

SECTION 10410 - DIRECTORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Non-illuminated, changeable-letter directories.

1.2 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for directories.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- C. Samples for Initial Selection: For units with factory-applied color finishes as follows:
 - 1. Fabric swatches for letter boards.
 - 2. Section of header panel for color selection.
- D. Warranty: Special warranty specified in this Section.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative of directory manufacturer for installation and maintenance of units required for this Project.
- B. Source Limitations: Obtain directories through one source from a single manufacturer.
- C. Product Options: Information on Drawings and in Specifications establishes requirements for directories' aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including field testing and in-service performance.
- D. Product Options: Drawings indicate size, profiles, and dimensional requirements of directories and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."
 - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

1.4 COORDINATION

- A. Coordinate installation of anchorage for directories. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of directories that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures of cabinets or frames.
 - b. Faulty operation of hardware.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Aluminum: Alloy and temper recommended by aluminum producer and manufacturer for type of use and finish indicated, and as follows:
- B. Clear Tempered Glass: ASTM C 1048, Kind FT, Condition A, Type I, Class 1 (clear), Quality q3, with exposed edges seamed before tempering, and 6 mm thick, unless otherwise indicated.
- C. Clear Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), with Finish 1 (smooth or polished), and 6 mm thick, unless otherwise indicated; colorless sheet with visible light transmittance of 92 percent measured per ASTM D 1003.
- D. Opaque Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), with Finish 1 (smooth or polished), and 6 mm thick, unless otherwise indicated; colors as indicated.
- E. Fasteners: Provide screws, bolts, and other fastening devices made from same material as items being fastened, except provide hot-dip galvanized, stainless-steel, or aluminum fasteners for exterior applications. Provide types, sizes, and lengths to suit installation conditions. Use security fasteners where exposed to view.

2.2 CHANGEABLE-LETTER DIRECTORIES

- A. Enclosed-Face, Changeable-Letter Directory: Factory-fabricated unit consisting of manufacturer's standard, 2-inch- (50-mm-) deep perimeter frame with fixed letter board on back inside surface and with glazed doors.
 - 1. Manufacturers:
 - a. Andco Industries Corporation.
 - b. ASI Sign Systems, Inc.
 - c. Ghent Manufacturing Inc.
 - d. Marsh Industries, Inc.
 - e. Vomar Products, Inc.
 - 2. Aluminum Perimeter Frame: Extruded aluminum.
 - a. Perimeter Frame Profile: Half round.
 - b. Perimeter Frame Corners: Radius.
 - c. Finish: Clear anodic.
 - 3. Glazed, Hinged Doors: Clear tempered glass set in door frame equipped with full-height continuous hinge and cylinder lock with two keys.
 - a. Door Frame: Same material and finish as perimeter frame.
 - b. Number of Doors: Two.
 - 4. Header Panel: Non-illuminated; with opaque, acrylic sheet panel set within overall perimeter frame; with matching frame that separates header panel from letter board.
 - a. Graphic Content and Style: Provide header panel copy that complies with requirements indicated on artwork supplied on electronic media by Architect for size, style, spacing, content, height, location, material, and colors.
 - b. Color: As selected by Architect from full range of industry colors.
 - 5. Letter board: Manufacturer's standard felt-covered panel material, with grooves spaced at 1/4-inch (6 mm) o.c. to receive changeable letters.
 - a. Color: As selected by Architect from full range of industry colors.
 - 6. Letters: Molded plastic with tabs for engaging grooves in letter board. Provide manufacturer's standard assortment of not less than 300 characters for each size, style, color, and case required; include letters, numbers, and characters. Package letters in compartmentalized carrying box.
 - a. Height: 1/2 inch (13 mm) to top of capitals.
 - b. Style: As selected by Architect.
 - c. Color: As selected by Architect from full range of industry colors.
 - d. Case: Capitals and lowercase.
 - 7. Width: ~~As indicated on Drawings.~~ **Provide one (1) nominal 36" x 48" directory as specified. Location to be as field directed by the Architect. [Add4-18]**

8. Height: ~~As indicated on Drawings.~~
9. Mounting: Surface mounted.
10. Mounting Height: As indicated on Drawings.

2.3 FABRICATION

- A. Fabricate directories to requirements indicated for dimensions, design, and thickness and finish of materials. Use metals and shapes of thickness and reinforcing to produce flat surfaces, free of oil canning, and to impart strength for size, design, and application indicated.
- B. Fabricate directory cabinets and door frames with reinforced corners, mitered and welded to a hairline fit, with no exposed fasteners. Provide structural reinforcement to prevent racking and misalignment.

2.4 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.5 ALUMINUM FINISHES

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 611.
- C. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine walls, with Installer present, for compliance with requirements for installation tolerances, surface conditions of wall, and other conditions affecting performance of work.
 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
- B. Examine walls and partitions for proper backing for directories.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install directories in locations and at mounting heights indicated on Drawings, or if not indicated, at heights indicated below. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.
 1. Mounting Height: 72 inches (1829 mm) above finished floor to top of directory.

- B. Surface-Mounted Directories: Attach directories to wall surfaces with concealed clips, hangers, or grounds fastened at not less than 16 inches (400 mm) o.c. Secure both top and bottom of directories to walls.

3.3 ADJUSTING AND CLEANING

- A. Adjust directory doors to operate smoothly without warp or bind and contact points meet accurately. Lubricate operating hardware as recommended by manufacturer.
- B. Touch up factory-applied finishes to restore damaged or soiled areas.

END OF SECTION 10410