



To: Prospective Bidders

From:
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This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated April 24, 2020, as noted below. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of the following:

- Specification Changes

SPECIFICATION CHANGES:

1. Section 122413, Roller Shades, DELETE in its entirety and REPLACE with the attached section. Note: Sections added to include Motorized Skylight Shades.

END OF ADDENDUM 02

SECTION 12 24 13
ROLLER SHADES

PART 1 - GENERAL – **ADD 02**

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 roller at each fixed window.
 - 2. **Motorized skylight window shades at each skylight.**

- B. Related Requirements:

- 1. Section 061053 "Miscellaneous Rough Carpentry" for wood blocking and grounds for mounting roller shades and accessories.

1.3 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.

- C. Shop Drawings: Show electrical wiring and wireless control diagrams for motorized skylight shades.**

- D. Samples for Initial Selection: For each type and color of shade and material.

- 1. Include Samples of accessories involving color selection.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roller shades to include in maintenance manuals.

1.5 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.

1.6 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. 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 Product: Subject to compliance with requirements, provide Draper Single Roller Flex Shade or comparable product.
- B. Source Limitations: Obtain roller shades from single source from single manufacturer.

2.2 MANUALLY OPERATED SHADES WITH SINGLE ROLLER

- 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: Stainless steel.
 - 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 or for shades as recommended by manufacturer, whichever criteria are more stringent.
- B. Spring Operating Mechanisms: Roller contains spring sized to accommodate shade size indicated. Provide with positive locking mechanism that can stop shade movement at each half-turn of roller and with manufacturer's standard pull.
 - 1. Pole: Manufacturer's standard type in length required to make operation convenient from floor level and with hook for engaging pull.
- C. 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. Shadeband-to-Roller Attachment: Manufacturer's standard method.
- D. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller mounting configuration, roller assemblies, operating mechanisms, installation accessories, and installation locations and conditions indicated.

1. Inside mount typical unless noted otherwise.
- E. Inside Shadebands:
1. Shadeband Material: Light-filtering fabric.
 2. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.
 - a. Type: Enclosed in sealed pocket of shadeband material.
 - 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 4 inches
 2. Endcap Covers: To cover exposed endcaps.
 3. Installation Accessories Color and Finish: As selected from manufacturer's full range.

2.3 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.
 2. Type: PVC-coated fiberglass.
 3. Openness Factor: 3 percent.
 4. Color: As selected by Owner from manufacturer's full range.

2.4 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
 1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade is installed less 1/4 inch per side or 1/2-inch total, plus or minus 1/8 inch Length equal to head-to-sill or -floor dimension of opening in which shade is installed less 1/4 inch plus or minus 1/8 inch
 2. Outside of Jamb Installation: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.
- 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.

2. Railroaded Materials: Railroad material where material roll width is less than the required width of shadeband and where indicated. Provide battens and seams as required by railroaded material to produce shadebands with full roll-width panel(s) plus, if required, one partial roll-width panel located at top of shadeband.

2.5 SKYLIGHT WINDOW SHADES

- A. Skylight Window Shades: Electrically operated, roll-up, single-roller, fabric skylight window shade. Assembly to include spring roller, side support flanges, take-up reel, motorized operator, mounting hardware and other components necessary for complete installation.
 1. Basis-of-Design: Skylight FlexShade as manufactured by Draper, Inc.
 2. Type: PVC-coated fiberglass.
 3. Openness Factor: 3 percent.
 4. Color: As selected by Owner from manufacturer's full range.
- B. Method of Installation: Mount skylight window shade inside skylight opening.
- C. Rollers:
 1. Operator Roller: 2 inch (50 mm) diameter, .080 inch thick, extruded aluminum.
 - a. Provide with roller idler assembly of injection molded plastic containing a spring-loaded steel pin for easy installation and removal of roller.
 2. Take-up Roller: Electro-galvanized steel roller, of appropriately sized diameter, with heavy duty springs. Equip with 1/16 inch thick machined aluminum take-up reels to ensure take-up cable remains in alignment.
 3. Fabric Connection: Fabric securely attached to roller at top with LSE double sided tape and at bottom to weighted dowel.
- D. Endcaps: Stamped steel with roller adapter bracket, designed for mounting enclosure and receiving fabric guides.
 1. Finish: Baked enamel paint from manufacturer's full color range.]
- E. Extruded Aluminum Shapes: Fabricated from 0.06 inch (1.59 mm) thick extruded aluminum with clear anodized finish.
 1. Operating and Take-up Enclosures: L-shaped back/top cover and L-shaped front/bottom sections with grooves to accept light seal elements.
 2. Side Support Flanges: Double chamber fabricated from extruded aluminum sections. One chamber accepts fabric and contains groove for fabric retainer. Other chamber accepts fabric guide and channel locator.
 3. Slat Bar: U-shaped sections with attachment point for shade fabric and cable idler bearings.
 - a. Idler bearings shall provide self-adjusting equalization of the cable tension at each end of slat bar.
- F. Take-up Cable: 3/64" stainless steel, nylon coated, with a minimum breaking strength of 220 lbs. (100 kg); never visible during operation.
- G. Fabric Guides: Plated steel transition for fabric to reduce friction as it rolls into side support flange.

H. Fabric Support System: Horizontal steel stays installed at regular intervals within fabric pockets on shade fabric.

I. Support Cables: 3/16 inch (4.76 mm) diameter vinyl clad stranded steel cable permanently installed parallel to shade travel direction and attached with brackets and turnbuckles.

1. Electric Operator: Tubular motor concealed inside shade roller tube.

a. Standard Motor: 110-120V AC, single-phase, 60 HZ, instantly reversible, lifetime lubricated, and equipped with internal thermal overload protector, electric brake, and pre-set accessible limit switches.(Compatible with Intelliflex Controls.)

2.6 WIRELESS MOTOR CONTROLS

A. Each motor shall be controlled individually by wireless control, compatible with electric motor control

1. Include one wireless controller for each skylight.

2. Each skylight to have unique control code.

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 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.

END OF SECTION 12 24 13