

SECTION 064113 - WOOD-VENEER-FACED ARCHITECTURAL CABINETS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Architectural wood cabinets and shelves.
 - 2. Wood furring, blocking, shims, and hanging strips for installing architectural wood cabinets unless concealed within other construction before cabinet installation.
 - 3. Shop finishing of architectural wood cabinets.
- B. Related Requirements:
 - 1. Section 123623.13 "Plastic-Laminate-Clad Countertops" for countertops installed on cabinets.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product, including panel products, cabinet hardware and accessories, and finishing materials and processes.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 - 1. Show details full size.
 - 2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
 - 3. Show locations and sizes of cutouts and holes for electrical switches and outlets and other items installed in architectural wood cabinets.
 - 4. Show veneer leaves with dimensions, grain direction, exposed face, and identification numbers indicating the flitch and sequence within the flitch for each leaf.
- C. Samples for Initial Selection:
 - 1. Shop-applied transparent finishes.
- D. Samples for Verification:
 - 1. Lumber for transparent finish, not less than 5 inches (127 mm) wide by 12 inches (304.8 mm) long, for each species and cut, finished on one side and one edge.

1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build mockups of the following:
 - a. Mock-up Cabinet: Construct one base and wall cabinet as shown on Drawings. Cabinets shall be complete including finishes, hardware, etc. Do not proceed with any other cabinet fabrication until approval of sample cabinet is obtained. After approval, this sample shall be installed in location indicated.
 - 2. Approved unit may be incorporated into work as long as it is maintained without damage.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver cabinets until painting and similar operations that could damage woodwork have been completed in installation areas. If cabinets must be stored in other than installation areas,

store only in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed, and indicate measurements on Shop Drawings.

1.7 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that wood-veneer-faced architectural cabinets can be supported and installed as indicated.

PART 2 PRODUCTS

2.1 ARCHITECTURAL WOOD CABINETS, GENERAL

- A. Quality Standard: Unless otherwise indicated, comply with the "Architectural Woodwork Standards" for grades of architectural wood cabinets indicated for construction, finishes, installation, and other requirements.
 - 1. The Contract Documents contain selections chosen from options in the quality standard and additional requirements beyond those of the quality standard. Comply with those selections and requirements in addition to the quality standard.
 - 2. Product design numbers shown on drawings are based on AWI Cabinet Design Series.

2.2 WOOD CABINETS FOR TRANSPARENT FINISH

- A. Grade: Custom.
- B. Type of Construction: Frameless unless shown otherwise.
- C. Cabinet and Door and Drawer Front Interface Style: Reveal overlay.
- D. Reveal Dimension: 3/8 inch (9.52 mm) unless noted otherwise.
- E. Wood for Exposed Surfaces:
 - 1. Species: Grade "A" White birch.
 - 2. Cut: Rotary cut.
 - 3. Grain Direction: Vertically for drawer fronts, doors, and fixed panels.
 - 4. Matching of Veneer Leaves: Book match.
 - 5. Edge Band: 1/4" solid wood matching exposed face species.
- F. Semiexposed Surfaces: Provide surface materials indicated below:
 - 1. Surfaces Other Than Drawer Bodies: Same species and cut indicated for exposed surfaces.
 - 2. Drawer Subfronts, Backs, and Sides: 1/2 inch thick, solid-hardwood lumber.
 - 3. Drawer Bottoms: 1/4" thick hardwood plywood.
- G. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.
 - 1. Join subfronts, backs, and sides with glued rabbeted joints supplemented by mechanical fasteners.

2.3 WOOD MATERIALS

- A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
 - 1. Wood Moisture Content: 5 to 10 percent.
- B. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
 - 1. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1.

2.4 CABINET HARDWARE AND ACCESSORIES

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets except for items specified in Section 087100 "Door Hardware."
- B. Hardware Standard: Subject to compliance with requirements, provide Hardware as indicated.
- C. Frameless Concealed Hinges (European Type): Blum, clip, self-close, screw-on. Similar hinges manufactured by Glass, Salice, or Stanley are acceptable.
- D. Wire Pulls: Back mounted:
 - 1. Stanley No. 4483-1/2 solid, satin finish anodized alum.
 - 2. Ives No. 37 solid, satin finish anodized alum.
 - 3. Epco No. MC-4023.5 solid, satin finish anodized alum.
- E. Catches: Magnetic catches: Where indicated on drawings.
 - 1. Stanley No. SP41
 - 2. Ives No. 326
 - 3. Knape & Vogt No. 918
- F. Adjustable Shelf Standards and Supports:
 - 1. Grant No. 120
 - 2. Knape & Vogt 255
 - 3. Sigatune SPH-1820
 - a. All standards shall be flush mounted with snap-in clips (Multiple holes with plastic pins will not be allowed.) All standards shall be steel.
- G. Drawer Slides: Side-mounted, full-extension, zinc-plated steel drawer slides with steel ball bearings and rated for the following loads:
 - 1. Box Drawer Slides: 100 lbf (440 N).
 - a. Knape and Vogt No. 8400, full extension 100 lbs.
 - b. Blum No. BS430E, full extension 100 lbs.
 - c. Accuride 3832, full extension 100 lbs
- H. Door and Drawer Locks:
 - 1. National Cabinet Lock: C8053-14A for drawers and cabinet doors.
 - 2. C2001-14A strikes.
 - 3. Similar locks manufactured by Grass Olympus Locks or Sugatsune are acceptable.
 - 4. Keying
 - a. All cabinet locks within any one room or space shall be keyed alike.
 - b. Provide a minimum of three keys for each room.
 - 5. Provide locks where indicated on drawings.
- I. Exposed Hardware Finishes: For exposed hardware, provide satin anodized finish.
- J. For concealed hardware, provide manufacturer's standard finish.

2.5 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Pressure treated lumber, use Category UC2, Softwood or hardwood lumber, kiln dried to less than 19 percent moisture content after treating.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use

nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

2.6 FABRICATION

- A. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
 - 1. Corners of Cabinets: 1/16 inch (1.59 mm) unless otherwise indicated.
- B. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
 - 1. Maximum scribe/filler shall be 2" each side.
- C. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
 - 1. Coordinate locations of plumbing cleanouts within cabinets and cut opening for access.
- D. Provide closures on tops and bottoms of cabinets in corners.

2.7 SHOP FINISHING

- A. General: Finish architectural wood cabinets at fabrication shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.
- B. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural wood cabinets, as applicable to each unit of work.
 - 1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of cabinets.
- C. Transparent Finish:
 - 1. Grade: Custom.
 - 2. Finish: System - 11, catalyzed polyurethane.
 - 3. Staining: Match approved sample for color.
 - 4. Sheen: Satin, 31-45 gloss units measured on 60-degree gloss meter per ASTM D523.

PART 3 EXECUTION

3.1 PREPARATION

- A. Before installation, condition cabinets to average prevailing humidity conditions in installation areas.
- B. Before installing cabinets, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

3.2 INSTALLATION

- A. Grade: Install cabinets to comply with same grade as item to be installed.
- B. Assemble cabinets and complete fabrication at Project site to the extent that it was not completed in the shop.
- C. Install cabinets level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch (3.18 mm) in 96 inches (2438.4 mm).
- D. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork.

1. For shop finished items use filler matching finish of items being installed.
- F. Cabinets: Install without distortion so 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 installation of hardware and accessory items as indicated.
 1. Install cabinets with no more than 1/8 inch (3.18 mm) in 96-inch (0.12 inch (3 mm) in 2400-mm) sag, bow, or other variation from a straight line.
 2. Maintain veneer sequence matching of cabinets with transparent finish.
 3. Fasten base cabinets and shelves through back, near top and bottom, at ends and not more than 16 inches (406.4 mm) o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing or blocking. Use masonry screws (Hilti: Kwick-Con or equal) at cmu walls.
 4. Fasten overhead cabinets to walls using metal "Z" clips as manufactured by Monarch Metal Fabrications, Inc., or equal. Continuous Z clip shall be anchored to masonry construction at 16" o.c. using masonry screws (Hilti: Kwick-Con or equal). Mating "Z" clip to be attached to cabinet frame at 16" o.c. but not less than 3 fastening minimum per cabinet section. Once cabinet is hung on "Z" clips, fasten in place by masonry screws at 16" o.c. through cabinet frame at bottom.
- G. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.
 1. Apply specified finish coats, including stains and paste fillers if any, to exposed surfaces where only sealer/prime coats are applied in shop.
- H. Refer to Section 123623.13 "Plastic-Laminate-Clad Countertops" for installation of countertops on cabinets.

3.3 ADJUSTING AND CLEANING

- A. Repair damaged and defective cabinets, 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 cabinets on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION 064113

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