#### **SECTION 12510 - HORIZONTAL LOUVER BLINDS**

# City of San Diego, CWP Guidelines

### **PART 1 -- GENERAL**

#### 1.1 WORK OF THIS SECTION

A. The WORK of this Section includes providing operating horizontal louver blinds and all appurtenant work, complete and operable.

#### 1.2 CODES

- A. The WORK of this Section shall comply with the current editions of the following codes as adopted by the City of San Diego Municipal Code:
  - 1. Uniform Building Code

#### 1.3 SHOP DRAWINGS AND SAMPLES

- A. The following shall be submitted in compliance with Section 01300:
  - 1. Manufacturer's product specifications, standard details, installation instructions and general recommendations.
  - Manufacturer's color charts consisting of sections of actual exposed components with integral or applied finishes showing full range of colors, and materials available for selection by the CONSTRUCTION MANAGER.
  - 3. Shop drawings for special components and application conditions of horizontal louver blind units which are not fully dimensioned or detailed in manufacturer's product data. Relationships to adjoining work shall be clearly indicated.
    - a. Typical elevation layout shall be included indicating proposed division between blind units and meeting edges at corners. Sections and details shall be provided at head and sill between blind units and corners including inclined installations.
    - b. A schedule shall be provided of all units to be furnished, including field measurements at each location.

## 1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. **Delivery of Materials:** Products shall be delivered in original, unbroken packages, containers, or bundles bearing the name of the manufacturer.
- B. **Storage**: Products shall be carefully stored in a manner that will prevent damage and in an area that is protected from the elements.

#### **PART 2 -- PRODUCTS**

2.1 HORIZONTAL LOUVER BLINDS

- A. **General**: Horizontal louver blinds shall be provided which are complete assemblies produced by one manufacturer, including hardware, accessory items, mounting brackets, and fastenings.
- B. Horizontal louver blinds shall be provided in colors and material finishes as indicated, or, if not indicated, as selected by the CONSTRUCTION MANAGER from manufacturer's standard colors and material finishes.
- C. **Headrail**: Headrail shall be manufacturer's standard headrail consisting of channel shaped section complete with tilting mechanism, top and end braces, top cradles, cord lock, and accessory items required for the type of blind and installation indicated.
- D. Bottom Rail: Bottom rail shall be manufacturer's standard tubular bottom rail, designed to withstand twisting or sagging. Top surface shall be contoured to match slat curvature, with flat or slightly curved bottom. Ends shall be closed with manufacturer's standard metal or plastic end caps, of same color as rail. Rail shall be finished the same color as slats, unless otherwise indicated.
- E. Slats: Slats shall be manufacturer's standard, spring-tempered aluminum slats, nominal 0.008-inch thick by nominal 1-inch wide, with rounded corners and with forming burrs removed. Other components shall be sized to suit slat width indicated. Slats shall be designed and spaced to achieve maximum overlap and closure for optimum light exclusion. Rear of blades shall be notched at ladders, and rout holes shall be offset at lift cords to enable blades to touch one another when closed.
- F. Ladders: Ladders shall be manufacturer's standard ladder construction, designed to support and maintain slats at proper spacing and alignment in open and closed positions. Ladders shall be braided polyester cord design consisting of vertical components of not less than 0.043-inch nor more than 0.068-inch in diameter and integrally braided ladder rungs of not less than 4 threads. Ladders shall be spaced not further than 23 inches apart nor more than 7 inches from ends of slats.
- G. Tilting Mechanism: Tilting mechanism shall be manufacturer's standard assembly including disengaging worm and gear mechanism to eliminate overdrive, low friction gear tilter, drum and cradle at each ladder, tilt rod, tape clips, and grommet guides to prevent wear on ladder and cords. Mechanism shall be designed to hold slats at any angle and prevent movement of slats due to vibration, operated as follows:
  - 1.. Wand Operation: Operation shall be through manufacturer's standard, detachable clear plastic wand, of proper length to suit blind installation, to provide convenient operation, and detachable without tools by raising locking sleeve.
- H. Lifting Mechanism: Lifting mechanism shall be manufacturer's standard, including crash-proof cord locks with cord separators and braided polyester or nylon lift cords with plastic tassels at ends. Cord shall be sized to suit blind type. Cord equalizers shall be included of self-aligning type designed to maintain horizontal blind position.
- Installation Brackets: Brackets shall be manufacturer's standard, designed to facilitate removal of head channels. Intermediate brackets shall be provided at spacings recommended by the blind manufacturer. Necessary hardware shall be included for securely attaching brackets to adjoining construction and to head rails. Brackets shall be designed to safely support the weight of the blind assembly plus forces applied to operate the blinds.

- J. **Finish**: Finishes shall be provided as indicated below. Exposed accessories and hardware shall be finished to match rail color. Manufacturer's standard corrosion resistant finish shall be applied to concealed items of hardware.
  - Steel Components: Exposed steel surfaces shall be galvanized and either phosphate coated or prime coated, followed by manufacturer's standard baked-on synthetic resin enamel finish.
  - Aluminum Slats: Aluminum slats shall be provided with manufacturer's standard factoryapplied finish system consisting of chemical conversion coating followed by baked-on synthetic resin enamel finish coat.

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### 2.2 INCLINED HORIZONTAL BLINDS

- A. **General**: Inclined blinds shall be provided for sloped skylight windows where indicated.
- B. Requirements specified for horizontal blinds shall also apply to the extent applicable for included horizontal blinds. Two or more stainless steel guy wires shall be provided through slats and holes in bottom rail to permit tilting, raising, and lowering of blind without deflection or linear displacement.

#### 2.3 FABRICATION AND OPERATION

- A. Prior to fabrication, CONTRACTOR shall verify actual opening dimensions by accurate site measurements. Dimensions shall be adjusted for proper fit at openings.
- B. CONTRACTOR shall properly coordinate necessary trades for securing tracks to substrates and other finished surfaces.
- C. Horizontal louver blind components shall be fabricated from non-corrosive, non-staining, non-fading materials which are completely compatible with each other, and which do not require lubrication during normal expected life.
- D. Blind units shall be fabricated to completely fill the openings as shown from head-to-sill and jamb-to-jamb.
  - 1. At continuous window wall installations, blinds shall be fabricated so that ends occur only over mullions or other defined vertical separations, unless otherwise indicated.
  - 2. Supporting ladders shall be spaced to comply with manufacturer's standards, unless otherwise indicated.
  - 3. Slats shall be spaced to provide overlap for light exclusion when in fully closed position.
- E. Horizontal louver blind units shall be equipped for the following operations, unless otherwise indicated:

- 1. Full-tilting operation with slats rotating approximately 180 degrees. Tilt operating controls shall be placed on the left-hand side of blind units, unless otherwise indicated.
- Full-height raising function, to manufacturer's minimum stacking dimension, with lifting cord locks for stopping blind at any point of ascending or descending travel. Place pull cords on the right-hand side of blind units, unless otherwise indicated.

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- F. Inclined horizontal blind units shall be equipped for the following operation, unless otherwise indicated:
  - 1. Full-tilting operation with slat rotating approximately 180 degrees. Tilt operating controls shall be placed on the left-hand side of blind units, unless otherwise indicated.
  - 2. Full-height raising function, to manufacturer's minimum stacking dimension, with lifting cord top lock for stopping blind at fully raised position only. Place pull cords on the right-hand side of blind units, unless otherwise indicated.
  - 3. Restraints shall be provided to hold wand and control cords parallel to face of blind units when not in use.

## 2.4 MANUFACTURERS

- A. Products shall be manufactured by the following (or equal):
  - 1. Levelor Lorentzen, Inc.
  - 2. Hunter Douglas, Inc.
  - 3. Marathon Manufacturing Co.

## **PART 3 -- EXECUTION**

### 3.1 INSTALLATION

- A. General: CONTRACTOR shall install horizontal louver blind units in compliance with manufacturer's instructions. Units shall be positioned level, plumb, secure, at proper height and location relative to adjoining window units and other related work. Units shall be securely anchored with proper clips, brackets, anchorages, suited to the type of mounting indicated.
- B. Adequate clearance shall be provided between sash and blinds to permit unencumbered operation of sash hardware, where present.
- C. Metal parts shall be isolated from concrete and mortar to prevent galvanic action. Tape or thick coating or other means recommended by the manufacturer shall be used for separation.

D.	CONTRACTOR shall protect installed units against damage, blemishes, or any indication of use at completion of project. Damaged units shall be repaired or replaced as directed by the CONSTRUCTION MANAGER.
	** END OF SECTION **