1.A – Information for Bidders

Remove existing Information for Bidders section designated as (IFB/1-5) in its entirety and replace with attached updated Information for Bidders.

Item 1-2: 1.C.1 – Special Scheduling & Phasing Considerations

Remove existing Special Scheduling & Phasing Considerations section on sheets SS-6 to SS-8 and replace in its entirety and replace with attached updated Special Scheduling & Phasing Considerations.

Item 1-2: 12 35 53 – Metal Laboratory Casework

Refer to paragraph 2.8. Hardware and replace subparagraph G in its entirety with the following.

G. Locks:

1. **Cam or half-mortise type with five-pin tumbler, brass with chrome-plated finish; complying with BHMA A156.11, Type E07281, Type E07111, or Type E07021.**
 - a. Provide a minimum of two keys per lock and two master keys.
 - b. Provide on all casework unless noted otherwise in documents.
 - c. Keying: Key locks as directed.
 - d. Master Key System: Key all locks to be operable by master key.

2. **Combination Padlock Lockset.**
 - a. **Basis of Design: Combi-Cam 7440**
 - 1) **Size: Determined by Material Thickness**
 - 2) **Finish: Chrome**
 - b. Provide a minimum of two master keys.
 - c. Provide on casework noted in documents.
 - d. Key all locks to be operable by master key.

DRAWINGS:

Item 1-xx: G1.11 – Ground Floor Access Plan

Replace existing G1.11 with updated attached G1.11. Note updated floor plan.

Item 1-xx: A0.10 – Ground Floor Base Bid Demolition Plan, Demolition Notes, Demolition Key Notes

Replace existing A0.10 with updated attached A0.10. Note updated floor plan and updated demolition key notes.

Item 1-xx: A0.11 – First Floor Base Bid Demolition Plan, Demolition Notes, Demolition Key Notes

Replace existing A0.11 with updated attached A0.11. Note updated floor plan and updated demolition key notes.

Item 1-xx: A0.12 – Ground Floor & First Floor Alternate Demolition Floor Plans

Replace existing A0.12 with updated attached A0.12. Note updated floor plan notes and updated demolition key notes.

Item 1-xx: A1.10 – Ground Floor Base Bid Plan, Floor Slab Infill Details

Replace existing A1.10 with updated attached A1.10. Note updated floor plan tags and new existing trench infill section.

Item 1-xx: A1.12 – Ground Floor and First Floor Alternate Floor Plans

Replace existing A1.12 with updated attached A1.12. Note updated floor plan tags and new wall section and section detail.

Item 1-xx: A2.10 – Exterior Elevations

Replace existing A2.10 with updated attached A2.10. Note updated window type.

Item 1-xx: A4.10 – Wall Sections & Section Details

Replace existing A4.10 with updated attached A4.10. Note updated and added wall sections and detail renumbering.

Item 1-xx: A9.10 – Door Schedule, Door Types, Frame Types

Replace existing A9.10 with updated attached A9.10. Refer to updated Aluminum Storefront Window Frame Types. Refer to added Markerboard Schedule.

Item 1-xx: IF1.01 – Ground Floor Finishes – 2A

Replace existing IF1.01 with updated attached IF1.01. Note updated RFT-2 extent in corridor.

Item 1-xx: IF1.02 – First Floor Finishes – 2A

Replace existing IF1.02 with updated attached IF1.02. Note updated floor plans.

Item 1-xx: IF1.30 – Room Finishes Schedule, Details and Equipment Legend

Replace existing IF1.30 with updated attached IF1.30. Note updated Room Finish Schedule, Finish Legend, and Details.

Item 1-xx: LF0.10 – Laboratory Fixture Schedules, Laboratory Fume Hood Schedule & Laboratory Details

Replace existing LF0.10 with updated attached LF0.10. Note addition of glove box holder detail.

Item 1-xx: LF1.11 – Ground Floor Laboratory Plans & Elevations

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.12 – Ground Floor Laboratory Plans & Elevations

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.13 – Ground Floor Laboratory Plans & Elevations

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.14 – Ground Floor Laboratory Plans & Elevations

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.21 – First Floor Laboratory Plans & Elevations

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.22 – First Floor Laboratory Plans & Elevations

Replace existing LF1.22 and replace with updated attached LF1.22. Note addition of combination lock locations on metal casework.

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.23 – First Floor Laboratory Plans & Elevations

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.24 – First Floor Laboratory Plans & Elevations

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: LF1.25 – First Floor Laboratory Plans & Elevations

Replace existing LF1.25 and replace with updated attached LF1.25. Note addition of combination lock locations on metal casework.

See all elevation views on sheet. Remove note ‘RUBBER BASE, SEE FINISH’ from all views. Laboratory casework will have no base applied to it.

Item 1-xx: M0.03, M0.05, and M0.06 – HVAC Demolition Plans

Refer to revised HVAC demolition plans that denote ductwork that has already been removed, or will be removed, during the abatement process before construction begins.

Item 1-xx: M3.01 – Mechanical Room Plans

Refer to revised sheet for note about pump base modification and rebalance of pure water pump.

END OF ADDENDUM #1

Meeting Minutes	Pre-Bid Meeting
Project:	Schrenk Hall Renovation – Phase 2A
Project Number:	624-144-17
Owner:	Missouri University of Science and Technology
Contractor:	TBD
Present at Meeting:	Jeff Biernbaum -TCEP Dan Wroblewski – TCEP Jamie Mahoney – TCEP Pat Litty – MS&T Ron Boggs – MS&T Fred Stone – MS&T Craig Lindquist
	See attached sign-in sheet for contractor attendees
Meeting Date:	4/26/2018
Copies To:	Pat Litty; File

Pre-Bid Agenda:

- See attached Pre-Bid agenda

Questions, Clarifications, & Additional Information:

- Addenda:
 - The first Addendum will go out Monday, April 30, 2018
 - The last Addendum will go out on at the end of the day on Wednesday, May 9th. Please have everything in to the design team before that date as substitutions and clarifications cannot be addressed after that addendum.
- Bid Date:
 - 2:00 pm May 16, 2018, not 2017.
- Information for Bidders
 - New 3% SDVE Rule
 - Fred explained further the 3% SDVE Rule listed in 15.1
 - It was asked if MS&T has a SDVE list.
 - They do not, but the state of Missouri should.

Architecture + Laboratory Planning + Landscape Architecture + Engineering + Interiors

- VOSB is not considered for this project.
- Special Conditions
 - There is not any storage on site for this project
 - There will be parking access for 2 cars, potentially a third depending on space availability around the building.
 - Otherwise there is a lot south of campus that can be used for other vehicles.
 - Existing casework in spaces that get the HVAC, sprinkler, and fire alarm work needs to be protected during construction.
 - Existing NMR equipment is very sensitive and needs to be protected – coordinate access with owner's rep before entering these rooms.
 - Commissioning will be done on this project by an owner's vendor.
 - Contractor is allowed to use the existing restrooms on the premises as long as they help keep it clean as it will remain active during construction. Failure to maintain cleanliness will result in the contractor needing to provide their own restroom facilities.

MO S&T – Schrenk Hall Phase IIA
Pre Bid Meeting Agenda
April 26, 2018

A. Sign In Sheet

- a. Indicate on sign in sheet the company name that will be used on Bid Form

B. Introductions

- a. University
- b. Consultants

C. Project Description

D. General Information for Bidders

- a. Addendum will be issued after the pre bid meeting to address clarifications/revisions discussed during meeting. All questions pertaining to the bid documents to be issued as an addendum. Verbal communication not acknowledged.
- b. Drawings and Specifications from ADS 573-446-7768
- c. Bids to be HAND DELIVERED and received - No later than 2:00pm on May 16, 2017 in Room 120 at 901 Facilities Avenue. Will be opened and publicly read allowed in Room 101A of the General Services Building.
 - i. Bids must be manually signed
 - ii. Accompanied by bid security in form of bid bond, certified check or cashiers check
 - iii. Accompanied by Bidder's Statement of Qualifications and Minority Forms.
 - iv. Submit 1 copy of the Bid for Lump Sum Contract and Bidder's Statement of Qualifications.
 - v. Place Bid and bid security in one envelope and Bidder's qualifications and Minority Forms in a separate envelope per Article 4 of IFB.

E. Lump Sum Contract

- a. 240 days Base Bid
- b. 3 Add alternate Bids – Need additional days required for each alternate
- c. Special Scheduling – Asbestos / occupied areas / alternates
- d. Subcontractor List – Mech/Electrical/Lab casework and Carpentry
- e. Supplier diversity goals – MBE – 10% ,WBE/DBE – 10% and SDVE – 3%
- f. Bidders Signature and name of Company

F. Information for Bidders and General Conditions

- i. MO S&T website - <https://designconstruction.mst.edu>
Contractors / Information for Contractors & Prospective Bidders
 - a. Information for Bidders – Two sections have recently changed.
 - i. 15.1 Supplier Diversity/Award of Contract
 - ii. 15.4.3 Supplier Diversity Percent Goal Computation
 - b. General Conditions

G. Special Conditions

- a. Occupied spaces on Construction floor/Active labs on upper two floors
- b. Use of Premises
- c. Schedule – Craig
- d. Prevailing Wage - Butch

H. Questions

I. Tour of Job Site

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MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHRENK HALL PHASE IIA RENOVATIONS
Project Number 264005
PreBid Meeting

April 26, 2018

RANDY REHAGEN

REHAGEN ELECTRIC

rehagenelectric@yahoo.com

573 893-3155

Table with 4 columns: NAME (please print), Company Name, e-mail address, Phone Number. Rows include Jason Delashmit, Jon Schenk, Ted Serve, Dennis Dyes, Anthony Silistria, Cheryl Griffith, Josh Peterson, Kelsey Kendall, Steve Morrow, Zach Bull, Remington Koch, and Joseph Arnold.

Project: _____ Job No: _____
 Description: _____
 Contact: _____ Phone: _____
 Date: _____ By: _____

DESIGN & CONSTRUCTION MANAGEMENT

NAME	COMPANY	PHONE	EMAIL
STEVE SALAMONE	PREST BUILDERS	573-635-0211	DAVID@PRESTBUILDERS steve@prestbuilders.com
Math Park	Asbestos Removal Services ARSI	573-896-0222	MathPark@ars-inc.com
KEITH TEMMER	Hulet Heating	573-449-3196	ktemmer@huletheating.com
Adam Houey	MSI CONSTRUCTORS (GC)	417-881-0903 ext 11	adamhouey@msiconsructors.com
Steve Flores	" " " Electrical	" " " " "	sflores@msiconsructors.com
Mark Duncan	Chills Construction	573-426-5305	Bids@chillsconstruction.com
Kevin Beherst	Harold G Butze	573-619-8514	Kevin.HB@grail.com
Matthew Holtmeyer	Chills Construction	573.426-5305	bids@chillsconstruction.com
GUY AUGENSTEIN	BACES CONSTRUCTION	573-774-2003	guy.build@baces.com
Joey Axier	Axier Drilling	573-263-2002	joey.axier@gmail.com
Megan Huslag	SIRAN Contracting	513-893-5977	bids@sirancontracting.com
Todd Thompson	LAWTEL	314 766 9706	TThompson@lawtel.com
Mike Robinett	Schneider Electric SC	573-636-4101	mrobinett@sc.com
Mark Williams	H.G. BUTZER	573-636-4115	Mark@HGButzer.com
Trevor Vincent	Tolson Controls Fire Protection	314-302-2385	Trevor.Vincent@TCI.com

NAME

COMPANY

PHONE

EMAIL

DAN FRITZ

J. LOUIS CRUM

573 443-2488

danf@jlcum.com

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University of Missouri

INFORMATION FOR BIDDERS

Page No.

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2. Bidder's Obligation IFB/1
3. Interpretation of Documents IFB/1
4. Bids IFB/1
5. Modification and Withdrawal of Bids..... IFB/2
6. Signing of Bids IFB/2
7. Bid Security IFB/2
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9. Award of Contract..... IFB/2
10. Contract Execution..... IFB/2
11. Contract Security IFB/3
12. Time of Completion IFB/3
13. Number of Contract Documents IFB/3
14. Missouri Products and Missouri Firms IFB/3
15. Supplier Diversity IFB/3
16. List of Subcontractors IFB/5

1. Contract Documents

1.1 Drawings, specifications, and other contract documents, pursuant to work which is to be done, may be obtained shown in the Advertisement for Bids and Special Conditions.

2. Bidder Obligations

2.1 Before submitting bids each bidder shall carefully examine the drawings and specifications and related contract documents, visit site of work and fully inform themselves as to all existing conditions, facilities, restrictions and other matters which can affect the work or the cost thereof.

2.2 Each bidder shall include in their bid the cost of all work and materials required to complete the contract in a first-class manner as hereinafter specified.

2.3 Failure or omission of any bidder to receive or examine any form, instrument, addendum, or other document, or to visit the site and acquaint themselves with existing conditions, shall in no way relieve them from any obligation with respect to their bid or contract, and no extra compensation will be allowed by reason of any thing or matter concerning which bidder should have fully informed themselves prior to bidding.

2.4 Submission of bids shall be deemed acceptance of the above obligations and each and every obligation required to be performed by all of the contract documents in the event the bid is accepted.

3. Interpretation of Documents

3.1 If any prospective bidder is in doubt as to the true meaning of any part of the drawings and specifications or contract documents, they shall submit a written request to the Architect for an interpretation.

3.2 Requests for such interpretations shall be delivered to the Architect at least one (1) week prior to time for receipt of bids.

3.3 Bids shall be based only on interpretations issued in the form of addenda mailed to each person who is on the

Architect's record as having received a set of the contract documents.

4. Bids

4.1 Bids shall be received separately or in combination as shown in and required by the Bid for Lump Sum contract. Bids will be completed so as to include insertion of amounts for alternate bids, unit prices and cost accounting data.

4.2 Bidders shall apportion each base bid between various phases of the work, as stipulated in the Bid for Lump Sum contract. All work shall be done as defined in the specifications and as indicated on the drawings.

4.3 Bids shall be presented in sealed envelopes which shall be plainly marked "Bids for (indicate name of project from cover sheet)", and mailed or delivered to the building and room number specified in the Advertisement for Bids. Bidders shall be responsible for actual delivery of bids during business hours, and it shall not be sufficient to show that a bid was mailed in time to be received before scheduled closing time for receipt of bids, nor shall it be sufficient to show that a bid was somewhere in a university facility.

4.4 The bidder's price shall include all federal sales, excise, and similar taxes, which may be lawfully assessed in connection with their performance of work and purchase of materials to be incorporated in the work. City & State taxes shall not be included as defined within Article 3.16 of the General Conditions for Construction Contract included in the contract documents.

4.5 Bids shall be submitted on a single bid form, furnished by the Owner or Architect. Do not remove the bid form from the specifications.

4.6 No bidder shall stipulate in their bid any conditions not contained in the bid form.

4.7 The Owner reserves the right to waive informalities in bids and to reject any or all bids.

5. Modification and Withdrawal of Bids

5.1 The bidder may withdraw their bid at any time before the scheduled closing time for receipt of bids, but no bidder may withdraw their bid after the scheduled closing time for receipt of bids.

5.2 Only telegrams, letters and other written requests for modifications or correction of previously submitted bids, contained in a sealed envelope which is plainly marked "Modification of Bid on (name of project on cover sheet)," which are addressed in the same manner as bids, and are received by Owner before the scheduled closing time for receipt of bids will be accepted and bids corrected in accordance with such written requests.

6. Signing of Bids

6.1 Bids which are signed for a partnership shall be **manually** signed in the firm name by at least one partner, or in the firm name by Attorney-in-Fact. If signed by Attorney-in-Fact there should be attached to the bid, a Power of Attorney evidencing authority to sign the bid dated the same date as the bid and executed by all partners of the firm.

6.2 Bids that are signed for a corporation shall have the correct corporate name thereon and the signature of an authorized officer of the corporation manually written below corporate name. Title of office held by the person signing for the corporation shall appear below the signature of the officer.

6.3 Bids that are signed by an individual doing business under a firm name, shall be manually signed in the name of the individual doing business under the proper firm name and style.

6.4 Bids that are signed under joint venture shall be manually signed by officers of the firms having authority to sign for their firm.

7. Bid Security

7.1 Each bid shall be accompanied by a bid bond, certified check, or cashier's check, acceptable to and payable without condition to The Curators of the University of Missouri, in an amount at least equal to five percent (5%) of bidder's bid including additive alternates.

7.2 Bid security is required as a guarantee that bidder will enter into a written contract and furnish a performance bond within the time and in form as specified in these specifications; and if successful bidder fails to do so, the bid security will be realized upon or retained by the Owner. The apparent low bidder shall notify the Owner in writing within 48 hours (2 work days) of the bid opening of any circumstance that may affect the bid security including, but not limited to, a bidding error. This notification will not guarantee release of the bidder's security and/or the bidder from the Bidder's Obligations.

7.3 If a bid bond is given as a bid security, the amount of the bond may be stated as an amount equal to at least five percent (5%) of the bid, including additive alternates, described in the bid. The bid bond shall be executed by the bidder and a responsible surety licensed in the State of Missouri with a Best's rating of no less than A-/XI.

7.4 It is specifically understood that the bid security is a guarantee and shall not be considered as liquidated damages for failure of bidder to execute and deliver their contract and performance bond, nor limit or fix bidder's liability to Owner for any damages sustained because of failure to execute and deliver the required contract and performance bond.

7.5 Bid security of the two (2) lowest and responsive Bidders will be retained by the Owner until a contract has been executed and an acceptable bond has been furnished, as required hereby, when such bid security will be returned. Surety bid bonds of all other bidders will be destroyed and all other alternative forms of bid bonds will be returned to them within ten (10) days after Owner has determined the two (2) lowest and responsive bids.

8. Bidder's Statement of Qualifications

8.1 Each bidder submitting a bid shall present evidence of their experience, qualifications, financial responsibility and ability to carry out the terms of the contract by completing and submitting with their bid the schedule of information set forth in the form furnished in the bid form.

8.2 Such information, a single copy required in a separate sealed envelope, will be treated as confidential information by the Owner, within the meaning of Missouri Statue 610.010.

8.3 Bids not accompanied with current Bidder's Statement of Qualifications may be rejected.

9. Award of Contract

9.1 The Owner reserves the right to let other contracts in connection with the work, including, but not by way of limitation, contracts for furnishing and installation of furniture, equipment, machines, appliances, and other apparatus.

9.2 In awarding the contract, the Owner may take into consideration the bidder's, and their subcontractor's, ability to handle promptly the additional work, skill, facilities, capacity, experience, ability, responsibility, previous work, financial standing of bidder, and the bidder's ability to provide the required bonds and insurance; quality, efficiency and construction of equipment proposed to be furnished; period of time within which equipment is proposed to be furnished and delivered; success in achieving the specified Supplier Diversity goal, or demonstrating a good faith effort as described in Article 15; necessity of prompt and efficient completion of work herein described, and the bidder's status as suspended or debarred. Inability of any bidder to meet the requirements mentioned above may be cause for rejection of their bid.

10. Contract Execution

10.1The Contractor shall submit within fifteen (15) days from receipt of notice, the documents required in Article 9 of the General Conditions for Construction Contract included in the contract documents.

10.2No bids will be considered binding upon the Owner until the documents listed above have been furnished. Failure of Contractor to execute and submit these documents within the time period specified will be treated, at the option of the

Owner, as a breach of the bidder's bid security under Article 7 and the Owner shall be under no further obligation to Bidder.

11. Contract Security

11.1 When the Contract sum exceeds \$50,000, the Contractor shall procure and furnish a Performance bond and a Payment bond in the form prepared by Owner. Each bond shall be in the amount equal to one hundred percent (100%) of the contract sum, as well as adjustments to the Contract Sum. The Performance Bond shall secure and guarantee Contractor's faithful performance of this Contract, including but not limited to Contractor's obligation to correct defects after final payment has been made as required by the Contract Documents. The Payment Bond shall secure and guarantee payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract. These Bonds shall be in effect through the duration of the Contract plus the Guaranty Period as required by the Contract Documents.

11.2 The bonds required hereunder shall be meet all requirements of Article 11 of the General Conditions for Construction Contract included in the contract documents.

11.3 If the surety of any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to conduct business in the State of Missouri is terminated, or it ceases to meet the requirements of this Article 11, Contractor shall within ten (10) days substitute another bond and surety, both of which must be acceptable to Owner. If Contractor fails to make such substitution, Owner may procure such required bonds on behalf of Contractor at Contractor's expense.

12. Time of Completion

12.1 Contractors shall agree to commence work within five (5) days of the date "Notice to Proceed" is received from the Owner, and the entire work shall be completed by the completion date specified or within the number of consecutive calendar days stated in the Special Conditions. The duration of the construction period, when specified in consecutive calendar days, shall begin when the contractor receives notice requesting the documents required in Article 9 of the General Conditions for Construction Contract included in the contract documents.

13. Number of Contract Documents

13.1 The Owner will furnish the Contractor a copy of the executed contract and performance bond.

13.2 The Owner will furnish the Contractor the number of copies of complete sets of drawings and specifications for the work, as well as, clarification and change order drawings pertaining to change orders required during construction as set forth in the Special Conditions.

14. Missouri Products and Missouri Firms

14.1 The Curators of the University of Missouri have adopted a policy which is binding upon all employees and departments of the University of Missouri, and which by contract, shall be binding upon independent contractors and subcontractors with the University of Missouri whereby all other things being equal, and when the same can be secured without additional cost over foreign products, or products of

other states, a preference shall be granted in all construction, repair and purchase contracts, to all products, commodities, materials, supplies and articles mined, grown, produced and manufactured in marketable quantity and quality in the State of Missouri, and to all firms, corporations or individuals doing business as Missouri firms, corporations or individuals. Each bidder submitting a bid agrees to comply with, and be bound by the foregoing policy.

15. SUPPLIER DIVERSITY

15.1 Award of Contract

The Supplier Diversity participation goal for this project is stated on the Bid for Lump Sum Contract Form, and the Owner will take into consideration the bidder's success in achieving the Supplier Diversity participation goal in awarding the contract. Inability of any bidder to meet this requirement may be cause for rejection of their bid.

The University will grant a three (3) point bonus preference to a Missouri based, certified Service Disabled Veteran Enterprise (SDVE) bidder as defined in Article 1 – (Supplier Diversity Definitions) of the General Conditions of the Contract for Construction included in the contract documents.

The three percent (3%) goal can be met, and the bonus points obtained, by a qualified SDVE vendor and/or through the use of qualified subcontractors or suppliers that provide at least three percent (3%) of the total contract value.

15.2 List of Supplier Diversity Firms

15.2.1 The bidder shall submit as part of their bid a list of diverse firms performing as contractor, subcontractors, and/or suppliers. The list shall specify the single designated diverse firm name and address. If acceptance or non-acceptance of alternates will affect the designation of a subcontractor, provide information for each affected category.

15.2.2 Failure to include a complete list of diverse firms may be grounds for rejection of the bid.

15.2.3 The list of diverse firms shall be submitted in addition to any other listing of subcontractors required in the Bid for Lump Sum Contract Form.

15.3 Supplier Diversity Percentage Goal

The bidder shall have a minimum goal of subcontracting with diverse contractors, subcontractors, and suppliers, the percent of contract price stated in the Supplier Diversity goal paragraph of the Bid for Lump Sum Contract Form.

15.4 Supplier Diversity Percent Goal Computation

15.4.1 The total dollar value of the work granted to the diverse firms by the successful bidder is counted towards the applicable goal of the entire contract, unless otherwise noted below.

15.4.2 The bidder may count toward the Supplier Diversity goal only expenditures to diverse firms that perform a commercially useful function in the work of a contract. A diverse firm is considered to perform a commercially useful function when it is responsible for executing a distinct element of the work and carrying out its responsibilities by actually performing, managing and supervising the work involved. A bidder that is a certified diverse firm may count

as 100% of the contract towards the Supplier Diversity goal. For projects with separate MBE, SDVE, and WBE/Veteran/DBE goals, a MBE firm bidding as the prime bidder is expected to obtain the required SDVE, and WBE/Veteran/DBE participation; a WBE or Veteran or DBE firm bidding as the prime bidder is expected to obtain the required MBE and SDVE participation and a SDVE firm bidding as the prime bidder is expected to obtain the required MBE, and WBE/Veteran/DBE participation.

15.4.3 When a MBE, WBE, Veteran Business Enterprise, DBE, or SDVE performs work as a participant in a joint venture, only the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the MBE, WBE, Veteran Business Enterprise, DBE, or SDVE performs with its own forces shall count toward the MBE, WBE, Veteran Business Enterprise, DBE, or SDVE individual contract percentages.

15.4.4 The bidder may count toward its Supplier Diversity goal expenditures for materials and supplies obtained from diverse suppliers and manufacturers, provided the diverse firm assumes the actual and contractual responsibility for the provision of the materials and supplies.

15.4.4.1 The bidder may count its entire expenditure to a diverse manufacturer. A manufacturer shall be defined as an individual or firm that produces goods from raw materials or substantially alters them before resale.

15.4.4.2 The bidder may count its entire expenditure to diverse suppliers that are not manufacturers provided the diverse supplier performs a commercially useful function as defined above in the supply process.

15.4.4.3 The bidder may count 25% of its entire expenditures to diverse firms that do not meet the definition of a subcontractor, a manufacturer, nor a supplier. Such diverse firms may arrange for, expedite, or procure portions of the work but are not actively engaged in the business of performing, manufacturing, or supplying that work.

15.4.5 The bidder may count toward the Supplier Diversity goal that portion of the total dollar value of the work awarded to a certified joint venture equal to the percentage of the ownership and control of the diverse partner in the joint venture.

15.4.6 On projects with separate MBE and WBE/Veteran/DBE goals, the Owner may allow MBE participation provided in excess of the MBE goal to be counted towards the WBE/Veteran/DBE goal.

15.5 Certification by Bidder of Diverse Firms

15.5.1 The bidder shall submit with its bid the information requested in the "Supplier Diversity Compliance Evaluation Form" for every diverse firm the bidder intends to award work to on the contract.

15.5.2 Diverse firms are defined in Article 1 – (Supplier Diversity Definitions) of the General Conditions of the Contract for Construction included in the contract documents, and as those businesses certified as disadvantaged by an approved agency. The bidder is responsible for obtaining information regarding the

certification status of a firm. A list of certified firms may be obtained by contacting the agencies listed in the proposal form document "Supplier Diversity Certifying Agencies". Any firm listed as disadvantaged by any of the identified agencies will be classified as a diverse firm by the Owner.

15.5.3 Bidders are urged to encourage their prospective diverse contractors, subcontractors, joint venture participants, team partners, and suppliers who are not currently certified to obtain certification from one of the approved agencies.

15.6 Supplier Diversity Participation Waiver

15.6.1 The bidder is required to make a good faith effort to locate and contract with diverse firms. If a bidder has made a good faith effort to secure the required diverse firms and has failed, the bidder shall submit with the bid, the information requested in "Application for Supplier Diversity Participation Waiver." The Contracting Officer will review the bidder's actions as set forth in the bidder's "Application for Waiver" and any other factors deemed relevant by the Contracting Officer to determine if a good faith effort has been made to meet the applicable percentage goal. If the bidder is judged not to have made a good faith effort, the bid may be rejected. Bidder's who demonstrate that they have made a good faith effort to include Supplier Diversity participation may be awarded the contract regardless of the percent of Supplier Diversity participation, provided the bid is otherwise acceptable and is determined to be the best bid.

15.6.2 To determine good faith effort of the bidder, the Contracting Officer may evaluate factors including, but not limited to, the following:

15.6.2.1 The bidder's attendance at pre-proposal meetings scheduled to inform bidders and diverse firms of contracting and subcontracting opportunities and responsibilities associated with Supplier Diversity participation.

15.6.2.2 The bidder's advertisements in general circulation trade association, and diverse (minority) focused media concerning subcontracting opportunities.

15.6.2.3 The bidder's written notice to specific diverse firms that their services were being solicited in sufficient time to allow for their effective participation.

15.6.2.4 The bidder's follow-up attempts to the initial solicitation(s) to determine with certainty whether diverse firms were interested.

15.6.2.5 The bidder's efforts to divide the work into packages suitable for subcontracting to diverse firms.

15.6.2.6 The bidder's efforts to provide interested diverse firms with sufficiently detailed information about the drawings, specific actions and requirements of the contract, and clear scopes of work for the firms to bid on.

15.6.2.7 The bidder's efforts to solicit for specific sub-bids from diverse firms in good faith. Documentation should include names, addresses, and telephone numbers of firms contacted a description of all information provided the diverse firms, and an explanation as to why agreements were not reached.

15.6.2.8 The bidder's efforts to locate diverse firms not on the directory list and assist diverse firms in becoming certified as such.

15.6.2.9 The bidder's initiatives to encourage and develop participation by diverse firms.

15.6.2.10 The bidder's efforts to help diverse firms overcome legal or other barriers impeding the participation of diverse firms in the construction contract.

15.6.2.11 The availability of diverse firms and the adequacy of the bidder's efforts to increase the participation of such business provided by the persons and organizations consulted by the bidder.

15.7 Submittal of Forms

15.7.1 The bidder will include the Supplier Diversity Compliance Evaluation Form(s), or the Application for Waiver and other form(s) as required above in the envelope containing the "Bidder's Statement of Qualifications", see Article 8.

15.8 Additional Bid/Proposer Information

15.8.1 The Contracting Officer reserves the right to request additional information regarding Supplier Diversity participation and supporting documentation from the apparent low bidder. The bidder shall respond in writing to the Contracting Officer within 24-hours (1 work day) of a request.

15.8.2 The Contracting Officer reserves the right to request additional information after the bidder has responded to prior 24 hour requests. This information may include follow up and/or clarification of the information previously submitted.

15.8.3 The Owner reserves the right to consider additional diverse subcontractor and supplier participation submitted by the bidder after bids are opened under the provisions within these contract documents that describe the Owner's right to accept or reject subcontractors including, but not limited to, Article 16 below. The Owner may elect to waive the good faith effort requirement if such additional participation achieves the Supplier Diversity goal.

15.8.4 The Bidder shall provide the Owner information related to the Supplier Diversity participation included in the bidder's proposal, including, but is not limited to, the complete Application for Waiver, evidence of diverse certification of participating firms, dollar amount of participation of diverse firms, information supporting a good faith effort as described in Article 15.6 above, and a list of all diverse firms that submitted bids to the Bidder with the diverse firm's price and the name and the price of the firm awarded the scope of work bid by the diverse firm.

16. List of Subcontractors

16.1 If a list of subcontractors is required on the Bid for Lump Sum Contract Form, the bidders shall list the name, city and state of the firm(s) which will accomplish that portion of the contract requested in the space provided. This list is separate from both the list of diverse firms required in Article 15.2, and the complete list of subcontractors required in Article 10.1 of this document. Should the bidder choose to perform any of the listed portions of the work with its own forces, the bidder shall enter its own name, city and state in the space provided. If acceptance or non-acceptance of alternates will affect the designation of a subcontractor, the bidder shall provide that information on the bid form.

16.2 Failure of the bidder to supply the list of subcontractors required or the listing of more than one subcontractor for any category without designating the portion of the work to be performed by each, shall be grounds for the rejection of the bid. The bidder can petition the Owner to change a listed subcontractor within 48 hours of the bid opening. The Owner reserves the right to make the final determination on a petition to change a subcontractor. The Owner will consider factors such as clerical and mathematical bidding errors, listed subcontractor's inability to perform the work for the bid used, etc. Any request to change a listed subcontractor shall include at a minimum, contractor's bid sheet showing tabulation of the bid; all subcontractor bids with documentation of the time they were received by the contractor; and a letter from the listed subcontractor on their letterhead stating why they cannot perform the work if applicable. The Owner reserves the right to ask for additional information.

16.3 Upon award of the contract, the requirements of Article 10 of this document and Article 5 of the General Conditions of the Contract for Construction included in the contract documents will apply.

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Schrenk Hall Renovations Phase 2A

Ground Floor and First Floor Renovations

Bidding Narrative and Special Scheduling and Phasing Requirements

Introduction

This phase of the project consists of the renovation of 2 floors of the chemistry building known as Schrenk Hall West. It is a 1971 vintage building. The bottom 2 floors, described as the 1st and Ground floors, will be selectively demolished as shown on the plans and those areas replaced with new walls, floor finishes, and mechanical, electrical and plumbing systems, as well as new laboratory fume hoods and furniture.

The laboratories and classrooms on the 2nd and 3rd floors must remain in operation during the entire construction time period, with the exception of certain outages to allow for tie in of electrical, mechanical and plumbing systems. In order to accomplish this, tie-in of the new electrical and mechanical systems will necessarily be phased to minimize any required downtime of the existing classrooms and laboratories on the 2nd and 3rd floors. All building utility system outages will need to be coordinated in accordance with the General Conditions.

This narrative will describe the general intent of the design and certain phasing requirements required to successfully complete the new renovation work with minimal disruption to the existing facility. This narrative is to be used in conjunction with the plans and specifications and does not supersede anything depicted in the plans and specifications. Any discrepancies discovered between this document and the plans and specifications must be documented in writing to the design professionals by the question cutoff date shown in the instructions to bidders.

ACM and Hazardous Materials

All ACM and hazardous materials in fume hoods, ductwork and piping are being abated by the University under separate contract. This work is schedule to be complete before the GC is give access to any area of the project.

Mechanical Systems

Utilities

In general, the majority of the piping services routed to the basement of Schrenk West will remain as existing and will be tied into during the renovation in the basement mechanical room. These services include domestic water, soft cold water, natural gas, heating water, chilled water, and campus compressed air.

Air Handling Systems

A new air handling unit (AHU) will be provided within the existing mechanical room in the space currently occupied by the existing AHU. The existing AHU will necessarily be shut down to allow for the demolition of the ductwork in the renovated areas. During the entire time that this AHU is offline, the GC will be required to provide temporary environmental control, as if the AHU were operating, in selected rooms, as shown on the plans G 1.11 and G 1.12.

Because room pressurization is critical in an operating laboratory facility, the rooms that require temporary environmental control will also require that they be sealed off as shown on drawings G 1.11 & 1.12.

It is anticipated that certain chilled water (CW) piping will have to be removed to remove and replace the AHU in the GF Mechanical Room. In order to do this, the CW system will need to be shut down for a period of time necessary to remove the old unit and install the new unit. This downtime must be minimized and coordinated with the University, so as to reduce the amount of time that the building will be without CW.

Exhaust System

The new exhaust ductwork and VAV's will tie into the existing fanset on the roof installed during Phase 2. A new exhaust main trunk will be routed on the exterior of the building as the existing exterior chases are not sufficient.

Heat Recovery System

Run-Around Loop

A run-around heat recovery loop will be utilized to eliminate any possible cross-contamination between fresh air and potentially harmful exhaust air due to the high concentration of exhaust coming from the fume hoods. A pump will circulate the fluid between the exhaust heat recovery coils and the AHU heat recovery coils noted in the "Air Handling Systems" section above.

Supply, Return and Exhaust Air Distribution Systems

A variable air volume (VAV) air distribution system will be utilized for all general spaces and laboratory spaces without fume hoods. With this system type, each temperature control zone will be served by a supply VAV box with an integral hot water reheat coil. The VAV box will modulate its damper position to maintain the required airflow (for code-required airflow and temperature control) as system pressure fluctuates. A heating water 2-way control valve will modulate water flow to the reheat coil to maintain desired zone temperature conditions.

Each temperature control zone will also be served by either a plenum-style return air system or an exhaust VAV box dependent upon the occupancy and activity of the zone. The exhaust system will operate in a VAV mode similar to the supply air system. The airflow of the exhaust

VAV box will “track” the airflow of the corresponding zone supply VAV box to guarantee proper space pressurization is maintained.

Laboratory spaces with fume hoods will be served by a different VAV distribution system. With this system type, each temperature control zone will be served by a high-speed pressure-independent venturi valve with an associated hot water reheat coil. A heating water 2-way control valve will modulate water flow to the reheat coil to maintain desired zone temperature conditions.

Each venturi valve will be located in an accessible portion of the ceiling space. Low-pressure supply ductwork downstream of the supply venturi valves will serve the occupied spaces via diffusers and/or registers. Ceiling diffusers near fume hoods will be selected to minimize unsafe, turbulent flow at the fume hood opening.

The laboratory exhaust system will operate in a VAV mode similar to the supply air system. Each low flow fume hood will be served by an exhaust venturi valve. Additionally, most temperature control zones will be served by a general exhaust venturi valve. The EMCS will modulate the airflow of the various venturi valves to ensure proper airflow and pressurization to each zone.

A sash position sensor will be installed on each fume hood to adjust the exhaust flowrate of the fume hood as the sash is raised or lowered. The fume hood venturi valve will modulate to maintain minimum 80 feet/minute (fpm) face velocity through the hood opening at all times. Additionally, a fume hood presence sensor will be provided to reduce the face velocity to 60 fpm if the area in front of the hood is unoccupied for a predetermined period of time.

Occupancy sensors will provide reduced flow to spaces during unoccupied periods. They will monitor occupancy and reduce the airflow to the space if the room is unoccupied for a preset, adjustable time period.

Supply air and return air ductwork will generally be galvanized steel construction. Exhaust air ductwork will generally be galvanized steel construction. However, all ductwork serving fume hoods, canopy hoods, or other specialized equipment will be stainless steel construction.

Chilled Water System

The existing cooling tower on the roof of Schrenk West and the swing Chiller in the basement will remain intact during the renovation. All associated piping, pumps, and controls will also remain as existing.

Heating Water System

The heating water lines will tie into the basement mechanical room to accommodate new reheat coils on each floor.

Energy Management Control System

A new Energy Management and Control System (EMCS) was installed during phase 2 to serve the facility. The new system utilizes direct digital controls (DDC) and connects to the campus Johnson Controls system. The EMCS has the capability to adjust setpoints and system operation to match changing facility functions. The new equipment installed in phase 2a will be extended to the existing system.

Water Systems

All domestic and laboratory water systems will tie into existing loops located in the basement mechanical room and will be extended to the new fixtures

Fire Protection Systems

A new NFPA 13 compliant wet-pipe sprinkler system was installed during Phase 2 and is designed to provide full coverage for the building. Zone valves were installed outside each south stairway and will be extended to the areas of work. Quick-response sprinklers will be used throughout the area of work. Offices and classrooms will be classified as light hazard. Laboratories, storage rooms, custodial closets, and mechanical rooms will be classified as Ordinary Hazard, Group 1 or Group 2, depending on specific requirements.

Code-required fire dampers, smoke dampers, and fire/smoke dampers will be installed as necessary.

Primary Electrical Service

The existing primary electrical service installed under the last project's scope will remain and will not be modified.

Electrical Distribution System

The existing main electrical distribution system service voltage is 480Y/277 volt, 3-phase, 4-wire. The existing main service equipment consists of a 3000A, 480Y/277V switchboard 'MSB' and is located within the main electrical room located on the lower level of the building. The main switchboard 'MSB' feeds two (2) existing 480Y/277V, 3-phase copper busways that are routed vertically through the stacking electrical rooms on all floors. These existing vertical busses will be tapped with compatible breaker type bus plugs to serve new distribution panels, new dry type transformers and new branch panelboards. The new equipment will feed all new loads in the area of renovation. In general, new HVAC equipment and large equipment loads will be served at 480 volts, 3-phase. Lighting throughout the facility will be served at 277 volts, single phase. Laboratory, office, and computer equipment, as well as general-purpose receptacle circuits will be served at 120 volts, single phase. All other equipment and devices will be served by the appropriate distribution system voltage

Additional electrical distribution system details include the following:

Distribution system switchboards and panelboards make use of circuit breakers for overcurrent protection of feeders and branch circuits.

Copper bussing is provided for all electrical distribution system equipment.

Digital customer metering equipment is provided as determined by consultation with University facilities personnel. Digital metering devices are to be connected to the building energy management control system to allow for remote monitoring.

Separate panelboards are to be used to support facility lighting and general-purpose electrical requirements.

Surge Protection Devices (SPD) are provided for all new Life Safety distribution equipment.

Special Systems

Existing building card access security system is expanded to include additional doors in this project's scope. Electrical rough-ins, including necessary receptacles and circuits will be provided to support the installation of the card access security system. Circuits necessary to support future security system equipment are to be served by the emergency generator system.

Telecommunications System

Under the last phase's scope, new dedicated telecommunications rooms and corresponding infrastructure was added for all floors. This existing telecommunications system is expanded to serve the area of renovation and all new telecommunication devices will be served out of these telecom rooms. New patch panels, cabling, cable trays, raceway distribution systems, wireless access points, outlet boxes, cabling jacks and faceplates are specified in order to expand the existing system in the building.

All telecommunications work is designed in strict accordance with ANSI/TIA/EIA standards for Category 6 equipment and cabling.

Fire Alarm System

The existing digital, addressable type, fire alarm control system is expanded to serve the areas of renovation. The system is designed in accordance with all current Codes and standards, and will also satisfy all current accessibility guidelines. In addition, connections are made for monitoring by the central campus system.

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