

COUNTERTOPS & HORIZONTAL SURFACES

SECTION-11

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INCLUDING: Tops, Wall Caps, Splashes, Sills and Benches; of HPL, TFL, Wood, Solid Surface, CGS Compact Laminate, Epoxy Resin, and Natural / Engineered Stone

11.1 SCOPE

- All HPL, TFL, including Class A Flame Spread-Rated and Chemical-Resistant, Solid Surface, Natural / Engineered Stone, Epoxy Resin, CGS Compact Laminate, and wood facings, tops, splashes, sills, ledges, and benches. 12/01/2021
- 2 INCLUSIONS
- 2.1 HPL, Class A Flame Spread-Rated HPL, Chemical-Resistant HPL, TFL, Solid Surface, Natural / Engineered Stone, Epoxy Resin, CGS Compact Laminate, and Wood Countertops with approved backing sheet, as applicable. 12/01/2021
- 2.2 Splashes, sub-tops and spacers.
- 2.3 Exposed edges; cutouts for sinks; electrical boxes; and fixtures indicated on drawings.
- 2.4 Integral solid surface sinks and epoxy sinks.
- 2.5 Windowsills and ledges.
- 2.6 Support members that are surface-mounted.
- 2.7 Benches.
- 2.8 Installation, if specified.
- 3 EXCLUSIONS
- 3.1 Stripping, furring, in wall blocking, or grounds.
- 3.2 Furnishing or installation of sink rims or sinks not listed above.
- 3.3 In-wall support members.
- 3.4 All grounds, backing members, or other items unrelated to the furnishing and installation of countertops and sinks.
- 3.5 Fixtures, plumbing, and data equipment.
- 3.6 Sink outlets and fittings.
- 3.7 Welded metal support material or structure.
- 3.8 Flooring and ceiling surfaces.
- 3.9 Cutouts in sub-tops, where stone / solid surface tops are not in contract.













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11.2 SURFACE DEFINITIONS



- EXPOSED SURFACES
- 1.1 All visible surfaces of an installed countertop.
- 1.2 The exposed underside surface over 42" (1067 mm) off the finish floor.
- 2 CONCEALED SURFACES
- 2.1 The underside surface 42" (1067 mm) or less off the finished floor.
- 2.2 All non-visible surfaces attached to and/or covered by another surface.
- 2.3 All non-visible blocking, spacers, etc., used for attachment.

11.3 DEFAULT STIPULATION



- IF NOT OTHERWISE SPECIFIED OR INDICATED IN THE CONTRACT DOCUMENTS:
- 1.1 SPLASHES, back or end, where indicated will be a minimum of 3" (76 mm) high above the deck surface.
- 1.2 HPL COUNTERTOPS will be CUSTOM GRADE (unless the related casework is premium grade, then the countertops will be PREMIUM GRADE); HGP-HPL of standard, non-premium colors and finishes, selected from manufacturer's brand choice and readily available sheet sizes; with manufacturer's choice of edge treatment.
- 1.3 **WOOD COUNTERTOPS** will be **CUSTOM GRADE** (unless the related casework is Premium Grade, then the countertops will be **PREMIUM GRADE**) hardwood plywood intended for an opaque finish, with manufacturer's choice of edge treatment.
- 1.4 SOLID SURFACE COUNTERTOPS will be CUSTOM GRADE (unless the related casework is Premium Grade, then the countertops will be PREMIUM GRADE) of standard, non-premium colors with satin finish, selected from manufacturer's brand choice and with manufacturer's choice of edge treatment.
- 1.5 **CGS** (Compact Laminate) **COUNTERTOPS** will be **CUSTOM GRADE**, of standard, non-premium colors with finish selected from manufacturer's brand choice and with manufacturer's choice of edge treatment.
- 1.6 **EPOXY RESIN COUNTERTOPS** will be **CUSTOM GRADE**, of standard, non-premium colors with satin finish, selected from manufacturer's brand choice and with manufacturer's choice of edge treatment, and including compatible sink and accessories.
- 1.7 **NATURAL / ENGINEERED STONE COUNTERTOPS** will be **CUSTOM GRADE**, of standard, non-premium colors with standard finish, selected from manufacturer's brand of choice and with manufacturer's choice of edge treatment.















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11.4 GENERAL REQUIREMENTS

EXCEPTION - These standards are a guide from which the design professional is free to deviate. When the design professional, as part of the contract documents, deviates from these standards, the contract document takes precedence over the Standards. Such deviations cannot be adjudicated using the Standards as a basis.



2 **EXTERIOR ENVIRONMENTS** and woodwork products for such are not covered by these standards.



3 INTERIOR, NON CLIMATE CONTROLLED ENVIRONMENTS are not covered for product joint flushness or gap tolerances of woodwork products in these standards; however, prior to installation, the flushness and/or gap tolerances of woodwork products intended for nonclimate controlled environments will meet the tolerances requirements herein.



FUNDAMENTAL GENERAL / PRODUCT REQUIREMENTS within Section 02 (Fundamental Requirements), Section 13 4 (Care & Storage), and Section 15 (Tolerances) are primary to and work in conjunction with specific requirements within Section 06 through 12, unless a project's contract documents require otherwise.



5 LUMBER & SHEET PRODUCT COMPONENT REQUIREMENTS (such as HPL, TFL, Solid Surface, CGS Compact Laminate, and Epoxy Resin, Natural / Engineered Stone) used within the woodwork product sections are established by Sections 03 and 04, unless otherwise modified herein. 12/01/2021



6 FINISHING requirements for the woodwork product sections are established by Sections 05, unless otherwise modified herein, and:



6.1 **PRIMING** or **SEALING** is not the responsibility of the manufacturer and/or installer. unless the material is factory finished.



6.2 FACTORY FINISHING when specified, requires back of wood countertops and trim to be factory sealed.



7 CARE and STORAGE REQUIREMENTS are covered under Section 13.

INSTALLATION REQUIREMENTS are covered under Section 14.

TOLERANCE REQUIREMENTS are covered under Section 15.





10 ERRATA, published at naaws.com, will take precedence over these requirements, subject to their date of posting and a project's bid date.



COUNTERTOP MANUFACTURERS are responsible for furnishing wall cleating necessary for proper setting of their countertops where there is no casework for support.



12 NATURAL STONE referenced in these standards typically refers to granite, marble, slate, soapstone, and limestone. Natural stone countertops are cut directly from the earth and have little processing besides smoothing and shape formation and will often need to be sealed because natural materials are porous (soapstone is a notable exception to this generalization).



- ENGINEERED STONE referenced in these standards is a composite material made of crushed stone bound together by an adhesive, (most 13 commonly polymer resin, with some newer versions using cement mix). This category includes engineered quartz, polymer concrete and engineered marble stone. It also known Agglomerated Stone.
- 14 BUILD-UP materials required for installation of a countertop are the responsibility of the countertop manufacturer.
- 15 Defined **GRAIN** and/or **PATTERN** shall run parallel to the front edge in any given elevation.
- 16 HORIZONTAL REVEALS between the lower edge of the countertop and the upper edge of the adjacent door or drawer front will be consistent. Coordination of such is the responsibility of the cabinet manufacturer.

B|C|D|E|F|G|H|I|J|K|L|M|N|O|P|Q|R|S|T|U|V|W| X, Y, Z



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Important:

Section 02 (Fundamental Requirements), Section 13 (Care & Storage), and Section 15 (Tolerances) are primary to and work in conjunction with the requirements within this Section.

11.5 MATERIAL REQUIREMENTS

EDGEBANDING requires minimum thickness at:

HPL Banding of 0.036 (0,91 mm) +/- 0.005 (0.13 mm).

PVC, ABS, Polyester, Polypropylene Banding of 0.039 (1 mm) +/- 0.005 (0.13 mm). Veneer Banding of 0.02 (0.5 mm) +/- 0.0025 (0.06 mm).

- 2 SOLID WOOD requires 3/4" (19.0 mm) minimum thickness solid stock of one species for the entire project.
- **VENEERED WOOD** requires core be a minimum of 11/16" (17.5 mm) particleboard, medium-density fiberboard, veneer core, or otherwise approved engineered core, except at:
- 3 1 SINK TOPS and their splashes requires use of veneer core with moisture resistant adhesive or moisture resistant MDF or particleboard with a 24-hour thickness swell factor of 5.5% or less.
- **HPL** requires minimum HGP-HPL, or CPL of brand, color and finish specified, if not specified, it will be of standard, non-premium color and finish selected from manufacturer's brand choice, and:
- 4 1 CORE, will be a minimum of 11/16" (17.5 mm) particleboard, medium-density fiberboard, veneer core, or otherwise approved engineered core.
- 2 SINK TOPS and their splashes requires use of veneer core with moisture resistant adhesive or moisture resistant MDF or particleboard with a 24-hour thickness swell factor of 5.5% or less.
- FLAME SPREAD RATED countertops require Class A Flame Spread Rated HPL, core and backing sheet. Core will be a minimum of 11/16" (17.5 mm) thick and backing sheet a minimum of 0.028" (0.7 mm) HPL.
- **SOLID SURFACE** requires Solid Surface of brand, color and finish specified, if not specified, it will be of standard, non-premium color and finish selected from manufacturer's brand choice, and nominal 1/2" (12.7 mm) minimum in thickness for countertops and back splashes.
- **CGS** (Compact Laminate) requires CGS (Compact Laminate) of brand, color and finish specified, if not specified, it will be of standard, non-premium color and finish selected from manufacturer's brand choice, and minimum 1/2" (12.7 mm) in thickness.
- **EPOXY RESIN** requires Epoxy Resin of brand, color and finish specified, if not specified, it will be of standard, non-premium color and finish selected from manufacturer's brand choice, and minimum 3/4" (19 mm) in thickness.
- NATURAL / ENGINEERED STONE requires stone of brand, color and finish specified, if not specified, it will be of standard, non-premium color and finish selected from manufacturer's brand choice, and minimum 2CM (13/16" (20.6 mm)) in thickness, and at:
- 8 1 NATURAL STONE, thickness of the material used throughout a project will not vary in excess of 1/8" (3.2 mm).















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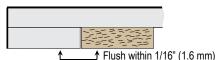
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- 1 ADHESIVE or JOINT FILLER material, if used, will be inconspicuous and match the adjacent surface for smoothness.
- 2 SQUARENESS will be within ±1/64" (0.4 mm) for each 12" (305 mm).
- 3 CUTOUTS will be within ±1/8" (3.2 mm) of locations and +1/8" to 0" (3.2 mm to 0.0 mm) for size.
- 4 | **SCRIBING**, if needed, requires countertop be provided with extra length.
- Tops requiring more than one sheet of surface material will be pre-matched to minimize color variation within the scope of the material supplier's guarantee, be fabricated from the longest lengths available, and top widths exceeding product availability will have manufacturer-assembled joints.
- **6** | **FILLERS** will be furnished by the countertop manufacturer.
- 7 EDGE APPLICATION SEQUENCE will be the manufacturer's choice, except at HPL.
- 8 BACK SPLASHES require end splashes at wall ends.
- REMOVABLE LEDGES and/or ACCESS PANELS will be attached with flat-head screws, set flush, and if chemical resistance is required, screws will be stainless steel.
- 10 SHEET and LAMINATED LUMBER PANELS will be permitted to move, float, expand or contract in reaction to ambient humidity changes.
- 11 EDGE OVERHANGS will be consistent, and:
- Be a minimum of 1/2" (12.7 mm) and a maximum of 1-1/4" (31.8 mm) over the outer most cabinet face and finished end, and be parallel with the cabinet face or end within +/- 1/8" (3.2 mm) in any 96" (2440 mm) run of countertop, and at appliance ends, be flush to a maximum of 1/4" (6.4 mm) over the cabinet end.
- 11 2 If specified with drip groove, it will be continuous 1/8" x 1/8" (3.2 mm x 3.2 mm) and 3/8" (9.5 mm) back from the front edge and sealed.
- If specified flush, it will not exceed 1/8" (3.2 mm) over the outer most cabinet face and finished end and be parallel with the cabinet face or end within +/- 1/16" (1.6 mm) in any 96" (2440 mm) run of countertop.

BOTTOM OF COUNTERTOP BUILD UP and/or SUBTOP / FRONT RAIL /

STRETCHER will be surface flush within 1/16" (1.6 mm), free of glue residue, and sanded or filled smooth with edges eased at knee spaces or cantilevers, and:

♣ Flush within 1/16" (1.6 mm)



- BUILD-UP MEMBERS will be of the same core material as the countertop with backing sheet applied. The use of moisture-resistant core, or a colorcoded, water-resistant sealer may be substituted for backing sheet.
- 13 EXPOSED EDGES will be finished and eased. If edges are to be covered, the use of the longest available edging material is required.

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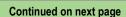




11.6 ASSEMBLY REQUIREMENTS

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- 14 METAL TRIM RIMS (furnished by others) at sinks or self-rimming sinks must overlap the countertop and/or sink by a minimum of 3/16" (4.8 mm).
- 5 SPANS and/or CANTILEVERS of countertops may require reinforcement to prevent deflection, see applicable portions of Section 14 (Installation) for minimum requirements.
- 16 CANTILEVERS, with or without a sub-top, will not exceed 12" (305 mm) from a support, whether in the front, back, or end, unless otherwise further qualified herein.
- 17 SOLID WOOD requires:
- 17 **SHOP ASSEMBLED JOINTS** will be fit tight and flush with the use of splines, dowels, loose tenons, or biscuit splines for alignment, securely fastened with draw-bolt-type mechanical fasteners and adhesive.
- 17 2 WIDE WIDTH GLUE-UP of boards exceeding 3" (76 mm) in width be alternately set with crown up and crown down.
- 17 3 CURVED front edges be solid machined, steam bent, bent solid lumber or laminated plies at the option of the manufacturer, in full compliance with all other applicable requirements of these Standards including Section 06.
- 16 4 SOLID WOOD EDGES and APPLIED MOLDINGS will be glued, and finish nailed, however at:
- 17 4 P Premium Grade They will be splined, biscuit splined, or doweled and pressure glued without the use of fasteners through the exposed face.
- **18 VENEERED WOOD** requires:
- 18 1 SHOP ASSEMBLED JOINTS be fit tight and flush with the use of splines, dowels, loose tenons, or biscuit splines for alignment, securely fastened with draw-bolt-type mechanical fasteners and adhesive, and:
- 18 1 1 Butt joints are not permitted at L-shaped countertops.
- BUILT-UP MEMBERS be of required core material with backing sheet applied or use of moisture-resistant core or a color-coded, water-resistant sealer may be substituted for backing sheet.















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19 HPL requires:

- 19 1 CUTOUTS have a minimum of 1/8" (3.2 mm) radius at inside corners, with edges subject to moisture sealed with a color-toned (for verification), water-resistant sealer before trim or sink rims are installed.
- 2 COVED SPLASHES of 1/4" +/- 1/16" (1/6 mm) radius, requiring a square cove stick the same thickness as the core material with voids filled with glue between the HPL and the cove stick.
- DRIP GROOVE, if specified, be a continuous 1/8" x 1/8" (3.2 mm x 3.2 mm) groove 3/8" +/- 1/16" (9.5 mm +/- 1.6 mm) from the front edge, smoothly sanded and sealed with a color-toned (for verification) water-resistant sealer.
- 19 4 MITER-FOLD is permitted.
- 19 5 BACKING SHEET to cover the underside of countertops, the backside of splashes and be the same material for the entire project.
- 19 6 LAMINATIONS to be made securely to the core with moisture resistant adhesive applied as recommended by the adhesive material supplier, and adhesive for solid color core laminate application will conform to material supplier's recommendation.
- 19 7 FLAME SPREAD-RATED countertops require a non-formed HPL edge, screwed-on back splash and adhesive be rigid set with Class A Flame Spread.
- 19 8 HPL EDGE be applied after top laminate, except at:
- 19 8 P Premium Grade It will be applied before top laminate.
- 19 9 L-SHAPED countertops may be butt jointed except at wood grain or directional pattern which require an approximate 45° diagonal joint.
- 19 10 SHOP PREPARED FIELD JOINTS will be fabricated with splines, biscuits or dowels and draw-bolt-type mechanical fasteners.
- 19 11 SHOP ASSEMBLED JOINTS will be glued and fastened together with splines or dowels and draw-bolt-type mechanical fasteners.

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19 HPL requires (continued)

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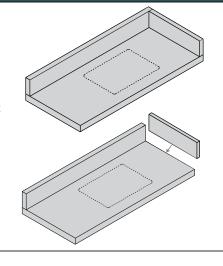
ASSEMBLY of back and end-splash (where indicated on contract documents) requires; Raw core at joint between the countertop deck and the back / end splash will be sealed before assembly, if not coved.

Back splash (coved or square) will be butt joint applied with mechanical fasteners.

End splash will be attached or sent loose at the manufacturers option.

Back and end splashes, unless coved, will be caulked with clear or compatible color water resistant caulking to leave a visible bead not exceeding 1/8" (3.2 mm).

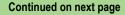
Scribe allowance will be provided, as appropriate, and un-backed scribe span will not exceed ½" (12.7 mm) at ends and back walls.







- 19 13 FINISHED END CAPS may be applied after top laminate.
- 19 14 REMOVABLE COMPONENTS will be attached with flat-head screws, set flush, and if chemical resistance is required, the screws will be stainless











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- 20 SOLID SURFACE will conform to the material supplier's recommendations, and requires:
- at joints, except where hot areas meet cold areas.

 MANUFACTURED JOINTS will be precision-machined and glued with the material supplier's hard seaming material or equal. Silicone is not permitted at joints, except where hot areas meet cold areas.
- 20 2 EDGE detail requires either miter-fold, single drop or build-up of manufacturers' profile choice, a minimum of 1" (25.4 mm) nominal thickness, except at:
- 20 2 P Premium Grade A minimum of 1-1/2" (38.1 mm) nominal thickness.
- 20 3 COVED splash is only required when so specified and end splashes will be sent loose without cove.
- 4 JOINTS AT L-shaped tops with a grain or pattern appearance will have an approximate 45° diagonal joint, butt joints are not permitted.
- 20 5 EXPOSED FINISH will be the manufacturer's standard matte finish.
- 20 6 EXPANSION CLEARANCES of at least 1/8" (3.2 mm) will be provided.
- 20 7 SEALANTS and/or ADHESIVES, as recommended by individual material suppliers, will be used to achieve the best performance and color match.
- 20 8 CANTILEVERS, with or without a sub-top, will not exceed 12" (305 mm) for 3/4" (19.0 mm) or 6" (152 mm) for 1/2" (12.7 mm) thick material, whether in the front, back, or end.
- yeined / Swirled solid surface may have random patterns that cannot be matched at seams. Pattern breaks, pattern changes and color variations may occur, and will not be considered a defect in materials or workmanship.



- 21 1 FRONT EDGES be a minimum of 1/2" (12.7 mm) in thickness.
- 21 2 JOINTS will be in accordance with material suppliers' recommendations.
- 21 3 EDGE FINISH will be machined with satin sheen.
- NO-DRIP / LIPPED EDGE TOPS will be raised a minimum of 1/4" (6.4 mm) above the work surface; the width of the raised area will be determined by the manufacturer.
- 21 5 BACK SPLASHES will be separate, flat-butted.
- 21 6 CANTILEVERS, with or without a sub-top, will not exceed 18" (457 mm) for 1" (25.4 mm), 12" (305 mm) for 3/4" (19 mm), or 6" (152 mm) for 1/2" (12.7 mm) thick material, whether in the front, back, or end.

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22 EPOXY RESIN requires:

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- 22 1 EXPOSED EDGES be smoothly machined and finished compatible with the top face.
- 22 NO-DRIP / LIPPED EDGE TOPS be raised a minimum of 3/16" (4.8 mm) above the work surface, and drip grooves are not required.
- 22 3 BACK SPLASHES will be separate, flat-butted.
- 22 4 CANTILEVERS, with or without a sub-top, will not exceed 12" (305 mm) for 1" (25.4 mm) or 6" (152 mm) for 3/4" (19.0 mm) thick material, whether in the front, back, or end.

23 NATURAL / ENGINEERED STONE requires:

- 23 1 **EXPOSED EDGES** be finished the same as the top surface.
- 23 2 BACK SPLASHES will be separate, flat-butted.
- 23 CANTILEVERS, with or without a sub-top, will not exceed 6" (152 mm) for 2CM (13/16" (20.6 mm)) or 10" (254 mm) for 3CM (1-3/16" (30.2 mm)) thick material, whether in the front, back, or end.
- VEINED / SWIRLED natural and engineered stone may have random patterns that cannot be matched at seams. Pattern breaks, pattern changes and color variations may occur, and will not be considered a defect in materials or workmanship.













A B C D E F G H I J K L M N O P Q R S T U V W X, Y, Z

