

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 HARDBOARD ASSOCIATION (AHA)

AHA A135.6 (1998) Hardboard Siding

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A208.1 (1999) Mat-Formed Wood Particle Board

ANSI B18.2.1 (1996; Errata 2003) Square and Hex Bolts and Screws Inch Series

ANSI B18.6.1 (1981; R 2004) Wood Screws

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C1 (2003) All Timber Products - Preservative Treatment by Pressure Processes

AWPA C2 (2003) Lumber, Timber, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes

AWPA C20 (2003) Structural Lumber Fire-Retardant Treatment by Pressure Processes

AWPA C27 (2002) Plywood - Fire-Retardant Treatment by Pressure Processes

AWPA C9 (2003) Plywood - Preservative Treatment by Pressure Processes

AWPA M2 (2001) Standard for Inspection of Treated Wood Products

AWPA M4 (2002) Standard for the Care of Preservative-Treated Wood Products

APA - THE ENGINEERED WOOD ASSOCIATION (APA)

APA E445S (2001; R 2002) Performance Standards and

Qualification Policy for Structural-Use
Panels (APA PRP-108)

ARCHITECTURAL WOODWORK INSTITUTE (AWI)

AWI Qual Stds (8th Edition) AWI Quality Standards

ASME INTERNATIONAL (ASME)

ASME B18.2.2 (1987; R 2005) Square and Hex Nuts

ASTM INTERNATIONAL (ASTM)

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

ASTM D 2898 (1994; R 2004) Accelerated Weathering of
Fire-Retardant-Treated Wood for Fire
Testing

ASTM F 547 (2001) Nails for Use with Wood and
Wood-Base Materials

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

BHMA A156.9 (2003) Cabinet Hardware

HARDWOOD PLYWOOD AND VENEER ASSOCIATION (HPVA)

HPVA HP-1 (2000) American National Standard for
Hardwood and Decorative Plywood

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA LD 3 (2000) High-Pressure Decorative Laminates

NATIONAL HARDWOOD LUMBER ASSOCIATION (NHLA)

NHLA Rules (2003) Rules for the Measurement &
Inspection of Hardwood & Cypress

NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA)

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

REDWOOD INSPECTION SERVICE (RIS) OF THE CALIFORNIA REDWOOD
ASSOCIATION (CRA)

RIS Grade Use (1998) Redwood Lumber Grades and Uses

SOUTHERN CYPRESS MANUFACTURERS ASSOCIATION (SCMA)

SCMA Spec (1986; Supple No. 1, Aug 1993) Standard
Specifications for Grades of Southern
Cypress

SOUTHERN PINE INSPECTION BUREAU (SPIB)

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

U.S. DEPARTMENT OF COMMERCE (DOC)

PS-58 (1974) Basic Hardboard

PS1 (1995) Construction and Industrial Plywood (APA V995)

PS2 (1992) Wood-Based Structural-Use Panels (APA 5350)

PS20 (1999) American Softwood Lumber Standard

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

WOOD MOULDING AND MILLWORK PRODUCERS ASSOCIATION (WMPMA)

WMPMA WM 6 (1987) Industry Standard for Non-Pressure Treating of Wood Millwork

1.2 SUBMITTALS

1.3 OMITTED

1.4 OMITTED

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 PS1.

1.6.3 OMITTED

1.6.4 Pressure-Treated Lumber and Plywood

Each treated piece shall be inspected in accordance with AWP A M2.

1.6.5 Nonpressure-Treated Woodwork and Millwork

Mark, stamp, or label, indicating compliance with WDMA I.S. 4.

1.6.6 OMITTED

PART 2 PRODUCTS

2.1 WOOD

2.1.1 Sizes and Patterns of Wood Products

Yard and board lumber sizes shall conform to PS20. 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, Finish, and Frames

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, except window stools and aprons 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>
WWPA G-5 grading rules	Aspen Douglas Fir-Larch Douglas Fir-South Engelmann Spruce -Lodgepole Pine Engelmann Spruce Hem-Fir Idaho White Pine Lodgepole Pine	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.

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>
	Mountain Hemlock	
	Mountain Hemlock -Hem-Fir	
	Ponderosa Pine-	
	Sugar Pine	
	(Ponderosa Pine	
	-Lodgepole Pine)	
	White Woods	
	(Western Woods)	
	Western Cedars	
	Western Hemlock	
WCLIB 17 standard grading rules	Douglas Fir-Larch Hem-Fir Mountain Hemlock Sitka Spruce Western Cedars Western Hemlock	All Species: C & Btr VG, except A for Western Red Cedar
SPIB 1003 grading rules	Southern Pine	C & Btr
SCMA Spec standard specification	Cypress	C-Select
NELMA Grading Rules standard grading rules	Balsam Fir Eastern Hemlock- Tamarack Eastern Spruce Eastern White Pine Norway Pine Northern Pine Northern White Cedar	All Species: C- Select except C & Btr for Eastern White Pine and Norway Pine
RIS Grade Use standard specifications	Redwood	Clear Clear All Heart
NHLA Rules rules	Cypress	B Finish
	Red Gum Soft Elm Birch	Select or Btr (for interior use only)

2.1.3 OMITTED

2.1.4 Softwood Plywood

PS1, thicknesses as indicated.

a. Plywood for Countertops: Exterior type, A-C Grade.

2.1.5 OMITTED

2.1.6 OMITTED

2.1.7 OMITTED

2.1.8 OMITTED

2.1.9 OMITTED

2.1.10 OMITTED

2.1.11 OMITTED

2.1.12 OMITTED

2.1.13 OMITTED

2.2 OMITTED

2.3 FASCIAS AND TRIM

2.3.1 Wood

Fascias and trim, including exterior door and window casing, shall be species and grade listed in TABLE I at the end of this section. Sizes shall be as indicated. Metal corners may be furnished in lieu of wood cornerboards for horizontal siding; and if furnished, shall be galvanized steel and primed or aluminum and primed.

2.4 OMITTED

2.5 OMITTED

2.6 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. Exterior Treated and Untreated Finish Lumber and Trim 4 Inches Nominal or Less in Thickness: 19 percent.
- c. Exterior Wood Siding: 15 percent.
- d. Moisture content of other materials shall be in accordance with the applicable standards.

2.7 PRESERVATIVE TREATMENT OF WOOD PRODUCTS

2.7.1 Nonpressure Treatment

Treat woodwork and millwork, such as exterior trim, door trim, and window trim, in accordance with WDMA I.S. 4, with either 2 percent copper napthenate, 3 percent zinc napthenate, or 1.8 percent copper-8-quinolinolate. Provide a liberal brushcoat of preservative treatment to field cuts and holes.

2.7.2 Pressure Treatment

Lumber and plywood used on the exterior of buildings or in contact with masonry or concrete shall be treated with water-borne preservative listed in AWPA P5 in accordance with AWPA C1, AWPA C2, and AWPA C9, as applicable, and inspected in accordance with AWPA M2. Identify treatment on each piece of material by the quality mark of an agency accredited by the Board of Review of the American Lumber Standards Committee. Plywood shall be treated to a reflection level as follows:

Exterior wood molding and millwork within 18 inches of soil, in contact with water or concrete shall be preservative-treated in accordance with WMMPA WM 6. Exposed areas of treated wood that are cut or drilled after treatment shall receive a field treatment in accordance with AWPA M4. Items of all-heart material of cedar, cypress, or redwood will not require preservative treatment, except when in direct contact with soil.

2.8 OMITTED

2.9 HARDWARE

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

2.9.1 Wood Screws

ANSI B18.6.1.

2.9.2 Bolts, Nuts, Lag Screws, and Studs

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

2.9.3 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.

2.9.4 OMITTED

2.9.5 OMITTED

2.9.6 OMITTED

2.10 FABRICATION

2.10.1 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.

2.10.2 Countertops

Fabricate with lumber and a core of exterior plywood, glued and screwed to form an integral unit.

2.10.3 OMITTED

2.10.3.1 OMITTED

2.10.3.2 OMITTED

2.10.4 OMITTED

2.10.5 OMITTED

2.10.5.1 AWI Quality Grade (CTF)

Economy grade.

2.10.5.2 OMITTED

2.10.5.3 OMITTED

2.10.5.4 OMITTED

2.10.6 OMITTED

PART 3 EXECUTION

3.1 OMITTED

3.2 OMITTED

3.3 OMITTED

3.4 OMITTED

3.5 OMITTED

3.6 OMITTED

3.7 FASCIAS AND EXTERIOR TRIM

Exposed surfaces and square edges shall be machine sanded, caulked, and constructed to exclude water. Joints of built-up items, in addition to nailing, shall be glued as necessary for weather-resistant construction. End joints in built-up members shall be well distributed. Joints in flat work shall be shouldered. Backs of wide-faced miters shall be held together with metal rings and glue. Fascias and other flat members shall be in maximum practicable lengths. Cornices shall be braced, blocked, and rigidly anchored for support and protection of vertical joints.

3.8 MOLDING AND INTERIOR TRIM

Molding and interior trim shall be installed straight, plumb, level and with closely fitted joints. Exposed surfaces shall be machine sanded at the mill. Molded 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. Window and door trim shall be provided in single lengths. Blind nailing shall be used to the extent practicable, and face nailing shall be set and stopped with a nonstaining putty to match the finish applied. Screws shall be used for attachment to metal; setting and stopping of screws shall be of the same quality as required where nails are used.

3.9 OMITTED

-- End of Section --