

SECTION 10 14 00
SIGNAGE

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. This section specifies interior signage for room identification, life safety and directional/wayfinding signs.
- B. This section specifies exterior signage.

1.2 RELATED WORK:

- A. Sustainable Design Requirements: Section 01 81 13, SUSTAINABLE CONSTRUCTION REQUIREMENTS.
- B. Electrical Work: Division 26, ELECTRICAL.
- C. Lighted EXIT signs for egress purposes are specified under Division 26, ELECTRICAL.
- D. Color and Finish of Interior Signs: Section 09 06 00, SCHEDULE FOR FINISHES.
- E. Structural Steel Supports: Section 05 12 00, STRUCTURAL STEEL FRAMING.

1.3 MANUFACTURER'S QUALIFICATIONS

Sign vendor shall provide evidence that they regularly and presently manufacture signs similar to those specified in this section as one of their principal products. Sign vendor shall have at least 5 years experience and have completed 5 other similar VA signage projects within the last 5 years. Specified Vendor: Creative Signage System, Inc. 9101 51st Place College Park, MD 20740 P: 301-345-3700 E: creative@creativesignage.com - GSA 078 Vendor.
Sayres & Associates 55 M Street, Suite 200 Washington, DC 2003
P: 202-355-0922 ext: 2117 E: ken.gorter@sac-corp.com - SDVOSB on GSA.

1.4 QUALITY ASSURANCE:

- A. Manufacturer's Qualifications: Provide signage that is the product of one manufacturer, who has provided signage as specified for a minimum of five (5) years. Submit manufacturer's qualifications.
- B. Installer's Qualifications: Minimum five (5) years' experience in the installation of signage of the type as specified in this Section. Submit installer's qualifications.

1.4 SUBMITTALS:

- A. Submit in accordance with Section 01 33 00, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.

- B. Sustainable Design Submittals, as described below:
 - 1. Volatile organic compounds per volume as specified in PART 2 - PRODUCTS.
- C. Interior Sign Samples: Sign panels and frames, with letters and symbols, for each sign type.
 - 1. Sign Panel, 203 x 254 mm (8 x 10 inches), with letters.
 - 2. Color samples of each color, 152 x 152 mm (6 x 6 inches). Show anticipated range of color and texture.
 - 3. Sample of typeface, arrow and symbols in a typical full size layout.
- D. Exterior Sign Samples: 152 x 152 mm (6 x 6 inches) samples of each color and material.
- E. Manufacturer's Literature:
 - Manufacturer's printed specifications, anchorage details, installation and maintenance instructions.
- F. Samples: Sign location plan, showing location, type and total number of signs required.
- G. Shop Drawings: Scaled for manufacture and fabrication of sign types. Identify materials, show joints, welds, anchorage, accessory items, mounting and finishes.
- H. Certification of meeting environmental attributes required within specification.
- J. Physical samples of sign types D1A/F1/W Required Before Contract Award
- K. Manufacturer's qualifications.
- L. Installer's qualifications.

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 WARRANTY:

- A. Construction Warranty: Comply with FAR clause 52.246-21, "Warranty of Construction".

1.7 APPLICABLE PUBLICATIONS:

Exterior Signage

- 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 Architectural Manufacturers Association (AAMA):
- 611-14.....Anodized Architectural Aluminum
 - 2603-13.....Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels
- C. American National Standards Institute (ANSI):
- A117.1-09.....Accessible and Usable Buildings and Facilities
- D. ASTM International (ASTM):
- A36/A36M-14.....Carbon Structural Steel
 - A240/A240M-15.....Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
 - A666-10.....Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate and Flat Bar
 - A1011/A1011M-14.....Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength
 - B36/B36M-13.....Brass Plate, Sheet, Strip, and Rolled Bar
 - B152/B152M-13.....Copper Sheet, Strip, Plate, and Rolled Bar
 - B209-14.....Aluminum and Aluminum-Alloy Sheet and Plate
 - B209M-14.....Aluminum and Aluminum-Alloy Sheet and Plate (Metric)
 - B221-14.....Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
 - B221M-13.....Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes (Metric)
 - C1036-11(R2012).....Flat Glass
 - C1048-12.....Heat-Treated Flat Glass-Kind HS, Kind FT Coated and Uncoated Glass
 - C1349-10.....Architectural Flat Glass Clad Polycarbonate

- D1003-13.....Test Method for Haze and Luminous Transmittance
of Transparent Plastics
- D4802-10.....Poly(Methyl Methacrylate) Acrylic Plastic Sheet
- D. Code of Federal Regulation (CFR):
- 40 CFR 59.....Determination of Volatile Matter Content, Water
Content, Density Volume Solids, and Weight
Solids of Surface Coating
- E. Federal Specifications (Fed Spec):
- MIL-PRF-8184F.....Plastic Sheet, Acrylic, Modified.
- MIL-P-46144C.....Plastic Sheet, Polycarbonate
- F. National Fire Protection Association (NFPA):
- 70-14.....National Electrical Code
- Interior Signage
- 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
- B221-08.....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

1.8 MINIMUM SIGN REQUIREMENTS

- A. Permanent Rooms and Spaces:
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: To comply with ADA Regulations. Mount on wall adjacent to the latch side of the door and to avoid door swing and protruding objects.
7. Specified signs shall have a recycled aluminum frame for mechanical wall mounting, durability and style.
8. Specified wall mounted signs must be mechanically fastened to the wall unless noted as an exception.
9. **Insert software program with unlimited license that auto scales the copy to fit each sign approximately allowing signs to be updated in house on any standard computer and printer must be provided.**

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 75 mm (3 in) high for overhead signs. As shown, for directional signs.
3. Finish and Contrast: Same as for signs of permanent rooms and spaces.
4. Mounting Location and Height: As shown.

1.7 COLORS AND FINISHES:

Signage color CSS 2-Ply Non-Glare Off White / CSS Green Acrylic Subsurface with CSS Square Satin Anodized Aluminum Frame. Sign frames to contain 75% Recycled content. Sign backing to be an Environmental Preferable Product (EPP Downstream Certified). Overhead Signage with 2" Solid Wood Header. Life Safety Signage color Fire Red Background with White Copy & Graphics.

PART 2 - PRODUCTS

2.1 SIGNAGE 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. 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.

2.2 INTERIOR SIGN MATERIALS:

- A. Aluminum:
1. Sheet and Plate: ASTM B209M (B209).
 2. Extrusions and Tubing: ASTM B221M (B221).
- B. 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.
- C. Polycarbonate: MIL-P-46144C; Type I, class 1.
- D. Vinyl: Premium grade 0.1 mm (0.004 inch) thick machine cut, having a pressure sensitive adhesive and integral colors.
- E. Adhesives:
1. Adhesives for Field Application: Mildew-resistant, nonstaining adhesive for use with specific type of panels, sheets, or assemblies; and for substrate application; as recommended in writing by signage manufacturer.
 2. Adhesives to have VOC content of 50 g/L or less when calculated according to 40 CFR 59, (EPA Method 24).

2.3 SIGN STANDARDS

- A. Topography:
1. Type Style: Helvetica Medium and Futura MD BT. Initial caps or all caps as indicated in Sign Message Schedule.
 2. Arrow: See graphic standards in drawings.
 3. Letter spacing: 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.

2.4 CONSTRUCTION

Interior Signs- are composed of two ply-1/16" matte faceplate laminated to 1/8" clear back plate with No.CC69017c compound high performance contact adhesive - shear strength and tack/heat resistance greater than pressure sensitive adhesives. Pocket signs created using No. 38 -.080" separating rib(s) to form insert space for custom computer generated acetate with package results in 5 3/16" inserts and 2 1/16" inserts **(the use of adhesive strips instead of ribs is not acceptable).**

Specified signs to nest into Type OS22 custom extruded, precision mitered, aluminum frame composed of clear anodized **aluminum with a minimum of 75% recycled content.** Frame is to be assembled with a two part epoxy process using **composite board back plate made of recycled content and EPP Downstream Certified.** The room number portion to use injected molded ABS characters. Grade II Braille to be produced with high pressure surface beading directly below tactile number 3/16" minimum. Braille translation via Duxbury Braille translator. Subsurface screen inks must be equal to NAZ-DAR Industrial Lacquer #7200 -series with 2-Propoxyethanol CAS # 2807-30-9; 2-Butoxyethanol CAS # 111-76-2 ; Isopropyl Alcohol CAS # 67-63-0; Toluene CAS#108-88-3 and must match #6213 Jade with black text (HM). **All sign colors and non ADA copy must be subsurface applied. Surface color or copy including laminates is not acceptable.**

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 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 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 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 COR & forwarded to contractor.
- N. Temporary Interior Signs:
 - 1. Fabricated from 50 kg (110 pound) matte finished white paper cut to 101 mm (4 inch) wide by 305 mm (12 inch) long.
 - a. Punched 3.2 mm (.125 inch) hole with edge of hole spaced 13 mm (.5 inch) in from edge and centered on 101 mm (4 inch) side.
 - b. Reinforce hole on both sides with suitable material that prevents tie from pulling through hole.

- c. Ties: Steel wire 0.3 mm (0.120 inch) thick attached to tag with twist leaving 152 mm (6 inch) long free ends.
- 2. Mark architectural room number on sign, with broad felt marker in clearly legible numbers or letters that identify room, corridor or space as shown on construction documents.
- 3. Install temporary signs to rooms that have a room, corridor or space number. Attach to door frame, door knob or door pull.
 - 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. Replace and missing, damaged or illegible signs.

PART 3 - EXECUTION

A complete sign message schedule identifying each sign, its message and its type should be provided. Room Identification signs must feature an open license application that auto scales copy to fit each sign to create new sign inserts in house on any standard computer and printers. Refer to sign drawings for detailed design. See sign schedule for further detail.

Directional Signs: Provide plan for primary and secondary wayfinding components at all decision points and key node areas requiring directional information. Emphasis should be placed on areas and services commonly sought-after by Veterans and their families. Provide various directional/wayfinding components including sign types.

3.1 INSTALLATION:

- A. Locate signs as shown on the construction documents.
- B. Protect products against damage during field handling and installation.
- C. 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 COR for clarification.
- D. All wall mounted signs must be mechanically fastened to the wall unless noted as an exception.

- E. Remove or correct signs or installation work COR determines as unsafe or as an unsafe condition.
- F. Conform to the VA Signage Design Guide for installation requirements.
- G. At each sign location there are no utility lines behind each sign location that will be affected by installation of signs.
 - 1. Correct and repair damage done to utilities during installation of signs at no additional cost to Government.
- H. Provide inserts and anchoring devices which must be set in concrete or other material for installation of signs. Submit setting drawings, templates, instructions and directions for installation of anchorage devices, which may involve other trades.
- J. Refer to Sign Message Schedule for mounting method. Mount signs in proper alignment, level and plumb according to the Sign Location Plan and the dimensions given on elevation and Sign Location Plans. When exact position, angle, height or location is not clear, contact COR for resolution.
- K. When signs are installed on glass, provide blank glass back up to be placed on opposite side of glass exactly behind sign being installed. Provide blank glass back that is the same size as sign being installed.
- L. Touch up exposed fasteners and connecting hardware to match color and finish of surrounding surface.
- M. At completion of sign installation, clean exposed sign surfaces. Clean and repair adjoining or adjacent surfaces that became soiled or damaged as a result of installation of signs.

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