

## **SECTION 12356 – RESIDENTIAL CASEWORK**

### **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:
  - 1. Wood-faced kitchen cabinets.
  - 2. Wood-faced vanity cabinets.
  - 3. Plastic laminate countertops.
  - 4. Solid-surfacing-material countertops.
- B. Related Sections include the following:
  - 1. Division 11 Section Residential Appliances for appliances mounted in the kitchen casework.
  - 2. Division 22 Section Plumbing Fixtures for sink units mounted in countertops.

### **1.3 REFERENCES**

- A. American National Standards Institute (ANSI).
- B. Builders Hardware Manufacturers Association (BHMA).
- C. Hardwood Plywood & Veneer Association (HPVA).
- D. Kitchen Cabinet Manufacturers Association (KCMA).
- E. Laminating Materials Association (LMA).
- F. National Electrical Manufacturers Association (NEMA).

### **1.4 DEFINITIONS**

- A. Exposed Surfaces of Casework: Surfaces visible when doors and drawers are closed, including visible surfaces in open cabinets or behind glass doors.
- B. Semi exposed Surfaces of Casework:
  - 1. Surfaces visible when behind opaque doors and drawer fronts are open, including interior faces of doors and interiors and sides of drawers.
  - 2. Bottoms of wall cabinets are defined as semi exposed.
- C. Concealed Surfaces of Casework:
  - 1. Surfaces not usually visible after installation, including sleepers, web frames, dust panels, bottoms of drawers, and ends of cabinets installed directly against and completely concealed by walls or other cabinets.
  - 2. Tops of wall cabinets and utility cabinets are defined as concealed.

### **1.5 SUBMITTALS**

- A. Product Data: For the Following:
  - 1. Cabinets.
  - 2. Plastic-laminate countertops.
  - 3. Solid-surfacing material.
  - 4. Cabinet hardware.
- B. Shop Drawings: For cabinets and countertops, include plans, elevations, details, and attachments to other work. Show materials, finishes, filler panels, hardware, edge and backsplash profiles, cutouts for plumbing fixtures, and methods of joining countertops.
- C. Material Samples for Initial Selection: Manufacturer's color charts showing the full range of colors, textures, and patterns available for each type of material exposed to view.
- D. Material Samples for Verification: For the following materials; in sets showing full range of color, texture, and pattern variations expected:
  - 1. Wood-veneered panels with transparent finish, 3 1/4 x 5 3/4 inches (80 x 145mm), for each species.
  - 2. Solid wood with transparent finish, 50 sq. in. (300 sq. cm.), for each species.
  - 3. Plastic laminate for countertops, 8 by 10 inches (200 by 250mm).
  - 4. Solid surfacing for material for countertops, 6 inches (150mm) square.
  - 5. One unit of each type of exposed hardware.
- E. Product Samples for Verification: As Follows:
  - 1. One full-size, finished 15" base cabinet complete with hardware, doors, and drawers, but without countertop.

2. One full sized, finished 15" wall cabinet complete with hardware, doors, and adjustable shelves.
  3. Plastic laminate for countertops, 8 by 10 inches (200 by 250mm)
  4. Solid surfacing for material for countertops, 6 inches (150mm) square.
- F. Product Certificates: Signed by manufacturers of casework certifying that products furnished comply with specified requirements.

## **1.6 QUALITY ASSURANCE**

- A. Source Limitations for Cabinets: Obtain cabinets through one source from a single manufacturer
- B. Product Designations: Drawings indicate size, configurations, and finish material of casework by referencing designated manufacturer's catalog numbers. Other manufacturer's casework of similar sizes, similar door and drawer configurations, similar finish materials, and complying with the Specifications may be considered. Refer to Division 1 Section Substitutions.
- C. Quality Standards: Unless otherwise indicated, comply with the following standards:
  1. Cabinets: KCMA A161.1.
  2. Plastic Laminate Countertops: KCMA A161.2.

## **1.7 PROJECT CONDITIONS**

- A. Environmental Limitations: Do not deliver or install residential casework until building is enclosed, wet-work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Established Dimensions: Where residential casework is indicated to fit to other construction, establish dimensions for areas where casework is to fit. Coordinate construction to ensure that the actual dimensions correspond to established dimensions. Provide fillers and scribes to allow for trimming and fitting.
- C. Field Measurements:
  1. For cabinets: Where residential casework is indicated to fit existing construction, verify dimensions of existing construction by field measurements before fabrication and indicate measurements on Shop Drawings. Provide filler and scribe if necessary.
  2. Field Measurements For Countertops: Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

## **1.8 COORDINATION**

- A. Coordinate layout installation of blocking and reinforcement in partitions for support of residential casework.

## **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
  1. Quality Cabinets
  2. Sustainability Certifications: ISO14001, KCMA ESP & EPP
- B. Manufacturers: Subject to compliance with specified requirements, provide products by one of the following:
  1. Plastic Laminate for Countertops:
    - a. Formica Corp
    - b. Laminart
    - c. Nevamar Corp.
    - d. Pioneer Plastics Corp.
    - e. Westinghouse Electric Corp.; Specialty Products Div.
    - f. Wilson: Ralph Wilson Plastics Co.
  2. Solid-Surfacing Material for Countertops:
    - a. DeNova Solid Surface
- D. Acceptable Products: Subject to compliance with specified requirements, provide
  1. Quality Cabinets Woodstar Derby Birch available in assorted finishes
  2. Warranty: 1 year

## 2.2 COLORS, TEXTURES, AND PATTERNS

- A. Colors, Textures, and Patterns: As indicated by referencing manufacturer's designations.
- B. Colors, Textures, and Patterns: As selected by Architect from manufacturer's full range for these characteristics.

## 2.3 CABINET MATERIALS

- A. Exposed Materials: Comply with the following:
  - 1. Exposed Wood Species:
    - a. Unless otherwise indicated, do not use two adjacent exposed faces shall be similar that are noticeably dissimilar in color, grain, figure, and or natural character markings.
    - b. Birch.
  - 2. Solid Wood: Clear hardwood lumber of species indicated, free of defects, selected for compatible grain and color, kiln dried to 7 percent moisture content.
- B. Semi-exposed Materials: Unless otherwise noted, provide the following:
  - 1. Medium Density Particleboard: Moisture- and stain-resistant, easy clean laminate with printed wood grain complying with ANSI A208.1, Grade M-1 adhesively bonded to particleboard.
    - a. Provide laminate film on both sides of shelves, dividers, and other components with two semi-exposed surfaces and semi-exposed edges.
- C. Concealed Materials: Comply with the following:
  - 1. Plywood: Any hardwood or softwood species, with no defects affecting strength or utility.
  - 2. Particleboard: ANSI A208.1, Grade M-1

## 2.4 COUNTERTOP MATERIALS

- A. Plastic Laminate: High-pressure decorative laminate complying with NEMA LD 3.
  - 1. Grade: HGS.
  - 2. Grade: HGP.
  - 3. Provide through-color plastic laminate
  - 4. Grade for Backer Sheet: BKL
- B. Particleboard: ANSI A208.1, Grade M-2
- C. Plywood: Exterior softwood plywood complying with PS 1, Grade C-C plugged, touch sanded.
- D. Solid-surfacing: Homogeneous solid sheet of filled plastic resin complying with material and performance requirements of ANSI Z124.3, without pre-coated finish.
- E. Solid Wood Edges and Trim: Clear hardwood lumber of species indicated, free of defects, selected for compatible grain and color, kiln dried to 7 percent moisture content.
  - 1. Wood Species: Birch

## 2.5 CASEWORK HARDWARE

- A. General: Manufacturer's standard units complying with BHMA A156.9, type, material, size, and finish as selected from manufacturer's standard choices.
- B. Hinges: All doors have 2-way European style, fully concealed, self-closing hinges with a 105° opening. NOTE: All butt door cabinets have hinges with 6-way adjustment capability.
- C. Drawer Guides: 75 pound rated drawer guide system, side mounted, 3/4 extension with self-adjusting mounting brackets at rear. Drawer slides are fastened to the drawer box with screws.

## 2.6 CABINET CONSTRUCTION

- A. Face Style: Reveal overlay: door and drawer faces partially cover body or face frame.
- B. Face Frames: 3/4-inch by 1 1/2-inch (19-by-38mm) solid wood.
- C. Door and Drawer Fronts:
  - 1. Solid wood stiles and rails, 3/4-inch (19mm), with 3/16-inch (4.75mm) thick, veneer-faced plywood center panels.
  - 2. Derby doors are machined with reverse bevel to eliminate the need for hardware.
- D. Exposed Cabinet Ends:
  - 1. 3/8-inch (9.5mm) thick, moisture- and stain-resistant, easy clean laminate faced particleboard.
- E. Cabinet Tops and Bottoms: 1/2" thick-48 lb. density engineered wood. Both sides shall be covered with M-Guard™, with printed wood grain. Reinforced with 1/2" thick engineered wood

- corner gussets in all four top corners with adhesive.
- F. Base Unit Top Rails: 11/16" x 2 1/4" solid pine or Douglas fir. .
  - G. Wall-Hung Unit Top and Bottom Rails: 2 3/4" wide x 3/8" thick-48 lb. density engineered wood full-length hang rail across the top and bottom held in place with staples
  - H. Base Unit Back Panels: 1/4"-thick 50 lb. density engineered wood interior covered with M-Guard™, with printed wood grain.
  - I. Wall-Hung Unit Backs: 3/8" thick-48 lb. density engineered wood interior covered with M-Guard™, with printed wood grain.
  - J. Front Face Frame Drawer Rails: 3/4" thick x 1 1/2" wide solid hardwood rail and stile members.
  - K. Drawers: 1/2-inch sides, fronts & backs, engineered wood or equivalent; top edges and 2 surfaces finished with simulated wood grain finish to match cabinet interior. Drawer sides are rabbeted to join the drawer fronts and backs and secured with adhesive and staples.
  - L. Shelves: 3/4" thick-48 lb. density engineered wood. Full-depth shelves shall be covered on both sides with M-Guard™, matching the cabinet interior. Half-depth shelves are laminated on the top surface only and not on the underside. Adjustable shelves are supported by adjustable shelf clips.
  - M. Joinery:
    - 1. Wall cabinet back panels shall be retained by a dado in the end panels and secured with adhesive. For extra strength, full-length dados shall be machined in the back panel near the top and bottom edges like the dados in the end panels to accept the top panels and secured with adhesive and staples.
    - 2. Base cabinets: A dado joint and adhesive shall be used to join the bottom to end panels. The upper portion of base cabinets shall be reinforced with 1/2" thick engineered wood corner gussets.
    - 3. The back panel shall be retained by a dado in the end panels secured with adhesive. The top of base and bath cabinets shall have an 11/16" x 2 1/4" solid wood screw rail retained by the same groove as the back panel in the end panels and secured with adhesive. The screw rail shall be grooved full length on the underside to accept the top edge of the back panel.
  - N. Factory Finishing: To the greatest extent possible, finish casework at the factory. Defer only final touch up until after installation.

### **3.1 INSTALLATION**

- A. Install casework with no variations in flushness of adjoining surfaces; use concealed shims. Where casework abuts other finished work, scribe and cut for accurate fit. Provide filler strips, scribe strips, and moldings in finish to match casework face.
- B. Install casework without distortion so doors and drawers fit openings and are aligned. Complete installation of hardware and accessories as indicated.
- C. Install casework and countertop level and plumb to a tolerance of 1/8-inch in 8 feet (3mm in 2.4m).
- D. Fasten cabinets to adjacent units and to backing.
  - 1. Fasten wall cabinets through back, near top and bottom, at ends and not less than 24 inches o. c.
- E. Protect finished surfaces from damage or staining resulting from subsequent work until Date of Substantial Completion. Repair or replace damaged cabinet work, including warped or loose members.