

SECTION 10 11 00 - VISUAL DISPLAY SURFACES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Markerboards.
 - 2. Tackboards.

1.3 DEFINITIONS

- A. Tackboard: Framed or unframed, tackable, visual display board assembly.
- B. Visual Display Board Assembly: Visual display surface that is factory fabricated into composite panel form, either with or without a perimeter frame; includes markerboards, and tackboards.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for visual display surfaces.
- B. Shop Drawings: For visual display surfaces. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Show locations of panel joints.
 - 2. Include sections of typical trim members.
- C. Samples for Initial Selection: For each type of visual display surface indicated, for units with factory-applied color finishes, and as follows:
 - 1. Actual sections of porcelain-enamel face sheet tackboard assembly .
 - 2. Fabric swatches of polyester-fabric-faced tack assemblies.
 - 3. Include accessory Samples to verify color selected.
- D. Samples for Verification: For each type of visual display surface indicated.

1. Visual Display Surface: Not less than 8-1/2 by 11 inches (215 by 280 mm), mounted on substrate indicated for final Work. Include one panel for each type, color, and texture required.
 2. Trim: 6-inch- (152-mm-) long sections of each trim profile.
 3. Display Rail: 6-inch- (152-mm-) long sections.
 4. Support System: 6-inch- (152-mm-) long sections.
 5. Accessories: Full-size Sample of each type of accessory.
- E. Product Schedule: For visual display surfaces. Use same designations indicated on Drawings.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for surface-burning characteristics of fabrics.
- C. Warranties: Sample of special warranties.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For visual display surfaces to include in maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Source Limitations: Obtain visual display surfaces from single source from single manufacturer.
- B. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 1. Flame-Spread Index: 25 or less.
 2. Smoke-Developed Index: 450 or less.
- C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate appearance and aesthetic effects and set quality standards for installation.
 1. Build mockup of typical Visual Display Board Assembly as shown on Drawings. Include accessories.
 2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-built visual display surfaces, 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 surfaces vertically with packing materials between each unit.

1.9 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install visual display surfaces until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

1.10 WARRANTY

- A. Special Warranty for Porcelain-Enamel Face Sheets: Manufacturer's standard form in which manufacturer agrees to repair or replace porcelain-enamel face sheets that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Surfaces lose original writing and erasing qualities.
 - b. Surfaces exhibit crazing, cracking, or flaking.
 - 2. Warranty Period: Life of the building.
 - 3. Warranty Period: Two years from date of Substantial Completion.

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. Gloss Finish: Gloss as indicated; dry-erase markers wipe clean with dry cloth or standard eraser.
- B. Polyester Fabric: Nondirectional weave, 100 percent polyester; weighing not less than 15 oz./sq. yd. (508 g/sq. m); with surface-burning characteristics indicated.
- C. Hardboard: ANSI A135.4, tempered.

- D. Particleboard: ANSI A208.1, Grade M-1, that complies with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- E. Fiberboard: ASTM C 208.
- F. Extruded Aluminum: [ASTM B 221 \(ASTM B 221M\)](#), Alloy 6063.
- G. Adhesives: Manufacturer's standard product that complies with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.2 MARKERBOARD ASSEMBLIES

- A. Porcelain-Enamel Markerboards: Balanced, high-pressure, factory-laminated markerboard assembly of three-ply construction consisting of backing sheet, core material, and [0.021-inch- \(0.53-mm-\)](#) thick, porcelain-enamel face sheet with high-gloss finish.
 - 1. Basis of Design Product: Subject to compliance with requirements, provide LCS-II, Series 4, Type A, #92 white by Claridge Products & Equipment, Inc., www.claridgeproducts.com, or comparable product by one of the following:
 - a. [A-1 Visual Systems](#): Series 100; www.a-1markerboards.com.
 - b. [Best-Rite Manufacturing](#): Series 202A; www.moorecoinc.com.
 - c. Substitutions: See Section 01 25 00 - Substitution Procedures.

2.3 TACKBOARD ASSEMBLIES

- A. Basis of Design Product: Subject to compliance with requirements, provide Designer Fabric, Series 4, Type CO, Color to be selected from Manufacturer's standard colors, by Claridge Products & Equipment, Inc. Harrison, Arkansas 72602; www.claridgeproducts.com, or comparable product by one of the following:
 - 1. [A-1 Visual Systems](#): Series 100; www.a-1markerboards.com.
 - 2. [Best-Rite Manufacturing](#): Series 333A; www.moorecoinc.com.
 - 3. Substitutions: See Section 01 25 00 - Substitution Procedures.
- B. Polyester-Fabric-Faced Tackboard : [1/4-inch- \(6-mm-\)](#) thick, polyester-fabric-faced cork sheet factory laminated to [1/4-inch- \(6-mm-\)](#) thick hardboard backing.
- C. General: Manufacturer's standard, aluminum-framed, tackable cork visual display surface fabricated into narrow rail shape and designed for displaying material.

2.4 MARKERBOARD AND TACKBOARD ACCESSORIES

- A. Aluminum Frames and Trim: Fabricated from not less than 0.062-inch- (1.57-mm-) thick, extruded aluminum; slim size and standard shape .
 - 1. Field-Applied Trim: Manufacturer's standard, screw-on trim with Phillips flat-head screws.
- B. Chalktray: Manufacturer's standard, continuous.
 - 1. Solid Type: Extruded aluminum with ribbed section and smoothly curved exposed ends.
- C. Map Rail: Provide the following accessories:
 - 1. Display Rail: Continuous and integral with map rail; fabricated from cork approximately 1 to 2 inches (25 to 50 mm) wide.

2.5 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. Where size of visual display boards or other conditions require support in addition to normal trim, provide structural supports or modify trim as indicated or as selected by Architect from manufacturer's standard structural support accessories to suit conditions indicated.
- D. Modular Visual Display Boards: Fabricated with integral panel clips attached to core material.
- E. Aluminum Frames and Trim: Fabricate units straight and of single lengths, keeping joints to a minimum. Miter corners to a neat, hairline closure.
 - 1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display units at manufacturer's factory before shipment.

2.6 GENERAL FINISH REQUIREMENTS

- 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. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.7 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.

2.8 VISUAL DISPLAY SURFACE SCHEDULE

- A. Visual Display Board **<Insert drawing designation>**: Factory assembled.
 - 1. Markerboard: Porcelain-enamel markerboard assembly.
 - a. Color: White .
 - 2. Corners: Square .
 - 3. Width: As indicated on Drawings .
 - 4. Height: As indicated on Drawings .
 - 5. Mounting: Wall .
 - 6. Mounting Height: As indicated on Drawings .
 - 7. Factory -Applied Aluminum Trim: Manufacturer's standard with clear anodic finish.
 - 8. Accessories:
 - a. Chalktray: Box type.
 - b. Map rail with display rail .
- B. Tackboard **<Insert drawing designation>**: Factory assembled.
 - 1. Tack Surface: Polyester-fabric-faced tackboard assembly **<Insert designation>**.
 - a. Color: Match Architect's sample .
 - 2. Corners: Square .
 - 3. Width: As indicated on Drawings .
 - 4. Height: As indicated on Drawings .
 - 5. Mounting: Wall .
 - 6. Mounting Height: As indicated on Drawings .
 - 7. Edges: Concealed by trim .
 - a. Factory -Applied Aluminum Trim: Manufacturer's standard style, with clear anodic finish.
- C. Visual Display Rail **<Insert drawing designation>**: Factory assembled.
 - 1. Tack Surface: Polyester-fabric-faced tackboard assembly **<Insert designation>**.

- a. Color: Match Architect's sample .
2. Size: **1 inch (25 mm)** high by length indicated on Drawings.
3. Edges: Extruded-aluminum trim .
4. Ends: Not required.
5. Aluminum Finish: Clear anodic finish.

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 of the Work.
- B. Examine walls and partitions for proper preparation and backing for visual display surfaces.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions for surface preparation.
- B. Clean substrates of substances that could impair the performance of and affect the smooth, finished surfaces of visual display boards, including dirt, mold, and mildew.
- C. Prepare surfaces to achieve a smooth, dry, clean surface free of flaking, unsound coatings, cracks, defects, projections, depressions, and substances that will impair bond between visual display surfaces and wall surfaces.

3.3 INSTALLATION, GENERAL

- A. General: Install visual display surfaces in locations and at mounting heights indicated on Drawings. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.

3.4 INSTALLATION OF FACTORY-FABRICATED VISUAL DISPLAY BOARDS AND ASSEMBLIES

- A. Visual Display Boards: Attach concealed clips, hangers, and grounds to wall surfaces and to visual display boards with fasteners at not more than **16 inches (400 mm)** o.c. Secure both top and bottom of boards to walls.

1. Field-Applied Aluminum Trim: Attach trim over edges of visual display boards and conceal grounds and clips. Attach trim to boards with fasteners at not more than **24 inches (610 mm)** o.c.
 - a. Attach chalktrays to boards with fasteners at not more than **12 inches (300 mm)** o.c.

3.5 INSTALLATION OF VISUAL DISPLAY RAILS

- A. Display Rails: Install rails in locations and at mounting heights indicated on Drawings. Attach to wall surface with fasteners at not more than **16 inches (400 mm)** o.c.

3.6 INSTALLATION OF VISUAL DISPLAY WALL PANELS

3.7 INSTALLATION OF [RAIL] [MODULAR] SUPPORT SYSTEM

- A. Rail Support System: Install horizontal support rail in locations and at mounting heights indicated on Drawings, or if not indicated, at height indicated below. Attach to wall surface with fasteners at **12 inches (300 mm)** o.c.
 1. Mounting Height: [**72 inches (1829 mm)**] <Insert dimension> above finished floor to top of rail.
 2. Hang visual display units on rail support system.
- B. Modular Support System: Install adjustable standards in locations and at mounting heights indicated on Drawings, or if not indicated, at height indicated below. Install standards at **48 inches (1219 mm)** o.c., vertically aligned and plumb, and attached to wall surface with fasteners at **12 inches (300 mm)** o.c.
 1. Mounting Height: [**12 inches (300 mm)**] <Insert dimension> above finished floor to bottom of standard.
 2. Install single-slotted standard at each end of each run of standards and double-slotted standards at intermediate locations.
 3. Provide locking screw at top corner of visual display board at each standard.
 4. Hang visual display units on modular support system.

3.8 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 10 11 00