

## SECTION 101100 - VISUAL DISPLAY SURFACES

### PART 1 - GENERAL

#### 1.1 M.S.U. ISSUES

- A. All classrooms, lecture auditoriums, meeting rooms, etc., will have a chalkboard and, when requested, a tackboard. Boards will generally be 48 inches high and as long as feasible. White marker boards may be substituted for chalkboards in departmental rooms at the request of the department.
- B. Lecture auditoriums and a selection of classrooms (minimum of one for each 25 rooms), shall have vertical sliding visual display boards to accommodate instructors who prefer not to erase their notes before the end of the class; and to provide wheelchair users access to more writing surface than can be displayed higher.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Chalkboards
  - 2. Markerboards.
  - 3. Tackboards.
  - 4. Sliding visual display units.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
  - 1. Include motor capacities and individual panel weights for sliding visual display units.
- B. Samples for Verification: For each type of visual display surface indicated and as follows:
  - 1. Visual Display Surface: Not less than 8-1/2 by 11 inches, mounted on substrate indicated for final Work. Include one panel for each type, color, and texture required.
  - 2. Trim: 6-inch- long sections of each trim profile.
  - 3. Accessories: Full-size Sample of each type of accessory.
- C. Maintenance Data: For visual display surfaces to include in maintenance manuals.
- D. Warranties: Special warranties specified in this Section.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-built visual display boards, including factory-applied trim where indicated, completely assembled in one piece without joints, where possible. If dimensions exceed

maximum manufactured panel size, provide two or more pieces of equal length as acceptable to Architect. When overall dimensions require delivery in separate units, prefit components at the factory, disassemble for delivery, and make final joints at the site.

- B. Store visual display units vertically with packing materials between each unit.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A. Porcelain-Enamel Face Sheet: Manufacturer's standard steel sheet with porcelain-enamel coating fused to steel; uncoated thickness indicated.
  - 1. Matte Finish: Low reflective; chalk wipes clean with dry cloth or standard eraser.
  - 2. Gloss Finish: Gloss as indicated; dry-erase markers wipe clean with dry cloth or standard eraser.
- B. Particleboard: ANSI A208.1, Grade 1-M-1.
- C. Fiberboard: ANSI A208.2, Grade MD.
- D. Vinyl Fabric: FS CCC-W-408, Type II, burlap weave; weighing not less than 13 oz./sq. yd.; with flame-spread index of 25 or less when tested according to ASTM E 84.
- E. Extruded Aluminum: ASTM B 221, Alloy 6063.

### 2.2 CHALKBOARD ASSEMBLIES

- A. Porcelain-Enamel Chalkboard Assembly: Balanced, high-pressure, factory-laminated chalkboard assembly of 3-ply construction consisting of backing sheet, core material, and 0.021 inch thick porcelain-enamel face sheet with matte finish.
  - 1. Color: Dark Green or Black.
  - 2. Available Manufacturers:
    - a. AARCO Products, Inc.
    - b. ADP/Lemco, Inc.
    - c. Best-Rite Manufacturing.
    - d. Claridge Products & Equipment, Inc.
    - e. Ghent Manufacturing Inc.
    - f. Greensteel, Inc.
    - g. Platinum Visual Systems; a division of ABC School Equipment, Inc.
    - h. PolyVision Corporation.
  - 3. Particleboard Core: 3/8 inch thick with 0.015-inch- thick aluminum sheet backing.
  - 4. Laminating Adhesive: Manufacturer's standard moisture-resistant thermoplastic type.

### 2.3 MARKERBOARD ASSEMBLIES

- A. Porcelain-Enamel Markerboard Assembly: Balanced, high-pressure, factory-laminated markerboard assembly of 3-ply construction consisting of backing sheet, core material, and 0.021-inch-thick porcelain-enamel face sheet with low-gloss finish.
1. Color: White.
  2. Available Manufacturers:
    - a. AARCO Products, Inc.
    - b. ADP/Lemco, Inc.
    - c. Best-Rite Manufacturing.
    - d. Claridge Products & Equipment, Inc.
    - e. Ghent Manufacturing Inc.
    - f. Greensteel, Inc.
    - g. Platinum Visual Systems; a division of ABC School Equipment, Inc.
  3. Particleboard Core: 3/8 inch thick with 0.015-inch-thick aluminum sheet backing.
  4. Laminating Adhesive: Manufacturer's standard moisture-resistant thermoplastic type.

### 2.4 TACK ASSEMBLIES

- A. Available Manufacturers:
  - a. AARCO Products, Inc.
  - b. ADP/Lemco, Inc.
  - c. Best-Rite Manufacturing.
  - d. Claridge Products & Equipment, Inc.
  - e. Ghent Manufacturing Inc.
  - f. Greensteel, Inc.
  - g. Platinum Visual Systems; a division of ABC School Equipment, Inc.
- B. Vinyl-Fabric-Faced Tack Assembly: Vinyl fabric factory laminated to 7/16-inch-thick fiberboard backing. The fiberboard and vinyl faces will each have a Class A Fire Hazard Classification.

### 2.5 SLIDING VISUAL DISPLAY UNITS

- A. Vertical-Sliding Visual Display Units: Factory-fabricated units consisting of extruded-aluminum tubular frame, fixed rear visual display panel, and aluminum-framed vertical-sliding panels; designed for recessed mounting. Provide panels that operate smoothly without vibration or chatter.
1. Available Manufacturers:
    - a. ADP/Lemco, Inc.
    - b. Claridge Products & Equipment, Inc.
    - c. Platinum Visual Systems; a division of ABC School Equipment, Inc.
    - d. PolyVision Corporation.

2. Type: Tubular frame. Unit shall be designed to support panels independent of wall.
3. Sliding Panels: Fabricated from not less than 3/8-inch- thick, kraft-paper honeycomb core; designed to be rigid and to resist warping.
  - a. Fabricate sliding panels with 0.021-inch uncoated thickness, porcelain-enamel face sheets.
4. Hardware: Manufacturer's standard neoprene ball-bearing end rollers, four on each side of each sliding panel. Counterbalance each sliding panel with lead counterweights supported by steel aircraft cable over ball-bearing sheaves with removable cover plate for access to counterweights. Provide rubber bumpers at top and bottom for each sliding panel.

## 2.6 CHALKBOARD, MARKERBOARD, AND TACKBOARD ACCESSORIES

- A. Aluminum Frames and Trim: Fabricated from not less than 0.062-inch- thick, extruded aluminum. Top and edges shall be J mold trim, and the bottom shall be J mold trim on markerboards and J mold trim with a continuous integral tray on chalkboards.

## 2.7 FABRICATION

- A. Porcelain-Enamel Visual Display Assemblies: Laminate porcelain-enamel face sheet and backing sheet to core material under heat and pressure with manufacturer's standard flexible, waterproof adhesive.
- B. Visual Display Boards: Factory assemble visual display boards, unless otherwise indicated.
  1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display boards at manufacturer's factory before shipment.
- C. Factory-Assembled Visual Display Units: Coordinate factory-assembled units with trim and accessories indicated. Join parts with a neat, precision fit.
  1. Make joints only where total length exceeds maximum manufactured length. Fabricate with minimum number of joints.
  2. Provide manufacturer's standard vertical-joint spline system between abutting sections of chalkboards and markerboards.

## 2.8 ALUMINUM FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

- D. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 611.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, surface conditions of wall, and other conditions affecting performance.
- B. Examine walls and partitions for proper backing for visual display surfaces.
- C. Examine walls and partitions for suitable framing depth where sliding visual display units will be installed.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Remove dirt, scaling paint, projections, and depressions that will affect smooth, finished surfaces of visual display boards.
- B. Prepare surfaces to achieve a smooth, dry, clean surface free of flaking, unsound coatings, cracks, defects, and substances that will impair bond between visual display boards and surfaces.
  - 1. Seal wall surfaces indicated to receive visual display fabric.
- C. Prepare recesses for sliding visual display units as required by type and size of unit.

#### 3.3 INSTALLATION, GENERAL

- A. General: Install visual display surfaces in locations and at mounting heights indicated on Drawings, or if not indicated, at heights indicated below. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.
  - 1. Mounting Height: 34 inches above finished floor to bottom of unit.

#### 3.4 INSTALLATION OF FACTORY-FABRICATED VISUAL DISPLAY UNITS

- A. Visual Display Boards: Attach visual display boards to wall surfaces with concealed clips around the perimeter and with egg-size adhesive gobs at 12 inches o.c. horizontally and vertically in the field of the board and continuously along any butt joint seams.

- B. Sliding Visual Display Units: Install units in recessed locations and at mounting heights indicated. Attach to wall framing with fasteners at not more than 16 inches o.c.
  - 1. Adjust panels to operate smoothly without warp or bind. Lubricate operating hardware as recommended by manufacturer.

### 3.5 CLEANING AND PROTECTION

- A. Clean visual display surfaces according to manufacturer's written instructions. Attach one cleaning label to visual display surface in each room.
- B. Touch up factory-applied finishes to restore damaged or soiled areas.
- C. Cover and protect visual display surfaces after installation and cleaning.

END OF SECTION 101100