

SECTION 06 4023

INTERIOR ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This **Section includes** the following but is not limited to the following:
 - 1. Resurfacing of existing plastic laminate-clad cabinets.
 - 2. Solid-surface material countertops

1.3 DEFINITIONS

- A. **Interior architectural woodwork includes** wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction prior to woodwork installation.

1.4 SUBMITTALS

- A. **Product Data:** Product data for each type of product and process specified and incorporated into items of architectural woodwork during fabrication, finishing, and installation.
- B. **Shop Drawings:** Provide shop drawings showing location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 - 1. Show details full size.
- C. **Samples for verification of the following:**
 - 1. Plastic-laminate-clad panel products, 8 by 10 inches, for each type, color, pattern, and surface finish.

1.5 QUALITY ASSURANCE

- A. **AWS Quality Standard:** Comply with applicable requirements of Architectural Woodwork Standards (AWS) - 2nd Edition, October 1, 2014, except as otherwise indicated.
- B. **Installer Qualifications:** Arrange for installation of architectural woodwork by a firm which can demonstrate successful experience in installing architectural woodwork items similar in type and quality to those required for this project.
- C. **Measurements:** Before proceeding with fabrication of woodwork required to be fitted to other construction, obtain field measurements and verify dimensions and shop drawing details as required for accurate fit.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. **Protect woodwork during transit**, delivery, storage, and handling to prevent damage, soilage, and deterioration.
- B. **Do not deliver woodwork** until painting and similar operations that could damage, soil, or deteriorate woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas whose environmental conditions meet requirements specified in "Project Conditions."

1.7 PROJECT CONDITIONS

- A. **Environmental Limitations:** Do not deliver or install woodwork until building is enclosed, wet-work is completed, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. **Field Measurements:** Where woodwork is indicated to be fitted to other construction, check actual dimensions of other construction by accurate field measurements before fabrication, and show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Verify locations of concealed framing, blocking, reinforcements, and furring that support woodwork by accurate field measurements before being enclosed. Record measurements on final shop drawings.
 - 2. Where field measurements cannot be made without delaying the Work, guarantee dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site and coordinate construction to ensure that actual dimensions correspond to guaranteed dimensions.

PART 2 - PRODUCTS

2.1 WOODWORK FABRICATORS

- A. **Fabricators:** Subject to compliance with requirements of Contract Documents, provide interior architectural woodwork by one of the following:
 - 1. Huetter Mill and Cabinet Company.
 - 2. Granite Mill and Fixture Company.
 - 3. Swainston Mill.
 - 4. Johnson Brothers.
 - 5. Pacific Cabinets, Inc. of Ferdinand, ID.
 - 6. Fondell Woodwork.
 - 7. Artistic Mill
 - 8. Masterpiece Commercial Millwork.
 - 9. Client's Design.
 - 10. Other mills may submit for approval no later than 10 days before the date for receipt of bids. Mills need not be members of AWI or WI to receive consideration, however, quality shall conform to levels outlined in these specifications and Associations' reference standards.

- B. **Acceptable Laminate Manufacturers:** Subject to compliance with requirements of Contract Documents, provide products listed below. If not listed, submit as a substitution according to Conditions of the Contract and the requirements of Division 1 Sections.
 - 1. Wilsonart.

- C. **Acceptable Solid Surface Manufacturers:** Subject to compliance with requirements of Contract Documents, provide products listed below. If not listed, submit as a substitution according to Conditions of the Contract and the requirements of Division 1 Sections.
 - 1. DuPont; Corian.

2.2 MATERIALS

- A. **General:** Provide materials that comply with requirements of the AWI quality standard for each type of woodwork and quality grade indicated and, where the following products are part of interior woodwork, with requirements of the referenced product standards that apply to product characteristics indicated:
 - 1. Hardboard: AHA A135.4.
 - 2. Particleboard: ANSI A208.1, Grade M-2, made with phenol-formaldehyde resins (no urea formaldehyde).
 - 3. Softwood Plywood: PS 1.

- B. **High-Pressure Decorative Laminate:** NEMA LD 3, grades as indicated, or if not indicated, as required by woodwork quality standard.

- C. **Adhesive for Bonding Plastic Laminate:** Contact cement.

- D. **Solid Surfacing:**
 - 1. Cast, nonporous, filled polymer, not coated, laminated or of composite construction with through body colors meeting ANSI Z124.3 or ANSI Z124.6, having minimum physical and performance properties specified.
 - 2. Superficial damage to a depth of 0.010 inch shall be repairable by sanding and/or polishing.
 - 3. Thickness: 1/2 inch (or maximum thickness available in selected color/texture).
 - 4. Adhesives: As recommended by quartz surfacing manufacturer for specific application.

- E. **Solid Surface Sink:**
 - 1. Basis of Design: Contract Documents are based on product specified below to establish a standard of quality. Other manufacturers offering products with equivalent characteristics may be considered, provided deviations are minor and design concept as expressed in the Contract Documents is not changed, as judged by the Architect.
 - a. Manufacturer: Corian
 - b. Product: Neat 805P; Color – Glacier White

2.3 MANUFACTURED UNITS

- A. **Cabinets:**
 - 1. Quality Standard: Comply with AWS Section 10, Custom grade, flush overlay design and the following:
 - 2. Vertical Surface High Pressure Plastic Laminate:
 - a. High pressure plastic laminate for exterior surfaces shall be NEMA vertical grade 0.028 inch thickness, satin finish. Colors are to be selected from manufacturer's full color selection, including polished

- mirror types. Cabinet fronts for each individual cabinet shall be one color only.
- b. Balancing sheet on inside of doors, drawer fronts and finished ends shall be high pressure plastic laminate cabinet liner matching cabinet interior.
3. Edge-banding:
- a. Edge-banding for door and drawer fronts shall be purified 3 mm PVC applied with hot melt glue by automatic edge-banding equipment. Edges and corners shall be rounded with a 3mm radius and scraped free from machining or chatter marks. Color shall be as selected by Architect from manufacturers full color range.

2.4 MISCELLANEOUS MATERIALS

- A. **Adhesives, General:** Adhesives shall not contain urea formaldehyde.
- B. **VOC Limits for Installation Adhesives:** Installation adhesives shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
- a. Wood Glues: Not more than 30 g/L.
 - b. Multipurpose Construction Adhesives: 70 g/L.
 - c. Contact Adhesive: Not more than 250 g/L.

2.5 CABINET HARDWARE AND ACCESSORY MATERIALS

- A. **General:** Reuse existing cabinet hardware and accessory materials associated with architectural cabinets, except where items are damaged or unusable, as judged by the Owner.

2.6 FABRICATION

- A. **General:**
1. Wood Moisture Content: Comply with requirements of referenced quality standard for moisture content of lumber at time of fabrication and for relative humidity conditions in the installation areas.
 2. Dimensions and profiles: Fabricate woodwork to dimensions, profiles, and details indicated with openings and mortises precut, where possible, to receive hardware and other items and work.
 3. Edges: Ease edges to a 1/16 inch radius, for corners of cabinets and edges of solid wood (lumber) members less than 1 inch in nominal thickness, 1/8 inch radius for edges of rails and similar members over 1 inch in nominal thickness.
 4. Pre-assembly: Complete fabrication, assembly, finishing, hardware application, and other work before shipment to project site to maximum extent possible. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
 5. Pre-Cut Openings: Fabricate architectural woodwork with pre-cut openings, where possible, to receive hardware, appliances, plumbing fixtures, electrical work and similar items. Locate openings accurately and use templates or roughing-in diagrams for proper size and shape. Smooth edges of cutoffs and, where located in countertops and similar exposures seal edges of cutouts with a water-resistant coating.
 6. Door and Drawer Fronts: Doors, drawer fronts, and false fronts shall be flush overlay. They shall align vertically and horizontally and be on the same plane as one another. Shall be installed free of: warp, twisting, cupping, and/or bowing that cannot be held true; open joints, visible machine marks, cross-sanding,

tear-outs, nicks, chips, and/or scratches

2.7 COMPONENT CONSTRUCTION

- A. **Core Material:**
 - 1. Particleboard: Premium grade board of balanced construction with a density of 45 lbs. per cubic foot and moisture content of 8 percent or less. Face screw holding shall be a minimum of 320 lbs. withdrawal.
- B. **Doors and Drawer Fronts:**
 - 1. Plastic Laminate Doors and Drawer Fronts: Plastic laminate doors and drawer fronts shall be 3/4 inch thick for all hinged and sliding doors with vertical grade high pressure plastic laminate exterior face and color cabinet liner on interior face white.
 - a. Core material to be 11/16 inch thick.
- C. **Joinery:**
 - 1. All parts shall be accurately machined and fit for square and true, within a tolerance not to exceed 1/32 inch difference in measurement at top versus bottom, and 1/16 inch diagonally.

2.8 SOLID-SURFACING-MATERIAL COUNTERTOPS

- A. **Quality Standard:** Comply with AWS Section 11 requirements for countertops.
 - 1. Grade: Premium.
- B. **Solid-Surfacing-Material Thickness:** 1/2 inch.
- C. **Colors, Patterns, and Finishes:** Provide materials and products that result in colors of solid-surfacing material complying with the following requirements:
 - 1. As indicated on Legend-Finish Schedule or, if not indicated, as selected by Architect from manufacturer's full range including colors and patterns from all price ranges.
- D. **Fabricate tops in one piece**, unless otherwise indicated. Comply with solid-surfacing-material manufacturer's written recommendations for adhesives, sealers, fabrication, and finishing.
 - 1. Fabricate tops with shop-applied edges of materials and configuration indicated.
 - 2. Fabricate tops with shop-applied backsplashes.

PART 3 - EXECUTION

3.1 PREPARATION

- A. **Condition woodwork** to average prevailing humidity conditions in installation areas before installing.
- B. **Before installing architectural woodwork**, examine shop-fabricated work for completion and complete work as required, including back priming and removal of packing.

3.2 INSTALLATION

- A. **Install woodwork plumb**, level, true, and straight with no distortions. Shim as required with concealed shims. Install to a tolerance of 1/8 inch in 96 inches for plumb and level

(including tops).

- B. **Scribe and cut woodwork** to fit adjoining work and refinish cut surfaces or repair damaged finish at cuts.
- C. **Anchor woodwork to anchors** or blocking built in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork and matching final finish where transparent finish is indicated.
- D. **Cabinets:** Install without distortion so that doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete the installation of hardware and accessory items as indicated.
 - 1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
- E. **Tops:** Anchor securely to base units and other support systems as indicated. Calk space between backsplash and wall with specified sealant.
 - 1. Install countertops with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
 - 2. Secure backsplashes to tops with concealed metal brackets at 16 inches o.c.
- F. **Complete the finishing** work specified in this Section to the extent not completed at shop or before installation of woodwork.

3.3 ADJUSTING AND CLEANING

- A. **Repair damaged and defective woodwork** where possible to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. **Clean, lubricate, and adjust** hardware.
- C. **Clean woodwork** on exposed and semi-exposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

3.4 PROTECTION

- A. **Provide final protection** and maintain conditions in a manner acceptable to fabricator and Installer that ensures that woodwork is without damage or deterioration at the time of Substantial Completion.

END OF SECTION