

SECTION 06 20 00

FINISH CARPENTRY

04/06

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN LUMBER STANDARDS COMMITTEE (ALSC)

ALSC PS 20 (1970) American Softwood Lumber Standard

APA - THE ENGINEERED WOOD ASSOCIATION (APA)

APA PS 1 (1995) Voluntary Product Standard for Construction and Industrial Plywood

ARCHITECTURAL WOODWORK INSTITUTE (AWI)

AWI Qual Stds (8th Edition) AWI Quality Standards

ASME INTERNATIONAL (ASME)

ASME B18.2.1 (1996; Addenda A 1999; Errata 2003; R 2005) Square and Hex Bolts and Screws (Inch Series)

ASME B18.2.2 (1987; R 2005) Standard for Square and Hex Nuts (Inch Series)

ASME B18.6.1 (1981; R 1997) Wood Screws (Inch Series)

ASTM INTERNATIONAL (ASTM)

ASTM A 687 (1993) Standard Specification for High-Strength Nonheaded Steel Bolts and Studs

ASTM F 547 (2006) Nails for Use with Wood and Wood-Base Materials

NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA)

NELMA Grading Rules (2003) Standard Grading Rules for Northeastern Lumber

SOUTHERN PINE INSPECTION BUREAU (SPIB)

SPIB 1003 (2002) Standard Grading Rules for Southern Pine Lumber

WEST COAST LUMBER INSPECTION BUREAU (WCLIB)

WCLIB 17 (2000) Standard Grading Rules

WESTERN WOOD PRODUCTS ASSOCIATION (WWPA)

WWPA G-5 (1998) Western Lumber Grading Rules

WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)

WDMA I.S. 4 (2000) Water-Repellent Preservative
Non-Pressure Treatment for Millwork

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

DETAIL DRAWINGS; G, AE

SD-03 Product Data

Manufacturer's printed data, showing texture, density, catalog cuts, and installation instructions.

Wood Items and Trim

Manufacturer's printed data indicating the usage of engineered or recycled wood products, and environmentally safe preservatives.

SD-04 Samples

Trim; G, AE

Samples shall be of sufficient size to show patterns, color ranges, and types, as applicable, of the material proposed to be used.

SD-07 Certificates

Certificates of grade

Certificates of compliance

1.3 DETAIL DRAWINGS

The Contractor shall submit detail drawings showing fabricated items and special mill and woodwork items. Drawings shall indicate materials and details of construction, methods of fastening, erection, and installation.

1.4 CERTIFICATES

Provide certificates of grade from the grading agency on graded but unmarked lumber or plywood attesting that materials meet the grade

requirements specified herein.

Provide [certificates of compliance](#) unless materials bear certification markings or statements.

1.5 DELIVERY, STORAGE, AND HANDLING

Deliver lumber, plywood, trim, and millwork to job site in an undamaged condition. Stack materials to ensure ventilation and drainage. Protect against dampness before and after delivery. Store materials under cover in a well-ventilated enclosure and protect against extreme changes in temperature and humidity. Do not store products in building until wet trade materials are dry.

1.6 QUALITY ASSURANCE

1.6.1 Lumber

Identify each piece or each bundle of lumber, millwork, and trim by the grade mark of a recognized association or independent inspection agency that is certified by the Board of Review, American Lumber Standards Committee, to grade the species.

1.6.2 Plywood

Each sheet of plywood shall bear the mark of a recognized association or independent inspection agency that maintains continuing control over quality of the plywood. Mark shall identify plywood by species group or span rating, and shall show exposure durability classification, grade, and compliance with [APA PS 1](#).

1.6.3 Nonpressure-Treated Woodwork and Millwork

Mark, stamp, or label, indicating compliance with [WDMA I.S. 4](#).

PART 2 PRODUCTS

2.1 [WOOD](#)

2.1.1 Sizes and Patterns of Wood Products

Yard and board lumber sizes shall conform to [ALSC PS 20](#). Provide shaped lumber and millwork in the patterns indicated and standard patterns of the association covering the species. Size references, unless otherwise specified, are nominal sizes, and actual sizes shall be within manufacturing tolerances allowed by the applicable standard.

2.1.2 Trim and Finish

Provide species and grades listed for materials to be paint finished. Provide materials that are to be stain, natural, or transparent finished one grade higher than that listed. Provide species indicated for materials to be transparent finished. Run trim with hollow backs.

TABLE OF GRADES FOR WOOD TO RECEIVE PAINT FINISH

<u>Grading Rules</u>	<u>Species</u>	<u>Exterior and Interior Trim, Finish, and Frames</u>
<p>WWPA G-5 grading rules</p>	<p>Aspen Douglas Fir-Larch Douglas Fir-South Engelmann Spruce -Lodgepole Pine Engelmann Spruce Hem-Fir Idaho White Pine Lodgepole Pine Mountain Hemlock Mountain Hemlock -Hem-Fir Ponderosa Pine- Sugar Pine (Ponderosa Pine -Lodgepole Pine) White Woods (Western Woods) Western Cedars Western Hemlock</p>	<p>All Species: C & Btr. Select (Choice & Btr Idaho White Pine) or Superior Finish. Western Red Cedar may be graded C & Btr. Select or A & Btr. per Special Western Red Cedar Rules.</p>
<p>WCLIB 17 standard grading rules</p>	<p>Douglas Fir-Larch Hem-Fir Mountain Hemlock Sitka Spruce Western Cedars Western Hemlock</p>	<p>All Species: C & Btr VG, except A for Western Red Cedar</p>
<p>SPIB 1003 grading rules</p>	<p>Southern Pine</p>	<p>C & Btr</p>
<p>NELMA Grading Rules standard grading rules</p>	<p>Balsam Fir Eastern Hemlock- Tamarack Eastern Spruce Eastern White Pine Norway Pine Northern Pine Northern White Cedar</p>	<p>All Species: C- Select except C & Btr for Eastern White Pine and Norway Pine</p>

2.1.3 Utility Shelving

Utility shelving shall be a suitable species equal to or exceeding requirements of No. 3 Common white fir under WWPA G-5, 1 inch thick; or plywood, interior type, Grade A-B, 3/4 inch thick, any species group.

2.2 TRIM

2.2.1 Wood Chair Rails

Clear oak or maple dressed to size indicated and with outer edges rounded as shown.

2.3 MOISTURE CONTENT OF WOOD PRODUCTS

Air-dry or kiln-dry lumber. Kiln-dry treated lumber after treatment. Maximum moisture content of wood products at time of delivery to the job site, and when installed, shall be as follows:

- a. Interior Finish Lumber, Trim, and Millwork **1 1/4 Inches Nominal** or Less in Thickness: 12 percent on 85 percent of the pieces and 15 percent on remainder.
- b. Moisture content of other materials shall be in accordance with the applicable standards.

2.4 HARDWARE

Provide sizes, types, and spacings of manufactured building materials recommended by the product manufacturer except as otherwise indicated or specified.

2.4.1 Wood Screws

ASME B18.6.1.

2.4.2 Bolts, Nuts, Lag Screws, and Studs

ASME B18.2.1, ASME B18.2.2, and ASTM A 687.

2.4.3 Nails

Nails shall be the size and type best suited for the purpose and shall conform to **ASTM F 547**. Nails shall be hot-dip galvanized or aluminum when used on exterior work. For siding, length of nails shall be sufficient to extend **1-1/2 inches** into supports, including wood sheathing over framing. Screws for use where nailing is impractical shall be size best suited for purpose.

2.5 FABRICATION

2.5.1 Quality Standards (QS)

The terms "Premium," "Custom," and "Economy" refer to the quality grades defined in **AWI Qual Stds**. Items not specified to be of a specific grade shall be Custom grade. The AWI QS is superseded by all contract document requirements indicated or stated herein.

PART 3 EXECUTION

3.1 FINISH WORK

Provide sizes, materials, and designs as indicated and as specified. Apply primer to finish work before installing. Where practicable, shop assemble and finish items of built-up millwork. Joints shall be tight and constructed in a manner to conceal shrinkage. Miter trim and moldings at exterior angles and cope at interior angles and at returns. Material shall show no warp after installation. Install millwork and trim in maximum practical lengths. Fasten finish work with finish nails. Provide blind nailing where practicable. Set face nails for putty stopping.

3.1.1 Interior Finish Work

After installation, sand exposed surfaces smooth.

3.2 SHELVING

One inch nominal thick wood shelf material or 3/4 inch thick plywood shelf material supported substantially with end and intermediate supports and arranged to prevent buckling and sagging. Hook strips shall be one by 4 inches nominal and cleats one by 3 inches nominal. Provide cleats except where hook strips are specified or indicated. Anchor standards to wall at not more than 2 feet o.c.

3.2.1 Storage Rooms

Provide storage rooms with shelves of size and arrangement as indicated.

3.3 MISCELLANEOUS

3.3.1 Wood Chair Rails

Bore, countersink, and screw in place where indicated. Install straight, plumb, level and with closely fitted joints. Exposed surfaces shall be machine sanded at the mill. Work shall be coped at returns and interior angles and mitered at external corners. Intersections of flatwork shall be shouldered to ease any inherent changes in plane.

-- End of Section --