SECTION 123661.16 - SOLID SURFACING COUNTERTOPS

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

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

Solid surface material countertops.

Solid surface material backsplashes.

Solid surface material end splashes.

Solid surface material apron fronts.

Solid surface material sinks.

Refer to sections listed below for cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections. Sections listed below are for spec editor’s and design team coordination and are to remain as Editor’s Notes. Remove referenced specification sections within the body of the specification if not applicable to the project.

Section 224100 "Residential Plumbing Fixtures" for [non-integral sinks] [sinks] [and] [plumbing fittings].

* + - 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. Quality Control Submittals:

Qualification Data: For fabricator.

* + - * 1. Product Data: For countertop materials[**and sinks**].

Include manufacturer’s installation instructions.

* + - * 1. Sustainable Design Submittals:
				2. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures.

Show locations and details of joints.

Show direction of directional pattern, if any.

* + - * 1. Samples for Initial Selection: For each type of material exposed to view.

Delete "Samples for Initial Selection" Paragraph above if colors and other characteristics are preselected and specified or scheduled. Retain "Samples for Verification" Paragraph below with or without paragraph above.

* + - * 1. Samples for Verification: For the following products:

Countertop material, 6 inches square.

Wood trim, 8 inches long.

One full-size solid surface material countertop, with front edge[**and backsplash**], 8 by 10 inches, of construction and in configuration specified.

* + - * 1. Contract Closeout Submittals

Maintenance Data: For solid surface material countertops to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

* + - 1. QUALITY ASSURANCE

Retain "Fabricator Qualifications" Paragraph below if required by Project size, fabrication, or installation details.

* + - * 1. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops similar to that required for this Project, and whose products have a record of successful in-service performance.
				2. Installer Qualifications: Fabricator of countertops.

A mockup may be a reasonable precaution for projects that require many solid surface material countertops, but it may be impractical for other applications.

* + - * 1. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for fabrication and execution.

Indicate portion of countertop represented by mockup on Drawings or draw mockup as separate element.

Build mockup of typical countertop as indicated on Drawings.

* + - 1. FIELD CONDITIONS
				1. Field Measurements: Verify dimensions of countertops by field measurements[**after base cabinets are installed but**] before countertop fabrication is complete.
			2. COORDINATION
				1. Coordinate locations of utilities that will penetrate countertops or backsplashes.
1. PRODUCTS

Before selecting manufacturers and products, verify availability, suitability for intended applications, and compliance with minimum performance requirements. \

Product options commonly available from manufacturers are included in square brackets throughout the Section Text. Not every manufacturer listed can provide every option offered; verify availability with manufacturers.

* + - 1. SOLID SURFACE COUNTERTOP MATERIALS
				1. Solid Surface Material: Homogeneous-filled plastic resin complying with ISFA 2-01.

Delete option in "Type" Subparagraph below if 1/4-inch thick material is not used.

Type: Provide Standard type[**or Veneer type made from material complying with requirements for Standard type, as indicated**] unless Special Purpose type is indicated.

Integral Sink Bowls: Comply with CSA B45.5/IAPMO Z124.

Colors and Patterns: [**As indicated by manufacturer's designations**] [**Match Director’s Representative's samples**] [**As selected by Director’s Representative from manufacturer's full range**].

Retain "Solid Wood Edges and Trim" Paragraph below for countertops with decorative wood edge. Wood species are examples only; other species may be available. Indicate details on Drawings.

* + - * 1. Solid Wood Edges and Trim: Clear [**red oak**] [**white oak**] [**hard maple**] [**cherry**] <**Insert species**> lumber, free of defects, selected for compatible grain and color, and kiln dried to 7 percent moisture content.

Retain "Particleboard" or "Plywood" Paragraph below if 1/4-inch thick, solid surface material is specified or if subtops are required.

* + - * 1. Particleboard: ANSI A208.1, [**Grade M-2**] [**Grade M-2-Exterior Glue**].
				2. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.
			1. FABRICATION
				1. Fabricate countertops according to solid surface material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."

Grade: [**Premium**] [**Custom**] [**Economy**].

Delete "Configuration" Paragraph below if countertop is indicated on Drawings.

* + - * 1. Configuration:

Retain one front and one backsplash style in first two subparagraphs below or revise to suit Project.

Front: [**Straight, slightly eased at top**] [**Beveled**] [**3/4-inch bullnose**] [**Radius edge with apron, 2 inches high with 3/8-inch radius**] [**1-1/2-inch laminated bullnose**] [**1-inch laminated bullnose**] [**Straight, slightly eased at top with separate apron, 6 inches high, recessed 1/4-inch behind front edge**] [**Wood-trimmed edge as indicated**].

Backsplash: [**Straight, slightly eased at corner**] [**Beveled**] [**Radius edge with 3/8-inch radius**].

End Splash: [**Matching backsplash**] [**None**].

* + - * 1. Countertops:

Retain one of two subparagraphs below and revise to suit Project. Availability of 3/4-inch thick, solid surface material is limited.

[**1/2-inch**] [**3/4-inch**] thick, solid surface material[**with wood-trimmed edges**] [**with front edge built up with same material**].

1/4-inch thick, solid surface material laminated to 3/4-inch thick particleboard with [**wood-trimmed exposed edges**] [**exposed edges built up with 3/4-inch thick, solid surface material**] [**exposed edges faced with 1/4-inch thick, solid surface material**].

* + - * 1. Backsplashes: [**1/2-inch**] [**3/4-inch**] thick, solid surface material[**with wood-trimmed edges**].
				2. Fabricate tops with shop-applied edges[**and backsplashes**] unless otherwise indicated. Comply with solid surface material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

Delete option in last paragraph above or delete first subparagraph below; delete both for Contractor's option.

Fabricate with loose backsplashes for field assembly.

Delete subparagraph below if no integral sinks.

Install integral sink bowls in countertops in the shop.

* + - * 1. Joints:

Retain one of first two subparagraphs below. First subparagraph is impossible with very large or complex countertops. If retaining second subparagraph and option, indicate joint locations on Drawings.

Fabricate countertops without joints.

Fabricate countertops in sections for joining in field[**, with joints at locations indicated**].

Consider retaining "Joint Locations" Subparagraph below if joint locations are not indicated on Drawings.

Joint Locations: Not within 18 inches of a sink or cooktop and not where a countertop section less than 36 inches long would result, unless unavoidable.

Consider retaining "Splined Joints" Subparagraph below for higher-quality work. Metal splines may be an unnecessary expense at typical joints but may be advantageous if using narrow strips of solid surface material between joints to form large openings for kitchen sinks, cooktops, and so forth.

Splined Joints: Accurately cut kerfs in edges at joints for insertion of metal splines to maintain alignment of surfaces at joints[**where indicated**]. Make width of cuts slightly more than thickness of splines to provide snug fit.[**Provide at least three splines in each joint.**]

* + - * 1. Cutouts and Holes:

Retain "Undercounter Plumbing Fixtures" Subparagraph below for undercounter lavatories and sinks. Shop fabrication usually provides better results, but large openings, such as for kitchen sinks, are better completed after top is in place to avoid possibility of breakage during delivery or installation.

Undercounter Plumbing Fixtures: Make cutouts for fixtures[**in shop**] using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.

Retain one of first three subparagraphs below to describe profile of cutout edges or indicate on Drawings.

Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop and projecting 3/16 inch into fixture opening.

Provide vertical edges, rounded to 3/8-inch radius at juncture of cutout edges with top surface of countertop, slightly eased at bottom, and projecting 3/16 inch into fixture opening.

Provide 3/4-inch full bullnose edges projecting 3/8 inch into fixture opening.

Retain "Counter-Mounted Plumbing Fixtures" Subparagraph below for counter-mounted lavatories, sinks, and so forth. Shop fabrication usually provides better results, but large openings, such as for kitchen sinks, are better completed after top is in place to avoid possibility of breakage during delivery or installation.

Counter-Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.

Retain "Fittings" Subparagraph below if using deck-mounted fittings or soap dispensers.

Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.

Counter-Mounted Cooktops: Prepare countertops in shop for field cutting openings for cooktops. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.

* + - 1. INSTALLATION MATERIALS
				1. Adhesive: Product recommended by solid surface material manufacturer.

Sealant may be required for joints at walls. If retaining "Sealant for Countertops" Paragraph below, coordinate with Section 079200 "Joint Sealants."

* + - * 1. Sealant for Countertops: Comply with applicable requirements in Section 079200 "Joint Sealants."
1. EXECUTION
	* + 1. EXAMINATION

Coordinate conditions required by Work of this Section with requirements in other Sections in which substrates are specified.

* + - * 1. Examine substrates to receive solid surface material countertops and conditions under which countertops will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			1. INSTALLATION
				1. Install countertops level to a tolerance of 1/8 inch in 8 feet, 1/4 inch maximum. Do not exceed 1/64-inch difference between planes of adjacent units.

Retain first paragraph below if solid surface countertop is fastened directly to cabinets or other supports.

* + - * 1. Fasten countertops by screwing through corner blocks of base units into underside of countertop. Predrill holes for screws as recommended by manufacturer. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

Retain first two paragraphs below if solid surface countertop is installed over a plywood or particleboard subtop.

* + - * 1. Fasten subtops to cabinets by screwing through subtops into cornerblocks of base cabinets. Shim as needed to align subtops in a level plane.
				2. Secure countertops to subtops with adhesive according to solid surface material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

Retain first paragraph below unless joints are not allowed.

* + - * 1. Bond joints with adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to joints to prevent adhesive smears.

Consider retaining one of two subparagraphs below, or both. Metal splines may be an unnecessary expense at typical joints but may be advantageous if using narrow strips of solid surface material between joints to form large openings for kitchen sinks, cooktops, and so forth.

Install metal splines in kerfs in countertop edges at joints[**where indicated**]. Fill kerfs with adhesive before inserting splines and remove excess immediately after adjoining units are drawn into position.

Clamp units to temporary bracing, supports, or each other to ensure that countertops are properly aligned and joints are of specified width.

* + - * 1. Install backsplashes and end splashes by adhering to wall and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.
				2. Install aprons to backing and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears. Fasten by screwing through backing. Predrill holes for screws as recommended by manufacturer.
				3. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.

Usually retain subparagraph below for countertops containing sinks if particleboard subtops are specified and exterior-glue particleboard is not specified.

Seal edges of cutouts in particleboard subtops by saturating with varnish.

* + - * 1. Apply sealant to gaps at walls; comply with Section 079200 "Joint Sealants."

END OF SECTION 123661.16