

**SECTION 10 14 05
INTERIOR SIGNAGE**

SPEC WRITER NOTES:

1. Use this section only for NCA projects.
2. Delete //-----//if not applicable to project. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.
3. Coordinate interior sign type designations with VA Signage Design Guide, Section 12 - National Cemetery Signs.
4. Coordinate with drawing terminology for correct and uniform nomenclature.
5. Coordinate with electrical for location of junction boxes and service required for lighted signs.

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section specifies interior signage for rooms, directional signs, and code required signs.
- B. This section includes bronze Great Seal of the United States.
- C. Installation of Government-furnished dedication plaque.

1.2 RELATED WORK

- A. Electrical: Related Electrical Specification Sections.
- B. Lighted EXIT signs for egress purposes are specified under Division 26, ELECTRICAL.
- C. Section 10 14 00, EXTERIOR SIGNAGE.
- D. Color and Finishes: Section 09 06 00, SCHEDULE FOR FINISHES.

1.3 MANUFACTURER'S QUALIFICATIONS

- A. Provide evidence that the sign manufacturer regularly and presently manufactures signs similar to those specified in this section as one of their principal products.

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 two sets; one set of samples will be retained by RE/COR, 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. Show 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. Provide sign location plan, showing location, type and total number of signs required.

E. Shop Drawings: Scale 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.

B. Protect materials from damage.

C. 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.

D. Deliver signs only when the site and mounting services are ready for installation work to proceed.

E. Store products in dry condition inside enclosed facilities.

1.6 APPLICABLE PUBLICATIONS

A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by the basic designation only. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.

SPEC WRITER NOTES:

1. Remove reference citations that do not remain in Part 2 or Part 3 of edited specification.

2. Verify and make dates indicated for remaining citations the most current at date of submittal; determine changes from date indicated on the TIL download of the section and modify requirements impacted by the changes.

B. American Society for Testing and Materials (ASTM):

B209-07 Aluminum and Aluminum-Alloy Sheet and Plate

B221M-21 Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes

C. Military Specifications (Mil. Spec.):

MIL-PRF-8184F	Plastic Sheet, Acrylic, Modified
MIL-P-46144C	Plastic Sheet, Polycarbonate

1.7 MINIMUM SIGN REQUIREMENTS

A. Permanent Rooms and Spaces:

1. Tactile and Braille Characters, raised minimum 0.793 mm (1/32 inch); characters must be accompanied by Grade 2 Braille.
2. Topography:
 - a. Type Style: Helvetica Bold. Initial caps or all caps as indicated in Sign Message Schedule.
 - b. Provide text, arrows, and symbols in size, colors, typefaces and letter spacing shown; provide a true, clean, accurate reproduction of typeface(s) shown. Text shown in drawings is for layout purposes only; final text for signs is listed in Sign Message Schedule.
3. Character Height: Minimum 16 mm (5/8 in) high, Maximum 50 mm (2 in).
4. Symbols (Pictograms): Place equivalent written description directly below symbol, outside of symbol's background field. Border dimensions of symbol background must be minimum 150 mm (6 in) high.
5. Finish and Contrast: Characters and background to be eggshell, matte or other non-glare finish with adequate contrast with background.
6. Mounting Location and Height: As shown or mounted on wall adjacent to the latch side of the door and to avoid door swing and protruding objects.

1.8 COLORS AND FINISHES

A. Section 09 06 00, SCHEDULE FOR FINISHES.

PART 2 - PRODUCTS

SPEC WRITER NOTES:

1. Make material requirements agree with applicable requirements specified in the referenced Applicable Publications. Update and specify only that which applies to the project.

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; verify and be responsible for all dimensions and conditions indicated. RE/COR 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. By commencing work of this section, Contractor assumes overall responsibility, as part of its warranty of work, to assure that assemblies, components and parts shown or required within the work of the section, comply with the Contract Documents. Contractor further warrants that all components, specified or required to satisfactorily complete the installation are compatible with each other and with conditions of installations.

2.2 PRODUCTS

- A. Cast Acrylic Sheet: MIL-PRF-8184F; Type II, class 1, Water white non-glare optically clear. Matt finish water white clear acrylic is not acceptable.
- B. Vinyl: 0.1 mm thick machine cut, having pressure sensitive adhesive and integral colors.

2.3 INTERIOR SIGNAGE TYPES FOR ROOMS

- A. General:
 - 1. The interior sign system is comprised of sign types of 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.
 - a. IN indicates a component construction-based sign.

SPEC WRITER NOTES:

- 1. Delete sign types and sign families that are not being used on the project.
- B. Sign Type Family 01, 02.01 thru 02.05, 08, 09 and 20:
 - 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.
 - C. Sign Type Families 03:
 - 1. Tactile sign is to be made from a material that provides for letters, numbers and Braille to be integral with sign plaque

- material such as: photosensitive polyamide resin, etched metal, sandblasted phenolic or embossed material. Do not apply letters, numbers and Braille with adhesive.
2. Numbers, letters and Braille to be raised 0.793 mm (.0312 inches) from the background surface. The draft of the letters, numbers and Braille must be tapered, vertical and clean.
 3. Braille dots are to conform with standard dimensions for literary Braille; (a) Dot base diameter: 1.5 mm (.059 inches) (b) Inter-dot spacing: 2.3 mm (.090 inches) (c) Horizontal separation between cells: 6.0 mm (.241 inches) (d) Vertical separation between cells: 10.0 mm (.395 inches)
 4. Entire assembly is painted in specified color. After painting, apply white or other specified color to surface of the numbers and letters. Entire sign is to have a protective clear coat sealant applied.
 5. Complete sign is to have an eggshell finish (11 to 19 degree on a 60-degree gloss meter).
- D. Sign Type Family 04 and 11:
1. All text and graphics are to be first surface applied vinyl letters.
 2. IN-04: When a Type IN-04 is to be mounted under a Type IN03, a connecting Accent Joiner is to be used to create a singular integrated sign.
- E. Sign Type Family 07:
1. All text and graphics are to be first surface applied vinyl letters except for under sliding tile.
 2. Protect text, which is covered by sliding tile, so tile does not wear away letters.
- F. Sign Type Family 12:
1. All text and graphics are to be first surface applied vinyl letters.
 2. IN-12: Provide felt, cork or similar material on bottom of desk mounting bracket to protect counter surfaces.
- G. Sign Type Family 17:
1. All text and graphics are to be first surface applied vinyl letters.
 2. IN-17: Directory constructed using elements of the Component System.
- H. Sign Type Family 18:
1. All text and graphics are to be first surface applied stylus cut vinyl letters.

2. Provide in specified typeface, color and spacing, with each message or message group on a single quick release backing sheet.

2.4 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 must be true and assembled so joints are tight and practically unnoticeable, without use of filling compound.
- E. Provide signs with fine, even texture, flat and sound. Lines and miters sharp, arises unbroken, profiles accurate and ornament true to pattern. Plane surfaces to be smooth flat and without oil-canning, free of rack and twist. Maximum variation from plane of surface is plus or minus 0.3 mm (0.015 inches). Restore texture to filed or cut areas.
- F. Level or straighten wrought work. Provide members with sharp lines and angles, and smooth surfaces.
- 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 must be smooth, free of scratches, gouges, drips, bubbles, thickness variations, foreign matter and other imperfections.
- K. Movable parts, including hardware, are 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 re-assembly and coordinated installation.
- M. No signs are to be manufactured until final sign message schedule and location review has been completed by the RE/COR and forwarded to Contractor.

2.5 GREAT SEAL OF THE UNITED STATES

- A. Material: Cast of a lead-free tin bronze, such as C90300 (Navy "G" Bronze) or similar alloy approved by Government.
- B. Bas relief casting based on Government Drawing and of uniform quality and condition, free from injurious blow holes and porosity, cracks and other defects and not warped or distorted, well finished, free from burrs, sharp edges, scratches and defects that may affect appearance or service ability.
- C. Casting cannot be repaired, plugged, welded or burned.
- D. Finish to be detailed, hand chased for true alignment, filed, belt polished, sides ground smooth, raised surfaces and borders to be polished and buffed to a bright satin finish, background textures to be reverse medium pebble background, fine pebble background, moss as cast.
- E. Bronze to be chemically oxidized to a statuary medium color and finish with one coat of clear protective exterior metal lacquer.
- F. Anchors: Minimum 10 mm (3/8 inch) threaded bronze studs screwed into solid metal portion at back of seal.
- G. Provide 609 mm (24 inches) diameter, unless otherwise determined.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Protect products against damage during field handling and installation. Protect adjacent existing and newly placed construction, landscaping and 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. Install signs where best suited to provide a consistent appearance throughout the project, where otherwise not dimensioned.

Contact RE/COR for clarification, when exact position, angle, height or location is in doubt.

- C. Contractor is responsible for all signs that are damaged, lost or stolen while materials are on the job site, until the completion and final acceptance of the job.
- D. Remove or correct signs or installation work RE/COR determines as unsafe or as an unsafe condition.
- E. At completion of sign installation, clean exposed sign surfaces. Clean and repair any adjoining surfaces and landscaping 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 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 and anchoring devices which must be set in concrete or other material for installation of signs. Provide setting drawings, templates, instructions and directions for installation of anchorage devices which may involve other trades.
- J. Great Seal of the United States: //Mount seal into solid masonry or concrete with non-shrink mortar // _____//.

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