GREEN QUAD WINDOW TREATMENTS – SPECIFICATIONS

PART 1 GENERAL

1.0 SECTION INCLUDES

A. Window Coverings:
   1. Manually operated, roll-up fabric interior window shades including mounting and operating hardware. (SWFcontract Manual Solar Shades or Approved Equal)
   2. Aluminum horizontal mini blinds. (Hunter Douglas CD80 1" Aluminum Horizontal Blinds, SWFcontract Bali Classics 1”, or Approved Equal)

1.1 RELATED SECTIONS

A. Section 06100 - Rough Carpentry; blocking.

B. Section 09260 - Gypsum Board Assemblies; blocking.

C. Section 09510 - Acoustical Ceilings.

D. Section 09900 - Paints and Coatings.

E. Division 16 - Electrical.

1.2 REFERENCES

A. ASTM International (ASTM):
   1. ASTM E 21 - Standard Test Method for Elevated Temperature Tension Tests of Metallic Materials.
   2. ASTM E 22 - Recommended Practice for Conducting Long Time High Temperature Tension Test of Metallic Materials.
   3. ASTM G 21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
   4. ASTM G 22 - Standard Practice for Determining Resistance of Plastics to Bacteria.

B. National Fire Protection Association (NFPA):
   1. NFPA 70 - National Electrical Code.
   2. NFPA 701 - Fire Tests for Flame-Resistant Textiles and Films.

C. Underwriters Laboratories Inc. (UL).

1.3 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Submit manufacturer's product data sheets, including installation details, styles, material descriptions, profiles, features, finishes and operating instructions.
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Mounting details and Installation methods.
   4. Typical wiring diagrams if applicable.

C. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, product details and finishes, installation details, operational clearances, wiring diagrams if applicable, and relationship to adjacent work.

D. Window Treatment Schedule: Submit a schedule with same room designations indicated on

the Drawings; including but not limited to opening sizes and key to typical mounting details.

E. Maintenance Data: Submit instructions and precautions for cleaning and maintenance, operating hardware and controls as applicable.

F. Selection Samples:
   1. Frame and Component Finishes: Submit 2 sets of samples, representing manufacturer's standard range of finishes specified for aluminum.
   2. Fabric: Submit 2 sets of samples, representing manufacturer's standard range of options for shade cloth.
   3. Aluminum Slats: Submit 2 sets of samples, 6 inches long, representing manufacturer's standard range of finishes specified for aluminum slats.

G. Verification Samples:
   1. Frame and Component Finishes: Submit 2 samples, representing actual finishes specified for aluminum.
   2. Fabric: Submit 2 samples, representing actual products specified for shade cloth.
   3. Aluminum Slats: Submit 2 sets of samples, 6 inches long, representing actual finishes specified for aluminum slats.

1.4 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Engaged in manufacturing of products of similar type to that specified, with a minimum of 10 years successful experience.

B. Installer Qualifications: Minimum 2 years successful experience installing similar products.

C. Single Source Requirements: To the greatest extent possible, provide products specified in this section from a single manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver materials to site protected from damage.

B. Storage: Store materials in clean, dry area indoors in manufacturer's unopened packaging until ready for installation and in accordance with manufacturer's instructions. Store in a clean, dry area, laid flat to prevent sagging and twisting of packaging.

C. Handling: Protect materials and finish from damage during handling and installation.

1.6 PROJECT CONDITIONS, COORDINATION AND SEQUENCING

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
   1. Building shall be enclosed; windows, frames and sills shall be installed and glazed.
   2. Wet work shall be complete and dry.
   3. Ceilings, window pockets, electrical and mechanical work above window covering shall be complete.

B. Conference: Convene a pre-installation conference to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

C. At pre-installation conference, Contractor must sign University Permit to Work, acknowledging scope of work, and limitations due to hazmat regulations.

1.7 TYPE OF WARRANTY

A. Warranty:
1. Provide Limited lifetime warranty on all Bali®, Graber® and SWFcontract™ products sold by SWF or by an authorized dealer, other than the products listed below, which have the limited warranty periods as indicated:
2. Exterior solar shade products: Five years

1.8 EXTRA MATERIALS

A. Attic Stock: Provide extra blinds of primary size used for Owner's replacement stock, Refer to Scope of Work document on quantities and sizes required.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer(s):
1. SWFcontract
7549 Graber Rd. Middleton, WI 53562-1096
Toll Free Tel: 800-327-9798
Email: architectsolutions@swfcontract.com
Web: www.swfcontract.com

2. Hunter Douglas Architectural Window Coverings
13915 Danielson Street, Suite 100, Poway, CA 92064
Toll Free Tel: 800-727-8953
Web: http://www.hunterdouglasarchitectural.com/windowcoverings/

B. Requests for substitutions will be considered only prior to the questions deadline during the bid process. NO substitutions will be accepted after the questions deadline.

2.2 SOLAR SHADES - MANUALLY OPERATED SHADING SYSTEMS

A. Shading Systems: SWFcontract Manual Solar Shades as manufactured by SWFcontract or approved equal.

B. Fabric: Flame retardant, fade and stain resistant, anti-microbial.
1. Style: Double-Take T300, 3% Openness.
2. Color Name: Charcoal/Bronze.
3. Color Number: U307.

C. Components: Fabricate such that shade hangs flat without buckling or distortion.
1. TruePerformance Clutch Systems:
a. Clutch System: TruePerformance Clutch System from SWFcontract consisting of fiberglass filled nylon for wear resistance, smooth operation and corrosion resistance. The clutch is comprised Velvetrol internal spring arrangement for a smooth pulling force that locks the shade in any position when operating the control loop. The clutch mechanism is bi-directional and does not require adjustment or lubrication. Clutch to be factory installed in roller tube at manufacturing. Clutch size to be selected by manufacturer based on fabric selection and shade size.
2. Control Loops: Bead stops attached to the chain protect shade from over rotation.
a. Materials: Standard, No. 10 stainless steel bead chain.
3. Roller Tubes: Extruded-aluminum tubes engineered with a chamfered channel to accept fabric spline and allow fabric to lay across the tube without adding crease lines. The diameter and wall thickness to be determined by manufacturer based on

fabric selection and shade size to provide minimal deflection and optimal performance.

4. Idler Ends: high strength, fiberglass-filled nylon with spring-loaded pin-end technology
5. Lift Assist Systems: Heavy-duty torsion spring located inside the roller tube. The mechanism reduces the pull force allowing easy lifting of larger shades.
6. Spline Systems: Consist of PVC spline heat-welded to the shade fabric and inserted into a channel on the roller tube. Tape and other methods of attachment are not acceptable.
7. Hem Bars: Provide optional fabric wrapped hem bar, to coordinate with shade cloth selection.

D. Accessories:
   1. Fascia Panels: None.

2.3 HORIZONTAL BLINDS – Provide A or B per specifications or designer approved equivalent

A. CD80 1" Aluminum Horizontal Blinds as manufactured by Hunter Douglas Architectual
   1. SLATS: 1" wide x .008" thick, heat-treated and spring tempered (except 5000 series alloy on metallized finishes) aluminum alloy 6011 with eased corners and manufacturing burrs removed. Product to have a minimum of 95% pre-consumer recycled content. Furnish not less than nominal 15.2 slats per foot to ensure tight closure and light control. Finish with manufacturer's standard baked-on finish in colors selected by architect from manufacturer's available contract colors utilizing Dust Shield™ finish to inhibit dust build-up for easier maintenance.
   2. SLAT SUPPORT: Braided ladders of 100% polyester yarn color compatible with slats and spacing of ladder no more than 20mm.
   3. HEADRAIL: U-shaped profile with rolled edges, measuring 1 3/8" x 1 3/8" x .024" constructed of corrosion resistant steel and providing a sleek beveled edge valance free design. Internally fit with components required for specified performance and designed for smooth, quiet, trouble-free operation. Headrail finish to be standard baked-on polyester and to match slats. Ends fitted with .024" steel end lock with adjustable tab for centering blinds.
   4. BOTTOM RAIL: Steel, with corrosion-resistant finish formed with double-lock seam into closed oval shape for optimum beam and torsional strength. Ends fitted with color-coordinated engineered polymer caps. Color-coordinated engineered polymer tape buttons secure the ladder and cord. Bottom Rail finish to be standard baked-on polyester color coordinated to slats.
   5. LIFTING MECHANISM: Crashproof steel cordlocks with corrosion-resistant finish, two-ply polyester cord filler in braided polyester jacket lift cords, cord equalizers, cordlock adapter, and Cord Stop/Single Pull Cord. Located on either side of individual blind unit as per architect's request.
   6. TILTING MECHANISM: Permanently lubricated die-cast worm and gear type tilter gear mechanism in fully enclosed housing with clutch action to protect ladder tapes from over rotation of the solid steel, corrosion resistant tilt rod.
   7. TILT CONTROL WAND: Tubular shaped 7/16" diameter extruded clear plastic, ribbed for positive grip and detachable without tools. Located on either side of individual blind unit as per architect's request.
   8. MOUNTING HARDWARE: Manufacturer's standard .042" steel box brackets with baked-on polyester finish to match headrail with additional support brackets for blinds over 60" wide.
   9. FINISHES:
      a. Slat Finish: 127 Linen Flirt
      b. Slat Support Finish: Braided ladders shall be color coordinated with slat
      c. Headrail Finish: Shall be color coordinated with slat

B. Bali Classics 1 inch Aluminum Horizontal Mini Blinds as manufactured by SWFcontract.
   1. Slats:
      a. Materials: 5000 series cold-rolled aluminum.
      b. Nominal Width: 1 inch (25 mm).
      c. Finish: Polyester baked enamel, with Advanced Finishing Technology (AFT) which delivers anti-static performance to repel dust.
      d. UL Greenguard Gold certified
      e. Type: Solid .008 inch (0.20 mm) thick.
      f. Slat Color Name: Snowcap White.
      g. Slat Color Number: 386.
   2. Braided Ladders: 100 percent polyester yarn incorporating two extra strength rungs per ladder for slat support.
      a. Ladder Spacing: 21.5 mm (14.17 slats per foot), standard.
   3. Components:
      a. Headrail:
         1) Size: 1 inches (25 mm) high x 1-1/2 inches (38 mm) wide x .025 inch (0.64 mm) thick.
         2) Description: U-shaped steel.
         3) Finish: Includes phosphate treatment, a chrome-free sealer, a low HAP urethane primer and a topcoat with low HAP polyester baked enamel.
      b. Tilters: Injection-molded thermoplastics, incorporates clutch mechanism to prevent damage due to over tilting.
      c. Tilt Rods: Electro-zinc coated solid steel measuring 1/4 inch (13 mm) square.
      d. Tilt Wands: Clear polycarbonate with hexagonal cross section measuring approximately 1/4 inch diameter, attached to tilter shaft by means of spring clip.
      e. Cord Locks: Metal, snap-in design with floating, shaft-type locking pin and crash proof safety feature that locks blind automatically upon release of cord.
         1) Operation: Standard.
      f. Drum and Cradles: Low-friction thermoplastic, provided for each ladder.
      g. Brackets: Standard, box style.
      h. Bottomrails: Enclosed tubular shape.
         1) Materials: Phosphate-treated steel, finished with a chrome-free sealer.
         2) Finish: Low HAP urethane primer and a topcoat of low HAP polyester baked enamel, .025 inch (0.64 mm) thick.
         3) Turn Clips: For extruded pocket.

PART 3 EXECUTION

3.1 PREPARATION

A. Inspect mounting surfaces, blocking for shade brackets or pocket assemblies, suspended acoustical or gypsum ceiling for recessed shades and verify field measurements. Prepare substrates using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

B. Do not proceed with installation until substrates have been prepared using the methods recommended by the manufacturer and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.

C. If preparation is the responsibility of another installer, notify Housing Interior Designer in writing of deviations from manufacturer's recommended installation tolerances and conditions.

3.2 INSTALLATION

A. Install window treatments in accordance with manufacturer's instructions including the

following.

1. Install with adequate clearance to permit smooth operation of the shades throughout entire operational range.
2. Adjust and balance window coverings to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

3.3 CLEANING AND PROTECTION

A. Clean surfaces after installation in accordance with manufacturer's written instructions. Do not use cleaning methods involving heat, bleach, abrasives, or solvents.

B. Protect installed products until completion of project. Repair damaged or improperly installed before Substantial Completion.

END OF SECTION