**CSI PRODUCT SPECIFICATIONS**

IDENTIFYING DEVICES - EXTERIOR SIGNS 10 14 00

**PART 1: GENERAL**

**1.01 SUMMARY**

A. Section Includes: Identifying devices, including architectural signage.

1. Types of identification devices include:

a. Exterior architectural signage.

*Specifier Note*: Revise Paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier’s practice.

B. Related Sections: Section(s) related to this section include:

*Specifier Note*: Article below may be omitted when specifying manufacturer’s proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Section 01 42 19 - Reference Standards may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

**1.02 REFERENCES**

A. ASTM International (ASTM):

1. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

*Specifier Note*: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect’s and Contractor’s duties and responsibilities in Conditions of the Contract and Section 01 33 00 - Submittal Procedures.

**1.03 SUBMITTALS**

1. General: Submit listed submittals in accordance with Conditions of the Contract and Section [01 33 00 - Submittal Procedures] [\_\_\_\_\_\_].
2. Product Data: Submit product data, including manufacturer’s SPEC-DATA® product sheet, for specified products.
3. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors and textures.
4. Samples: Submit selection and verification samples for finishes, colors and textures.
5. Quality Assurance Submittals: Submit the following:
	1. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and physical requirements.
	2. Manufacturer’s Instructions: Manufacturer’s installation instructions.
	3. Manufacturer’s Field Reports: Manufacturer’s field reports.
6. Closeout Submittals: Submit the following:
	1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Section [01 78 00 - Closeout Submittals] [\_\_\_\_\_\_\_\_\_\_\_]. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
	2. Warranty: Warranty documents specified herein.

*Specifier Note*: Article below should include prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate below Article with Division 01 Quality Assurance Section.

**1.04 QUALITY ASSURANCE**

1. Installer Qualifications: Installer experienced in performing work of this section who has specialized in the installation of work similar to that required for this project.

*Specifier Note*: Retain Paragraph below to suit project requirements; otherwise delete Paragraph below.

1. Certificate: When requested, submit certificate indicating qualification.

*Specifier Note*: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Section 01 41 00 - Regulatory Requirements. Repetitive statements should be avoided.

1. Regulatory Requirements: In accordance with Section [01 41 00 - Regulatory Requirements] [\_\_\_\_\_\_].

*Specifier Note*: Retain Paragraph below for erected assemblies, either onsite or offsite, required for review of construction, coordination of work of several sections, testing or observation of operation. Mockups establish standards by which work will be judged. Coordinate below with Division 01 Quality Control, Mockup Requirements Section.

1. Mockups: Install at project site a job mockup using acceptable products and manufacturer approved installation methods. Obtain Owner’s and Architect’s acceptance of finish color, texture and pattern and workmanship standard. Comply with Section [01 43 39 - Mockups] [\_\_\_\_\_\_].

*Specifier Note*: Edit Paragraph below to specifying mock-up size.

1. Mockup Size: [Specify size.].
2. Maintenance: Maintain mockup during construction for workmanship comparison; remove and legally dispose of mockup when no longer required.
3. Incorporation: Mockup may be incorporated into final construction upon Owner’s approval.

*Specifier Note*: Article below should include special and unique requirements.

**1.05 DELIVERY, STORAGE & HANDLING**

1. General: Deliver, store and handle in accordance with Section [01 61 00 - Common Product Requirements] [\_\_\_\_\_\_].
2. Ordering: Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.
3. Delivery: Deliver materials in manufacturer’s original, unopened, undamaged containers with identification labels intact.
4. Package signs, labeled in name groups.
5. Handle signage in order not to damage or mar surfaces of signs or adjacent finish surfaces as applicable.
6. Storage and Protection: Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
7. Prevent contact with material that may cause corrosion, discoloration or staining.
8. Store signage material in a safe, dry, aboveground location.
9. Protect materials from damage by other trades.
10. Waste Management and Disposal:

*Specifier Note*: Environment: The disposal of packaging waste into landfill site demonstrates an inefficient use of natural resources and consumes valuable landfill space.

1. Separate waste materials for [Reuse] [And] [Recycling] [\_\_\_\_\_] in accordance with Section [01 74 19 - Construction Waste Management and Disposal] [\_\_\_\_\_\_].
2. Remove from site and dispose of packaging materials at appropriate recycling facilities.
3. Collect and separate for disposal [Paper] [Plastic] [Polystyrene] [Corrugated cardboard] [\_\_\_\_\_] packaging material [In appropriate onsite bins] [\_\_\_\_\_] for recycling.

*Specifier Note*: Coordinate article below with Conditions of the Contract and with Section [01 78 36 - Warranties] [\_\_\_\_\_\_].

**1.06 WARRANTY**

1. Project Warranty: Refer to Conditions of the Contract and Section [01 78 36 - Warranties] [\_\_\_\_\_\_] for project warranty provisions.
2. Manufacturer’s Warranty: Submit, for Owner’s acceptance, manufacturer’s standard warranty document executed by authorized company official. Manufacturer’s warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.
3. Warranty Period: [Specify term.] years commencing on Date of Substantial Completion.

*Specifier Note*: Coordinate Paragraph below with manufacturer’s warranty requirements. Manufacturer offers a standard 5 year limited warranty. Consult with manufacturer.

2/90 Sign Systems

**PART 2: PRODUCTS**

*Specifier Note*: Retain Article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as “or equal” or “or approved equal” may cause ambiguity in the specifications. Such phrases require verification (procedural, legal and regulatory) and responsibility for determining equivalence of products.

**2.01 SIGNAGE**

1. Manufacturer: 2/90 Sign Systems
	1. Contact:
2. Proprietary Product(s)/System(s): Identification devices, including architectural signage systems.
3. Graphics Application Method: Computer-cut, first-surface applied, self-adhesive High Performance Cast PVC Vinyl.

**2.02 MANUFACTURED UNITS**

*Specifier Note*: Paragraphs below, Series 3, list identification device products for directional/informational applications.

1. SignComp Extrusions and Systems Series 3-1/4” Post and Panel System: 3-1/4 inch (82.55 mm) extruded aluminum (Alloy: 6063-T6/T5 or 6061-T6) frame with .100 inch (2.54 mm) extruded aluminum (Alloy: 6061) insert panels.
2. Height: Variable, built to order.
3. Extruded Aluminum (Alloy: 6063-T6/T5 or 6061-T6) Cabinet: 3-1/4 inch (82.55 mm) Slide Body, 3-1/4 inch (82.55 mm) Bleed Body.
4. Extruded Aluminum (Alloy: 6063-T6) Reveal: Reveal from post to sign cabinet to be 0, 3/8, or 3/4 inches (0, 9.525, 19.05 mm).
5. Post: Extruded Aluminum (6063-T6), Wall Thickness; .100” (2.54 mm), Length: Variable, built to order.
	1. Radius Post
	2. Half Round Post
	3. Quarter Round Post
	4. Rectangular Post
	5. Rectangular Post w/ Radius Corners
	6. Square Post
	7. Square Post w/ Radius Corners
	8. Round Post
	9. Triangular Post
	10. Triangular Post w/ Radius Corners
6. Painted a select color from the paint manufacturer’s standard color chart, using Matthews Acrylic Polyurethane (MAP).
7. Copy: Computer-cut, first-surface applied, self-adhesive High Performance Cast PVC Vinyl.

*Specifier Note*: Paragraphs below, Series 7, list identification device products for main identification applications.

1. SignComp Extrusions and Systems Series 7 Non-Illuminated Post and Panel System: 7 inch (177.8 mm) extruded aluminum (Alloy: 6005-T5 or 6063-T6) frame with .100 inch (2.54 mm) extruded aluminum (Alloy: 6061) insert panels.
2. Height: Variable, built to order.
3. Extruded Aluminum (Alloy: 6005-T5 or 6063-T6) Cabinet: 7 inch (177.8 mm) Slide Body, 7 inch (177.8 mm) Bleed Body.
4. Extruded Aluminum (Alloy: 6063-T6) Reveal: Reveal from post to sign cabinet to be 0, 1/2, or 1 inch (0, 12.7, 25.4 mm).
5. Post: Extruded Aluminum (6063-T6), Wall Thickness; .100” (2.54 mm), Length: Variable, built to order.
	1. Radius Post
	2. Rectangular Post
	3. Triangular Post
6. Painted a select color from the paint manufacturer’s standard color chart, using Matthews Acrylic Polyurethane (MAP).
7. Copy: Computer-cut, first-surface applied, self-adhesive High Performance Cast PVC Vinyl.

*Specifier Note*: Paragraphs below, Series 12, list identification device products for main identification applications.

1. SignComp Extrusions and Systems Series 12 Non-Illuminated Post and Panel System: 12 inch (304.8 mm) extruded aluminum (Alloy: 6063-T6) frame with .100 inch (2.54 mm) extruded aluminum (Alloy: 6061) insert panels.
2. Height: Variable, built to order.
3. Extruded Aluminum (Alloy: 6005-T5 or 6063-T6) Cabinet: 12 inch (304.8 mm) Slide Retainer, 12 inch (304.8 mm) Bleed Retainer.
4. Reveal: Variable, built to order
5. Radius End: Extruded Aluminum (6063-T6), Wall Thickness; .100” (2.54 mm), Length: Variable, built to order.
	1. 6” (152.4 mm) Radius Quarter Round End
6. Painted a select color from the paint manufacturer’s standard color chart, using Matthews Acrylic Polyurethane (MAP).
7. Copy: Computer-cut, first-surface applied, self-adhesive High Performance Cast PVC Vinyl.

**2.03 COMPONENTS**

1. Posts: Provide 6061/6063 extruded aluminum posts with vertical slots to engage the panels. Provide accessories, including stop blocks, post caps, adapters and reveal, required for a complete installation.
2. Finish shall be a select color from the paint manufacturer’s standard color chart, using Matthews Acrylic Polyurethane (MAP).
3. Panel Substrates: Sign panels shall be 0.080 inches - 0.125 inches (2.03 - 3.2 mm) aluminum conforming to ASTM B 209, acrylic, aluminum composite material, or polycarbonate. Comply with manufacturer’s recommendation for appropriate panel substrate.
4. Extruded Components: Extruded posts, side frames, top/bottom frames and other supporting elements shall be 6061/6063/6005 aluminum.
5. Graphics: Computer-cut, first-surface applied, self-adhesive High Performance Cast PVC Vinyl.

**2.04 FABRICATION**

1. General: To the greatest extent possible, units should be assembled by the manufacturer so as to minimize onsite assembly.
2. Ensure welds are provided behind finished surfaces and transmit no distortion or discoloration to the finished side.
3. Joints, miters and connections should be tight and free of noticeable fractures.
4. Fasteners shall be fully concealed wherever possible.
5. Posts: Fabricated to lengths required for the mounting method indicated. Options for mounting posts are as follows:
6. Direct Ground Burial: Fabricated posts a minimum 36 inches (914 mm) longer than the height indicated for the sign to allow for embedding into concrete foundation. Method allows for permanent installation of sign.
7. Base Plate Mounting:
	* 1. For removable installations, posts shall be fitted with welded base plates or other flanges or fittings. Holes shall be predrilled by the manufacturer to accommodate anchor bolt connections to a concrete foundation.
		2. Furnish templates as required for accurate setting of anchor bolt locations.
		3. All post heights over 72 inches (1829 mm) shall be gusseted or otherwise reinforced.

**2.05 SOURCE QUALITY**

1. Source Quality: Obtain identification devices products from a single manufacturer.

*Specifier Note*: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain or delete Paragraph below per project requirements and specifier’s practice.

**2.06 PRODUCT SUBSTITUTIONS**

1. Substitutions: Substitutions in accordance with Section [01 25 13 - Product Substitution Procedures] [No substitutions permitted] [\_\_\_\_\_\_].

**PART 3: EXECUTION**

*Specifier Note*: Article below is an addition to the CSI *SectionFormat* and a supplement to MANU-SPEC. Revise Article below to suit project requirements and specifier’s practice.

**3.01 MANUFACTURER’S INSTRUCTIONS**

1. Compliance: Comply with manufacturer’s written data, including product technical bulletins, product catalog installation instructions, product carton installation instructions and 2/90 Sign Systems, Inc. Industries’ SPEC-DATA.

**3.02 EXAMINATION**

1. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer’s instructions.
2. Verify areas are ready to receive signage.
3. Verify location of cast in anchors installed under other sections.

**3.03 PREPARATION**

1. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.
2. Coordination:
3. Coordinate installation with adjacent finish materials in a manner not to destroy adjacent surfaces.
4. Coordinate with other sections for cast-in or built-in anchors and mounting hardware required in work accomplished in other sections.

*Specifier Note*: Coordinate Article below with manufacturer’s recommended installation details.

**3.04 INSTALLATION**

A. Identification Devices:

1. Install signs in accordance with manufacturer’s instructions. Ensure the installation is proper so as to avoid warps, buckles, distortions, opening up of joints or overstressing of welds and fasteners.
2. Locate and install signs in locations indicated on drawings in accordance with approved shop drawings.
3. For direct burial installations, bore required holes to a diameter at least 4 times as large as the largest post cross-section and to a minimum depth of at least 36 inches (914 mm) below grade. The post section that will be below-grade shall be covered with a bituminous coating to prevent oxidation. Place gravel, sand or crushed stone in the bored hole to allow for proper drainage. Place concrete around post and ensure unit is square, level and plumb.
4. For base mounted installations, set unit on prepared base and secure with anchor bolts. Secure joint between module and base. Ensure that the unit is square, level and plumb.

*Specifier Note*: Coordinate Article below with Division 01 Quality Assurance and Quality Control Sections.

**3.05 FIELD QUALITY CONTROL**

*Specifier Note*: Edit Paragraph below. Establish number and duration of periodic site visits with Owner and manufacturer and specify below. Consult with manufacturer for services required. Coordinate Paragraph below with Division 01 Quality Assurance Section. Delete if manufacturer’s field service not required.

1. Manufacturer’s Field Services: Upon Owner’s request, provide manufacturer’s field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer’s instructions.

**3.06 ADJUSTING**

1. Adjusting: Make all final adjustments to components to ensure proper alignment, fit and smooth operation.

**3.07 CLEANING**

1. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer’s instructions prior to owner’s acceptance. Remove construction debris from project site and legally dispose of debris.
2. Upon completion of installation, clean all exposed surfaces in accordance with the manufacturer instructions.

**3.08 PROTECTION**

1. Protection: Protect installed product from damage during construction.