

Addendum #004

February 4, 2020

---

**Project:** BYU-Idaho – Spori Annex 2019  
A Sculpture and Ceramics Facility for University Academics **Project No:** 11513

**To:** Contractors bidding on the Spori Annex project

**From:** Chad Alldredge, University Architect (208) 496-2659  
Architecture & Construction Management Services Fax (208) 496-2653  
213 University Operations Building  
Rexburg, Idaho 83460-8205

**Attached:** 2 Photos.

**Page(s):** 9 including this cover page.

---

This Addendum forms a part of the Contract Documents and modifies the original Bid Documents dated 27 November 2019 as noted below. **Acknowledge receipt of this Addendum in the space provided in the lower part of page 2 of the Form of Proposal.** Failure to do so may subject the Bidder to disqualification.

---

**I. CHANGES TO PRIOR ADDENDA:**

- A Remove Addendum 003 specification Section 12 2413 Roller Window Shades, 5 pages and replace with Addendum 004 specification Section 12 2413 Roller Window Shades, 7 pages. Also, see the two (2) attached photos for modified locations of motorized and mechanically operated roller shades and switches or remotes.

**II. CHANGES TO BIDDING REQUIREMENTS:**

- A Project Dates – clarification is given that construction at the project site cannot start until January 29, 2020. Equipment and materials submittals can proceed prior to that as it is anticipated a contract will be awarded shortly after the bid date. The project completion date is still October 31, 2020.

**III. CHANGES TO SPECIFICATIONS:**

- A Remove Addendum 003 specification Section 12 2413 Roller Window Shades, 5 pages and replace with Addendum 004 specification Section 12 2413 Roller Window Shades, 7 pages.

**IV. CHANGES TO DRAWINGS:**

- A Electrical, 1 sheet: E2.0, See attached photos for redlined changes to electrical requirements for the motorized roller shades. Such as which shade locations will be motorized and where the switches or remotes should be mounted.

**V. BIDDING QUESTIONS:**

75. Electric Roller Shades

Question: The response to Bid Question 18 states that the roller shades are to be electric. However, Section 12 2413 - Roller Window Shades issued in Addendum 3 still specifies manually operated shades. Please provide an updated specification section for electric shades.

Answer: See Addendum 004 for revised specification and two (2) photos showing revised locations of motorized and mechanically operated roller shades and switch or remote locations.

---

**End of Addendum #004**

---

**Issued by:** Chad Alldredge

## SECTION 12 2413 - 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. Section Includes:

1. Manually operated roller shades with single rollers.
2. Roller shades, motorized operation and accessories.
  - Intelligent encoded electronic drive system.
  - Motor controls, interfaces, and accessories.
3. Shade fabric.

## B. Related Requirements:

1. Section 06 1053 "Miscellaneous Rough Carpentry" for wood blocking and grounds for mounting roller shades and accessories.
2. Section 07 9200 "Joint Sealants" for sealing the perimeters of installation accessories for light-blocking shades with a sealant.
3. Section 09 5113 - Acoustical Ceilings: Coordination with acoustical ceiling systems for installation of shade pockets, closures and related accessories.
4. Division 26 - Electrical: Electric service for motor controls.

## 1.3 REFERENCES

## A. Definitions:

1. Anti-Microbial: Capable of destroying or inhibiting the growth of disease-causing microorganisms.
2. Inherently Flame Resistant: Material that meets requirements set forth in NFPA 701. Inherently flame-resistant fabric is woven from fibers that are non-combustible for life of material.
3. Shade Cloth: Fabric designed to provide specified amount of shade.

## B. Reference Standards:

1. ASTM International: ASTM G21 15: 'Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi'.
2. National Fire Protection Association: NFPA 701, 'Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, (2019 or most recent edition adopted by AHJ).

## 1.4 ACTION SUBMITTALS

## A. Product Data: For each type of product.

1. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.

## B. Shop Drawings: Show fabrication and installation details for roller shades, including shadeband materials, their orientation to rollers, and their seam and batten locations. Plans, elevations, sections, product details, installation details, operational clearances, wiring diagrams and relationship to adjacent work.

1. Provide location plan showing all switch and control zones as per the performance requirements of the specifications. All switches, sensors and other control accessories must clearly be shown and called out in a bill of materials.
  - C. Motorized Shades: Power requirements. Typical wiring diagrams including integration of EDU controllers with building management system, audiovisual and lighting control systems as applicable.
  - D. Samples: For each exposed product and for each color and texture specified, 10 inches (250 mm) long.
  - E. Samples for Initial Selection: For each type and color of shadeband material.
    1. Include Samples of accessories involving color selection.
  - F. Samples for Verification: For each type of roller shade.
    1. Shadeband Material: Not less than 10 inches (250 mm) square. Mark inside face of material if applicable.
    2. Roller Shade: Full-size operating unit, not less than 16 inches (400 mm) wide by 36 inches (900 mm) long for each type of roller shade indicated.
    3. Installation Accessories: Full-size unit, not less than 10 inches (250 mm) long.
  - G. Roller-Shade Schedule: Use same designations indicated on Drawings.
- 1.5 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For Installer.
  - B. Product Certificates: For each type of shadeband material, signed by product manufacturer.
  - C. Product Test Reports: For each type of shadeband material, for tests performed by manufacturer and witnessed by a qualified testing agency.
- 1.6 CLOSEOUT SUBMITTALS
- A. Maintenance Data: For roller shades to include in maintenance manuals.
- 1.7 MAINTENANCE MATERIAL SUBMITTALS
- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
    1. Roller Shades: Full-size units equal to 5 percent of quantity installed for each size, color, and shadeband material indicated, but no fewer than two units.
- 1.8 QUALITY ASSURANCE
- A. Installer Qualifications: Fabricator of products.
  - B. Regulatory Agency Sustainability Approvals:
    1. Material Characteristics: Material used shall be inherently flame retardant with a flame spread rating meeting code requirements when tested in accordance with NFPA 701.
    2. Anti-Microbial Characteristics: 'No Growth' in accordance with ASTM G21 results for fungi ATCC9642, ATCC 9644, and ATCC9645.
  - C. Requirements for Electronic Hardware, Controls, and Switches: Roller shade hardware, shade fabric, EDU, and all related controls shall be furnished and installed as a complete two-way communicating system and assembly.

- D. Turn-Key Single-Source Responsibility for Wiring Motorized Interior Roller Shades: To control the responsibility for performance of motorized roller shade systems, assign the design, engineering, and installation of motorized roller shade systems, motors, controls, and low voltage electrical control wiring specified in this Section to a single manufacturer and their authorized installer/dealer. The Architect will not produce a set of electrical drawings for the installation of control wiring for the motors, or motor controllers of the motorized roller shades. Power wiring (line voltage), shall be provided by the roller shade installer/dealer, in accordance with the requirements provided by the manufacturer. Coordinate the following with the roller shade installer/dealer:
1. Contractor shall provide power panels and circuits of sufficient size to accommodate roller shade manufacturer's requirements, as indicated on the mechanical and electrical drawings.
  2. Contractor shall coordinate with requirements of roller shade installer/dealer, before inaccessible areas are constructed.
  3. Roller shade installer/dealer shall run line voltage as dedicated home runs (of sufficient quantity, in sufficient capacity as required) terminating in junction boxes in locations designated by roller shade dealer.
  4. Roller shade installer/dealer shall provide and run all line voltage (from the terminating points) to the motor controllers, wire all roller shade motors to the motor controllers, and provide and run low voltage control wiring from motor controllers to switch/ control locations designated by the Architect. All above-ceiling and concealed wiring shall be plenum-rated, or installed in conduit, as required by the electrical code having jurisdiction.
  5. Contractor shall provide conduit with pull wire in all areas, which might not be accessible to roller shade contractor due to building design, equipment location or schedule.
- E. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
1. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- 1.9 DELIVERY, STORAGE, AND HANDLING
- A. Deliver roller shades in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.
- 1.10 FIELD CONDITIONS
- A. Environmental Limitations: Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Power and control wiring shall be complete and certified, fully operational with uninterrupted communication on the lines and minimal noise certified by a commissioning agent specified in other sections.
1. 485, ICON, Lonmark and Dry Contract Network: Noise on the line not to exceed shade manufacturer's limits.
- C. Field Measurements: Where roller 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 operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

## PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

- A. Basis-of-Design Manually Operated Product: Subject to compliance with requirements, provide MechoShade Systems, Inc. "Mecho /5" or comparable product by one of the following:
1. RB-500 by Hunter Douglas Contract.
- B. Basis-of-Design Motorized Operation Product: Subject to compliance with requirements, provide MechoShade Systems, Inc. "ElectroShade with WhisperShade IQ2 EDU", Voltage 120 VAC. Motor operated fabric window shade system complete with mounting brackets, roller tubes, hembars, hardware, and accessories or comparable product by one of the following:
1. Hunter Douglas.
- C. Source Limitations: Obtain roller shades from single source from single manufacturer.

## 2.2 MANUALLY OPERATED SHADES WITH SINGLE ROLLERS

- A. Chain-and-Clutch Operating Mechanisms: With continuous-loop bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted and lubricated.
1. Bead Chains: Manufacturer's standard.
    - a. Loop Length: Full length of roller shade.
    - b. Limit Stops: Provide upper and lower ball stops.
    - c. Chain-Retainer Type: Clip, jamb mount.
  2. Spring Lift-Assist Mechanisms: Manufacturer's standard for balancing roller-shade weight and lifting heavy roller shades.
    - a. Provide for shadebands that weigh more than 10 lb (4.5 kg) or for shades as recommended by manufacturer, whichever criteria are more stringent.
- B. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shadebands indicated without deflection. Provide with permanently lubricated drive-end assemblies and idle-end assemblies designed to facilitate removal of shadebands for service.
1. Roller Drive-End Location: As indicated on Drawings.
  2. Direction of Shadeband Roll: Regular, from back of roller.
  3. Shadeband-to-Roller Attachment: Manufacturer's standard method.
- C. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location and conditions indicated.
- D. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers into a multiband shade that is operated by one roller drive-end assembly.
- E. Shadebands:
1. Shadeband Material: As per schedule.
  2. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.
    - a. Type: Exposed with endcaps and integral light seal where bottom (sill) channels are indicated.
    - b. Color and Finish: As selected by Architect from manufacturer's full range.

## F. Installation Accessories:

1. Front Fascia: Aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners.
  - a. Shape: L-shaped.
  - b. Height: Manufacturer's standard height required to conceal roller and shadeband when shade is fully open, but not less than 3-3/4 inches.
2. Endcap Covers: To cover exposed endcaps.
3. Recessed Shade Pocket: Rectangular, extruded-aluminum enclosure designed for recessed ceiling installation; with front, top, and back formed as one piece, end plates, and removable bottom closure panel.
  - a. Height: Manufacturer's standard height required to enclose roller and shadeband when shade is fully open, but not less than height indicated on Drawings.
  - b. Provide pocket with lip at lower edge to support acoustical ceiling panel.
4. Closure Panel and Wall Clip: Removable aluminum panel designed for installation at bottom of site-constructed ceiling recess or pocket and for snap-in attachment to wall clip without fasteners.
  - a. Closure-Panel Width: As indicated on Drawings.
5. Side Channels: With light seals and designed to eliminate light gaps at sides of shades as shades are drawn down. Provide side channels with shadeband guides or other means of aligning shadebands with channels at tops.
6. Bottom (Sill) Channel or Angle: With light seals and designed to eliminate light gaps at bottoms of shades when shades are closed.
7. Installation Accessories Color and Finish: As selected from manufacturer's full range.

## 2.3 ROLLER SHADES, MOTORIZED OPERATION AND ACCESSORIES

## A. Shade System; General:

1. Motorized Shades: Comply with NFPA 70.
2. Components capable of being removed or adjusted without removing mounted shade brackets, or cassette support channel.
3. Operates smoothly when raising or lowering shades.
4. Cradle-to-Cradle certified and listed in C2C (DIR).
5. Electrical Components: Listed, classified, and labeled as suitable for intended purpose. Test as total system. Individual component testing is acceptable.
  - a. Components: FCC compliant where applicable.

- B. See 2.2 Manually Operated Shades with Single Rollers for general information also applicable to roller shades with motorized operation.

## 2.4 SHADEBAND MATERIALS

- A. Shadeband Material Flame-Resistance Rating: Comply with NFPA 701. Testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

- B. Light-Filtering Fabric: Woven fabric, stain and fade resistant.

1. Source: Roller-shade manufacturer; EcoVeil 1350 Shadecloth Collection or Architect approved equivalent.
2. Type: Thermoplastic Olefin (TPO).
3. Weave: Basketweave.
4. Roll Width: Up to 100 inches.
5. Orientation on Shadeband: Up the bolt.

6. Openness Factor: 5 percent at Office 100, Office 105, and Foyer 1-B, 3 percent at Sculpture Classroom 101, Ceramics Classroom 104, Wood Shop 110, Foundry, Forge & Welding Area 111, Clay Mixing & Dry Storage 117, Clay Storage 117A, and Damp Room 104A.
7. Color: As selected by Architect from manufacturer's full range.

## 2.5 ROLLER-SHADE FABRICATION

- A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1, including requirements for flexible, chain-loop devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F (23 deg C):
  1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade is installed less 1/4 inch (6 mm) per side or 1/2-inch (13-mm) total, plus or minus 1/8 inch (3.1 mm). Length equal to head-to-sill or -floor dimension of opening in which shade is installed less 1/4 inch (6 mm), plus or minus 1/8 inch (3.1 mm).
- C. Shadeband Fabrication: Fabricate shadebands without battens or seams to extent possible except as follows:
  1. Vertical Shades: Where width-to-length ratio of shadeband is equal to or greater than 1:4, provide battens and seams at uniform spacings along shadeband length to ensure shadeband tracking and alignment through its full range of movement without distortion of the material.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 ROLLER-SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.
  1. Opaque Shadebands: Located so shadeband is not closer than 2 inches (51 mm) to interior face of glass. Allow clearances for window operation hardware.

### 3.3 ADJUSTING

- A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

### 3.4 CLEANING AND PROTECTION

- A. Clean roller-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 roller shades are without damage or deterioration at time of Substantial Completion.

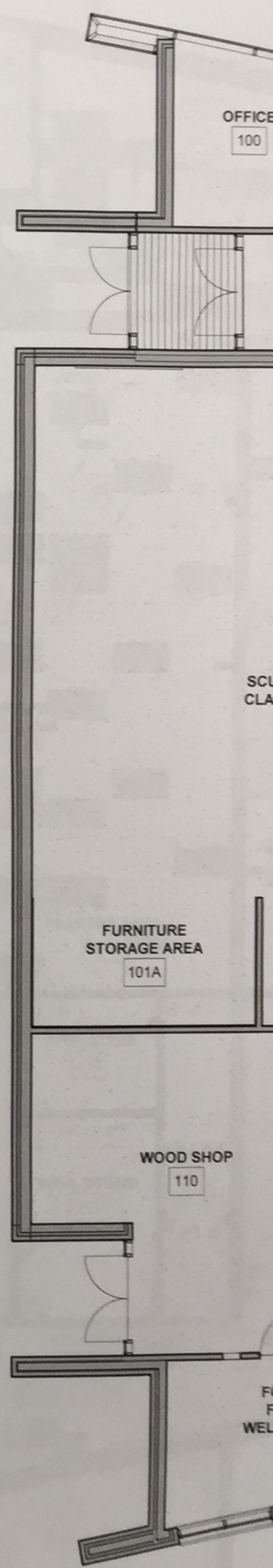
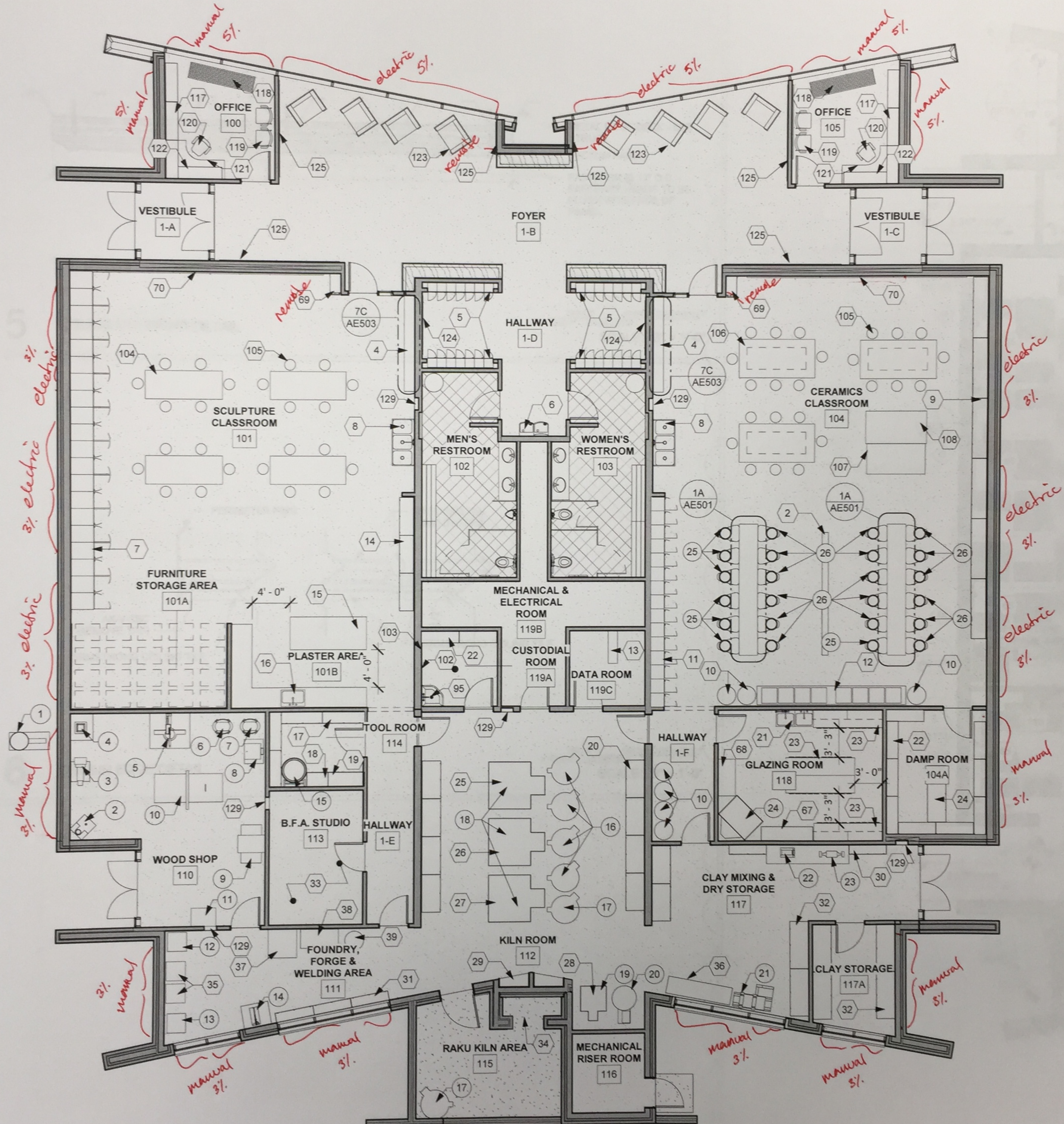


- C. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain motor-operated roller shades.

END OF SECTION 12 2413



- Electric Kiln
- Gas Kiln
- Gas Kiln
- Pug Mill
- Extruder
- Sanding Wheel
- Sander and Gr
- Spray Booth
- Professional P
- Potter's Wheel

