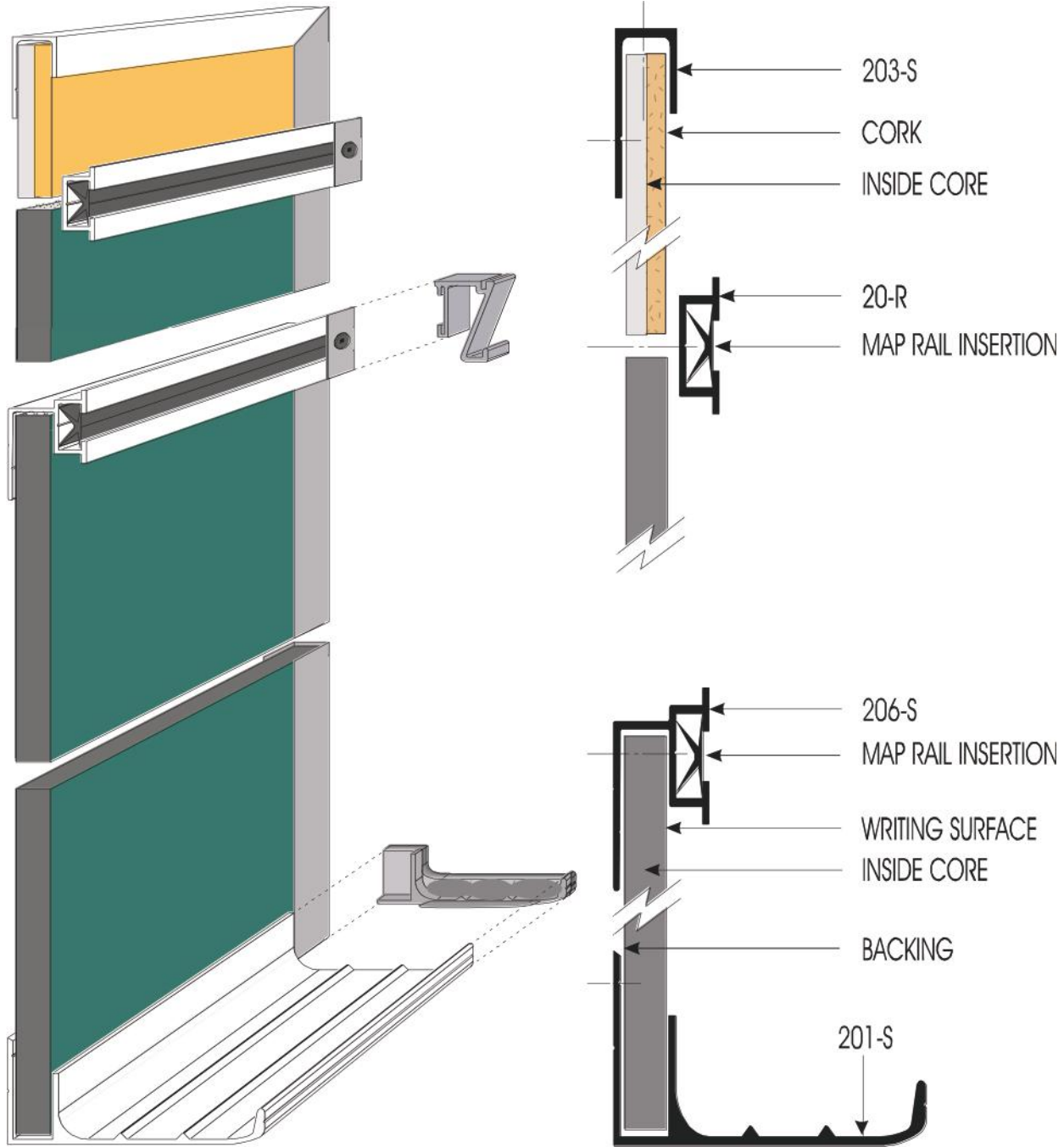


TECHNICAL DRAWING DIVISION 10110 WRITING BOARD SERIE 20



PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

A. This section shall include :

1. Chalk Boards
2. Marker Boards
3. Vertical & Horizontal Sliding Units

B. Related work

- | | |
|---------------------------|---------------|
| 1. Strapping and Grounds | Section 06100 |
| 2. Finish Carpentry | Section 06200 |
| 3. Site Finishing of Trim | Section 09900 |
| 4. Bulletin Boards | Section 10120 |
| 5. Directory Boards | Section 10410 |
| 6. Display Casework | Section 12350 |

1.02 REFERENCED STANDARD

- A. ASTM-E84, for Surface Burning Characteristics for Building Material
- B. ASTM B221, for Aluminum Extrusion
- C. PEI-104, for Porcelain Enameling
- D. BNQ-6697-100, for Acrylic Chalk Board Finish

1.03 SUBMIT ALL

- A. Submit duplicate sample 12 x 12” of each type of surface and sample of 12” of each trim in accordance with section.
- B. Shop drawings : Submit in accordance with section. Indicate location, type, size, panel arrangement, backing hardware, anchor or mounting details, frame of trim and accessories.
- C. Manufacturer’s Instructions: Provide installation instructions to ensure a proper installation of the product.

1.04 MAINTENANCE DATA

- A. Provide maintenance data for writing boards for incorporation into maintenance manual.*
- B. Affix removable maintenance instruction labels to writing boards.*

1.05 DELIVERY, STORAGE & HANDLING

- A. Delivery : Material is to be delivered in original, undamaged and unopened wood crates or pallets. Inspection of materials is responsibility of general contractor when delivered and any damaged must be notified on the bill of lading. Signing the bill of lading with interior crate or pallet inspection is not acceptable.*
- B. Storage and protection : Store material in dry areas and protected from exposure to harmful weather conditions. General contractor to maintain proper environment prior, during and after installation.*

1.06 PROJECT AND SITE CONDITIONS

- A. Panels shall not be installed until site conditions are such that panels will not be damaged due to remaining construction. If necessary, general contractor to provide protection for panels to avoid any surface damaged and dirt accumulations.*

1.07 WARRANTY

- A. When installed according to our instructions and recommendation and used under normal conditions, all Duro Delta Porcelain on steel writing surface are guaranteed for a period of 50 years. This guarantee covers replacement of defective boards but does not include removal or reinstallation.*
- B. When installed according to our instructions and recommendation and used under normal conditions, all Vitro Delta acrylic on steel chalk surface are guaranteed for a period of 20 years. This guarantee covers replacement of defective boards but does not include removal or reinstallation.*

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. Manufacturer of Visual Communication products : Delta Products Ltd.

1. Delta Products Ltd, 12 Dubo Street, Victoriaville, QC, Canada.
Tel : (819) 752-5551. Fax : (819) 758-0303.
E-mail : support@delta-products.com
Web Site : www.delta-products.com

B. Products as manufactured by other manufacturers must comply with all requirements of specifications.

2.02 BASIC MATERIAL

A. Sheet Steel: commercial grade to ASTM A653 with G90 commercial galvanize zinc finish to Z275

B. Laminating adhesive to manufacturer's standard.

C. Joint reinforcement : mechanical joint system to provide straight, rigid, continuously supported, tight butt, flush joints at similar surface, for panel longer than 12'.

D. Mounting adhesive : panel adhesive to manufacturer's standard.

E. Anchor clips and brackets, fasteners, etc: concealed type recommended by manufacturer.

2.03 CHALK AND MARKER BOARD FINISHES

A. Porcelain Enamel : Duro Delta boards shall be manufactured in accordance with Porcelain Enamel Institute PEI-104 standard in regards of durability, smoothness of texture, color continuity, gloss factor of 6-8 as measured by 45 deg gloss meter.

Furthermore, it should have the following properties :

Withstand 200 deg bends.

Pass adhesion test 0.0078 Faber

Heat resistance up to 650°C = 1200°F

Density 2.4 @ 2.8 kg/mm²

1. Porcelain on Steel Duro Delta Chalk Boards and Marker Boards

a. Finish for use with a dry erase marker or wet erase marker and suitable as a projection screen

Color :

(___) White

(___) Satin white

b. Finish for use with chalk

Colors

(___) Green

(___) Slate

B. Acrylic on Steel : Vitro Delta chalk boards shall be manufactured in accordance with BNQ-6697-100 standard, by manufacturer having at least 5 years proven satisfactory experience with this product. Writing surface to have following minimum physical and performance properties

- Finish for use with chalk, dry water dampened erasable markers, and suitable use as projection screen.
- Unaffected by solvents and reagents such as benzene gasoline, acetone, xylol, 10% caustic soda, lacquer, thinner.
- Resist to impact to 32 kg/cm Gardner Impact Tester
- Withstand 180 deg bends on itself without cracking or loss of bond.
- Pass adhesion test consisting of scratches 0.8mm apart to depth of substrate, followed by cellulose tape application and quick removal, without dislodging adjacent chalk board finish.
- Not exceed following results when subjected to abrasion test consisting of 100.00 reciprocating strokes of two chalk board erases in tandem under 2.23kg load with chalk stick placed between them under 225g load :
 - 60 deg Specular Gloss before test - 2.5
 - 60 deg Specular Gloss after test - 3.5
 - Thickness removed by test: 0.001mm
 - Chalk board to be suitable for continued use

1. Acrylic on Steel Vitro Delta Chalk Boards and Marker Boards

a. Finish for use with a dry erase marker or wet erase marker and suitable as a projection screen

Color :

(___) White

b. Finish for use with chalk

Colors:

(___) Green

(___) Slate

(___) Black

2.04 CHALK OR MARKER BOARD FABRICATION

A. Fabricate chalk and marker board to sizes indicated on drawings.

B. Factory laminated panels consisting of a writing board facing sheet with a fiberboard panel core in accordance with ASTM-C209 and CAN/CSA A247-M86-Type II and galvanized steel backing. Total thickness of writing panel: 1/2".

C. Make finish panels flat and rigid.

D. Fit joint reinforcement between abutting writing boards with joint for panels longer than 12' long, except where covering trim is required between a tack board and a writing board.

E. Apply permanent printed images to chalk or white board surface as indicated, such as alphabet, maps, music graph, accounting lines and ruled lines.

2.05 TRIM & FRAMING

A. Aluminum Trim & Framing Fabrication : Extruded Aluminum : Aluminum Association alloy AA-6063-T5. Shall be minimum of 0.062" thick.

B. Extruded Vinyl PVC rigid, coloured mass in a black color and 1/16" minimal thickness.

C. Trim & Framing Finish: Provide mechanical, chemical and anodic finishes in accordance with Aluminum Association Designation System for aluminum finishes. Appearance & properties of anodized finishes designated by Aluminum Association are architectural finish as grad 1 and 2, and protecting or ornamental finish must meet the ONG63-GP-2M standard. Clear anodic coating complying with AA requirements for Class II Architectural Coating AA-A31.

1. Specify Series :

a. () Série 20

203-S molding for perimeter, 201-S full-length chalk rail and 206-S - 1" map rail with insert and end stops.

Specify Insert :

() Vinyl Insert

() Natural Cork Insert

() Deluxe Cork Insert

Options :

() 201-E end caps for chalk rail

() 10-R - 2" map rail with insert

() Natural Cork Insert

() Deluxe Cork Insert

2. Specify Accessories:

a. 2 combination map and clip hooks per board

() 29-CHP combination map and clip hooks for 206-S - 1" map rail

b. 2 combination map and clip hooks per board

() CROC.10R.76M combination map and clip hooks for 10-R - 2" map rail

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install bulletin boards in accordance with manufacturer's instruction, plumb and level, provide rigid, secure writing surface.

B. Install trim and framing around tack panels, make miters and intersection joints to hairline fit, free of rough edges. Use concealed brackets to reinforce and hold joints tight and flush. No exposed fasteners permitted. Overlap trim ¼" into panels.

C. Mechanical attachment

1. To concrete or solid masonry use lag screw and expansion bolts or screws and fiber plugs as appropriate for stresses involved.
2. To hollow masonry use toggle bolts or equivalent.
3. To wood or sheet metal use screws. Secure into framing members in studs walls.

3.02 CLEANING

A. Clean all surfaces after installation using manufacturer's recommended cleaning procedures.

END OF SECTION