

**SECTION 10 11 13
CHALKBOARDS AND MARKERBOARDS****PART 1 - GENERAL****1.1 DESCRIPTION:**

- A. This section specifies chalkboards, markerboards, and presentation boards.

1.2 RELATED WORK:

- A. Sustainable Design Requirements: Section 01 81 13, SUSTAINABLE DESIGN REQUIREMENTS.
- B. Manufacturer, Color, and Style of Chalkboards Markerboards and Presentation Boards: Section 09 06 00, SCHEDULE FOR FINISHES.

1.3 QUALITY ASSURANCE:

- A. Provide boards that are the products of a single manufacturer, who has provided units as specified for a minimum of three (3) years.

1.4 SUBMITTALS:

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- B. Sustainable Design Submittals, as described below:
 - 1. Volatile organic compounds per volume as specified in PART 2 - PRODUCTS.
- C. Shop Drawings: Identifying all parts by name and material and showing design, construction, installation, anchorage and relation to adjacent construction.
- D. Manufacturer's Literature and Data:
 - 1. Chalkboard.
 - 2. Markerboard.
 - 3. Presentation Board.
- E. Samples:
 - 1. Chalkboard and markerboard writing surface, 152 x 152 mm (6 x 6 inches), each color, and texture mounted on backing.
 - 2. Frame material, 305 mm (6 inch) length.
- F. Manufacturer's qualifications.

1.5 WARRANTY:

- A. Construction Warranty: Comply with FAR clause 52.246-21, "Warranty of Construction".

1.6 APPLICABLE PUBLICATIONS:

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. American Architectural Manufacturers Association (AAMA):
 - 611-14.....Anodized Architectural Aluminum
 - 2603-13.....Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels
- C. American National Standards (ANSI):
 - Z97.1-09(R2010).....Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test
- D. ASTM International (ASTM):
 - B221-14.....Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire, Shapes and Tubes
 - B221M-13.....Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire, Shapes and Tubes (Metric)
 - C1048-12.....Heat-Treated Flat Glass-Kind HS, Kind FT Coated and Uncoated Glass
- E. Code of Federal Regulation (CFR):
 - 40 CFR 59.....Determination of Volatile Matter Content, Water Content, Density Volume Solids, and Weight Solids of Surface Coating
- F. Composite Panel Association (CPA):
 - A208.1-09.....Particleboard
 - A135.4-12.....Basic Hardboard
- G. National Association of Architectural Metal Manufacturers (NAAMM):
 - AMP 500-06.....Metal Finishes Manual
- H. Porcelain Enamel Institute (PEI)
 - 1001-11.....Architectural Porcelain Enamel

PART 2 - PRODUCTS

2.1 MARKERBOARD:

- A. Provide markerboard with porcelain enamel writing surface and chalktray.
- B. Provide factory assembled unit complete in one (1) piece, without joints whenever possible. When markerboard dimensions require delivery

in separate sections, prefit components at factory, disassembled for delivery and fit joints at site.

- C. Frame: Oak, Walnut, Mahogany, or Aluminum.
- D. Marker Tray: Same material as frame and extend full length of markerboard.
- E. Map Rail: Provide with tackable insert that extends full length of markerboard, and include map hooks with clips for holding sheets of paper. Provide two (2) map hooks for each 1219 mm (4 feet) of map rail.
- F. Provide surface such that dry erase markings are removable with felt eraser or dry cloth without ghosting.
- G. Provide face fabricated from ferromagnetic material.

2.2 PRESENTATION BOARD:

- A. Provide presentation board mounted in wall hung cabinet with lockable double doors with projection screen that pulls down over markerboard writing surface in cabinet interior.
- B. Mount doors to cabinet with piano hinges and provide catch or closure to keep doors closed when not in use.
- C. Interior of Cabinet: Provide porcelain enamel dry erase markerboard writing surface with chalktray, flip chart that can be hung on an interior door panel, and fabric covered tack surface on interior door panels.
- D. Cabinet: Fabricate of oak hardwood, walnut hardwood, mahogany hardwood or plastic laminate.
- E. Edge Detailing: rectilinear, bullnose or radius.

2.3 CHALKBOARD:

- A. Natural Slate: Select grade, resurfaced, natural slate; free from ribbons and other natural marks that impair their functional use and durability as a writing surface.
 - 1. Thickness: Not less than 6 mm (1/4 inch) or more than 9.5 mm (3/8 inch) thick with maximum deviation of 1.6 mm (1/16 inch) when an average thickness of at least 6 mm (1/4 inch) is maintained.
- B. Surface slate panels to a natural plane. Grind and hone to smooth, uniform finish equivalent to that obtained by minimum 180 grit and maximum 220 grit.
- C. Chalktray: Aluminum to match frame material and extend the full length of the chalkboard.

- D. Map Rail: Provide with tackable insert that extends full length of markerboard, and include map hooks with clips for holding sheets of paper. Provide two (2) map hooks for each 1219 mm (4 feet) of map rail.

2.4 ACCESSORIES:

- A. Provide each markerboard or presentation board with an eraser and four (4) different color compatible dry erase markers.

2.5 MATERIALS:

A. Writing Surface:

1. Provide markerboard writing surface composed of porcelain enamel fused to nominal 0.378 mm (28 gauge) thick steel. Laminate to a minimum 6 mm (1/4 inch) thick core material with a steel or foil backing sheet.

B. Aluminum:

1. Aluminum frame extrusions to be alloy 6063-T5 or 6063-T6, conform to ASTM B221M (B221). Minimum 1.5 mm (0.06 inches) thick.
2. Provide straight, single lengths wherever possible.
3. Miter corners to have hairline closure.

C. Hardwood Finish:

1. Provide hardwood with a durable factory-applied transparent finish.

D. Glass:

1. Provide tempered glass in accordance with ANSI Z97.1 and conform to ASTM C1048, Kind FT (fully tempered), Condition A (uncoated), Type I, Class I (clear).

E. Adhesives:

1. Adhesives for Field Application: Mildew-resistant, nonstaining adhesive for use with specific type of panels, sheets, or assemblies; and for substrate application; as recommended in writing by visual display unit manufacturer.
2. Adhesives to have VOC content of 50 g/L or less when calculated according to 40 CFR 59, (EPA Method 24).

2.6 GENERAL FINISH REQUIREMENTS:

- A. Comply with NAAMM's AMP 500 Series 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 unacceptable. 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 (.39 mil) or thicker.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL:

- A. Install units in accordance with the manufacturer's installation instructions with concealed fasteners.
- B. Verify partitions have received blocking and reinforcement before installation of chalkboards, markerboards /and presentation boards.
- C. Assemble units in accordance with manufacturer's written instructions.
- D. Grounds Designed to Receive Clips for Snap-On Trim: Continuous and secured 305 mm (12 inches) on center.
- E. Miter trim at corners, conceal fasteners. Modify trim as required to conform to surrounding construction details.

3.2 CLEANING

- A. Clean in accordance with manufacturers' written instructions.
- B. Touch up factory-applied finishes to restore damaged or soiled areas.

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