

SECTION 10 14 00 - WAYFINDING SIGNAGE

PART 1 - GENERAL

- A. Section the following wayfinding signage:
 - 1. Panel signage
 - 2. Dimensional Signage
 - 3. Dimensional Characters
 - 4. Field-painted graphics
- B. Related Requirements:
 - 1. Section 27 41 13_ "Architecturally Integrated AV Systems" for LED Displays.
 - 2. Section 27 42 16_ "Transportation Information Display Systems" for systems related to EVIDS.

1.2 DEFINITIONS

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

1.3 COORDINATION

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

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For 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 other installers, and accessories.
 - 3. Show message list, typestyles, graphic elements, including raised characters and Braille, and layout for each sign at least half size.
 - 4. Show locations of electrical service connections.
 - 5. Include diagrams for power, signal, and control wiring.
- C. 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.
- D. 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. Signage: Samples and sizes indicated in the Mockup Schedule at the end of this Section.
 - 2. Exposed Accessories: Full-size Sample of each accessory type.
 - 3. Full-size Samples, if approved, will be returned to Contractor for use in the Project.

- E. Product Schedule: For dimensional letter signs. Use same designations indicated on Drawings or specified.
- F. Delegated-Design Submittal:
 - 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.

1.5 INFORMATIONAL SUBMITTALS

- A. Evaluation Reports: For post-installed anchors and power-actuated fasteners, from ICC-ES or other qualified testing agency acceptable to authorities having jurisdiction.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For signs to include in maintenance manuals.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Modular Signage: Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Inserts: First run of all inserts.
 - 2. Tools: One set of specialty tools for replacing inserts.

1.8 QUALITY ASSURANCE

- A. Fabricator Qualifications: Minimum of 5 years of experience producing architectural signs, and a minimum of 5 years of experience producing accessible signs complying with the accessibility standards indicated in the Performance Requirements Article.
- B. Installer Qualifications: Fabricator of products, unless otherwise indicated.
- C. Mockups: Build mockups to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build mockup of graphic element types scheduled at the end of this Section.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

1.9 FIELD CONDITIONS

- A. Field Measurements:
 - 1. Verify locations of electrical service and anchorage devices embedded in permanent construction by other installers by field measurements before fabrication, and indicate measurements on Shop Drawings.
 - 2. Verify dimensions of digital print and applied graphic elements, in relation to the substrates on which they are applied, by field measurements before fabrication, and indicate measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 01 40 00 "Quality Requirements," to design sign structure, hangars, and anchorage of oversized and hanging interior signs, including but not limited to the following, according to structural performance requirements.
 - 1. Suspended/Overhead Sign with dynamic displays.
 - 2. Suspended/Overhead Sign with internal illumination.
 - 3. Wall and Floor Mounted with dynamic displays.
- B. Structural Performance: Signs and supporting elements shall withstand the effects of gravity and other loads within limits and under conditions indicated.
 - 1. Design Loads: As indicated on Drawings.
- C. Accessibility Standard: The Department of Justice 2010 ADA Standards, as well as IBC and ICC/ANSI A117.1 or other locally enforced accessibility standards.
- D. Paint:
 - 1. VOC Content: Comply with VOC content limits of authorities having jurisdiction and the following VOC content limits:
 - a. Nonflat Paints and Coatings: 50 g/L.
 - b. Primers, Sealers, and Undercoaters: 100 g/L.
 - c. Pretreatment Wash Primers: 420 g/L.
 - 2. Material Compatibility:
 - a. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - b. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 PANEL SIGNS

- A. Panel Sign: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
 - 1. Solid-Sheet Sign, Returns, and Back: Sheet materials and thicknesses as indicated on Drawings.
 - a. Surface-Applied, Flat Graphics: Applied vinyl film or photo image, as indicated on Drawings.
 - b. Surface-Applied, Raised Graphics: Applied polymer characters and Braille.
 - c. Etched and Filled Graphics: Sign face etched or routed to receive enamel-paint infill.
 - d. Inset, Cutout Characters: Sign face routed to receive push-through acrylic graphics slightly projecting from the sign panel.

2. Sign-Panel Perimeter: Finish edges smooth.
3. Mounting: As indicated on Drawings with concealed anchors, countersunk flathead through fasteners, adhesive, or two-face tape.
4. Surface Finish and Applied Graphics:
 - a. Baked-Enamel or Powder-Coat Finish and Graphics: Colors indicated on Drawings.
 - b. Painted Finish and Graphics: Manufacturer's standard, factory-applied exterior-grade sign paint, in color indicated on Drawings.
 - c. Photo-Image Graphics: Manufacturer's standard multicolor, halftone or dot-screen image in dpi indicated on Drawings.
 - d. Overcoat: Manufacturer's standard baked-on clear coating.
5. Text and Typeface: Accessible raised characters and Braille. Finish raised characters to contrast with background color as indicated on Drawings, and finish Braille to match background color.
6. Flatness Tolerance: Sign shall remain flat or uniformly curved under installed conditions as indicated on Drawings and within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner.

2.3 DIMENSIONAL SIGNAGE

- A. Fabricated Framed Signage: Metal framed signs, formed free from warp and distortion; with uniform faces, sharp corners, and precisely formed lines and profiles; internally braced for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners; and as follows.
 1. Illuminated Signage: Backlighting construction with LED lighting, including transformers, insulators, and other accessories for operability, with provision for servicing and concealing connections to building electrical system. Use tight or sealed joint construction to prevent unintentional light leakage. Space lamps apart from each other and away from signage surfaces as needed to illuminate evenly.
 - a. Power: 120 V, 60 Hz, 1 phase, 15 A.
 2. Signage material thicknesses, height, depth, colors, mounting, typeface, and copy, are indicated on Drawings.
 3. Signage Frame Material: Sheet or plate aluminum.
 4. Translucent Face Sheet: Acrylic sheet with integral color.

2.4 DIMENSIONAL CHARACTERS

- A. Flat Cutout Characters: Characters with uniform faces; square-cut, smooth, eased edges; precisely formed lines and profiles; and as follows:
 1. Character Material: Sheet or plate aluminum, steel, stainless steel, acrylic, and edge-lit acrylic with laminated steel facing, as indicated on the Drawings.
 2. Provide waterjet-cut letters with precise corners of minimum 0.02-inch inside radii.
 3. Thickness: As indicated on Drawings, or if not indicated, manufacturer's standard for size and mounting of character, but not less than 0.125 inch.
- B. Fabricated Channel Characters: Metal face and side returns, formed free from warp and distortion; with uniform faces, sharp corners, and precisely formed lines and profiles; internally braced for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners; and as follows.

1. Illuminated Characters: Backlighting character construction with LED lighting, including transformers, insulators, and other accessories for operability, with provision for servicing and concealing connections to building electrical system. Use tight or sealed joint construction to prevent unintentional light leakage. Space lamps apart from each other and away from character surfaces as needed to illuminate evenly.
 - a. Power: 120 V, 60 Hz, 1 phase, 15 A, unless otherwise indicated on Electrical Drawings.
 - b. Weeps: Provide weep holes to drain water at lowest part of exterior characters. Equip weeps with permanent baffles to block light leakage without inhibiting drainage.
2. Character material thicknesses, height, depth, colors, mounting, typeface, and copy, are indicated on Drawings.
3. Character Material: Sheet or plate aluminum.
4. Translucent Face Sheet: Acrylic sheet with integral color.
5. Finishes:
 - a. Baked-Enamel or Powder-Coat Finish: Manufacturer's standard.
 - b. Overcoat: Manufacturer's standard baked-on clear coating.

2.5 FIELD-PAINTED GRAPHICS

- A. Painted Graphics: Graphics field-painted directly on indicated substrates. Substrate preparation, primers, and tie coats as recommended by topcoat manufacturer, and complying with Performance Requirements Article. Colors as indicated on Drawings.
 1. Manufacturers: Provide products by one of the following:
 - a. Benjamin Moore & Co.
 - b. Matthews Paint; A Subsidiary of PPG.
 - c. Sherwin-Williams Company (The).
- B. Painted Finishes: Apply 2 topcoats of Acrylic Polyurethane System on properly prepared and primed substrates, including aluminum, steel, wood, and existing coatings. Substrate preparation, primers, and tie coats as recommended by topcoat manufacturer, and complying with Performance Requirements Article. Colors as indicated on Drawings.
 1. Gloss Finish Topcoats: Matthews Paint, a division of PPG; MAP-LVG Acrylic Polyurethane Ultra Low VOC.
 2. Satin Finish Topcoats: Matthews Paint, a division of PPG; MAP-LVS Acrylic Polyurethane Ultra Low VOC.
- C. Photoluminescent Paint System: Compatible with substrates indicated, and luminance complying with one of the following:
 1. UL 1994.
 2. ASTM E2072; except that the charging source shall be 1 foot-candle (11 lux) of fluorescent illumination for 60 min., and the minimum luminance shall be 30 millicandelas/sq. m after 10 min. and 5 millicandelas/sq. m after 90 min.

2.6 MATERIALS

- A. Aluminum Castings: ASTM B 26/B 26M, alloy and temper recommended by signage manufacturer for casting process used and for type of use and finish indicated.

- B. Aluminum Sheet and Plate: ASTM B 209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.
- C. Aluminum Extrusions: ASTM B 221, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.
- D. Steel Materials:
 - 1. Steel Members Fabricated from Plate or Bar Stock: ASTM A 529/A 529M or ASTM A 572/A 572M, 42,000-psi minimum yield strength.
 - 2. For steel exposed to view on completion, provide materials having flat, smooth surfaces without blemishes. Do not use materials whose surfaces exhibit pitting, seam marks, roller marks, rolled trade names, or roughness.
- E. Acrylic Sheet: ASTM D 4802, category as standard with manufacturer for each sign, Type UVF (UV filtering).
- F. Polycarbonate Sheet: ASTM C 1349, Appendix X1, Type II (coated, mar-resistant, UV-stabilized polycarbonate), with coating on both sides.
- G. PVC Sheet: Manufacturer's standard, UV-light stable, PVC plastic.
- H. Plastic-Laminate Sheet: NEMA LD 3, general-purpose HGS grade, 0.048-inch nominal thickness.
- I. Vinyl Film: UV-resistant vinyl film of nominal thickness indicated, with pressure-sensitive, permanent adhesive on back; die cut to form characters or images as indicated on Drawings and suitable for exterior applications.
- J. Paints and Coatings for Sheet Materials: Inks, dyes, and paints that are recommended by manufacturer for optimum adherence to surface and are UV and water resistant for colors and exposure indicated.

2.7 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signs, noncorrosive and compatible with each material joined, and complying with the following:
 - 1. Use concealed fasteners and anchors unless indicated to be exposed.
 - 2. Exposed Metal-Fastener Components, General:
 - a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
 - b. Fastener Heads: For nonstructural connections, use flathead or oval countersunk screws and bolts with tamper-resistant Allen-head slots unless otherwise indicated.
 - 3. Sign Mounting Fasteners:
 - a. Concealed Studs: Concealed (blind), threaded studs welded or brazed to back of sign material, screwed into back of sign assembly, or screwed into tapped lugs cast integrally into back of cast sign material, unless otherwise indicated.
 - b. Projecting Studs: Threaded studs with sleeve spacer, welded or brazed to back of sign material, screwed into back of sign assembly, or screwed into tapped lugs cast integrally into back of cast sign material, unless otherwise indicated.

- c. Through Fasteners: Exposed metal fasteners matching sign finish, with type of head indicated, installed in predrilled holes.
- B. Adhesive: As recommended by sign manufacturer.
- C. Two-Face Tape: Manufacturer's standard high-bond, foam-core tape, 0.045 inch thick, with adhesive on both sides.
- D. Magnetic Tape: Manufacturer's standard magnetic tape with adhesive on one side.
- E. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187/D 1187M.

2.8 FABRICATION

- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
 - 1. Preassemble signs and assemblies in the shop to greatest extent possible. Disassemble signs and assemblies only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation; apply markings in locations concealed from view after final assembly.
 - 2. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
 - 3. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed connections of flux, and dress exposed and contact surfaces.
 - 4. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.
 - 5. Internally brace dimensional signage for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.
 - 6. Provide rabbets, lugs, and tabs necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.
 - 7. Castings: Fabricate castings free of warp, cracks, blowholes, pits, scale, sand holes, and other defects that impair appearance or strength. Grind, wire brush, sandblast, and buff castings to remove seams, gate marks, casting flash, and other casting marks before finishing.
- B. Surface-Engraved Graphics: Machine engrave characters and other graphic devices into indicated sign surface to produce precisely formed copy, incised to uniform depth.
 - 1. Engraved Metal: Fill engraved graphics with manufacturer's standard baked enamel.
 - 2. Engraved Opaque Acrylic Sheet: Fill engraved graphics with manufacturer's standard enamel.
 - 3. Face-Engraved Clear Acrylic Sheet: Fill engraved copy with manufacturer's standard enamel. Apply manufacturer's standard opaque background color coating to back face of acrylic sheet.
 - 4. Engraved Plastic Laminate: Engrave through exposed face ply of plastic-laminate sheet to expose contrasting core ply.
- C. Subsurface-Applied Graphics: Apply graphics to back face of clear face-sheet material to produce precisely formed image. Image shall be free of rough edges.

- D. Subsurface-Engraved Graphics: Reverse engrave back face of clear face-sheet material. Fill resulting copy with manufacturer's standard enamel. Apply opaque manufacturer's standard background color coating over enamel-filled copy.
- E. Shop- and Subsurface-Applied Vinyl: Align vinyl film in final position and apply to surface. Firmly press film from the middle outward to obtain good bond without blisters or fishmouths.
- F. Signs with Changeable Message Capability: Fabricate signs to allow insertion of changeable messages as follows:
 - 1. For snap-in changeable inserts beneath removable face sheet, furnish one suction or other device to assist in removing face sheet. Furnish initial changeable insert. Subsequent changeable inserts are by Owner. Furnish two blank inserts for each sign for Owner's use.
 - 2. For slide-in changeable inserts, fabricate slot without burrs or constrictions that inhibit function. Furnish initial changeable insert. Subsequent changeable inserts are by Owner. Furnish two blank inserts for each sign for Owner's use.
 - 3. For frame to hold changeable sign panel, fabricate frame without burrs or constrictions that inhibit function. Furnish initial sign panel. Subsequent changeable sign panels are by Owner.
- G. Brackets: Fabricate brackets, fittings, and hardware for bracket-mounted signs to suit sign construction and mounting conditions indicated. Modify manufacturer's standard brackets as required.
 - 1. Aluminum Brackets: Factory finish brackets with baked-enamel or powder-coat finish to match sign-background color unless otherwise indicated.
 - 2. Stainless-Steel Brackets: Factory finish brackets to match sign background finish unless otherwise indicated.

2.9 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.
- C. Directional Finishes: Run grain with long dimension of each piece and perpendicular to long dimension of finished trim or border surface unless otherwise indicated.
- D. Organic, Anodic, and Chemically Produced Finishes: Apply to formed metal after fabrication but before applying contrasting polished finishes on raised features unless otherwise indicated.

2.10 ALUMINUM FINISHES

- A. Clear Anodic Finish, Brushed: AAMA 611, Class II, 0.010 mm or thicker, unless otherwise indicated.
 - 1. Exterior Exposure: AAMA 611, Class I, 0.018 mm or thicker.

- B. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

2.11 STEEL FINISHES

- A. Surface Preparation: Remove mill scale and rust, if present, from uncoated steel, and prepare for coating according to coating manufacturer's written instructions.
 - 1. For Baked-Enamel or Powder-Coat Finish: After cleaning, apply a conversion coating compatible with the organic coating to be applied over it.
- B. Baked-Enamel or Powder-Coat Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils.

2.12 STAINLESS-STEEL FINISHES

- A. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.
- B. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.
 - 1. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
 - 2. Directional Satin Finish: No. 4, unless otherwise indicated.

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.
- 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 electrical service is correctly sized and located to accommodate signs.
- D. Verify that anchorage devices embedded in permanent construction are 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. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
 3. 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. Accessible Signage: Install in locations on walls as indicated on Drawings and according to the accessibility standard.
- 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. Back Bar and 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. 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.
 8. Shim-Plate Mounting: Provide 1/8-inch-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.
- 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 characters and signs that do not comply with specified requirements. Replace characters 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.

3.4 SCHEDULE OF MOCKUPS

- A. Provide a full-size working mock-up, is situ, for the following wayfinding sign types. Signage Fabricator will review existing DFW signage as part of the HIGH C Gates Expansion project to match as closely to existing for the Piers CATE project to include the following:
 - 1. 1-DR.24 - Overhead Direction - Fascia Mounted
 - 2. B.1D - Overhead Directional Suspended - Digital (DIGITAL LEDs to be a dummy static placeholder)
 - 3. B.2D - Overhead Directional Fascia - Digital, (Digital LEDs to be a dummy static placeholder).
 - 4. E.1 - Blade Mounted - Toilet Secondary Sign
 - 5. G.2D - Bag Claim ID - Digital (DIGITAL LEDs to be a dummy static placeholder) {Added in Revision 2}
 - 6. 1-DR.28 - Interior Vestibule Directional - Fascia Mounted {Added in Revision 2}
- B. Provide full scale mock-ups for controls samples and design intent approvals:
 - 1. 1-DR.31 - Elevator Directory Wall Mounted
 - 2. 1-ID.30 - Transition Toilet ID
 - 3. 1-ID.31A - Entry Toilet ID
 - 4. 1-ID.31.B - Entry Toilet ID - Server Weather
 - 5. S2 - Artery Wall Sign - Wall Mounted (Room Number and Name)

END OF SECTION 10 14 00

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