

SECTION 10 1400

SIGNAGE

PART 1- GENERAL

1.01 SUMMARY

- A. Section includes site signage.
 - 1. Room identification Signs.
 - 2. Exterior Site, Parking Signs.
 - 3. Dimensional Letters.

1.02 RELATED REQUIREMENTS

- A. Section 32 1313 - Site Concrete for concrete sign post footings.

1.03 REFERENCES

- A. ADA - Americans with Disabilities Act: Standards.
- B. American National Standards Institute:
 - 1. ANSI A-117.1.
- C. ASTM International:
 - 1. ASTM A53 - Specification for Pipe, Steel, Black, and Hot Dipped, Zinc Coated, Welded and Seamless.
 - 2. ASTM A153 - Specification for Zinc Coatings (Hot-Dip) on Iron and Steel Hardware.
 - 3. ASTM B584 - 09a Standard Specification for Copper Alloy Sand Castings for General Applications.

1.04 SYSTEM DESCRIPTION

- A. Design Requirements: Design Parking Signs, Room Identification Signs, Maximum Occupant Load Signs, Toilet Room Signs, Assistive Listening System Signs, Exit Signs, and Miscellaneous Signs, as required by ADA and CBC.
 - 1. International Symbol of Accessibility: CBC 1117B.5.1 and sections as follows:
 - a. Design: CBC 11B-216.6
 - b. Color of Symbol: CBC 11B -703.7.2.1.
 - 2. Proportions of Letters and Numbers: CBC 11B-703.2.4.
 - 3. Character Height: CBC 11B-703.5.4 and 5.5.
 - 4. Contrast and Finish of Symbols: CBC 11B-703.5.1, 6.2 and 7.1.
 - 5. Raised Characters and Pictorial Symbol Signs: CBC 11B-703.2 and 6.
 - a. Character Type: CBC 11B-703.2.1, 2.2 and 2.3.
 - b. Character Size: CBC 11B-703.2.5.
 - c. Pictorial Symbol Signs (Pictograms Nongeometric): CBC 11B-703.6.1 and 6.3.
 - d. Character Placement: CBC 11B-703.2.9 and 3.2.

6. Braille: California Braille Grade 2, per CBC 11B-703.3 and 3.1.

7. Mounting Location and Height: CBC 11B-703.4.1 and 4.2.

8. Information Posted: CBC 11B-703.: Lobby signs.

1.05 SUBMITTALS

A. Product Data: Include manufacturer's construction details relative to materials, dimensions of individual components, profiles, finishes, and installation methods for each type of sign required. Submit samples for selection of color pattern and surface texture including full size sample of dimensional letter style, finish, etc., and manufacturers color chart.

B. Signage Schedule: Provide a graphic diagram of the relocatable units. Label each door or miscellaneous area which will receive a sign, including the door number, room name, and specific location where the sign will be installed.

C. Signage Schedule

1. List the Specific text message and graphics to be used for each sign.
2. Key each sign on the schedule to drawings or details provided in the shop drawings.

D. Shop Drawings: Submit details of anchors layout and installation details. Include the following:

1. Sign mounting method.

E. ADA Pictograms: Provide pictograms on all applicable ADA signs, in accordance with ADA guidelines, including the following:

1. International Symbol of Accessibility (ISA)

1.06 REGULATORY REQUIREMENTS

A. Codes and Standards: Signs shall conform to CBC section 11B-703. and the following:

1. International Symbol of Accessibility: Utilize the standard pictorial symbol as indicated for identifying facilities that are accessible and usable by physically disabled persons. The symbol shall consist of a white figure on a blue background (Color 15090 in Federal Standard 595B), or two contrasting colors, as indicated.
2. California Braille Symbols: Contracted (Grade 2) Braille shall be used wherever Braille is required in other portions of these standards. Dots shall be 1/10 inch on center in each cell with 2/10 inch space between cells, measured from the second column of dots in the first cell to the first column of dots in the second cell. Dots shall be raised a minimum of 1/40 inch above the background. Braille dots shall be domed or rounded.
3. Proportions: Characters on signs shall have a width-to-height ration of between 3:5 and 1:1 and a stroke width-to-height ration between 1:5 and 1:10. CBC Section 1117B.5.3. All letters I, X, and O at 1 inch height. Place the template's 1:1 square over the X or O, whichever is narrower. If the character is not wider than 1 inch, nor narrower that the 3:5 rectangle, the proportions are correct. Use the 1:5 rectangle to determine if the stroke of the I is too broad, and the 1:10 rectangle to see if it is too narrow. If all the tests are passed, the typestyle is compliant with the proportion requirement.
4. Finish and Contrast: Contrast between character, symbols and their background must be 70 percent minimum and have a non-glare finish. Characters and symbols shall contrast with their backgrounds; either light characters on a dark background, or dark characters on a light background. CBC Section 1117B.5.2.
5. Raised characters and Pictorial Symbol Signs: Conform with the following:

- a. Tactile Characters Type: Tactile characters on signs shall be raised 1/32 inch minimum and shall be sans-serif uppercase characters accompanied by Contracted (Grade 2) Braille. CBC Section 1117B.5.5, Item 1.
 - b. Tactile Characters Size: Raised characters shall be a minimum of 5/8 inch high and a maximum of 2 inches height.
 - c. Pictorial Symbol Signs (Pictograms): Pictorial symbol signs (pictograms) shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimension of the pictogram shall be a minimum of 6 inches in height.
6. Mounting Location and Height: "Tactile Signs" (Room Identification, Exit Doors, and Accessible Restrooms) shall be installed on the wall adjacent to the latch outside of the door. Where there is no wall space on the latch side, including at double leaf doors, signs shall be placed on the nearest adjacent wall, preferably on the right. Mounting height shall be 60 inches above the finish floor to the top of the sign. Mounting location shall be determined so that a person may approach within 3" of signage without encountering protruding objects or standing within the swing of the door. Evaluate each mounting location, and bring conflicts to the Architect's attention, prior to beginning installation.
7. Visual Exit Signs: Term "exit sign" shall mean those required signs that visually indicate the path of travel within the means of egress system.
8. Tactile Exit Signs: The term "tactile exit sign" shall mean those required signs that comply with CBC Section 11B-703.1.

1.07 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum five years experience.

1.08 DELIVERY, STORAGE AND HANDLING

- A. Package signs, labeled in name groups.
- B. Store adhesive attachment tape at ambient room temperatures.

PART 2 - PRODUCTS

2.01 SIGNS

- A. Manufacturers:
 - 1. Braille Signs Inc., www.braillesignsinc.com. TEL: 949-797-1570, email: contact@braillesignsinc.com
1805 East Wilshire Avenue, Suite 901, Santa Ana, CA 92705.
- B. Product Description and Basis of Design: For each separate type of sign required, obtain signs from a single manufacturer. Note that signs meeting the specifications and all District standards have been supplied for several prior District projects by "Braille Signs, Inc." in Santa Ana, CA.

2.02 SIGNS

- A. Materials: These signs shall be acrylic.
 - 1. Acrylic Sheet: Cast methyl methacrylate monomer plastic sheet with minimum flexural strength of 16,000 psi per ASTM D 790, minimum allowable continuous service temperature of 176 deg F (80 deg C). Provide clear, transparent colored, translucent colored, and opaque colored cast cell acrylic sheet, P95 frosted acrylic by MC.
 - a. Opaque Sheet: Acrylic sheet in colors and finishes indicated.

2. Plastic Laminate: High-pressure plastic laminate engraving stock with face and core piles in contrasting colors, matte finish.
 - a. Reverse (Sub-surface) Engraving Stock: 1/8 inch thick, 2-ply material (clear, non-glare matte finish over color layer), "Ultra-Mattes Reverse Engravable", by Rowmark, or by Duets.
 3. Colored Coatings for Plastic Sheet: Non-fading, recommended by manufacturers for optimum adherence to surface.
- B. Sign Fabrication: Signs shall be made from engraved copy, for both tactile and nontactile signs. Fabricate as follows:
1. Lettering and graphics shall be integral with the sign, surface applied lettering is not permitted.
 2. Lettering style shall be Helvetica Regular.
 3. Substrate shall be 1/8 inch matte acrylic.
 4. Surface shall be 1/8 inch acrylic face, engraved and/or reverse engraved.
 5. Engraved copy shall be 1/32 inch high/deep with a minimum width of ¼ inch.
 6. Reverse engraved copy shall be filled with enamel.
 7. Tactile Signs Graphics: Create tactile surface text graphics by engraving away background and leaving a remaining colored laminate surface, with radiused tops at Braille characters.
 8. Pre-drill signs for anchorage screws.

2.03 EXTERIOR SITE, PARKING LOT, GATE AND TRAFIC CONTROL SIGNS

- A. Exterior Site, Parking Lot, Gate, and Traffic Control Signs: Comply with requirements for materials, thicknesses, finishes, colors, designs, shapes, sizes, and construction details. Produce smooth, even, level panel surfaces, constructed to remain flat under installed conditions. Provide porcelain enameled aluminum unframed panel signs of the following materials:
1. Provide base metal of 0.063 inch aluminum porcelain enameling sheet of Alcad alloy 6061 H-12 with an alloy of 1230 cladding of approximately 5 percent on both sides. Edges to be rounded, and corners to be radiused.
 2. Provide porcelain enameling on face side of sheet a minimum of 0.002 inch thickness, per Porcelain Enamel Institute, Inc. Carefully execute silk-screened graphic according to details and instructions.
 3. Fasteners: Non-corrosive metal fasteners.

2.04 DIMENSIONAL LETTERS AND ARROW

- A. Dimensional Letters and Arrow: Form characters of the size, spacing, and layout indicated in the drawings, by casting with smooth, flat faces, sharp corners, precisely formed profiles and lines, free from pits, scale, sand holes or other defects. Cast lugs into the back and tap to receive threaded mounting studs.
1. Material: Cast Aluminum.
 2. Fabricated Dimensional Letters and Arrows:
 - a. Font Style: As selected by the Architect from the manufacturer's full range of fonts.
 - b. Letter Height: As shown on drawings.
 - c. Letter Depth: 1 inch.
 - d. Copy: As shown on drawings.
 3. Surface Finish: Powder Coated, color to be selected by the Architect from the manufacturer's full range of colors.

4. Exterior exposure rated.
5. Anchors and Inserts: Non-ferrous metal or hot-dipped galvanized. Use toothed steel expansion bolts for drilled-in-place anchors. Furnish inserts to be set into concrete.
6. Product: STEEL ARTS, cast dimensional letters: GEMINI INC.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Installation: Locate signs where indicated, or where required per this specification, using mounting methods described. Install level, plumb and at height indicated on drawings, with surfaces free from distortion or other defects in appearance.
- B. Post-mounted Exterior Site, Parking Lot, and Construction Signs: Set sign posts concrete footings. Steel trowel top of footings smooth with a slope away from the post.
- C. Cleaning and Protection: At completion of the installation, clean soiled sign surfaces. Protect from damage until Owner's acceptance.

3.02 CLEANING

- A. General: Upon completion, thoroughly clean exposed surfaces per manufacturer's instructions.

END OF SECTION