

BuildingName
The Description of the Project
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SPECIFICATION DIVISION 6

NUMBER SECTION DESCRIPTION

DIVISION 06 WOOD, PLASTICS AND COMPOSITES

SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

END OF CONTENTS TABLE

DIVISION 06 WOOD, PLASTICS AND COMPOSITES
SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.1 SUMMARY

EDIT FOLLOWING LIST TO SUIT PROJECT.

- A. Work specified in this Section includes:

Plastic laminate casework.
Hardwood veneer plywood casework.
Plastic laminate counter tops.
Cast plastic counter tops.
Plastic laminate shelving.
Glass shelving.
Acrylic plastic shelving.
Hardwood veneer plywood shelving.
Hardwood door frames.
Hardwood moldings and trim.

- B. Related work of other Sections:

DELETE BELOW IF BLOCKING AND NAILERS WILL BE INCLUDED IN THIS SECTION.

1. Blocking, nailers and other carpentry work that is not exposed to view is specified in Section 061000, "Rough Carpentry".

DELETE BELOW IF WOOD WILL BE FACTORY FINISHED.

2. Field finishing of exposed wood is specified in Section 099100, "Painting".

1.2 SUBMITTALS

- A. Product Literature: Submit manufacturer's product literature indicating compliance with requirements for each specified hardware item.

- B. Shop Drawings: Submit shop drawings showing dimensioned plans and elevations, large scale details, attachment devices and other components for the following:

1. Casework.
2. Counter tops.
3. Shelves.
4. Door frames.
5. Miscellaneous trim.

INCLUDE BELOW WHERE WOOD SAMPLES ARE REQUIRED. MODIFY AS NEEDED.

- C. Samples: Submit the following samples for Architect's initial selection:

1. Submit 3 samples of each specified species and cut of hardwood as follows:

- a. Submit 2 samples showing extremes of grain and coloration range to be expected; submit 1 sample showing typical piece of wood.
2. Submit 3 flitches of each specified hardwood veneer, not less than 12 inches by 12 inches.

1.3 QUALITY ASSURANCE

- A. Standards: Except as otherwise shown or specified, comply with specified provisions of the latest edition of Architectural Woodwork Institute (AWI) "Architectural Woodwork Quality Standards."
 1. When an AWI quality grade is not specified, fabricate items in accordance with requirements of AWI "Premium" grade, where applicable.

MODIFY SHOP DRAWING REQUIREMENTS TO SUIT PROJECT.

PART 2 - PRODUCTS

2.1 MATERIALS

MODIFY LIST BELOW TO SUIT ANTICIPATED MATERIAL REQUIREMENTS FOR PROJECT

- A. General: Provide materials that comply with requirements of the referenced AWI woodworking standard, and as follows:
 1. Hardboard: ANSI/AHA A135.4
 2. High Pressure (Plastic) Laminate: NEMA LD 3.
 3. Particleboard: ANSI A208.1; Grade M-2.

THE FOLLOWING PRODUCT IS A GREEN SUBSTITUTE FOR PARTICLEBOARD OR PLYWOOD. IT USES WASTE STRAW AND FORMALDEHYDE-FREE RESINS AND EQUALS THE PERFORMANCE OF PARTICLEBOARD, BUT IS LIGHTER IN WEIGHT. COST MAY BE SLIGHTLY HIGHER.

4. Particleboard: Straw-based particleboard complying with requirements of ANSI A208.1, Grade M-2, except for density.
5. Softwood Plywood: PS 1.
6. Veneered Plywood: HPVA HP-1 Clear, selected for grain and color compatible with exposed solid lumber, no defects.

DELETE BELOW IF NO PLASTIC LAMINATE IN PROJECT.

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

A COLOR/STYLE COULD BE INCLUDED HERE FOR SIMPLE PROJECTS, OR IN SPECIFIC PRODUCT DESCRIPTION FOR MORE DIFFICULT PROJECT, OR ON DRAWINGS FOR VERY COMPLEX PROJECTS.

- a. Approved Manufacturers: Subject to compliance with requirements, provide products of one of the following:
 - 1) Formica Corporation
 - 2) Laminart.
 - 3) Nevamar Corp.

4) Ralph Wilson Plastics Co.

**DELETE BELOW IF NO CHEMICAL-RESISTANT LAMINATE REQUIRED.
FORMICA COMES ONLY IN BLACK BUT HAS HIGHER CHEMICAL RESISTANCE
THAN VARIETY OF WILSONART COLORS.**

8. Chemical-Resistant, High-Pressure Decorative Laminate: NEMA LD 3, Grade PF-42.

**FORMICA AVAILABLE ONLY IN BLACK, BUT HAS BETTER CHEM.
RESISTANCE THAN VARIETY OF WILSONART COLORS.**

- a. Approved Products: Subject to compliance with requirements, provide products of one of the following:
- 1) Lab Grade 840 Black; Formica Corporation
 - 2) Chemsurf; Ralph Wilson Plastics Co.

DELETE BELOW IF NO PLASTIC LAMINATE.

9. Adhesive for Bonding Plastic Laminate: Contact cement; except use urea-formaldehyde for bonding chemical-resistant laminates.

MODIFY BELOW IF ROUGH CARPENTRY WILL CONTAIN THESE REQUIREMENTS.

- B. Installation Materials: Provide fire-resistant furring, blocking and hanging strips of softwood or hardwood lumber, kiln dried to less than 15 percent moisture content, and as follows:
1. Screws: Select material, type, size, and finish required for each use. Comply with ASME B18.6.1 for applicable requirements.
 2. Nails: Select material, type, size, and finish required for each use. Comply with FS FF-N-105 for applicable requirements.
 3. Anchors: Select material, type, size, and finish required for each substate for secure anchorage. provide nonferrous metal or hot-dipped galvanized anchors and inserts on inside face of exterior walls and elsewhere where required for corrosion resistance. Provide toothed steel or lead expansion anchors for drilled-in-place anchors.

2.2 FABRICATION, GENERAL

- A. Measures: Before proceeding with fabrication of woodwork required to be fitted to other construction, obtain measurements and verify dimensions and shop drawing details as required for accurate fit.

DELETE BELOW IF NO WOOD OR WOOD VENEERS.

- B. Exposed Wood and Veneer Materials: The following are not permitted in surfaces exposed-to-view in finished construction:
1. Knots.
 2. Pinhole knots.
 3. Surfaces of lighter-than-average color joined with exposed surfaces of darker-than-average color.
 4. Adjacent surfaces which are noticeably dissimilar in grain, figure and natural character markings.

DELETE BELOW IF NOT APPLICABLE.

- C. Smooth edges of cutouts and, where located in countertops and similar exposures, seal edges on cutouts with a water-resistant coating.

DELETE BELOW IF NO PLASTIC LAMINATE CLAD CASEWORK.

2.3 PLASTIC LAMINATE CLAD CASEWORK

- A. Quality Standard: AWI Section 400 and its Division 400B "Laminate Clad Cabinets".

USUALLY SELECT CUSTOM FOR P.LAM. WORK.

- 1. Grade: Custom.
- 2. Grade: Premium.
- 3. AWI Type of Cabinet Construction: Provide cabinet construction of type indicated on drawings, or if not indicated, as follows:

SELECT ONE OF THE FOLLOWING.

- a. Type: Flush overlay (door and drawer faces partially cover body members with spaces sufficient for clearance only).
 - b. Type: Reveal overlay (door and drawer faces cover body members or face frames and create reveals).
 - c. Type: Exposed face frame (door and drawer faces set flush with face frame).
- B. Laminate Cladding: High pressure decorative laminate, with selections of colors, patterns, and finishes made by Architect from laminate manufacturer's full range of standard colors and finishes. Provide laminate cladding complying with the following requirements for type of surface and grade:
 - 1. Horizontal Surfaces Other Than Tops: GP-50 (0.050 inch nominal thickness).
 - 2. Vertical Surfaces: GP-28 (0.028 inch nominal thickness).
 - 3. Edges: GP-28 (0.028 inch nominal thickness).
 - 4. Semiexposed Surfaces: High Pressure Laminate, GP-28.

DELETE BELOW IF DESIRED - NOT REQUIRED BY AWI STANDARD.

- C. Provide dust panels of 1/4 inch tempered hardboard above compartments and drawers except where located directly under tops.

DELETE BELOW IF NO TRANSPARENT FINISHED PLYWOOD CASEWORK.

2.4 WOOD CASEWORK

- A. Quality Standard: Comply with AWI Section 400 and its Division 400A "Wood Cabinets".

SELECT ONE BELOW: CUSTOM PERMITS GRAIN ON DOORS AND DRAWERS TO RUN IN DIFFERENT DIRECTIONS - PREMIUM REQUIRES GRAIN TO RUN IN SAME DIRECTION.

- 1. Grade: Custom.
- 2. Grade: Premium.

- B. AWI Type of Cabinet Construction: Provide cabinet construction of type indicated on drawings, or if not indicated, as follows:

SELECT ONE OF THE FOLLOWING.

1. Type: Flush overlay (door and drawer faces partially cover body members with spaces sufficient for clearance only).
2. Type: Reveal overlay (door and drawer faces cover body members or face frames and create reveals).
3. Type: Exposed face frame (door and drawer faces set flush with face frame).

- C. Wood Species for Exposed Surfaces: Provide the following species and cut:

USUAL SELECTION IS RED OAK, PLAIN SLICED.

1. Red oak (quercus rubra), plain sliced.
2. Red oak (quercus rubra), rift sawn.
3. Red oak (quercus rubra), quarter sawn.

SELECT ONE OF THE FOLLOWING FOR PREMIUM CASEWORK - DELETE IF NO PREMIUM CASEWORK IS INCLUDED.

4. Grain Matching: Run and match grain vertically for drawer fronts, doors, and fixed panels.
5. Grain Matching: Run and match grain horizontally for drawer fronts, doors, and fixed panels.
6. Grain Matching: As indicated on drawings.

SELECT ONE OF THE FOLLOWING FOR PREMIUM CASEWORK - DELETE IF NO PREMIUM CASEWORK IS INCLUDED. NOTE THAT BOOK MATCH REQUIRES OPPOSING SIDES OF VENEER TO BE EXPOSED - POSSIBLY CREATING "BARBER POLE" EFFECT.

7. Matching of Veneer Leaves: Book match.
8. Matching of Veneer Leaves: Slip match.
9. Matching of Veneer Leaves: Random match.
10. Matching of Veneer Leaves: End match.

SELECT ONE OF THE FOLLOWING FOR PREMIUM CASEWORK - DELETE IF NO PREMIUM CASEWORK IS INCLUDED. CENTER MATCH CAN RESULT IN SIGNIFICANT COST INCREASE.

11. Veneer Matching within Panel Face: Running match.
12. Veneer Matching within Panel Face: Slip match.
13. Veneer Matching within Panel Face: Center match.

- D. Wood Species for Semiexposed Surfaces: Match species and cut indicated for exposed surfaces.

RETAIN BELOW IF DESIRED; NOT REQUIRED BY AWI STANDARD.

- E. Provide dust panels of 1/4 inch plywood or tempered hardboard above compartments and drawers except where located directly under tops.

DELETE BELOW IF NO LAMINATE CLAD COUNTERTOPS.

2.5 LAMINATE CLAD COUNTERTOPS

- A. Quality Standard: Comply with AWI Section 400 and its Division 400C.

1. AWI Grade: Premium.
- B. Tops, General: Plastic laminate clad with backing sheet on concealed or semi-concealed surfaces. Provide units with the following features:
1. Edge Treatment: Same laminate cladding as on horizontal surfaces.
- USUALLY SELECT ABOVE AND DELETE BELOW EDGE TREATMENT.**
2. Edges: Clear anodized aluminum angle fastened with countersunk aluminum screws.
 3. Back-Splash (Curb): Applied type, fabricated of materials matching top. Fabricate to dimensions shown, or if not shown, 4 inches high and 3/4-inch thick.
 4. Subtop: 45 pound-per-cu. ft. particle board, of thickness shown, or if not shown, 1-1/8-inch.
- C. Laminate Cladding for Horizontal Surface: High pressure decorative laminate, with colors, patterns, and finishes selections made by Architect from manufacturer's full range of standard colors and finishes.
1. Grade: GP-50 (0.050 inch nominal thickness).

DELETE BELOW IF NO CAST PLASTIC COUNTERTOPS.

2.6 CAST PLASTIC COUNTERTOPS

- A. Type of Top: Solid plastic top, trim and curb of dimensions and configuration shown on drawings, and as follows:
1. Composition: Cast acrylic plastic.
 2. Composition: Cast polyester-acrylic resin.
 3. Composition: Filled methyl methacrylate.
- EITHER SELECT ONE OF ABOVE AND DELETE BELOW, OR DELETE ALL ABOVE AND RETAIN BELOW FOR OPEN SPEC.**
4. Composition: Manufacturer's standard formulation of cast plastic materials.
- SELECT ONE OF THE FOLLOWING.**
5. Edge Treatment: Plain.
 6. Edge Treatment: Plain with drip groove on underside of overhang.
 7. Edge Treatment: As indicated on drawings.
- SELECT ONE OF THE FOLLOWING.**
8. Thickness: 1/4-inch.
 9. Thickness: 1/2-inch.
 10. Thickness: 3/4-inch.
 11. Color/Pattern: Solid White.
- EDIT ABOVE FOR SPECIFIC SELECTION OR DELETE ABOVE AND RETAIN BELOW.**
12. Color/Pattern: To be selected from manufacturer's standard range of solids and patterns.

13. Back-Splash (Curb): Applied type, fabricated of materials matching top. Fabricate to dimensions shown, or if not shown, 4 inches high and 3/4-inch thick.

B. Product: Subject to compliance with requirements, one of the following:

EITHER SELECT ONE OR RETAIN ALL FOR OPEN SPEC.

1. Fountainhead (cast acrylic); Nevamar Corp.
2. Gibraltar (cast polyester-acrylic resin); Wilson Art.
3. Corian (filled methyl methacrylate); E.I. DuPont de Nemours and Co.

DELETE BELOW IF NO PLASTIC LAMINATE SHELVING.

2.7 LAMINATE CLAD SHELVING

A. Quality Standard: Comply with AWI Section 400 and its Division 400B.

USUALLY SELECT CUSTOM GRADE BELOW.

1. Grade: Custom.
2. Grade: Premium.

B. Laminate Cladding: High pressure decorative laminate with colors, patterns, and finishes selections made by Architect from laminate manufacturer's full range of standard colors and finishes.

1. Horizontal Surfaces Other Than Tops: GP-50 (0.050 inch nominal thickness).
2. Edges: GP-50 (0.050 inch nominal thickness).

C. Shelving Material: Particle board as follows:

1. Thickness: As shown or, if not shown, 3/4 inch.
2. Width: As shown or, if not shown, 12 inches.

DELETE BELOW IF NO TRANSPARENT FINISHED PLYWOOD SHELVING.

2.8 WOOD SHELVING FOR TRANSPARENT FINISH

A. Quality Standard: Comply with AWI Section 400 and its Division 400A.

1. Grade: Custom.
2. Grade: Premium.

B. Wood Species: Provide plywood shelves with both faces veneered for use in exposed condition, of the following species and cut:

MODIFY TO SUIT PROJECT.

1. Red oak (quercus rubra).

C. Wood Species for Solid Hardwood Edges: Match species and cut indicated for exposed surfaces.

DELETE BELOW IF NO GLASS SHELVING.

2.9 GLASS SHELVING

- A. Glass for Shelving: Clear tempered float glass, ASTM C 1048 Condition A (uncoated surfaces), Type I (transparent glass, flat), Class I (clear), Quality q3 (glazing select), Kind FT (fully tempered).

SELECT ONE OF THE FOLLOWING: NOTE THAT NO STANDARD THICKNESS-STRENGTH RELATIONSHIP HAS BEEN DEVELOPED FOR GLASS SHELVES, AND THAT TEMPERED GLASS HAS BEEN KNOWN TO SPONTANEOUSLY SHATTER.

1. Thickness: 1/4 inch.
2. Thickness: 1/2 inch.

GRINDING BELOW PRODUCES GLASS WITH "FROSTED" EDGES. FLAME POLISHING PRODUCES CLEAR, BUT GREEN EDGES.

3. Grind edges smooth.
4. Flame-polish edges.

DELETE BELOW IF NO PLASTIC SHELVING.

2.10 ACRYLIC PLASTIC SHELVING

- A. Construct shelves of clear, cast methacrylic plastic to comply with ASTM D 702, and with special scratch and abrasion resistant (SAR) formulation.

DELETE BELOW IF NO SITE-BUILT DOOR FRAMES.

2.11 WOOD DOOR FRAMES

- A. Quality Standard: AWI Section 900 and its Division 900B "Interior Door Frames".
1. Grade: Premium.
- B. Wood Species for Exposed Surfaces: Plain sawn with narrow heart and without character markings. Panel products are not permitted. Provide wood of the following species:

DELETE OR RETAIN BELOW TO SUIT PROJECT.

1. Transparent Finish: Red oak (*quercus rubra*).
2. Opaque Finish: Yellow poplar (*liriodendron tulipifera*), natural hard maple (*acer saccharum*), or yellow birch (*betula alleghaniensis*).

2.12 MISCELLANEOUS TRIM

- A. Quality Standard: Comply with AWI Section 700.

CUSTOM AND ECONOMY GRADES NOT AVAILABLE.

1. Grade: Premium.
- B. Lumber Species: Provide miscellaneous trim for use in exposed condition, of the following species:

DELETE OR RETAIN BELOW TO SUIT PROJECT.

1. Transparent Finish: Red oak (*quercus rubra*).

2. Opaque Finish: Yellow poplar (*liriodendron tulipifera*), natural hard maple (*acer saccharum*), or yellow birch (*betula alleghaniensis*).

2.13 ACCESSORIES

- A. Hardware Schedule: Refer to schedule at end of this section for hardware required for architectural woodwork.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Quality Standard: Install woodwork to comply with AWI Section 1700 for same grade specified in Part 2 of this Section for type of woodwork involved.
- B. Install woodwork plumb, level true and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8 inch in 8 feet for plumb and level (including tops); and with no variations in flushness of adjoining surfaces.
- C. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.
- D. Anchor woodwork as indicated. Secure with countersunk, concealed fasteners and blind nailing as required for a complete installation. Use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork, and matching final finish where transparent finish is indicated.
- E. 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.
- F. Tops: Anchor securely to base units and other supporting systems as indicated.
- G. Install work plumb, level, true and straight with no distortions. Scribe and cut work to fit adjoining work.
- H. Repair or replace damaged and defective woodwork as directed by Architect. Adjust joinery for uniform appearance. Clean woodwork.

3.2 CLEANING, ADJUSTING AND PROTECTION

- A. Clean and Prepare for Finishing: Comply with AWI Quality Standards, Section 1500, for preparations for finishing.
- B. Clean, lubricate and adjust hardware.
- C. Clean woodwork on exposed and semiexposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

- D. Provide final protection and maintain conditions, in a manner acceptable to Fabricator and Installer, which ensures architectural woodwork being without damage or deterioration at time of Substantial Completion.

3.3 HARDWARE SCHEDULE

THE FOLLOWING ARE COMMON SELECTIONS, BUT NOT OFFICE STANDARDS. MODIFY TO SUIT PROJECT.

A. Cabinet Drawers

1. Drawer Slides: Accuride No. 3832 by length required to permit drawer to open to full extension; 1 pair per drawer; or equivalent products of Grant or Stanley.

SELECT ONE OF THE FOLLOWING PULLS OR MODIFY TO SUIT PROJECT.

2. Pulls: Stanley No. 4484 satin anodized aluminum with matching grommets, or equivalent products of EPCO.
3. Pulls: HEWI No. nylon plastic with fasteners concealed by escutcheon.
4. Pulls: Sugatsune America Lamp 2-61/64-inch solid brass oval profile pulls, as follows:
 - a. "Oval-80DCR" (dull chrome finish).
 - b. "Oval-80SMK" (smoke finish).
 - c. "Oval-80PB" (polished brass finish).

B. Cabinet Doors

1. Hinges: Blum "Clip" or "Modul" concealed, screw-attached, 110 deg opening, self-closing hinges, or equivalent products of Grass.
2. Pulls: Stanley No. 4484 satin anodized aluminum with matching grommets.
3. Pulls: HEWI No. nylon plastic with fasteners concealed by escutcheon.
4. Pulls: Sugatsune America Lamp 2-61/64-inch solid brass oval profile pulls, as follows:
 - a. "Oval-80DCR" (dull chrome finish).
 - b. "Oval-80SMK" (smoke finish).
 - c. "Oval-80PB" (polished brass finish).

C. Shelving in Casework

1. Support Standards: Knappe-Vogt No. 255ZC recessed, slotted standards, or equivalent products of Stanley.
2. Support Clips: Knappe-Vogt No. 256R rubber tipped clips, or equivalent products of Stanley.

D. Wall Mounted Shelving:

1. Support Standards: Knappe-Vogt No. 85-185 double slotted standards, or equivalent products of Stanley.
2. Support Brackets: Knappe-Vogt No. 185 support brackets, or equivalent products of Stanley.

E. Computer Cable Grommets:

NOTE THAT OTHER SIZES AND CHROME PLATED UNITS ARE ALSO AVAILABLE.

1. Black plastic units 2-1/2-inches in diameter complete with cover plates. Suggested source:
Baer Supply Company
Forest Edge Drive
Vernon Hills, Illinois
Phone: 1-800-289-2237

F. Sliding-Door Hardware for Wood Cabinet Doors:

1. EPCO No. 821 extruded aluminum bottom track, No. 752 nylon roller assembly, and No. 48A34 extruded aluminum top guide; or equivalent products of Stanley.

END OF SECTION 064023