SECTION 12 24 13

MANUAL ROLLER SHADES

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* SWFcontract; manual roller shades.  
This section is based on the products of SWFcontract, which is located at:7549 Graber Rd.Middleton, WI 53562-1096 Toll Free Tel: 800-327-9798Email: [request info (architectsolutions@swfcontract.com)](https://arcat.com/rfi?action=email&company=SWFcontract&message=RE%253A%2520Spec%2520Question%2520(12494swf)%253A%2520&coid=46294&spec=12494swf&rep=&fax=)  
Web: <https://www.swfcontract.com>   
 [ [Click Here](https://arcat.com/company/swfcontract-46294) ] for additional information.  
SWFcontract is the commercial division of Springs Window Fashions, a home decor leader since 1939. Our commercial window treatments have been installed in well over one million buildings throughout North America. SWFcontract products provide enduring solutions for daylighting, glare control, temperature management, and energy savingsall while defining the character of each commercial space.  
Choose SWFcontract and we're with you every step of the way. With timely assistance, ongoing training and comprehensive technical support to back up our exceptional product lines, you can trust that your project needs will be fully realized.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Manually operated roller shades.
    2. Accessories.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 06 10 00 - Rough Carpentry.
    2. Section 07 91 23 - Backer Rods.
    3. Section 09 21 16.33 - Gypsum Board Area Separation Wall Assemblies.
    4. Section 09 51 23 - Acoustical Tile Ceilings.
    5. Section 09 90 00 - Painting and Coating.
  1. REFERENCES
     1. National Fire Protection Association (NFPA):
        1. NFPA 701 - Standard Method of Fire Tests for Flame Propagation of Textiles and Films.
  2. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions for window treatments.
        3. Preparation instructions and recommendations.
        4. Storage and handling requirements and recommendations.
        5. Mounting details and installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete sample options if not applicable to product type.

* + 1. Samples for selection: For each type of roller shade:
       1. Shade Material: Mark inside face of material if applicable.

\*\* NOTE TO SPECIFIER \*\* Delete size option not required.

* + - * 1. Size: Not less than 4 inches (102 mm) square.
        2. Size: Not less than 6 inches (152 mm) square.
      1. 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.
      2. Installation Accessories: Full-size unit, not less than 6 inches (152 mm) long.
    1. Verification Samples: For each color and texture specified, submit 2 sets of samples representing actual finishes for aluminum slats at 6 inches (152 mm) long.
       1. Include Samples of accessories involving color selection.
    2. Shop Drawings: Show fabrication and installation details for window treatments. Include relationship with adjacent construction.
    3. Window treatments Schedule: Use same designations indicated on Drawings.
    4. Qualification Data: For Installer.

\*\* NOTE TO SPECIFIER \*\* Delete product test reports option not required.

* + 1. Product Test Reports: For each type of fabric band material, for tests performed by manufacturer and witnessed by a qualified testing agency.
    2. Product Test Reports: For each type of fabric band material, for tests performed by a qualified testing agency.
    3. Maintenance Data: For window treatments to include in maintenance manuals.
    4. Sample warranty document.
    5. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
       1. Window treatments: Full-size units equal to 5 percent of quantity installed for each size and color material indicated.

\*\* NOTE TO SPECIFIER \*\* Delete minimum quantity option not required.

* + - * 1. Minimum Quantity: No fewer than two units.
        2. Minimum Quantity: No fewer than \_\_\_\_ units.
  1. QUALITY ASSURANCE
     1. Installer Qualifications: Fabricator of products.
        1. Installer shall be qualified to install specified products by prior experience and approved by Manufacturer.
        2. Installer shall be responsible for acceptable installation in accordance with instructions published by Manufacturer.
     2. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
       1. Intent of mock-up is to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
       2. Approval of mock-ups does not constitute approval of deviations from the Contract Documents contained in mock-ups unless Architect specifically approves such deviations in writing.
       3. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
       4. Retain mock-up during construction as a standard for comparison with completed work.
       5. Do not alter or remove mock-up until work is completed or removal is authorized.

\*\* NOTE TO SPECIFIER \*\* Delete if mockups may not remain as part of completed Work.

* + - 1. Subject to compliance with requirements, approved mock-ups may become part of the completed Work if undisturbed at time of Substantial Completion.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Deliver product in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.
     2. Store product in clean, dry areas indoors, in manufacturer's unopened packaging, laid flat to prevent sagging and twisting until ready for installation, in accordance with manufacturer's instructions.
     3. Handling: Protect materials and finish from damage during handling and installation.
  3. PROJECT CONDITIONS
     1. Environmental Limitations: Do not install window treatments 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.
     2. Field Measurements: Where window treatments 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.
  4. WARRANTY
     1. Manufacturer's Warranty: Provide manufacturer's standard limited warranty.
        1. Shade Hardware and Fabric: Limited lifetime warranty.
        2. Motorized Components and Accessories: Five-yar warranty.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: SWFcontract, which is located at:7549 Graber Rd.Middleton, WI 53562-1096 Toll Free Tel: 800-327-9798Email: [request info (architectsolutions@swfcontract.com)](https://arcat.com/rfi?action=email&company=SWFcontract&message=RE%253A%2520Spec%2520Question%2520(12494swf)%253A%2520&coid=46294&spec=12494swf&rep=&fax=);Web: <https://www.swfcontract.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
  1. ROLLER SHADE TYPES
     1. Manually Operated Shades:
        1. Mounting: Surface mounted with fascia.

\*\* NOTE TO SPECIFIER \*\* Delete configuration options not required.

* + - 1. Configuration: Single solar shade.
      2. Configuration: Dual solar shade.
      3. Configuration: Coupled solar shade.
  1. SHADE FABRIC
     1. Standards Compliance: Comply with NFPA 701. Identify products with appropriate markings of applicable testing agency.

\*\* NOTE TO SPECIFIER \*\* Delete shade band fabric options not required.

* + 1. Single Shade Band Fabric:

\*\* NOTE TO SPECIFIER \*\* Delete fabric band option not required.

* + - 1. Fabric Band Material: Light-filtering fabric.
      2. Fabric Band Material: \_\_\_\_\_.
      3. Fabric Band Bottom or Hem Bar: Extruded aluminum of weight sufficient for proper shade operation.

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - * 1. Type: Enclosed in heat-sealed pocket of fabric band material.
        2. Type: Fabric wrapped with end caps.
        3. Type: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete color and finish option not required.

* + - * 1. Color and Finish: As selected by Architect from manufacturer's full range.
        2. Color and Finish: \_\_\_\_\_.
    1. Dual Shade Band Front Fabric:

\*\* NOTE TO SPECIFIER \*\* Delete fabric band option not required.

* + - 1. Fabric Band Material: Light-filtering fabric.
      2. Fabric Band Material: \_\_\_\_\_.
      3. Fabric Band Bottom or Hem Bar: Extruded aluminum of weight sufficient for proper shade operation.

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - * 1. Type: Enclosed in heat-sealed pocket of fabric band material.
        2. Type: Fabric wrapped with end caps.
        3. Type: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete color and finish option not required.

* + - * 1. Color and Finish: As selected by Architect from manufacturer's full range.
        2. Color and Finish: \_\_\_\_\_.
    1. Dual Shade Band Back Fabric:

\*\* NOTE TO SPECIFIER \*\* Delete fabric band option not required.

* + - 1. Fabric Band Material: Light-blocking fabric.
      2. Fabric Band Material: \_\_\_\_\_.
      3. Fabric Band Bottom or Hem Bar: Extruded aluminum of weight sufficient for proper shade operation.

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - * 1. Type: Enclosed in heat-sealed pocket of fabric band material.
        2. Type: Fabric wrapped with end caps.
        3. Type: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete color and finish option not required.

* + - * 1. Color and Finish: As selected by Architect from manufacturer's full range.
        2. Color and Finish: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete basis of design options not required.

* + 1. Basis of Design: SWFcontract Crosshatch S Series Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: 2x2 Thin Basketweave.

\*\* NOTE TO SPECIFIER \*\* Delete roll width option not required.

* + - 1. Roll Width, S100, S300, S500: 126 inches (3200 mm)
      2. Roll Width, S1000: 118 inches (2997 mm).

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete openness factor options not required.

* + - 1. Openness Factor, S100: 1 percent.
      2. Openness Factor, S300: 3 percent.
      3. Openness Factor, S500: 5 percent.
      4. Openness Factor, S1000: 10 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Crosshatch A Series Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: 2x2 Thin Basketweave.
       3. Roll Width: 98 inches (2489 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete openness factor options not required.

* + - 1. Openness Factor, A1000: 1 percent.
      2. Openness Factor, A300: 3 percent.
      3. Openness Factor, A500: 5 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Crosshatch R Series Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: 2x2 Thin Basketweave.
       3. Roll Width: 126 inches (3200 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete openness factor options not required.

* + - 1. Openness Factor, R100: 1 percent.
      2. Openness Factor, R300: 3 percent.
      3. Openness Factor, R500: 5 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Summit Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: 2x2 Thick Basketweave.
       3. Roll Width: 118 inches (2997 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete openness factor options not required.

* + - 1. Openness Factor, U100: 1 percent.
      2. Openness Factor, U300: 3 percent.
      3. Openness Factor, U500: 5 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Double-Take Reversible Twill Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: Woven polyester and PVC-coated polyester.
       2. Weave: Reversible twill.
       3. Roll Width: 98 inches (2489 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete openness factor options not required.

* + - 1. Openness Factor, T100: 1 percent.
      2. Openness Factor, T300: 3 percent.
      3. Openness Factor, T500: 5 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Compass Reversible Twill Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: Woven polyester and PVC-coated polyester.
       2. Weave: Reversible twill.
       3. Roll Width: 126 inches (3200 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete openness factor options not required.

* + - 1. Openness Factor, C100: 1 percent.
      2. Openness Factor, C300: 3 percent.
      3. Openness Factor, C500: 5 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Latitude X100 Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: 1x1 Vertical Plain Weave.
       3. Roll Width: 118 inches (2997 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Openness Factor: 1 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Aspect Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: Jacquard.
       3. Roll Width: 98 inches (2489 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Openness Factor: 4 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Vision Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: Jacquard.
       3. Roll Width: 98 inches (2489 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Openness Factor: 1 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Zenith Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: PVC-coated polyester, polyester.
       2. Weave: Jacquard.
       3. Roll Width: 98 inches (2489 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Openness Factor: 4 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Factor M1400 Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: 100 percent polyester.
       2. Weave: Jacquard.
       3. Roll Width: 98 inches (2489 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Openness Factor: 14 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Sheer Lines Light-Filtering Fabric as manufactured by Springs Window Fashions: Woven fabric, stain and fade resistant.
       1. Type: 100 percent polyester.
       2. Weave: Hospitality Sheer.
       3. Roll Width: 94.5 inches (2400 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Openness Factor: 14 percent.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Nightfall Blackout Fabric, Light-Blocking Fabric as manufactured by Springs Window Fashions: Opaque fabric, stain and fade resistant.
       1. Type: Blackout, PVC-coated fiberglass with bonded PVC film.
       2. Roll Width: 72 inches (1829 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Features:

\*\* NOTE TO SPECIFIER \*\* Delete feature options not required.

* + - * 1. Washable.
        2. Antistatic treatment.
        3. \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Enterprise Blackout Fabric, Light-Blocking Fabric as manufactured by Springs Window Fashions: Opaque fabric, stain and fade resistant.
       1. Type: Blackout, Polyester, PVC free.
       2. Roll Width: 122 inches (3099 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Features:

\*\* NOTE TO SPECIFIER \*\* Delete feature options not required.

* + - * 1. Washable.
        2. Antistatic treatment.
        3. \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Conceal Blackout Fabric, Light-Blocking Fabric as manufactured by Springs Window Fashions: Opaque fabric, stain and fade resistant.
       1. Type: Blackout, 100 percent Polyester with foam backing, PVC free.
       2. Roll Width: 126 inches (3200 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Features:

\*\* NOTE TO SPECIFIER \*\* Delete feature options not required.

* + - * 1. Washable.
        2. Antistatic treatment.
        3. \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
    1. Basis of Design: SWFcontract Parallel Blackout Fabric, Light-Blocking Fabric as manufactured by Springs Window Fashions: Opaque fabric, stain and fade resistant.
       1. Type: Blackout, 2x2 PVC-coated Polyester, Polyester Weave Pattern with Acrylic Foam Backing.
       2. Roll Width: 118 inches (2997 mm)

\*\* NOTE TO SPECIFIER \*\* Delete orientation options not required.

* + - 1. Orientation of Fabric Band: Vertical.
      2. Orientation of Fabric Band: Railroaded.
      3. Orientation of Fabric Band: As indicated on Drawings.
      4. Orientation of Fabric Band: \_\_\_\_\_.
      5. Features:

\*\* NOTE TO SPECIFIER \*\* Delete feature options not required.

* + - * 1. Washable.
        2. Antistatic treatment.
        3. \_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: As indicated on Drawings.
      2. Color: As selected by Architect from manufacturer's full range.
      3. Color: \_\_\_\_\_.
  1. SHADE BAND
     1. Shade Bands: Construction of shade band includes the fabric, the hem weight, hem-pocket, shade roller tube, and the attachment of the shade band to the roller tube. Sewn hems and open hem pockets are not acceptable.
        1. Shade Band and Shade Roller Attachment:
        2. Roller Tube: Extruded aluminum shade roller tube of a diameter and wall thickness required to support shade fabric without excessive deflection. Minimum Diameter: 1.2 inches (30.48mm).
        3. Provide for positive mechanical engagement with drive and brake mechanism.
        4. Provide for positive mechanical attachment of shade band to roller tube; shade band shall be made removable and replaceable with a snap-on, snap-off spline mounting, without having to remove shade roller from shade brackets.
        5. Mounting spline shall not require use of adhesives, adhesive tapes, staples, or rivets.
  2. COMPONENTS
     1. Access and Material Requirements:
        1. Provide shade hardware allowing for the removal of shade roller tube from brackets without removing hardware from opening and without requiring end or center supports to be removed.
        2. Provide shade hardware that allows for removal and re-mounting of the shade bands without having to remove the shade tube, drive or operating support brackets.
        3. Use only Delrin engineered plastics by DuPont for all plastic components of shade hardware. Styrene based plastics, and/or polyester, or reinforced polyester will not be acceptable.
     2. Manual Operated Chain Drive Hardware and Brackets:
        1. Provide for universal, regular and offset drive capacity, allowing drive chain to fall at front, rear or non-offset for all shade drive end brackets. Universal offset shall be adjustable for future change.
        2. Provide hardware capable of installation of a removable fascia, for both regular or reverse roll, which shall be installed without exposed fastening devices of any kind.
        3. Provide shade hardware system that allows for removable regular or reverse roll fascia to be mounted continuously across two or more shade bands without requiring exposed fasteners of any kind.
        4. Provide shade hardware system that allows for operation of multiple shade bands by a single chain operator, subject to manufacturer's design criteria. Connectors shall be offset to assure alignment from the first to the last shade band.
        5. Provide shade hardware system that allows multi-banded manually operated shades to be capable of smooth operation when the axis is offset a maximum of 6 degrees on each side of the plane perpendicular to the radial line of the curve, for a 12 degrees total offset.
        6. Provide positive mechanical engagement of drive mechanism to shade roller tube. Friction fit connectors for drive mechanism connection to shade roller tube are not acceptable
        7. Provide shade hardware constructed of minimum 1/8-inch (3 mm) thick plated steel or heavier as required to support 150 percent of the full weight of each shade.
        8. Drive Bracket / Brake Assembly:
           1. SWFcontract Pro Series Drive Bracket shall be fully integrated with all accessories, including, but not limited to: fascia, room darkening side and sill channels, center supports and connectors for multi-banded shades.
           2. Pro Series drive sprocket and brake assembly shall rotate and be supported on a welded 3/8 inch (9.5 mm) steel pin.
           3. The brake shall be an over-running clutch design which disengages to 90 percent during the raising and lowering of a shade. The brake shall withstand a pull force of 50 lbs. (22 kg) in the stopped position.
           4. The entire Pro Series assembly shall be fully mounted on the steel support bracket, and fully independent of the shade tube assembly, which may be removed and reinstalled without effecting the roller shade limit adjustments.
           5. Drive Chain: No. 10 qualified stainless steel chain rated to 90 lb. (41 kg) minimum breaking strength. Nickel plate chain shall not be accepted.
  3. FABRICATION
     1. Fabricate units to completely fill existing openings from head to sill and jamb-to-jamb, unless specifically indicated otherwise.
     2. Provide battens in standard shades as required to assure proper tracking and uniform rolling of the shade bands. Contractor shall be responsible for assuring the width-to-height ratios shall not exceed manufacturer's standards or, in absence of such standards, shall be responsible for establishing appropriate standards to assure proper tracking and rolling of the shadecloth within specified standards. Battens shall be roll-formed stainless steel or tempered steel, as required.
     3. For railroaded shade bands, provide seams in railroaded multi-width shade bands as required to meet size requirements and in accordance with seam alignment as acceptable to Architect. Seams shall be properly located. Furnish battens in place of plain seams when the width, height, or weight of the shade exceeds manufacturer's standards. In absence of such standards, assure proper use of seams or battens as required to, and assure the proper tracking of the railroaded multi-width shade bands.
     4. Provide battens for railroaded shades when width-to-height ratios meet or exceed manufacturer's standards. In absence of manufacturer's standards, be responsible for proper use and placement of battens to assure proper tracking and roll of shade bands.
  4. ACCESSORIES
     1. Fascia:
        1. Continuous removable extruded aluminum fascia that attaches to shade mounting brackets without the use of adhesives, magnetic strips, or exposed fasteners.
        2. Fascia shall be able to be installed across two or more shade bands in one piece.
        3. Fascia shall fully conceal brackets, shade roller and fabric on the tube.
        4. Provide bracket or fascia end caps where mounting conditions expose outside of roller shade brackets.
        5. Notching of fascia for manual chain shall not be acceptable.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly constructed and prepared.
      2. 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.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Verify accurate locations of connections to building electrical system.
    1. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
    2. Proceed with installation only after unsatisfactory conditions have been corrected.
  1. PREPARATION
     1. Clean surfaces thoroughly prior to installation.
     2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
  2. INSTALLATION
     1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
     2. Install roller shades level, plumb, and aligned with adjacent units per manufacturer's written instructions.
     3. Opaque Fabric Bands:
        1. Allow clearances for window operation hardware.

\*\* NOTE TO SPECIFIER \*\* Delete option not required.

* + - 1. Locate so fabric band is not closer than 2 inches (51 mm) to interior face of glass.
      2. Located so fabric band is not closer than \_\_\_\_\_ to interior face of glass.
  1. ADJUSTING
     1. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout the entire operational range.
  2. FIELD QUALITY CONTROL
     1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
  1. CLEANING AND PROTECTION
     1. Clean surfaces after installation, per manufacturer's written instructions. Do not use cleaning methods involving heat, bleach, abrasives, or solvents.
     2. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, ensuring that window treatments are without damage or deterioration at time of Substantial Completion.
     3. Replace damaged window treatments that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.
  2. DEMONSTRATION
     1. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain window treatments.

END OF SECTION