Section 12 24 13

PART I GENERAL

1.01 General Provisions

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Carefully review and examine all other Contract Documents for requirements therein affecting the work of this Section. Furthermore, coordinate and sequence the work of this Section with all other trades affected.

1.02 Summary

- A. Furnish and install:
 - 1. Fabric roller shades.
 - 2. Operating and installation hardware.
 - 3. New manually-operated fabric roller shades at all designated locations.

1.03 Related Work

- A. Examine Contract Documents for requirements that affect the work of this Section. Other Specifications Sections that directly relate to work in this Section include, but are not limited to:
 - 1. Division 6 Section Rough Carpentry.
 - 2. Division 6 Section Finish Carpentry.
 - 3. Division 8 Sections Doors & Windows.
 - 4. Division 9 Sections Gypsum Board & Acoustical Ceilings

1.04 References

- A. ASTM A 228 Standard Specification for Steel Wire, Music Spring Quality.
- B. ASTM A 666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- C. ASTM A 1008 Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardened.
- D. ASTM A 1010 Standard Specification for Higher-Strength Martensitic Stainless Steel Plate, Sheet and Strip.
- E. ASTM G 21- Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- F. ASTM G 22 Standard Practice for Determining Resistance of Plastics to Bacteria.
- G. NFPA 701 Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
- H. California Administrative Code Title 19
- I. Greengard Certified Low Emitting Interior Products.

1.05 Submittals

- A. Fabricator / Dealer to submit under provisions of Division 1 Section "Submittal Procedures":
 - 1. Product Data
 - 2. Mounting details and installation methods
 - 3. Approval drawings
 - 4. Window Treatment Schedule
 - 5. Shade cloth selection samples
 - 6. Maintenance data

1.06 Quality Assurance

- A. Manufacturer Qualifications: Obtain roller shades through one source from a single manufacturer with a minimum of ten (10) years' experience in manufacturing products comparable to those specified in this Section.
- B. Installer Qualifications: Installer certified by the manufacturer with a minimum of five (5) years' experience in installing products comparable to those specified in this Section.

1.07 Delivery, Storage and Handling

- A. Product shall be delivered to site in manufacturer's original packaging.
- B. Product shall be handled and stored to prevent damage to materials, finishes and operating mechanisms.

1.08 Project Conditions

A. Environmental Limitations: Install roller shades after finish work, including painting, is complete and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.09 Warranty

A. One (1) Year Warranty on shade hardware and shade fabric.

PART II PRODUCTS

2.01 Manufacturer

- A. Subject to compliance with the requirements specified herein, the following manufacturer offering component products is to be incorporated into the work:
 - 1. Skandia Window Fashions, Tallahassee, FL., 800-874-3168 or 850-878-1144, www.skandiacommercial.com
 - a. Skandia Window Fashions
 - b. Email: donnanorman@skandiawf.com
- B. Substitutions No substitutions allowed.

2.02 Roller Shade Components

- A. Control System:
 - B. Spring-loaded pin end: UV stabilized, self-lubricating nylon outside sleeve and center spring-loaded shaft providing bearing surfaces on which the roller tube rides ensuring smooth,

wear-resistant operation and ease of installation. 100-pound capacity.

- C. Mounting Hardware: Manufacturer's standard color coordinated steel universal brackets.
- D. Roller Tube: Extruded aluminum shade roller tube of uniform diameter and varying wall thickness required (for uniform aesthetic) to support shade fabric without excessive deflection, with engineered wall & ribs to lock the clutch and idle end plug into place, providing strength & durability. Extruded tube parameters to be determined by fabricator for each shade's size, weight, and fabric requirement.
- E. Fabric Attachment to Tube: Provide for positive mechanical attachment of fabric to roller tube via:

LSE (Low Stress Energy) double-sided adhesive tape to secure the fabric without having to remove shade roller from shade brackets. Adhesive attachment affords minor lateral adjustments to edge clearance dimensions. Fabric wrap of 2 ½ to 3 times the circumference of the roller tube required for proper tension of fabric-to-tube.

- F. Hem Pockets and Hem Weights:
 - Fabric hem pocket with RF-welded seams (including welded ends) and extruded aluminum concealed hem weight. Hem weights shall be of appropriate size and weight for shade band and shall be continuous inside the sealed hem pocket. Hem pocket construction and hem weight per foot shall be consistent for all shades within one room.
- G. Enclosures:
 - 1. 5" Fascia "L"-shaped snap-on aluminum extrusion, if required, to conceal brackets, roller tube, fabric, and operating system. Bracket end covers available for exposed mounting brackets.
 - Finish color as selected by architect from manufacturer's full range.
- H. Blackout Channels: For maximum light blockage and energy savings, Extruded aluminum channels for use with blackout fabrics, if required, to eliminate light infiltration at fabric side or bottom clearances to jambs and/or sills.
- J. Shade Cloth Fabric: Inherently anti-static, flame retardant, fade and stain resistant, light filtering, room darkening, or blackout fabrics as selected by the architect from Skandia Commercial Window Coverings.

1. SheerWeave 2100 Solar Control Fabric distributed by Phifer

- a. Openness factor 10%
- b. Solar Reflection: 4% to 81% color dependent Charcoal to White
- c. 37% Fiberglass, 63% Vinyl on Fiberglass.
- d. UV blockage 90%
- e. Weight 12.9 oz. per sq. yd.

2. SheerWeave 2360 Solar Control Fabric distributed by Phifer

- a. Openness factor 10%
- b. Solar Reflection: 4% to 62% color dependent Charcoal to White
- c. 35% Fiberglass, 65% Vinyl on Fiberglass.
- d. UV blockage 90%

e. Weight 10.4 oz. per sq. yd.

3. SheerWeave 2390 Solar Control Fabric distributed by Phifer

- a. Openness factor 5%
- b. Solar Reflection: 4% to 67% color dependent Charcoal to White
- c. 35% Fiberglass, 65% Vinyl on Fiberglass.
- d. UV blockage 90%
- e. Weight 10.4 oz. per sq. yd.

4. SheerWeave 2410 Solar Control Fabric distributed by Phifer

- a. Openness factor 10%
- b. Solar Reflection: 3% to 69% color dependent Charcoal to White
- c. 36% Fiberglass, 64% Vinyl on Fiberglass.
- d. UV blockage 97%
- e. Weight 10.4 oz. per sq. yd.

5. SheerWeave 2500 Solar Control Fabric distributed by Phifer

- a. Openness factor 1%
- b. Solar Reflection: 4% to 72% color dependent Charcoal to White
- c. 37% Fiberglass, 63% Vinyl on Fiberglass.
- d. UV blockage 99%
- e. Weight 10.4 oz. per sq. yd.

6. SheerWeave 2701 Solar Control Fabric distributed by Phifer

- a. Openness factor 1%
- b. Solar Reflection: 4% to 64% color dependent Charcoal to White
- c. 36% Fiberglass, 64% Vinyl on Fiberglass.
- d. UV blockage 99%
- e. Weight 14.6 oz. per sq. yd.

7. SheerWeave 2703 Solar Control Fabric distributed by Phifer

- a. Openness factor 3%
- b. Solar Reflection: 4% to 62% color dependent Charcoal to White
- c. 36% Fiberglass, 64% Vinyl on Fiberglass.
- d. UV blockage 97%
- e. Weight 14.0 oz. per sq. yd.

8. SheerWeave 3000 Solar Control Fabric distributed by Phifer

- a. Openness factor 14%
- b. Solar Reflection: 4% to 62% color dependent -Gray to White
- c. 67% Vinyl, 17.5% Fiberglass, 15.5% Polyester
- d. UV blockage 86%
- e. Weight 13.46 oz. per sq. yd.

9. SheerWeave 4000 Solar Control Fabric distributed by Phifer

- a. Openness factor 5%
- b. Solar Reflection: 5% to 68% color dependent Ebony to White
- c. 25% Polyester, 75% Vinyl

- d. UV blockage 95%
- e. Weight 18 oz. per sq. yd.

10. SheerWeave 4100 Solar Control Fabric distributed by Phifer

- a. Openness factor 10%
- b. Solar Reflection: 4% to 66% color dependent Ebony to White
- c. 25% Polyester, 75% Vinyl
- d. UV blockage 90%
- e. Weight 16.7 oz. per sq. yd.

11. SheerWeave 4400 Solar Control Fabric distributed by Phifer

- a. Openness factor 3%
- b. Solar Reflection: 5% to 70% color dependent Ebony to White
- c. 25% Polyester, 75% Vinyl
- d. UV blockage 97%
- e. Weight 19.9 oz. per sq. yd.

12. SheerWeave 4600 Solar Control Fabric distributed by Phifer

- a. Openness factor 3%
- b. Solar Reflection: 3% to 74% color dependent -Bronze to White
- c. 22% Polyester, 78% Vinyl
- d. UV blockage 97%
- e. Weight 17.4 oz. per sq. yd.

13. SheerWeave 8000 Solar Control Fabric distributed by Phifer

- a. Openness factor 3%
- b. Solar Reflection: 26% to 54% color dependent Ebony to White
- c. 100% Polyester
- d. UV blockage 97%
- e. Weight 7.35 oz. per sq. yd.

14. SunShadow 3000RR Solar Control Fabric distributed by RolleaseAcmeda

- a. Openness factor 3%
- b. 25% Polyester, 75% PVC
- c. Weight 12.53 oz. per sq. yd.

15. Balmoral Light Filtering Fabric distributed by Textiles

- a. Openness factor Translucent
- b. 100% Polyester
- c. Weight 6.49 oz. per sq. yd.

16. Charlotte Light Filtering Fabric distributed by MWC

- a. Openness factor Translucent
- b. 100% Polyester

17. Jersey Light Filtering Fabric distributed by Textiles

- a. Openness factor Light Filtering
- b. 100% Polyester

c. Weight 7.67 oz. per sq. yd

18. Riverwalk Light Filtering Fabric distributed by MWC

- a. Openness factor Light Filtering
- b. 100% Polyester

19. Timeless Light Filtering Fabric distributed by MWC

- a. Openness factor Light Filtering
- b. 100% Polyester

20. Palm Beach Room Darkening Fabric distributed by Senbesta

- a. Openness factor Opaque
- b. 100% Polyester

21. SheerWeave 7000 Fabric distributed by Phifer

- a. Openness factor Opaque
- b. 100% Polyester
- c. Weight 12.4 oz. per sq. yd

d.

22. Wayfare Room Darkening Fabric distributed by Senbesta

- a. Openness factor Opaque
- b. 100% Polyester

PART III EXECUTION

3.01 Examination

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another trade, notify Contractor / Architect of unsatisfactory preparation before proceeding.

3.02 Preparation

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the fabricator / dealer for achieving the best result for the substrate under the project conditions.

3.03 Installation

- A. Install roller shades square, plumb, level and true according to manufacturer's written instructions. Allow proper clearances for window operation hardware.
- B. Secure in place with flush countersunk fasteners.
- C. Installation Tolerances:
 - 1. Maximum Variation of Gap at Window Opening Perimeter: 1/4 inch.
 - 2. Maximum Offset from Level: 1/16 inch.

3.04 Adjustment

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

3.05 Cleaning

A. Clean roller shade surfaces after installation, according to manufacturer's written instructions.

3.06 Protection

- A. Protect installed products until completion of project.
- B. Touch-up or repair damaged products, or replace products damaged by other trades, before Substantial Completion.

END OF SECTION