

Latest Update: 05-03-2023. See Underlined Text for Edits

(Consultant shall edit specifications and blue text in header to meet project requirements. This includes but is not limited to updating Equipment and/or Material Model Numbers indicated in the specifications and adding any additional specifications that may be required by the project. Also turn off all "Underlines")

## **SECTION 101400 – INTERIOR SIGNAGE**

### **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. Room signs.
  2. Directional and Informational Signs.

#### **1.3 ACTION SUBMITTALS**

- A. Product Data: For each type of product. Include material descriptions including manufacturer and product number of each individual component making up the sign, including:
1. Acrylic base sheet ¼” thick, Type UVA.
  2. Cast acrylic sheet for front face of window inserts, .080” thick, Type UVF
  3. Rigid vinyl filler .030 thick.
  4. Surface Overlay 1/16” thick with brushed plastic aluminum overlay.
  5. Matte black acrylic 1/16” used for Tactile Characters
  6. Paint for back face of ¼” acrylic base sheet.
  7. Magnetic sheet material used as mounting for bottom panel of Signs A.05 & A.06.
  8. Acrylic plastic cement used for fuse bonding of tactile characters.
- B. Samples for Verification: For each type of sign assembly listed below, in size and layout indicated on drawings. Full-size Samples may be retained and used as permanent.
1. Full-size sample of sign that includes inserts (A.01 or 03).
  2. Full-size sample of sign that include magnetic panel (A.05 or 06).
- C. Qualification Data: For Fabricator.
1. Fabricator of sign shall list accurate location of where signs are to be manufactured, and list name of equipment used to route female cavity for tactile letters.
  2. Fabricator of sign must be prequalified by the University to assure quality and craftsmanship of sign for consistency. No fabrication samples will be reviewed for

acceptance by the University during the shop drawing process. Current pre-qualified sign fabricators are as follows:

a. Inter Sign National: 1123 E Baltimore St., Baltimore, MD 21202

- D. Sign Proofs: For each sign indicated on sign schedule. Provide full size (or at least half-size) elevation and section, with dimensions and indicators of each material used, including painted surface.
- E. Sign Message Schedule: Use same designations indicated on the Drawings. Indicate the following for each sign:
  - 1. Building.
  - 2. Floor Level.
  - 3. Room Number.
  - 4. Sign message.
  - 5. Sign type.
  - 6. Special requirements.
- F. Sample Warranty: Provide sample 2 year warranty.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative of signage manufacturer for installation and maintenance of units required for this Project.
- B. Source limitations for Signs: Obtain each sign type indicated from one source from a single manufacturer.
- C. Regulatory Requirements: Comply with applicable provision of the following codes and regulations:
  - 1. ICC International Building Code, 2018 Edition.
  - 2. ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

#### 1.5 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Deterioration of finishes beyond normal weathering.
    - b. Separation or delamination of sheet materials and components.
  - 2. Warranty Period: Two years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Accessibility Standard: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1

### 2.2 DESIGN

1. Design of the graphic image shall consist of characters and symbols shall contrast with their background. Both the characters and the background of the signs shall have a non-glare finish.
2. All signs shall be frameless and corners shall be essentially square with a slightly eased edge (rather than sharp).
3. Materials approved for fabrication are to provide a consistent appearance for all signs, and to facilitate exact matching of existing and future sign installations by the University.

### 2.3 MATERIALS AND ASSEMBLY

- A. Acrylic Base (full size of sign): ¼" rigid, clear acrylic: ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing). Screen printed or painted silver finish on back, Pantone #877c or MP Brushed Aluminum. Cut edges not to be polished.

1. Shadow Backplate (full size of sign) to protect painted back surface of acrylic base sheet.
  - a. Product: .015 clear lexan or .015 rigid vinyl backing subsurface painted to match PMS 877.
  - b. Laminate to backside of base to protect base painted surface.

- B. Surface Overlay: ABS Sheet with Metallic Finish (1/16" and full size of sign): Provide brushed plastic aluminum 1/16" thick 2-ply micro-surfaced ABS with hardware protective surface, matte finish with black core.

1. Product: Subject to compliance with requirements, provide Innovative Plastics, Inc.: The Hardware Series, Metallic Plastics, Surface Color Brushed Aluminum, Core Color Black, Matte Finish, Model H-391M.

- C. Tactile Characters:

1. Typeface: Futura Book ACCT.AD.REV.F as manufactured by Gerber Scientific for Omega Software, ¾" high or as otherwise indicated.
2. Tactile is to be embedded 1/32" into perfectly routed female cavity.
  - a. Routing of embedded cavity shall be sharp and shall not be visible (no rounded edges or visible gaps due to dull cutting tools).

3. Tactile characters are to be chemically fused into cavity using Weld-On 4 Acrylic Plastic Cement. Adhesive backed and surface of sign applied letters are not acceptable.
  4. Product: Rigid matte black acrylic, Rowmark LLC; ADA Alternative Applique, Black Color, Item No. 321-401 (1-ply .1/16" thick).
- D. Braille: Braille to comply with ADA-ABA Accessibility Guidelines, ICC/ANSI A117.1, and be "Grade II" raster style and shall conform to National Library Service Specification #800, Library of Congress.
1. Apply Braille using a computerized mechanical engraving or routing manufacturing process, height to be a uniform height above surface of sign inches of sign with domed or rounded shape.
  2. Braille dots to be clear (black subcolor of ABS sheet will come through).
- E. BUILDUP TO CREATE INSERT WINDOW SLOT(S)
1. .080" thick cast acrylic "window face" laminated to .030 thick clear rigid vinyl fillers. Fillers are omitted at insert area to create a slot that is 1/16" above and 1/16" below the insert "window" face. Fillers are laminated to the 1/4" thick acrylic base. For window sizes see drawings for dimension.
    - a. Window Face Product: .080" thick cast acrylic, Shinkolite by Mitsubishi Chemical.
    - b. Filler Product: .030 rigid vinyl filler.
- F. SIGNS WITH REMOVABLE FACEPLATE (Types A.05 & A.06)
1. Acrylic Base (full size of sign- 9" wide x 6" high): 1/4" rigid, clear acrylic: As specified in 2.2.A, with shadow backplate.
  2. Top Face Panel:
    - a. Cast Acrylic Sheet (9" wide x 3" high): .10" thick and full width of sign, ASTM D 4802, category as standard with manufacturer for each sign, Type UVF (UV filtering). Color: Black.
      - 1) Laminate vinyl filler between top panel and 1/4" Acrylic Base. Filler thickness to match magnetic sheets of bottom panel for a uniform surface.
    - b. Surface Overlay (1/16" thick, full width of sign): As specified in 2.2.B.
    - c. Tactile Characters: As specified in 2.2.C.
    - d. Braille: As specified in 2.2.D.
  3. Bottom Face Panel (removable)
    - a. Cast Acrylic Sheet: (9" wide x 3" high): .10" thick and full width of sign, ASTM D 4802, category as standard with manufacturer for each sign, Type UVF (UV filtering). Color: Black.

- 1) Provide magnetic sheet laminated to back of bottom panel with receiver metal sheet laminated to acrylic base sheet, hold back 1/8" min. on all sides.
- b. Surface Overlay (1/16" thick, full width of sign): As specified in 2.2.B.
  - 1) Omit 1/8" of surface overlay at top of bottom panel to create a reveal, full width of sign.
- c. Engraved letters, route surface overlay to reveal black acrylic sheet.

#### G. ACCESSORIES

- H. Two-Face Tape: Manufacturer's standard high-bond tape, 3M Brand's VHB Tape 4941 or VHB Tape 5952.

### 2.4 FABRICATION

- A. Mill joints to a tight, hairline fit.
- B. Signs with Changeable Inserted Message Capability: Fabricate signs to allow insertion of changeable messages as follows:
  1. For slide-in changeable inserts, fabricate slot without burrs or constrictions that inhibit function. Furnish initial changeable insert.
  2. Provide window slots for paper inserts that are 1/8" higher than the windows and centered vertically on the windows, as indicated.

### 2.5 GENERAL FINISH REQUIREMENTS

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable.
- C. Directional Finishes: Run grain horizontal to the floor.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Locate signs and accessories where indicated, using mounting methods indicated and according to manufacturer's written instructions.
  1. Install signs level, plumb, true to line, with sign surfaces free of distortion and other defects in appearance.
  2. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
  3. Mounting Location: Mounting shall be consistent with ADA regulations.

- a. Signs shall be mounted so that the top of the sign is 61” above finished floor.
  - 1) If the sign is to be installed at a location near existing signage, match the existing sign height provided it complies with the ADA requirement for the centerline to be 54” to 60” above the finished floor.
- b. Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs at nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.

B. Mounting Methods:

1. Two-Face Tape: Clean bond-breaking materials from substrate surface and remove loose debris. Apply tape strips symmetrically to back of sign and of suitable quantity to support weight of sign without slippage. Keep strips away from edges to prevent visibility at sign edges. Place sign in position, and push to engage tape adhesive.
  - a. Do not use this method for vinyl-covered or rough surfaces.
2. Silicone-Adhesive Mounting: Attach signs to irregular, porous, or vinyl-covered surfaces. Use two-face tape where recommended in writing by sign manufacturer to hold sign in place until adhesive has fully cured.
3. Signs Mounted on Glass: Provide matching opaque plate on opposite side of glass to conceal mounting materials, or apply sign with pressure sensitive vinyl shadows.

3.2 ADJUSTING AND CLEANING

- A. Remove and replace damaged or deformed characters and signs that do not comply with specified requirements.
- B. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish.

**END OF SECTION 101400**