

**SECTION 10 14 00**  
**SIGNAGE**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This section specifies interior signage for room numbers, directional signs, code required signs, room identification signs, directories and temporary interior signs.
- B. This section also specifies exterior medical center identification signs, building identification signs, parking and traffic signs.
- C. Installation of Government furnished dedication plaque and VA seal.

**1.2 RELATED WORK**

- A. Evac Map Art: Base art will be provided by the Designer showing the building, corridors, elevators, stairs, extinguisher, alarms. The sign contractor will coordinate with the facility Safety Officer and create the specific map for each specific location.
- B. Installation coordination with hospital room and floor numbering changeover.

**1.3 MANUFACTURER'S QUALIFICATIONS**

- A. Sign manufacturer shall provide evidence that for the last 5 years they regularly and presently manufactures signs similar to those specified in this section as one of their principal products and that they have past experience with projects of this type and scope.

**1.4 SUBMITTALS**

- A. Submit in accordance with Section 01 33 00, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- B. Samples: Sign panels and frames, with letters and symbols, each type. Submit 2 sets. One set of samples will be retained by Resident Engineer, other returned to Contractor.
  - 1. Sign Panel, 200 mm x 250 mm (8 inches x 10 inches), with letters.
  - 2. Color samples of each color, 150 mm x 150 mm (6 inches x 6 inches. Show anticipated range of color and texture.
  - 3. Sample of typeface, arrow and symbols in a typical full size layout.
- C. Manufacturer's Literature:
  - 1. Showing the methods and procedures proposed for the concealed anchorage of the signage system to each surface type.
  - 2. Manufacturer's printed specifications, anchorage details, installation and maintenance instructions.
- D. Samples: Sign location plan, showing location, type and total number of signs required.
- E. Shop Drawings: Scaled for manufacture and fabrication of sign types. Identify materials, show joints, welds, anchorage, accessory items, mounting and finishes.
- F. Full size layout patterns for dimensional letters.

**1.5 DELIVERY AND STORAGE**

- A. Deliver materials to job in manufacturer's original sealed containers with brand name marked thereon. Protect materials from damage.
- B. Package to prevent damage or deterioration during shipment, handling, storage and installation. Maintain protective covering in place and in good repair until removal is necessary.
- C. Deliver signs only when the site and mounting services are ready for installation work to proceed.
- D. Store products in dry condition inside enclosed facilities.

**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 Society for Testing and Materials (ASTM):

B209-07: Aluminum and Aluminum-Alloy Sheet and Plate

B221-06: Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and tubes.

C. Federal Specifications (Fed Spec):

MIL-PRF-8184F: Plastic Sheet, Acrylic, Modified.

MIL-P-46144C: Plastic Sheet, Polycarbonate

#### **1.7 MINIMUM SIGN REQUIREMENTS**

A. Rooms Signs:

1. Tactile and Braille Characters, raised minimum 0.793 mm (1/32 in).

Characters shall be accompanied by Grade 2 Braille.

2. Type Styles: Characters shall be uppercase, Helvetica Medium, Helvetica Medium Condensed and Helvetica Regular.

3. Character Height: Minimum 16 mm (5/8 in) high, Maximum 50 mm (2 in).

4. Symbols (Pictograms): Equivalent written description shall be placed directly below symbol, outside of symbol's background field. Border dimensions of symbol background shall be minimum 150 mm (6 in) high.

5. Finish and Contrast: Characters and background shall be eggshell, matte or other non-glare finish with adequate contrast with background.

6. Mounting Location and Height: As shown. Mounted on wall adjacent to the latch side of the door and to avoid door swing and protruding objects.

B. Overhead Signs:

1. Type Styles: As shown. Characters shall have a width-to-height ratio between 3:5 and 1:1. Characters shall have a stroke width-to-height ratio of between 1:5 and 1:10.

2. Character Height: minimum 2 in high for overhead signs. As shown in sign type drawings.

3. Finish and Contrast: Same as for signs of permanent rooms and spaces.

4. Mounting Location and Height: As shown in sign type drawings.

#### **1.8 COLORS AND FINISHES:**

A. See sign type drawings.

### **PART 2 - PRODUCTS**

#### **2.1 GENERAL**

- A. Signs of type, size and design shown on the drawings and as specified.
- B. Signs complete with lettering, framing and related components for a complete installation.
- C. Provide graphics items as completed units produced by a single manufacturer, including necessary mounting accessories, fittings and fastenings.
- D. Do not scale drawings for dimensions. Contractor to verify and be responsible for all dimensions and conditions shown by these drawings. Resident Engineer to be notified of any discrepancy in drawing, in field directions or conditions, and/or of any changes required for all such construction details.
- E. The Sign Contractor, by commencing work of this section, assumes overall responsibility, as part of his warranty of work, to assure that assemblies, components and parts shown or required within the work of the section, comply with the Contract Documents. The Contractor shall further warrant: That all components, specified or required to satisfactorily complete the

installation are compatible with each other and with conditions of installations.

## **2.2 PRODUCTS**

### F. Aluminum:

1. Sheet and Plate: ASTM B209.
2. Extrusions and Tubing: ASTM B221.

G. Cast Acrylic Sheet: MIL-PRF-8184F; Type II, class 1, Water white non-glare optically clear. Matt finish water white clear acrylic shall not be acceptable.

H. Polycarbonate: MIL-P-46144C; Type I, class 1.

I. Vinyl: 0.1 mm thick machine cut, having a pressure sensitive adhesive and integral colors.

## **2.3 SIGN STANDARDS**

A. General: Refer to Appendix A.

### B. Topography:

1. Type Style: Myriad Pro caps or all caps as indicated in Sign Message Schedule.
2. Arrow: See graphic standards in drawings.
3. Font weight: See graphic standards on drawings.
4. Letter spacing: See graphic standards on drawings.
5. All text, arrows, and symbols to be provided in size, colors, typefaces and letter spacing shown. Text shall be a true, clean, accurate reproduction of typeface(s) shown. Text shown in drawings are for layout purposes only; final text for signs is listed in Sign Message Schedule.

C. Project Colors and Finishes: See sign type drawings and Section 09 06 00, SCHEDULE FOR FINISHES.

### D. Photo Images: See sign type drawings

1. Image source and photo identification/reference are as shown in the sign type drawings. High resolution images are required for this project.
2. Sign Contractor will purchase the high resolution images as necessary for use in manufacturing the signs. Sign Contractor is responsible for image purchase and all royalty release fees in accord with images use. Sign Contractor to pay for all image files manipulation to crop and any color adjustment charges necessary for final client approval. VA approval of all images is required prior image purchase.
3. Oversized elevator and wall wrap images require additional interim neg./digital manipulation to allow for large format (4'x8') image production. Fabricator to pay for all image charges and use fees required for large format prints.

## **2.4 SIGN TYPES**

A. General: Refer to Appendix A. The interior sign system is comprised of sign types families that are identified by a letter and number which identify a particular group of signs. An additional number identifies a specific type of sign within that family.

### E. Interchangeable Component System:

1. Room Sign Type Families: IN-03, IN-04, IN-06, IN-07, IN-09, IN-14, IN-15, IN-16 and IN-17.
2. Interior sign system capable of being arranged in a variety of

configurations with a minimum of attachments, devices and connectors.

- a. Interchangeable nature of the system shall allow for changes of graphic components of the installed sign, without changing sign in its entirety. Refer to sign type drawings showing assembly.
  - 1) Typography
    - a) Vinyl First Surface Copy (non-tactile) - Applied Vinyl copy.
    - b) Subsurface Copy Inserts - Textured 1 mm (.030 inches) clear polycarbonate face with subsurface applied Vinyl copy.
    - c) Integral Tactile Copy Inserts - photo polymer etched with 2.3 mm (.0937 inches) raised copy.
    - d) Silk-screened First Surface Copy (non-tactile) - first surface applied enamel silk-screened copy.
  - b. Interchangeable sign inserts are to be printed via large format printer on Matte Polypropylene or similar material that is tear-resistant, water-resistant, and scratch-resistant. Colors are to remain color fast and be printed with UV resistant ink.
  - c. Images on sign backer are to be printed sub-surface on to acrylic and are to be UV resistant. Refer to sign type drawings showing images and assembly.
- F. Sign Type Family: EN-06.10, EN-14, IN-01.01, IN-01.02, IN-01.04, IN-01.05, IN-01.08, IN-01.10, IN-01.11, IN-01.12, IN-01.12, IN-01.20, IN-01.22, IN-01.25, IN-01.29, IN-01.30, IN-01.31, IN-01.35, IN-08.02, IN-08.04, IN-09.01, IN-09.02, IN-09.03, IN-01.03, IN-13:
  1. All text and graphics are to be first surface silk-screened.
  2. IN-01.12 & IN-01.13: Refer to Sign Type 03 specification for tactile and Braille portion of sign.
  3. IN-02.4: All text and graphics are to be first surface vinyl letters.
  4. IN-01.1: Preparation of artwork for reproduction of "fire and emergency evacuation maps" is by manufacturer.
- G. Vinyl Sign Type Family: IN-18
  1. IN-18.01: All text and graphics are to be cut for first (front) surface applications.
  2. IN-18.04, IN-18.05, IN-18.06: All text and graphics are to be printed on front surface applications. Ink to be UV resistant. Vinyl to be suitable for elevator door wrap application. Vinyl to be suitable for removal without damage to elevator door finish.
- H. Painted Sign Type Family: IN-22.06
  1. IN-22.06: All text and graphics are to be paint applied in the color noted. All letter and number form are to be clean and sharp with full coverage.
- I. Individual Letter Sign Type Family: IN-22.06
  1. Dimensional letters are mill or laser cut acrylic or aluminum in the size and thickness noted in the drawings.
  2. Draft of letters is perpendicular to letters face.
  3. All corners such as where a letter stem and bar intersect are to be square so the letter form is accurately reproduced.
  4. Paint acrylic letters with acrylic polyurethane in specified

color and finish. Paint aluminum letters with clear acrylic polyurethane finish.

J. Temporary Interior Signs:

1. Fabricated from 80 pound matte finished paper. Room signs can be 5 ½" by 8 ½" minimum. Directional signs must be at least 11" x 17" minimum. Room signs shall be in color and directional signs in white.
2. Mark architectural room number and name on sign, with broad felt marker in clearly legible numbers or letters that identify room, corridor or space as shown on floor plans.
3. Install temporary directional signs to replace existing signs that are removed. Attach to wall adjacent to door frame.
4. Install temporary signs to all rooms that have a room or space number. Attach to wall adjacent to door frame.
  - a. Doors that do not require signs are: corridor doors in corridor with same number, folding doors or partitions, toilet doors, bathroom doors within and between rooms, closet doors within rooms, communicating doors in partitions between rooms with corridor entrance doors.
  - b. b. Replace and missing damaged or illegible signs.

**2.5 FABRICATION**

- A. Design components to allow for expansion and contraction for a minimum material temperature range of 56 °C (100 °F), without causing buckling, excessive opening of joints or over stressing of adhesives, welds and fasteners.
- B. Form work to required shapes and sizes, with true curve lines and angles. Provide necessary rebates, lugs and brackets for assembly of units. Use concealed fasteners whenever and wherever possible.
- C. Shop fabricate so far as practicable. Joints fastened flush to conceal reinforcement, or welded where thickness or section permits.
- D. Contact surfaces of connected members be true. Assembled so joints will be tight and practically unnoticeable, without use of filling compound.
- E. Signs shall have fine, even texture and be flat and sound. Lines and miters sharp, arises unbroken, profiles accurate and ornament true to pattern. Plane surfaces be smooth flat and without oil-canning, free of rack and twist. Maximum variation from plane of surface plus or minus 0.3 mm (0.015 inches). Restore texture to filed or cut areas.
- F. Level or straighten wrought work. Members shall have sharp lines and angles and smooth sulrfaces.
- G. Extruded members to be free from extrusion marks. Square turns and corners sharp, curves true.
- H. Drill holes for bolts and screws. Conceal fastenings where possible. Exposed ends and edges mill smooth, with corners slightly rounded. Form joints exposed to weather to exclude water.
- I. Finish hollow signs with matching material on all faces, tops, bottoms and ends. Edge joints tightly mitered to give appearance of solid material.
- J. All painted surfaces properly primed. Finish coating of paint to have complete coverage with no light or thin applications allowing substrate or primer to show. Finished surface smooth, free of scratches, gouges, drips, bubbles, thickness variations,

- foreign matter and other imperfections.
- K. Movable parts, including hardware, are to be cleaned and adjusted to operate as designed without binding or deformation of members. Doors and covers centered in opening or frame. All contact surfaces fit tight and even without forcing or warping components.
  - L. Pre-assemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
  - M. No signs are to be manufactured until final sign message schedule and location review has been completed by the Resident Engineer & forwarded to contractor.

### **PART 3 - EXECUTION**

#### **3.1 DEMOLITION**

A. The hospital is removing the existing signs and sign contractor is to remove any remaining existing interior signs within the facility that were missed. The signs are to be removed from the site and disposed of or recycled as necessary. Any remaining signs not to be removed will be identified by the facility prior to the work proceeding.

B. Demolition will require removal of existing sign, patching and repairing the surface on which the old sign was been installed. The facility will paint the repaired area.

#### **3.2 DEMOLITION & INSTALLATION COORDINATION**

A. Sign contractor is to coordinate with the hospital in a specific manner for conducting the installation. The facility is changing all the room numbers and all the floor numbers within the facility and the new sign programs installation is critical to be coordinated with the hospital. The sign contractor will work with the hospital to make the transition occur at a specified date, which will be determined by the hospital.

B. When new signs are installed, they are to be covered over with the temporary paper sign with the old room number. It is the intention that on a specified date, the hospital will do a complete conversion and remove all the paper signs on the same day.

C. Elevator wraps with new floor numbers will be installed on the same specified conversion day.

#### **3.3 INSTALLATION**

A. Protect products against damage during field handling and installation. Protect adjacent existing and new finishes as necessary to prevent damage during installation. Paint and touch up any exposed fasteners and connecting hardware to match color and finish of surrounding surface. B. Mount signs in proper alignment, level and plumb according to the sign location plan and the dimensions given on elevation and sign location drawings. Where otherwise not dimensioned, signs shall be installed where best suited to provide a consistent appearance throughout the project. When exact position, angle, height or location is in doubt, contact Resident Engineer for clarification. C. Contractor shall be responsible for all signs that are damaged, lost or stolen while materials are on the job site and up until the completion and final acceptance of the job.

D. Remove or correct signs or installation work Resident Engineer determines as unsafe or as an unsafe condition.

E. At completion of sign installation, clean exposed sign surfaces.

Clean and repair any adjoining surfaces that became soiled or damaged as a result of installation of signs.

F. Locate signs as shown on the Sign Location Plans.

G. Certain signs may be installed on glass. A blank glass back up is required to be placed on opposite side of glass exactly behind sign being installed. This blank glass back up is to be the same size and shape as sign being installed.

H. Contractor will be responsible for verifying that behind each sign location there are no utility lines that will be affected by installation of signs. Any damage during installation of signs to utilities will be the sole responsibility of the Contractor to correct and repair.

I. Furnish inserts, mechanical anchors and other mounting material for installation of signs.

J. All room signs, directional signs and directories are to be installed with mechanical fasteners. Code and life safety signs can be installed with double sided adhesive tape. Salistic adhesive shall only be used on material surfaces where adhesive tape will not provide secure mounting for the sign. Exterior signs may be mounted with salistic adhesive.

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