SECTION 108316 - BANNERS

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications. Section titles may have changed.

1. GENERAL
	* + 1. RELATED DOCUMENTS
				1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
			2. SUMMARY
				1. Section Includes:

Decorative banners for interior installation.

Decorative banners for exterior installation.

* + - 1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Product Data: For each type of product.

Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for banners.

Include edge- and corner-reinforcement descriptions, hardware, fittings, and mounting accessories.

* + - * 1. Shop Drawings: For each type of banner.

Include elevations, materials, fabrication, dimensions, mounting heights, clearances, and installation details.

Retain option in first Subparagraph below if banners contain text.

Detail colors and graphic layout and content.[**Show text message, font, and spacing.**]

Retain Subparagraph below for large banners and displays of multiple banners.

Show locations for blocking, reinforcement, and supplementary structural support. Identify items that are provided by other trades.

Retain "Samples for Initial Selection" and "Samples for Verification" Paragraphs below for two-stage Samples.

* + - * 1. Samples for Initial Selection: For each type of banner.

Include Samples of banner components, graphics, hardware, and accessories involving color and finish selection.

* + - * 1. Samples for Verification: For each type of the following products, prepared on Samples of size indicated below:

Banner Fabric: 12-inch- square section of fabric from dye lot to be used for the Work, with specified treatments applied. Mark face of fabric.

Graphics: 12-inch- square section showing graphics. Show complete pattern repeat, if any.

Seam, Edge, and Corner Condition: 12-inch- long section showing seam, edge, and corner treatment.

Exposed Hardware Finishes: Samples, not less than 3 inches square.

Accessories: Full-size units.

* + - * 1. Product Schedule: For banners.[**Use same designations indicated on Drawings.**]

Coordinate "Qualification Data" Paragraph below with qualification requirements in "Quality Assurance" Article.

* + - * 1. Qualification Data: For Installer.

Retain "Product Certificates" Paragraph below to require submittal of product certificates from manufacturers.

* + - * 1. Product Certificates: For each type of banner.
			1. CLOSEOUT SUBMITTALS
				1. Maintenance Data: For banners to include in maintenance manuals.
			2. QUALITY ASSURANCE

Consider retaining "Installer Qualifications" Paragraph below for complex installations.

* + - * 1. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
				2. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials, execution, fabrication, and installation.

Build full-size mockup for each type of banner including accessories.

Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Director’s Representative specifically approves such deviations in writing.

Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

* + - 1. DELIVERY, STORAGE, AND HANDLING
				1. Store banners rolled over rigid tubes; do not fold banners.
			2. FIELD CONDITIONS

Retain this article for banners installed in interior locations.

* + - * 1. Environmental Limitations: Do not install banners until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work at and above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
1. PRODUCTS

Manufacturers and products listed in SpecAgent and Masterworks Paragraph Builder are neither recommended nor endorsed by the AIA or Deltek. Before inserting names, verify that manufacturers and products listed there comply with requirements retained or revised in descriptions and are both available and suitable for the intended applications.

* + - 1. PERFORMANCE REQUIREMENTS

Retain "Structural Performance" Paragraph below for exterior banners. Consult Project's structural engineer and banner manufacturers about reasonable design wind load, banner configuration, and anchorage requirements.

* + - * 1. Structural Performance: Design, fabricate, and install banners to withstand the design wind loads and stresses for under exposure conditions indicated.

Design Wind Load: As indicated on Drawings.

Generally, retain "Fire-Test-Response Characteristics" Paragraph below for interior banners; revise to suit Project.

* + - * 1. Fire-Test-Response Characteristics: Passes applicable test method in NFPA 701 as determined by testing identical products by a qualified testing agency.

Permanently attach label to fabric of banner assembly indicating whether fabric is inherently and permanently flame resistant or is treated with flame-retardant chemicals and whether it requires retreatment after cleaning or after a designated time period of use.

* + - 1. FABRIC BANNER <**Insert drawing designation**>

Copy this article and re-edit for each product.

Insert drawing designation. Use these designations on Drawings to identify each product.

* + - * 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

AGAS Manufacturing Group.

Arkansas Flag and Banner.

Signs & Decal Corp.

Approved equivalent.

* + - * 1. Base Banner Material: As follows:

Fabric Type: [**Nylon**] [**Polyester**] [**Vinyl-coated polyester mesh**] [**Vinyl laminate over polyester or nylon**] [**Vinyl laminate over fiberglass mesh**] [**Cotton**] [**Polyester/cotton blend**] [**Solution-dyed acrylic**] [**Solution-dyed modacrylic**] [**Spun-bonded polyolefin**].

Retain "Fiber Type" Subparagraph below to specify proprietary fibers such as "Solarmax" nylon by DuPont or "Sunbrella" acrylic by Glen Raven.

Fiber Type: <**Insert proprietary fiber type**>.

Unsupported Film Content: [**Polyethylene**] [**Vinyl**] <**Insert requirement**> film.

Retain "Film" Subparagraph below to require proprietary films.

Film: <**Insert requirement**>.

Retain "Pattern" Subparagraph below if manufacturer's product has a "pattern" classification.

Pattern: <**Insert requirement**>.

Retain "Style" Subparagraph below if manufacturer's product has a "style" classification.

Style: <**Insert requirement**>.

Revise "Fabric Weight" Subparagraph below to specify another quantity measure such as denier or film thickness.

Fabric Weight: <**Insert oz./sq. yd.**>.

Height and Width: [**As indicated on Drawings**] <**Insert dimensions**>.

Revise "Color" Subparagraph below if more than one color is required.

Color: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from full range of industry colors and color densities**] [**As indicated in banner schedule**].

Water-soluble dyes and inks must be laminated to preserve stability.

Applied Treatment: [**Stain resistant**] [**Flame resistant**] [**Antistatic**] [**Clear lamination**].

* + - * 1. Graphics Application: [**Applique**] [**Hand painting**] [**Silk-screen printing**] [**Heat color transfer**] [**Pressure-sensitive vinyl film**] [**Inkjet**] [**Electrostatic printing**] [**Computer-driven airbrushing**] [**Dye sublimation**] [**Eradication**].

Extent: [**One**] [**Two**]-sided graphics application.

Options in "Outdoor Durability" Subparagraph below are examples that primarily apply to calendered and cast vinyl, respectively; consult fabricators for other graphics applications. The industry lacks a consensus testing standard for durability.

Outdoor Durability: Not less than [**three**] [**five**] years.

Retain "Text Message" Subparagraph below if banner contains text that is not indicated on Drawings; revise to suit the extent that text is denoted on Drawings.

Text Message: [**As indicated on Drawings**] [**As indicated in banner schedule**].

Font: [**Helvetica**].

Character Size: 3-inch- high characters or larger.

Character Color(s): <**Insert requirement**>.

Retain "Pressure-Sensitive Vinyl Film" Paragraph below if retaining "Pressure-sensitive vinyl film" option in "Graphics Application" Paragraph above; revise to suit Project.

* + - * 1. Pressure-Sensitive Vinyl Film: [**Calendered-vinyl film, not less than 3 mils thick**] [**Cast-vinyl film, not less than 2 mils thick**] [**Cast-vinyl reflective film, not less than 2 mils thick**], with pressure-sensitive adhesive backing.

Retain "Applique Material" Paragraph below if retaining "Applique" option in "Graphics Application" Paragraph; revise to suit Project.

* + - * 1. Applique Material: As follows:

Fabric Type: [**Same as base banner material, unless otherwise indicated**] [**Nylon**] [**Polyester**] [**Vinyl-coated polyester mesh**] [**Vinyl laminate over polyester or nylon**] [**Vinyl laminate over fiberglass mesh**] [**Cotton**] [**Polyester/cotton blend**] [**Solution-dyed acrylic**] [**Solution-dyed modacrylic**] [**Spun-bonded polyolefin**].

Retain "Pattern" Subparagraph below if manufacturer's product has a "pattern" classification different than base banner material.

Pattern: <**Insert requirement**>.

Retain "Style" Subparagraph below if manufacturer's product has a "style" classification different than base banner material.

Style: <**Insert requirement**>.

Retain "Fabric Weight" Subparagraph below if manufacturer's product has a "weight" classification different than base banner material. Revise Subparagraph if another quantity measure such as denier is used to describe applique fabric.

Fabric Weight: <**Insert oz./sq. yd.**>.

Retain "Color" Subparagraph below if manufacturer's product has a "color" classification different than base banner material. Revise Subparagraph if more than one color is required.

Color: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's sample**] [**As selected by Director’s Representative from full range of industry colors and color densities**] [**As indicated in banner schedule**].

Applied Treatment: [**Same as base banner material**] [**Stain resistant**] [**Flame resistant**] [**Antistatic**] [**Clear lamination**].

Retain "Block-Out Fabric" Paragraph below for banners that are printed or appliqued on both sides.

* + - * 1. Block-Out Fabric: Manufacturer's standard.

Retain "Anchors, Fasteners, Fittings, Hardware, and Installation Accessories" Paragraph below if mounting, hardware, and accessories are not included in manufacturer's product description or to specify specific options that manufacturer may offer. Insert additional items to suit Project.

* + - * 1. Anchors, Fasteners, Fittings, Hardware, and Installation Accessories: Suitable for performance requirements, exposure conditions, and installation methods indicated. Corrosion-resistant or noncorrodible units[**; tamperproof, vandal- and theft-resistant;**] and nonstaining to other building materials. Where exposed to view, with finish and color as selected by Director’s Representative from manufacturer's full range.

Subparagraphs below are examples only; retain or revise to suit Project. Banners may be attached through grommets and hems, along the inside of hemmed edge pockets, or by hardware applied to edges.

Hardware: Attach banners to support or installation accessory with [**manufacturer's standard hardware unless otherwise indicated**] [**O-rings, brass or stainless steel**] [**D-rings, brass or stainless steel**] [**cords and ties**] [**flag clips**] [**grommets and washers**] [**polyester hook-and-loop fasteners**] [**snaps**] [**adhesive tape**] [**magnetic tape**] [**or**] [**track carriers, clips, and hooks**].

Internal Battens and Tension Rods: [**Manufacturer's standard material**] [**Aluminum**] [**Fiberglass**].

Cable: 1/4-inch- diameter, [**galvanized**] [**stainless**] [**or**] [**epoxy-coated**] 7x7 steel aircraft cable with fittings.

Pole and Accessories: [**Manufacturer's standard material**] [**Aluminum**] [**Fiberglass**]; with mounting plate or base and attachment fittings and fasteners suitable for mounting pole to [**each location indicated of Drawings**] [**wall**] [**floor**] [**ground-set foundation**].

Light Pole-Mounting Assemblies: [**Single-side**] [**Two-side**] configuration, each with two sets of metal clamps, die-cast metal brackets, metal arms, and tension rods.

Track and Accessories: [**Manufacturer's standard material**] [**Aluminum channel**] [**Galvanized-steel channel**]; with end stops, mounting clamps, and attachment fittings and fasteners suitable for mounting track to [**each location indicated of Drawings**] [**ceiling**] [**wall**] [**beam**] [**pipe**].

Pipe and Tubing: [**Manufacturer's standard material**] [**Aluminum**] [**Anodized aluminum**] [**Steel with corrosion-resistant inner finish and galvanized outer finish with clear coat**] [**Stainless steel**].

* + - 1. FABRICATION

Retain first option in "Construction" Paragraph below for a single-sided, single fabric-layer banner. Retain second option, with or without third option, for a double-sided banner.

* + - * 1. Construction: [**Single**] [**Double**]-sided banner[**with block-out fabric**].

"Reinforcement" Subparagraph below is an example only; retain or revise to suit Project. Delete all three options if manufacturer's standard webbing is acceptable. Banners may be attached through grommets and hems, along the inside of hemmed edge pockets, or by hardware applied to edges.

Reinforcement: Reinforce wear points and hardware attachment points with concealed [**nonwoven**] [**mesh**] [**polypropylene mesh**] webbing.

Retain or revise "Perimeter Hems" Subparagraph below for sewn perimeter hems. For sewn banners, consider retaining "Fabric Edges and Seams" Subparagraph with or without "Perimeter Hems" Subparagraph.

Perimeter Hems: [**Double fold**] [**Fold**] under and double stitch the perimeter hems. Reinforce top hems by double folding and double stitching the webbing reinforcement into minimum 2-inch wide hem formed by face fabric turned under.

Retain "Fabric Edges and Seams" Subparagraph below to specify hemming and seaming method. Methods vary with fabric type and strength required. Retain or revise second option below for most fabrics. Third and fourth options below are suitable for some polymer-coated fabrics. Consult banner fabricators for recommendations.

Fabric Edges and Seams: [**Manufacturer's standard hemming and seaming method**] [**Folded and stitched selvedge, and cut fabric edges**] [**Hot cut and sealed**] [**Radio-frequency welded**] [**Adhesively bonded**].

Insert additional trim requirements in "Decorative Trims" Paragraph below to suit Project.

* + - * 1. Decorative Trims: [**Borders**] [**Braid and bindings**] [**Cords**] [**Fringe**] [**Patterned edge; scalloped**] [**Patterned edge; V-shaped**] [**Streamers**] [**Tassels**] [**Welting**].
1. EXECUTION
	* + 1. EXAMINATION
				1. Examine areas and conditions, with Installer present, for compliance with requirements for supporting members, blocking, inserts, installation tolerances, clearances, and other conditions affecting performance of the Work.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. INSTALLATION
				1. Install banners at locations and in position indicated, securely connected to supports, in proper relation to adjacent construction, and according to fabricator's written instructions.
				2. Use anchors, fasteners, fittings, hardware, and installation accessories as necessary for securing banners to structural support and for properly transferring load to permanent construction.
			3. DEMONSTRATION

Retain this article for complex installations or for large or difficult-to-handle banners. Revise to suit Project.

* + - * 1. Engage a Company Field Advisor to train Facility’s maintenance personnel to adjust, erect, remove, and maintain banners.

END OF SECTION 108316