DOCUMENT 009113 - ADDENDUM #3 University of South Carolina – Close-Hipp Renovation LS3P Project No.: 2202-160840

University of South Carolina

A. NOTICE TO BIDDER

- 1.1 This Addendum is issued pursuant to the Conditions of the Contract and is hereby made part of the Contract Documents. The addendum serves to clarify, revise, and supersede information in the Project Manual, the Drawings, and previously issued Addenda. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form. Failure to do so may subject the Bidder to disqualification. A list of attachments, if any, is part of this document.
- 1.2 The date for receipt of bids for this project is unchanged by this Addendum.

B. MODIFICATIONS TO PROJECT MANUAL

- 1.3 Delete SECTION 101400 SIGNAGE in its entirety.
- 1.4 SECTION 105123 PLASTIC-LAMINATE CLAD, PHENOLIC-CORE LOCKERS:
 - a) 2.1 A: Revise to "Manufacturers Subject to compliance with requirements, provide triple tier (72" height) plastic laminate lockers by Hollman, Inc., or comparable products by one of the following:".
 - b) Add 2.1 A.6: Summit Lockers, Inc.
- 1.5 Replace SECTION 122413 ROLLER WINDOW SHADES with revised SECTION 122413 ROLLER WINDOW SHADES, included in the Attachments.

1.6 SECTION 211300 – MECHANICAL, FIRE PROTECTION SYSTEMS:

a) Paragraph 2.1 B: All piping 6" and larger shall be welded. Welding shall be done only by qualified welders certified by a recognized and approved local testing laboratory. Welding qualifications shall be in accordance with ANSI Standard Code for Pressure Piping. Welders shall have qualified within the past eighteen (18) months.

1.7 SECTION 23 34 23 FANS AND AIR DISTRIBUTION:

- a) Paragraph 2.5 Combination Fire/Smoke Dampers. Provide operators for combination fire/smoke dampers with end switches.
- b) Paragraph 2.6 Control Dampers. Provide operators for control dampers with end switches.
- 1.8 SECTION 25 55 00, AUTOMATIC TEMPERATURE CONTROLS:
 - a) Paragraph 3.9 Sequence of Operation, paragraph 6. Building static pressure sensors shall be located one of each floor of the Close Building. The worst case signal shall be used to control the relief fans.
 - b) Paragraph 3.9 Minimum Control Points, A. Air Handling Units; add Supply Air Flow (provide supply air flow monitor as specified, do not use air flow value from the fan array).

c) Paragraph 3.9 Sequence of Operation, C. Kitchen Hoods. The variable frequency drives for the kitchen hood exhaust fans KEF-1, KEF-2 and KEF-3 shall be located in the 8th Floor west side mechanical room in the Hipp Building.

C. APPROVED SUBSTITUTIONS

1.9 The following manufacturers are approved for this project provided they can comply with the specifications and are of equal or greater quality, and function and perform like the specified products: (Note: inclusion to the list of acceptable manufacturers does not eliminate the necessity to comply with specifications. Non-compliant manufactures and products will be rejected regardless of manufacturer being listed.)

1.10 SECTION 22 05 00:

| a) | Thermometers | Weiss |
|----|------------------------|--------|
| b) | Packaged Lift Stations | Barnes |
| c) | Sump Pumps | Barnes |

1.11 DIVISION 23:

| a) | Strainers: | Nexus Valve |
|----|-----------------------------|---------------------------------|
| d) | Suction Diffusers: | Armstrong |
| e) | Triple Duty Valves: | Armstrong |
| f) | Pressure Independent | |
| | Control Valves: | Danfoss |
| g) | Flow Control Valves: | Nexus Valve |
| h) | Flash Tank: | Thermaflo Engineering |
| i) | Air and Sediment Separator: | B&G, Taco, Armstrong and Amtrol |
| j) | Flexible Pipe Connectors: | Flex-Weld and Metraflex |
| k) | Expansion Joints: | Flex-Weld |
| 1) | Fans: | American Coolair/ILG |
| m) | Fire Dampers: | NCA |
| n) | Fire/Smoke Dampers: | NCA |
| 0) | Louvers: | NCA |
| p) | Control Dampers: | NCA |
| q) | Balancing Dampers: | NCA |
| r) | Roof Vents: | American Coolair/ILG |
| s) | Grilles and Diffusers: | Titus |
| t) | Variable Volume | |
| | Terminal Units: | Titus |

| u) Hot Water Unit Heater: | Rittling and Modine |
|---------------------------|----------------------|
| v) Air Filters: | Camfill Farr |
| w) Acoustical Panels: | Ruskin Sound Control |
| x) Sound Attenuators: | Ruskin Sound Control |
| y) Thermometers: | Weiss |
| z) Pressure Gauges: | Weiss |

D. MODIFICATIONS TO DRAWINGS

- 1.12 FIRE PROTECTION DRAWINGS: General Notes: Revise the General Note added per Addendum No. 1, Item 1.30 as follows: "After demolition of existing fire protection piping and components as noted on the fire protection demolition drawings, the sprinkler contractor shall hydrostatically test piping and components which are to remain at no less than 275 psi for 2 hours. All couplings, piping and components which fail shall be replaced and retested until test is satisfactory. Note: Contractor shall protect building, particularly any electrical components from potential water damage during test."
- 1.13 SHEET M-001, OPENINGS AND SUPPORTS
 - a) Refer to notes on Architectural and Structural drawings regarding openings and supports. Where there are any discrepancies in notes on Architectural and Structural drawings from the Openings and Supports notes on M-001, the notes on the Architectural and Structural drawings shall govern.
- 1.14 SHEET M-109 HVAC PENTHOUSE RENOVATION FLOOR PLAN UPPER LEVEL, AND HVAC SECTION THRU EAST SIDE PENTHOUSE
 - a) Delete air handling unit paneling under roof of Upper Level Penthouse.
- 1.15 SHEET M-401, VENTILATING FAN SCHEDULE
 - a) Note 3; change "variable speed controller" to "Greenheck Varigreen Drive or variable frequency drive factory mounted for air balancing".

1.16 SHEET M-401, PENTHOUSE AIR HANDLING UNIT FAN SCHEDULE

a) Note 4. The Total CFM of 75,000 shall be met with one (1) fan in failure, "N-1" operation.

E. ATTACHMENTS

- 1.17 This Addendum includes the attached documents and specification sections:
 - a) SECTION 122413 Roller Window Shades (Revised)

END OF ADDENDUM

SECTION 122413 - ROLLER WINDOW SHADES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Motorized window shades, including electric operators and accessories.
 - 2. Manually operated window shades and accessories.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions.

1. Motorized Shade Operators: Include operating instructions.

- 2. Motors: Show nameplate data, ratings, characteristics, and mounting arrangements.
- B. Shop Drawings: Show location and extent of shades. Include elevations, sections, details, and dimensions not shown in Product Data. Show installation details, mounting details for shades and for motors, attachments to other Work, operational clearances, and relationship to adjoining work.
 - Motorized Shade Operators: Show locations and details for installing operator components, switches, and controls. Indicate motor size, electrical characteristics, drive arrangement, mounting, and grounding provisions. Include rough in coordination drawings.
 Wiring Diagrams: Power system and control wiring
 - 2. Wiring Diagrams: Power, system, and control wiring.
- C. Samples for Initial Selection: For each colored component of each type of shade indicated.
 - 1. Include similar Samples of accessories involving color selection.
- D. Samples for Verification:
 - 1. For the following products:
 - a. Shade Material: Not less than 12-inch- square section of each fabric, from dye lot used for the Work, with specified treatments applied. Show complete pattern repeat. Mark face of material.
- E. Window Treatment Schedule: Include shades in schedule using same room designations indicated on Drawings.
- F. Product Certificates: For each type of shade product, signed by product manufacturer.
- G. Product Test Reports: For each type of shade and accessory product.
- H. Manufacturer's installation and maintenance instructions.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain shades through one source from a single manufacturer.
- B. Fire-Test-Response Characteristics: Provide shades with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency:
 - 1. Flame-Resistance Ratings: Passes NFPA 701.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. Product Standard: Provide roller shades complying with WCMA A 100.1.
- E. Mockups: Build mockups to verify selections made under sample Submittals and to demonstrate aesthetic effects and qualities of materials and execution.
 - 1. Build mockups in the location and of the size as directed by Architect.
 - 2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver shades in factory packages, marked with manufacturer and product name, and location of installation using same room designations indicated on Drawings and in a window treatment schedule.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install shades until construction and wet and dirty finish work in spaces, including painting, is complete and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Where shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operable glazed units' operation hardware throughout the entire operating range. Notify Architect of discrepancies. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Shades: Before installation begins, for each size, color, texture, and pattern indicated, full-size units equal to 5 percent of amount installed, but not fewer than 2 full-size units.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Roller Shades: Subject to compliance with requirements, provide the Basis-of-Design product indicated, or comparable product approved by Architect from one of the following:
 - 1. Draper, Inc. (Clutch Operated FlexShade®)
 - 2. MechoShade Systems, Inc.
 - 3. Hunter Douglas, Inc.; Hunter Douglas Window Fashions Division.
 - 4. Lutron Shading Solutions by VIMCO.
- B. Motorized Shade Operators: Subject to compliance with requirements, provide Lutron Sivoia QED operator or comparable product approved by Architect from one of the following:
 - 1. Elero USA Inc.
 - 2. Lutron Electronics Company.
 - 3. SIMU US, Inc.
 - 4. SOMFY Systems.
 - 5. Shade operators may also be provided by approved manufacturer of roller shade.

2.2 ROLLER SHADES

- A. Rollers: Electrogalvanized or epoxy primed steel or extruded-aluminum tube of diameter and wall thickness required to support and fit internal components of operating system and the weight and width of shade band material without sagging; designed to be easily removable from support brackets; with manufacturer's standard method for attaching shade material.
- B. Direction of Roll: Regular, from back of roller.
- C. Mounting Brackets: Fascia end caps, fabricated from steel finished to match fascia.
- D. Fascia: 6-1/2 inch by 6-1/2 inch aluminum extrusion, 0.125 inch minimum wall thickness, to conceal shade roller and hardware.
 - 1. Type: Square, with endcaps.
 - 2. Finish: Color to be selected to match architects sample.
- E. Bottom Bar: Steel or extruded aluminum. Wrap bottom bar with fabric to match shade.
- F. Shade Operation, locations as indicated:
 - 1. Manual: Typical Installation, unless noted otherwise, with continuous loop bead chain, clutch, and cord tensioner and bracket lift operator.
 - 2. Motorized operator: At Conference Rooms, Boardroom, Presidential Dining.
- G. Mounting: Mounted inside window opening and extending from head to sill and jamb to jamb, and as indicated on Drawings, mounting permitting easy removal and replacement without damaging roller shade or adjacent surfaces and finishes.

2.3 SHADE FABRIC

A. Shade Band Material, typical installation, unless noted otherwise: PVC-coated polyester or PVC-coated fiberglass and polyester blends.

- 1. Colors: Alabaster
- 2. Material Openness Factor: 5% percent.
- 3. Bottom Hem: Straight.
- B. Shade Band Material at Boardroom (combination sheerweave and room darkening): rot proof, PVC free fiberglass textile with acrylic backing, min. 78 inch roll width, average 14.75 ounces per square yard, 0.021 inches thick, Fire rating: NFPA 701, both small and large scale tests.
 - 1. Colors: As selected by Architect from manufacturer's full range
 - 2. Material Openness Factor: < 1 percent.
 - 3. Bottom Hem: Straight.

2.4 SHADE FABRICATION

- A. Product Description: Roller shades each consisting of fabric, rails, ladders, lifting mechanism, self-leveling device, and installation hardware.
- B. Concealed Components: Noncorrodible or corrosion-resistant-coated materials.
 - 1. Lifting Mechanism: With permanently lubricated moving parts.
- C. Unit Sizes: Obtain units fabricated in sizes to fill window and other openings as follows, measured at 74 deg F:
 - 1. Shade Units Installed between (Inside) Jambs: Edge of shade not more than 1/4 inch from face of jamb. Length equal to head to sill dimension of opening in which each shade is installed.
- D. Installation Brackets: Designed for easy removal and reinstallation of shade, for supporting headrail, valance, and operating hardware and for hardware position and shade mounting method indicated.
- E. Installation Fasteners: Not fewer than two fasteners per bracket, fabricated from metal noncorrosive to shade hardware and adjoining construction; type designed for securing to supporting substrate; and supporting shades and accessories under conditions of normal use.

2.5 MOTORIZED SHADE OPERATORS

- A. General: Provide factory assembled shade operation systems designed for lifting shades of type, size, weight, construction, use, and operation frequency indicated. Provide operation systems of size and capacity and with features, characteristics, and accessories suitable for Project conditions and recommended by shade manufacturer, complete with electric motors and factory-prewired motor controls, power disconnect switches, enclosures protecting controls and all operating parts, headrail, and accessories required for reliable operation without malfunction. Include wiring from motor controls to motors. Coordinate operator wiring requirements and electrical characteristics with the building electrical system.
- B. Comply with NFPA 70.
- C. Electric Motors: UL-approved or recognized, totally enclosed, insulated motor, complying with NEMA MG 1, with thermal overload protection and adjustable limit switches; sized by shade manufacturer to start and operate size and weight of shade considering service factor or considering Project's service conditions without exceeding nameplate ratings.

- 1. Service Factor: According to NEMA MG 1, unless otherwise indicated.
- 2. Motor Characteristics: Single phase, 110 V, 60 Hz.
- 3. Motor Mounting: Within manufacturer's standard headrail enclosure.
- D. Controls: All shades in each space shall be controlled by a single switch to operate as one group (group control), unless detailed otherwise on drawings. Provide all components for group control as recommended by shade manufacturer for operation. Basis of Design is Draper IntelliFlex Controls, including, but not be limited to, the following components:
 - 1. Control Stations: Shall be a specification grade 120V, 15 amp, 3 position toggle switch, UL and CSA recognized. Switch shall be a single pole, double-throw, maintained or monmentary contact, device color as selected by Architect. Provide switch with custom engraved stainless steel cover plate identifying control purpose and operation.
 - 2. Group controller: Subject to compliance with requirements, provide Draper IntelliFlex GC-4, quantity as recommended by manufacturer for control of shades in each space.
- E. Limit Switches: Adjustable switches, interlocked with motor controls and set to automatically stop shade at fully raised and fully lowered positions.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Field verify window dimensions prior to fabrication.
- B. Coordinate requirements for blocking and structural supports to ensure adequate means for installation of window shades.
- C. Coordinate requirements for power supply, conduit, and wiring required for window shade motors and controls.
- D. Prior to installation, verify type and location of power supply.

3.2 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, accurate locations of connections to building electrical system, and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 SHADE INSTALLATION

- A. Comply with shade manufacturer's written instructions and approved shop drawings.
- B. Install shades level and plumb, according to manufacturer's written instructions, and located so shade band is not closer than 2 inches to interior face of glass. Install intermediate support as required to prevent deflection in headrail. Allow clearances for window operation hardware.
- C. Install fascia endcaps to conceal roller and operating mechanism. Do not use exposed fasteners.

D. Connections: Connect motorized operators to building electrical system.

- E. Provide shades at all Frame Type AF20 Curtain Wall Frames and Teller Window.
- F. All shades shall be coordinated and installed to properly fit the field verified window opening.

3.4 ADJUSTING

- A. Adjust and balance shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.
- B. Test motorized window shades to verify that controls, limit switches, and other operating components are functional. Correct deficiencies.

3.5 CLEANING AND PROTECTION

- A. Clean shade surfaces after installation, according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that shades are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain systems. Refer to Division 01 Section "Closeout Procedures."

END OF SECTION 122413