

## SECTION 10 14 23 - PANEL 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. Panel signs.
2. Room-identification signs.
3. Field-applied, vinyl-character signs.

- B. Related Requirements:

1. Section 01 50 00 "Temporary Facilities and Controls" for temporary Project identification signs and for temporary information and directional signs.
2. Section 01 56 39 "Temporary Tree and Plant Protection" for temporary protection-zone signage.
3. [Section 14 21 00 "Electric Traction Elevators"] [Section 14 24 00 "Hydraulic Elevators"] or code-required conveying equipment signage.
4. Section 22 05 53 "Identification for Plumbing Piping and Equipment" for labels, tags, and nameplates for plumbing systems and equipment.
5. Section 23 05 53 "Identification for HVAC Piping and Equipment" for labels, tags, and nameplates for HVAC systems and equipment.
6. Section 26 05 53 "Identification for Electrical Systems" for labels, tags, and nameplates for electrical equipment.
7. Section 26 51 00 "Interior Lighting" for illuminated, self-luminous, and photoluminescent exit sign units.

#### 1.3 ALLOWANCES

- A. Allowances for [signage] [room-identification signs] <Insert item description> are specified in Section 01 21 00 "Allowances."
- B. <Insert product or material> [is] [are] part of <Insert name of allowance>.

#### 1.4 DEFINITIONS

- A. Accessible: In accordance with the accessibility standard.

- B. Illuminated: Illuminated by lighting source integrally constructed as part of the sign unit.

#### 1.5 COORDINATION

- A. Furnish templates for placement of sign-anchorage devices embedded in permanent construction by other installers.
- B. Furnish templates for placement of electrical service embedded in permanent construction by other installers.

#### 1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. LEED Submittals (Projects authorized for LEED certification only)
  - 1. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regionally manufactured materials. Include statement indicating cost for each regionally manufactured material.
    - a. Include statement indicating location of manufacturer and distance to Project for each regionally manufactured material.
  - 2. Product Data for Credit IEQ 4.1: For adhesives, documentation including printed statement of VOC content.
  - 3. Laboratory Test Reports for Credit IEQ 4.1: For adhesives, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. Shop Drawings: For panel signs.
  - 1. Include fabrication and installation details and attachments to other work.
  - 2. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
  - 3. Show message list, typestyles, graphic elements[, **including raised characters and Braille**], and layout for each sign at least [**half size**] <Insert scale>.
  - 4. Show locations of electrical service connections.
  - 5. Include diagrams for power, signal, and control wiring.
- D. Samples for Initial Selection: For each type of sign assembly, exposed component, and exposed finish.
  - 1. Include representative Samples of available typestyles and graphic symbols.
- E. Samples for Verification: For each type of sign assembly showing all components and with the required finish(es), in manufacturer's standard size unless otherwise indicated and as follows:

1. Panel Signs: **[Full-size Sample] [Not less than 12 inches (300 mm) square, including corner] <Insert size>**.
  2. Room-Identification Signs: **[Full-size Sample] <Insert size>**.
  3. Field-Applied, Vinyl-Character Signs: **[Full-size Sample of characters on glass] <Insert requirement>**.
  4. Variable Component Materials: **[Full-size Sample] [8-inch (200-mm) Sample] <Insert size>** of each base material, character (letter, number, and graphic element) in each exposed color and finish not included in Samples above.
  5. Exposed Accessories: **[Full-size Sample] [Half-size Sample] <Insert size>** of each accessory type.
- F. Sign Schedule: Use same designations specified or indicated on Drawings or in a sign schedule.
- G. Delegated-Design Submittal: For **[signs indicated in "Performance Requirements" Article] <Insert sign designations>**.
1. Include structural analysis calculations for signs indicated to comply with design loads; signed and sealed by the qualified professional engineer responsible for their preparation.
- 1.7 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For **[Installer] [and] [manufacturer]**.
  - B. Sample Warranty: For special warranty.
- 1.8 CLOSEOUT SUBMITTALS
- A. Maintenance Data: For signs to include in maintenance manuals.
- 1.9 QUALITY ASSURANCE
- A. Installer Qualifications: **[Manufacturer of products] [An entity that employs installers and supervisors who are trained and approved by manufacturer]**.
- 1.10 FIELD CONDITIONS
- A. Field Measurements: Verify locations of **[anchorage devices] [and] [electrical service]** embedded in permanent construction by other installers by field measurements before fabrication, and indicate measurements on Shop Drawings.
- 1.11 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. Deterioration of embedded graphic image.
  - c. Separation or delamination of sheet materials and components.
2. Warranty Period: [**Five**] <Insert number> years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Accessibility Standard: Comply with applicable provisions in Texas Accessibility Standards (TAS) for signs.

### 2.2 SIGNS

- A. **Basis-of-Design Product:** Subject to compliance with requirements, provide plaque made of New Hermes Gravo-Tac material with raised numbers and Grade 2 Braille provided by New Hermes, Inc.; www.newhermes.com or comparable product by one of the following:

1. Accent Signage Systems, Inc.; www.accentssignage.com.
2. **ASI Sign Systems, Inc.**, InTac System; www.asisignage.com.
3. Signs of Success; www.signsuccess.com
4. Substitutions: See Section 01 25 00 - Substitution Procedures.

- B. Room-Identification Sign <Insert drawing designation>: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:

1. **Basis-of-Design Product:** Subject to compliance with requirements, provide 1/16" thick plaque made of New Hermes Gravo-Tac material with 1/32" thick 3/4" tall white raised numbers and Grade 2 Braille provided by New Hermes, Inc.; www.newhermes.com or comparable product by one of the following:.
2. Laminated-Sheet Sign: New Hermes Gravo-Tac material face sheet with raised graphics laminated to backing sheet to produce composite sheet.
  - a. Composite-Sheet Thickness: 3/32".
  - b. Surface-Applied Graphics: Applied Gravo-Tac .
  - c. Color(s): Back Plate: Taupe #216-214. Raised Letters: Bright White #214-114. Braille to match back plate.
3. Sign Perimeter: Finish edges smooth.
  - a. Edge Condition: Square cut .
  - b. Corner Condition in Elevation: Square .

4. Mounting: Manufacturer's standard method for substrates indicated with .
1. Text and Typeface for Room Identification: Accessible raised characters and Braille. Century Gothic Bold, 3/4" tall, Bright White. Braille to match background color.
2. Text and Typeface for Department and Suite Identification: Accessible raised characters Century Gothic Bold, 5/8" tall, Bright White. No Braille.

## 2.3 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signage, noncorrosive and compatible with each material joined, and complying with the following:
  1. Use concealed fasteners and anchors unless indicated to be exposed.
- B. Two-Face Tape: Manufacturer's standard high-bond, foam-core tape, 0.045 inch (1.14 mm) thick, with adhesive on both sides.
- C. Hook-and-Loop Tape: Manufacturer's standard two-part tape consisting of hooked part on sign back and looped side on mounting surface.
- D. Magnetic Tape: Manufacturer's standard magnetic tape with adhesive on one side.

## 2.4 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. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of signage work.
- B. Verify that sign-support surfaces are within tolerances to accommodate signs without gaps or irregularities between backs of signs and support surfaces unless otherwise indicated.
- C. Verify that anchor inserts are correctly sized and located to accommodate signs.
- D. Verify that electrical service is correctly sized and located to accommodate signs.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.
1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
  2. Install signs so they do not protrude or obstruct according to the accessibility standard.
  3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
  4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.
- B. Room-Identification Signs[ **and Other Accessible Signage**]: Install in locations on walls [**as indicated**] [**and**] [**according to accessibility standard**] <Insert requirement>.
- C. Mounting Methods:
1. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
    - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface, embedding studs in holes. Temporarily support sign in position until adhesive fully sets.
    - b. Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.
  2. Projecting Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
    - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place spacers on studs, place sign in position, and push until spacers are pinched between sign and substrate, embedding the stud ends in holes. Temporarily support sign in position until adhesive fully sets.
    - b. Thin or Hollow Surfaces: Place spacers on studs, place sign in position with spacers pinched between sign and substrate, and install washers and nuts on stud ends projecting through opposite side of surface, and tighten.
  3. Through Fasteners: Drill holes in substrate using predrilled holes in sign as template. Countersink holes in sign if required. Place sign in position and flush to surface. Install through fasteners and tighten.
  4. Brackets: Remove loose debris from substrate surface and install backbar or bracket supports in position so that signage is correctly located and aligned.
  5. Adhesive: Clean bond-breaking materials from substrate surface and remove loose debris. Apply linear beads or spots of adhesive symmetrically to back of sign and of suitable quantity to support weight of sign after cure without slippage. Keep adhesive

away from edges to prevent adhesive extrusion as sign is applied and to prevent visibility of cured adhesive at sign edges. Place sign in position, and push to engage adhesive. Temporarily support sign in position until adhesive fully sets.

6. 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.
7. Hook-and-Loop Tape: Clean bond-breaking materials from substrate surface and remove loose debris. Apply sign component of two-part tape strips symmetrically to back of sign and of suitable quantity to support weight of sign without slippage; push to engage tape adhesive. Keep tape strips [0.250 inch (6.35 mm)] <Insert dimension> away from edges to prevent visibility at sign edges when sign is initially installed or reinstalled. Apply substrate component of tape to substrate in locations aligning with tape on back of sign; push and rub well to fully engage tape adhesive to substrate.
8. Magnetic 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.
9. Shim-Plate Mounting: Provide 1/8-inch- (3-mm-) thick, concealed aluminum shim plates with predrilled and countersunk holes, at locations indicated, and where other direct mounting methods are impractical. Attach plate with fasteners and anchors suitable for secure attachment to substrate. Attach signs to plate using <Insert mounting method> method specified above.

- D. Field-Applied, Vinyl-Character Signs: Clean and dry substrate. Align sign characters in final position before removing release liner. Remove release liner in stages, and apply and firmly press characters into final position. Press from the middle outward to obtain good bond without blisters or fishmouths. Remove carrier film without disturbing applied vinyl film.
- E. Signs Mounted on Glass: Provide opaque sheet matching sign material and finish onto opposite side of glass to conceal back of sign.

### 3.3 ADJUSTING AND CLEANING

- A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.
- B. Remove temporary protective coverings and strippable films as signs are installed.
- C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION 10 14 23