

SECTION 101100
VISUAL DISPLAY UNITS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Chalkboards.

1.02 REFERENCE STANDARDS

- A. ANSI A135.4 - Basic Hardboard; 2012 (Reaffirmed 2020).
- B. ANSI A208.1 - American National Standard for Particleboard; 2022.
- C. ASTM A424/A424M - Standard Specification for Steel, Sheet, for Porcelain Enameling; 2018.
- D. ASTM C208 - Standard Specification for Cellulosic Fiber Insulating Board; 2022.

1.03 SUBMITTALS

- A. Product Data: Submit construction details, descriptions of materials, dimensions of each component and profile, finishes, and accessories for all visual display units.
- B. Shop Drawings: Indicate plans, wall elevations, dimensions, joint locations.
 - 1. Indicate panel joint locations, including field-assembled joints for factory units exceeding shipping size, if applicable.
- C. Color Samples: Color charts for selection of color and texture of chalkboard.
- D. Samples: Two, 10" by 10" inches (254 by 254 mm) in size illustrating materials and finish, color and texture of chalkboard.
- E. Include accessory samples to confirm.
- F. Manufacturer's printed installation instructions.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum 20 years documented experience.

1.05 WARRANTY

- A. Provide Life Time warranty for chalkboard to include warranty against discoloration due to cleaning, crazing or cracking, and staining.
- B. The warranty excludes labor and any additional material expenses related to the removal or reinstallation of markerboards.

- C. When properly installed per manufacturer instructions, Chalkboard are warranted for one year against workmanship defects. This warranty excludes damage from misuse, vandalism, or improper handling and covers only material replacement, not removal or reinstallation costs.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. **Visual Display Units**

1. Nelson Adams NACO.
2. Address: 420 S E st, San Bernardino, CA, 92401.
3. P. (877) 810-4080.
4. Web page: <https://www.nelsonadamsnaco.com>

2.02 CHALKBOARDS

A. Chalkboards: Porcelain enamel on steel, laminated to core.

1. **Color:** [Green][Black].
2. **Steel Face Sheet Thickness:** 24 gauge, 0.0239 inch (0.61 mm).
3. **Standard Thickness Core:** [Particleboard], [1/2" Inch Thick ([12.7 mm])], laminated to face sheet.
 - a. **Alternate Cores:**
 - 1) Particleboard.
 - 2) Fiberboard.
 - 3) Hardboard.
 - 4) MDF.
 - 5) Honey Comb
 - b. **Alternate Thicknesses:**
 - 1) 7/16" Inch Thick ([11.11 mm])
 - 2) 1/2" Inch Thick ([12.7 mm])
 - 3) 3/8" Inch Thick ([9.52 mm])
 - 4) 1/4" Inch Thick ([6.35 mm])
4. **Backing:** Aluminum foil [0.015 in (0.381 mm)][0.005 in (0.127 mm)], laminated to core.
5. **Height:** As indicated on drawings.
6. **Length:** As indicated on drawings.
7. **Frame:** Extruded aluminum .
8. **Frame Profile:** As indicated on drawings.
9. **Frame Finish:** [Anodized, natural][Powder Coating]
10. **Adhesive:** Manufacturers written recommended standard moisture-resistant thermoplastic-type adhesive.
11. **Accessories:** Provide flag holder and map hook.
12. **Chalkboard Tray Options:**
 - a. **Blade Tray:** Slim, low-profile tray fabricated from extruded aluminum, offering a clean, minimalist profile blends seamlessly with modern surfaces.
 - b. **Box Tray:** Square-Profile tray constructed from extruded aluminum, providing durability, balanced design, and everyday functionality.

- c. **Traditional Box Tray:** Classic rounded-profile tray made from extruded aluminum, combining strength with timeless architectural detail.
- 13. **Map Rail:** Extruded aluminum, manufacturer's standard profile, with cork insert and runners for accessories; [**1" inch**][**2" inch**] wide overall, full width of frame.
 - a. **Map Rail Insert Options:** [Natural Cork]
 - 1) Natural Cork.
 - 2) Bulletin Forbo.
 - a) **Color:** As indicated on drawings

2.03 MATERIALS

- A. Porcelain Enameled Steel Sheet: ASTM A424/A424M, Type I, Commercial Steel, with fired-on vitreous finish.
- B. Hardboard for Cores: ANSI A135.4, Class 1 - Tempered, S2S (smooth two sides).
- C. Particleboard: ANSI A208.1; wood chips, set with waterproof resin binder, sanded faces.
- D. Fiber Board: ASTM C208, cellulosic fiber board.
- E. Foil Backing: Aluminum foil sheet, 0.005 inch thick (0.13 mm thick).
- F. Aluminum Sheet Backing: 28 gauge, 0.015 inch (0.38 mm) thick.
- G. Steel Sheet Backing: 28 gauge, 0.015 inch (0.38 mm), galvanized.
- H. Adhesives: Type used by manufacturer.

2.04 ACCESSORIES

- A. Flag Holders: [**1" inch**][**2" inch**][**Plastic**] bored to receive 1 inch (25 mm) diameter flag staff, bracketed to fit top rail of board.
- B. Map Hooks: [**1" inch**][**2" inch**] [**Plastic**] designed to hold and support pull-down maps, charts, or visual aids in classrooms, bracketed to fit top rail of the board.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that internal wall blocking is ready to receive work and positioning dimensions are as indicated on shop drawings.

3.02 PREPARATION

- A. Remove switchplates, wall plates, and surface-mounted fixtures where tackable wall paneling is applied. Reinstall items on completion of installation. **[By Others]**
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions. **[By Others]**

3.03 **INSTALLATION**

- A. Install boards in accordance with manufacturer's instructions.
- B. Secure units level and plumb.
- C. Mounting Brackets: [**Concealed Z Clips**][**L Clips**].

3.04 **CLEANING**

- A. Clean board surfaces in accordance with manufacturer's instructions.
- B. Remove temporary protective cover at Date of Substantial Completion.
- C. Break-in slate chalkboards with a chalk and clean treatment.

END OF SECTION