

SECTION 06200

FINISH CARPENTRY AND ARCHITECTURAL MILLWORK

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes, Special Fabricated:

1. Wood Millwork
 - a. Interior Standing and Running Trim
 - b. Exterior Standing and Running Trim
2. Wood Shelving
3. Wood Casework
4. Exterior trim, frames and millwork
5. Interior trim, jambs and millwork
6. Interior stairwork
7. Interior architectural wall surfacing [Solid Wood, Veneered Paneling, Laminated Plastic, Solid Surface]
8. Wood or Plastic Laminated casework
9. Solid Surface or Wood countertops
10. Factory finishing
11. Hardware, typically furnished by the woodwork manufacturer

B. Related Sections:

1. Section 06100 - Rough Carpentry
2. Section 09260 - Gypsum Board Assemblies
3. Section 09900 - Painting
4. Division 1 Section 01811 "Sustainable Design Requirements".
5. Division 1 Section 01741 "Site Waste Management Program".

1.02 REFERENCES

- A. DOC PS 1 "Construction and Industrial Plywood"
- B. DOC PS 20 "American Softwood Lumber Standard"
- C. ANSI/AF&PA NDS-2005: "National Design Specification (NDS) for Wood Construction".
- D. ANSI/HPVA HP-1: "American National Standard for Hardwood and Decorative Plywood"
- E. AWI Quality Standards

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1.03 SUBMITTALS

- A. Submit “Letter of Conformance” in accordance with Section 01 33 00 (01330) with the following supporting data:
 - 1. Submit Product Data and Shop Drawings indicating component profiles and fastening and joining details.
 - 2. Samples for initial selection of the following in the form of manufacturer's color charts consisting of actual units or sections of units showing the full range of colors, textures, and patterns available for each type of material indicated.
 - 3. Samples for verification of the following:
 - a. Lumber products with factory-applied finish, 50 sq. in. for lumber for each finish system and color.

1.04 QUALITY ASSURANCE

- A. Factory-mark each piece of lumber and plywood with type, grade, mill, and grading agency identification; except omit marking from surfaces to receive transparent finish, and submit mill certificate that material has been inspected and graded in accordance with requirements if it cannot be marked on a concealed surface.
- B. Perform finish carpentry work in accordance with AWI Quality Standards, Custom Grade.
- C. Lumber Siding Installer Qualifications: Engage an experienced Installer who has completed siding similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect finish carpentry materials during transit, delivery, storage, and handling to prevent damage, soiling, and deterioration.
- B. Do not deliver finish carpentry materials, until painting, wet work, grinding, and similar operations which could damage, soil, or deteriorate woodwork have been completed in installation areas. If, due to unforeseen circumstances, finish carpentry materials must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.

1.06 PROJECT CONDITIONS

- A. Conditioning: Installer shall advise Contractor of temperature and humidity requirements for finish carpentry installation areas.
- B. Environmental Limitations: Do not deliver or install interior finish carpentry until building is enclosed and weatherproof, wet-work in space is completed and nominally dry, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels throughout the remainder of construction period.
 - 1. Maintain temperature and humidity in installation area as required to maintain moisture content of installed finish carpentry within a 1.0 percent tolerance of optimum moisture content, from date of installation through remainder of construction period. The fabricator of woodwork shall determine optimum moisture content and required temperature and humidity.

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- C. Weather Limitations: Proceed with installing exterior finish carpentry only when existing and forecasted weather conditions will permit work to be performed according to manufacturer's recommendations and warranty requirements and at least one coat of specified finish to be applied without exposure to rain, snow, or dampness.

PART 2 PRODUCTS

2.01 MATERIALS, GENERAL

- A. This specification is based upon a custom cabinet installation. Please see alternative prefab cabinets 06200-9.
- B. Lumber standards: Comply with DOC PS 20, "American Softwood Lumber Standard," for lumber and with applicable grading rules of inspection agencies certified by American Lumber Standards Committee Board of Review.
- C. Inspection Agencies: Inspection agencies, and the abbreviations used to reference them, include the following:
 - 1. NeLMA - Northeastern Lumber Manufacturers Association
 - 2. NLGA - National Lumber Grades Authority
 - 3. WCLIB - West Coast Lumber Inspection Bureau
 - 4. WWPA - Western Wood Products Association
- D. Grade Stamps: Provide lumber with each piece factory marked with grade stamp of inspection agency evidencing compliance with grading rule requirements and identifying grading agency, grade, species, moisture content at time of surfacing, and mill.
 - 1. For exposed lumber, furnish pieces with grade stamps applied to ends or back of each piece, or omit grade stamps entirely and provide certificates of grade compliance issued by inspection agency.
- E. Softwood Plywood: Comply with DOC PS 1, "U.S. Product Standard for Construction and Industrial Plywood."
- F. Hardwood Plywood: Comply with ANSI/HPVA HP-1, "Interim Voluntary Standard for Hardwood and Decorative Plywood."

2.02 INTERIOR STANDING AND RUNNING TRIM

- A. Hardwood Lumber: PS 58; Premium Grade in accordance with AWI; maximum moisture content of 15 percent.
 - 1. Stained Interior Wood Trim and Millwork: Species as shown below, solid lumber stock, sizes and shapes shown on Interior Design Drawings, of grain type sufficient to receive stained finish, smooth surfaced.
 - 2. Painted Interior Wood Trim and Millwork: Species as shown below, solid lumber stock, sizes and shapes shown on Drawings, of grain type sufficient to receive painted finish, smooth surfaced.

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- B. Nominal sizes are indicated, except as shown by detailed dimensions. Provide dressed or worked and dressed lumber, as applicable, manufactured to the actual sizes as required by PS 20 or to actual sizes and patterns as shown, unless otherwise indicated.

2.03 FINISH CARPENTRY FABRICATION

- A. Wood Moisture Content: Comply with requirements of specified inspection agencies and manufacturer's recommendations for moisture content of finish carpentry on relative humidity conditions existing during time of fabrication and in installation areas.
- B. Fabricate finish carpentry to dimensions, profiles, and details indicated.
 - 1. Back out or kerf backs of the following members, except members with ends exposed in finished work:
 - a. Interior standing and running trim, except shoe mold and crown mold.
 - 2. Ease edges of lumber less than 1 inch in nominal thickness to 1/16 inch radius.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerance and other conditions affecting installation and performance of finish carpentry. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Condition finish carpentry to average prevailing humidity conditions in installation areas before installation, for a minimum of 24 hours unless longer conditioning is recommended by manufacturer.
- C. Prime and backprime lumber for painted finish exposed on the exterior not indicated as factory prefinished. Comply with requirements for surface preparation and application in Division 09 Section "Painting."

3.03 INSTALLATION - GENERAL

- A. Discard units of material which are unsound, warped, bowed, twisted improperly treated, not adequately seasoned or too small to fabricate work with minimum of joints or optimum jointing arrangements. Do not use manufactured units with defective surfaces, sizes, or patterns.
- B. Install the work plumb, level, true, and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level countertops; and with 1/16" maximum offset in flush adjoining 1/8" maximum offsets in revealed adjoining surfaces.
- C. Scribe and cut work to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.
- D. Countersink nails, fill surface flush, and sand where face nailing is unavoidable.

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- E. Install to tolerance of 1/8 inch in 96 inches for plumb and level. Install adjoining finish carpentry with 1/32 inch maximum offset for flush installation and 1/16 inch maximum offset for reveal installation.
- F. Coordinate finish carpentry with materials and systems in or adjacent to standing and running trim and rails. Provide cutouts for mechanical and electrical items that penetrate exposed surfaces of trim and rails.
- G. Finish according to specified requirements.
- H. Anchor finish carpentry work to anchorage devices 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 a complete installation. Except where prefinished matching fastener heads are required, use fine finishing nails for exposed nailings, countersunk and filled flush with finished surface, and matching final finish where transparent is indicated.

3.04 WOOD STANDING AND RUNNING TRIM INSTALLATION

- A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary. Stagger joints in adjacent and related standing and running trim. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints, if required.
 - 1. Match color and grain pattern across joints.
 - 2. Install trim after gypsum board joint finishing operations are completed.
 - 3. Drill pilot holes in hardwood before fastening to prevent spitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.
 - 4. Fit exterior joints to exclude water. Apply flat grain lumber with bark side exposed to weather.

3.05 ADJUSTMENT, CLEANING, FINISHING, AND PROTECTION

- A. Repair damaged and defective finish carpentry work wherever possible to eliminate defects functionally and visually; where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean finish carpentry work on exposed and semi-exposed surfaces. Touch-up factory-applied finishes to restore damaged or soiled areas.
- C. Preparation for Finishing: Sand work smooth and set all nails and screws. Apply wood filler in exposed nail and screw indentations.
- D. Cleaning: Keep premises in a neat, safe, and orderly condition at all times during execution of this portion of the work, free from the accumulation of sawdust, cut-ends, and debris.
- E. Refer to Division 09 sections for final finishing of installed finish carpentry work.

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- F. Protection: Installer of finish carpentry work shall advise Contractor of final protection and maintained conditions necessary to ensure that work will be without damage or deterioration at time of acceptance.

3.06 GENERAL NOTES – CASEWORK AND MILLWORK:

A. GENERAL

1. Material and workmanship shall meet the requirements of “Premium Grade” quality standards of the Architectural Woodwork Institute, which is hereby made part of the specification.
2. All parts of cabinets shall be mortised and tenoned together, glued and nailed. Provide blocking as shown or required for rigidity.
3. Cabinetwork shall be constructed with plywood and hard wood as shown on the drawings.
4. Interior of all cabinets, unless otherwise specified, shall be shop sprayed clear lacquer on birch.
5. Work shall be assembled and finished at the shop insofar as is practical and delivered ready for erection. When necessary to cut and fit on the job, the materials shall be made up with ample allowance for cutting.
6. Joints shall be made in an approved manner to conceal shrinkage.
7. Work shall be scribed and fitted to sheetrock or other finished surfaces in a careful manner.
8. Hardware for casework shall be provided and installed by the cabinetmaker and shall be as specified on the drawings and/or required for a complete installation. Submit catalogue cuts of all hardware for Architect’s approval prior to ordering.
9. All miscellaneous metal work and glass shown on the drawings shall be included in this contract. Contractor shall make all required submittals to the Architect for approval.
10. Finished goods and all components used in fabrication must meet all Industry Standards, Federal, State & Local regulations plus Ownership’s, Purchaser’s and Architect’s standards for quality, performance, and Life Safety. Purchaser to oversee the adherence to all standards.
11. Purchasing Agent to verify quantities prior to ordering.

B. SUBMITTALS

1. Manufacturer must provide the following for Architect’s review and approval prior to production:
 - a. Full shop drawings spelling out all details of construction and showing all points of design, construction and reinforcement
 - b. Samples of all finishes and materials used in construction
 - c. One Mock up & Full size sample required prior to production of quantity

C. MATERIALS/PRODUCTS

1. Finish wood, wood trim and plywood shall be the best of their respective grades, free from warp that cannot be corrected in the process of nailing, and all defects

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and imperfections affecting strength and durability. Moisture content shall not exceed 5%.

2. Premium Grade Hardwood
3. Premium Grade Veneer
4. All interior hardware (hinges, screws, bolts, etc.) shall be stainless steel.
5. Particle board shall be medium density conforming to C.S.236-66 (Type 1-B-2) in fire retardant grade where required, conforming to New York City Building Code Section C26-502.6.
6. Polyester resin shall be as manufactured by Titaine Co. Submit samples to Architect for review and approval.
7. Stainless steel shall be mirror polished 18 gauge or custom milled ¼" plate as shown on drawings.
8. Slides shall be full glide extension by Grant #555 or Accuride 3800 series as applicable.
9. Chrome glides shall be provided for all cabinetwork.
10. Cabinets to be European Frameless Face Panel ¾" Plywood.
11. Provide wire pulls stainless steel for cabinets and drawers.

D. POLYESTER RESIN, PAINT AND TRANSPARENT FINISHES

1. Finish interior woodwork shall be back painted in the field before installation.
2. Polyester resin finish shall be applied to dense particle board (fire retardant) as follows:
 - a. Apply two or three undercoats of high solids lacquer primer, and sand between coats.
 - b. Apply two or three coats of color lacquer. Note that color must be corrected to compensate for amber tint of polyester.
 - c. Scuff and sand lacquer. Apply one coat of polyester resin. Allow to cure 24 hours. Sand with orbital sander. Take care not to cut through polyester. Apply second coat of polyester, sand. Apply third coat of polyester; then cure at 125 degrees for 12 hours.
 - d. Sand successively with 400 grit-500-600 silicone carbide no-load paper. Polish to high luster using dry and liquid compounds.

The above is for establishing a minimum quality standard, and the contractor should adhere to manufacturer's recommendations where they differ from or exceed the above. Polyester resin shall be as manufactured by Titaine Co.

E. PREPARATION

1. Custom furniture Contractor must perform a thorough survey and is responsible for verifying all dimensions on site prior to quoting and fabrication, and advise Architect of any irregularities affecting the design intent.

Alternate Prefab Cabinet

Alternate cabinet by Diamond – Trystan maple flat panel door standard finishes. Dove tail soft close under mount draw guides and plywood construction will be considered by Architect.

END OF SECTION