Part 1 General

1.1 Summary

1. Unless otherwise indicated, follow the standards below when specifying blinds. These standards are not intended to restrict or replace professional judgment.

1.2 Design Requirements

1. General – A University-wide standard for window coverings does not exist. Window covering is determined for each building individually, and is based on exterior and interior appearance, environment, existing window coverings in adjacent areas, use and maintenance considerations.

2. Aesthetics – The base standards for new buildings on both exterior and interior appearance. When designing remodelling projects within an existing building, consider using the same type of window coverings as existing adjacent areas.

3. Environment – Consider requirements for protecting areas from the glare and heat of the sun. Also consider the environmental conditions in which the coverings will perform, such as exposure to chemicals, humidity, dirt or grease. Review flame retarding properties of window coverings for compliance with codes and condition of use.

4. Use – Public and student occupied areas need to withstand significant abuse. Venetian blinds specified for these areas need heavy ladder, top slat and of bottom rail construction, good quality of slat materials, and operating mechanisms that eliminate overdrive (preventing damage to worm gear or control wand). Private offices may use blinds fabricated of lighter weight material and without overdrive protection. Consult Project Coordinator.

5. Installation – The University requires that a qualified dealer purchase and install blinds or shades composed of parts from the same manufacturer (single-source responsibility for both supplier and manufacturer) and labelled as to manufacturer and brand name. This is to assist in repair or replacement either by a qualified dealer or by Building Services.

1.3 Guarantee

1. All work under this section shall be guaranteed for a period of five (5) years from the date of substantial performance of the work.

Part 2 Products

2.1 Preferred Products

1. Refer to MAT website (www.materialanalysis.ca) for selection of products for this section, except for prescribed items. Products selected on MAT should have score of 5 or above.

2.2 Horizontal Blinds

1. Shall be 25mm wide, aluminium with baked enamel finish as “Precious Metal” by Hunter Douglas or approved equivalent.
2.3 **Chain Roller Shade**

1. Adjustment-free system shall be comprised of multi-banded steel springs that create the pressure necessary to keep the shade in the desired position. All plastic components to be made of glass reinforced polyester thermopolymer (PBT) conforming to military specification MIL-M-24519. System is to be symmetrical for left or right hand installation. Controlled by plastic bead chain on polyester cord (50-lb. test). Brackets are to be constructed of 1.8 mm thick painted or nickel-plated, C1008/1010 cold rolled steel. Painted brackets are finished with high quality baked enamel coating. End plug bracket shall have a lock down retainer device. Brackets are reversible for right or left-hand installation. Extruded aluminium tube, alloy 6063-T5, of a diameter required to support shade fabric without excessive deflection. No adhesive tape or rivet will be accepted to attach the shade. A fabric attachment spline will be slid in the tube groove, preventing shade detachment. A portion of the tube under the groove shall be reinforced allowing for flush insertion of the spline, such as Altex’s ALS system or approved equivalent. Screen fabric, False leno, 100% glass fabric with PVC free and halogen free coating, thickness of 0.18 mm (0.007 inches), % openness factor to be specified, M1 and NFPA certified for flame retardant, bacteria and fungal resistance as of “Altex Texscreen Nature” or approved equivalent.

2.4 **Black Out (with chain):**

1. Frame shall be spring assisted chain, extruded aluminum alloy 6063-T5, hem bar of ergonomic design, 13 mm deep x 51 mm high, slides inside the channels, weighted appropriately for shade to hang flat, attached to the fabric by a plastic spline, such as Altex’s AV3 bottom bar or approved equivalent. Side channels extruded aluminum alloy/hardness 6063-T5, anodized, 70 mm width x 25 mm deep or 89 mm width x 25 mm deep. Bristles enhance system opacity. As Altex Avantek side channels or approved equivalent. Opaque fabric, 4-Ply laminated fibreglass (3 plys PVC, 1 ply fibreglass), thickness of 0.30 mm (0.012 inches) depending on the colour, 100% opaque, NFPA certified, of Altex 6000 or approved equivalent. Special attention on south and west orientations: make sure there is enough ventilation between the glazing and the blind (at high temperature, the glass can break).

2.5 **Motorized Roller Shade:**

1. Roller shade must have a control interface (ex. Lutron, or equivalent).

2. System description:

   1. Electrical equipment must meet CSA standards and UL homologation.
   3. Operate independently, without use of external group controllers.
   4. Control shade speed for tracking within plus or minus 0.0625 inch throughout entire travel.
   5. Include 10 year power failure memory for preset stops, open and close limits, shade grouping and subgrouping, and system configuration.
   6. Systems with multiple electronic drive units electronically synchronized to start, stop, and move in unison.
   7. One-touch control of shades by means of keypad and lighting control.
.8 Capable of stopping within accuracy of 0.125 inch at any point between open and close limits.

.9 Open and close limits programmable from electronic drive unit, lighting control, wall-mounted keypad, or handheld remote control.

.10 Electronic drive units, keypads, and lighting controls contain microprocessors, allowing high level programming from any source.

3. Roller shades:

.1 **Product: Lutron Sivoia QS, or equivalent.** Roller shade system must be compatible with the control interface specified for the project.

.2 Brackets to provide symmetrical light gaps of 0.75 inch on each side of shade.

.3 Roller shade leveling adjustment allowing leveling adjustment while roller shades are mounted to brackets.

.4 Allow side-to-side adjustment up to 0.375 inch on each side while shade is mounted to bracket.

.5 Projection adjustment up to 0.50 inch.

.6 Provide universal mounting brackets for wall, ceiling, and jamb mounting.

.7 Shade Tube: Fabric connected to tube using double-sided adhesive strip with minimum of one turn of fabric on roller before working section of fabric starts.

.8 Fabric:

.1 Meet the following classifications for fabrics:


.2 Flame Retardant Regulations, California Code of Regulations, Title 19, Section 1237 (Fire Resistance) for interior fabrics.

.2 **Product: Basketweave ES white/white S-0202E – 5% opening, by Lutron or equivalent.**

.9 Bottom Bar:

.1 End cap color coordinated with fabric selection.

.2 Contain spline groove at top to receive and secure fabric.

.3 Half wrap, with fabric wrapped around interior room side of bottom bar.

.4 Exposed size in anodized aluminum finish, or color to coordinate with mullions.

.5 Provide slot at bottom with wool-pile light seal.

4. Wall-Mounted Controls:

.1 Low voltage keypads with faceplates attached without visible means of attachments, product color to match NEMA WD1, with backlit buttons.

.2 Type: TBD with client, to include master raise/lower button