

## **SECTION 122413 - ROLLER WINDOW SHADES**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. Section includes manually operated roller shades with single rollers.

#### **1.2 ACTION 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.
- B. Shop Drawings: Show location and extent of roller shades. Include elevations, sections, details, and dimensions not shown in Product Data. Show installation details, mountings, attachments to other Work, operational clearances, and relationship to adjoining work.
- C. Coordination Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items. Show the following:
  - 1. Ceiling suspension system members and attachment to building structure.
  - 2. Shade mounting assembly and attachment.
  - 3. Size and location of access to shade operator, motor, and adjustable components.
  - 4. Minimum Drawing Scale: 1/4 inch = 1 foot .
- D. Samples for Verification:
  - 1. Shade Material: Not less than 12 inch- square section of fabric, from dye lot used for the Work, with specified treatments applied. Show complete pattern repeat. Mark top and face of material.

#### **1.3 INFORMATIONAL SUBMITTALS**

- A. Window Treatment Schedule: Include roller shades in schedule using same room designations indicated on Drawings.

#### **1.4 CLOSEOUT SUBMITTALS**

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

1. Methods for maintaining roller shades and finishes.
2. Precautions about cleaning materials and methods that could be detrimental to fabrics, finishes, and performance.

## **1.5 QUALITY ASSURANCE**

- A. **Installer Qualifications:** An experienced installer who has completed installation of roller shades similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. **Source Limitations:** Obtain roller shades through one source from a single manufacturer.
- C. **Fire-Test-Response Characteristics:** Provide roller shade band materials 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:
  1. **Flame-Resistance Ratings:** Passes NFPA 701.

## **1.6 DELIVERY, STORAGE, AND HANDLING**

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

## **1.7 FIELD CONDITIONS**

- A. **Environmental Limitations:** Do not install roller 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 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 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.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following and matches the Building's Standards:
1. Draper.
  2. Lutron.
  3. MechoShade Systems, Inc.
  4. Nysan Shading Systems Ltd.
  5. Sol-R-Shade, DFB, Inc.

### **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.
- 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: Right side of interior face of shade.
  2. Direction of Shadeband Roll: Regular, from back (exterior face) of roller.
- C. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location and conditions indicated.
- D. Shadebands:
1. Shadeband Material: Light-filtering fabric and/or Light-blocking 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.

### **2.3 INSTALLATION ACCESSORIES**

- A. 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.
  - 1. Height: Manufacturer's standard height required to enclose roller and shadeband assembly when shade is fully open, but not less than height indicated on Drawings.
  - 2. Provide pocket with lip at lower edge to support acoustical ceiling panel.
- B. Installation Accessories Color and Finish: As selected from manufacturer's full range.

### **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.
  - 2. Type: As scheduled on Drawings.
  - 3. Weave: As scheduled on Drawings.
  - 4. Roll Width: 48 inches, unless otherwise scheduled on Drawings.
  - 5. Orientation on Shadeband: Up the bolt, unless otherwise indicated on Drawings.
  - 6. Openness Factor: As scheduled on Drawings.
  - 7. Color: As indicated on Drawings.
- C. Light-Blocking Fabric: Opaque fabric, stain and fade resistant.
  - 1. Source: Roller shade manufacturer.
  - 2. Type: As scheduled on Drawings.
  - 3. Roll Width: 48 inches, unless otherwise scheduled on Drawings.
  - 4. Orientation on Shadeband: Up the bolt, unless otherwise indicated on Drawings.
  - 5. Color: White, unless otherwise indicated on Drawings.

### **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 :

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.

### **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.

#### **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.
- B. Roller Shade Locations: As indicated on Drawings.

#### **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**