

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 in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A208.1	(1993) Wood Particleboard
ANSI B18.2.1	(1996) Square and Hex Bolts and Screws Inch Series
ANSI B18.2.2	1987 (Rev. 1993) Square and Hex Nuts
ANSI B18.5	1990 Round Head Bolts (Inch Series)
ANSI B18.6.1	(1981; R 1997) Wood Screws (Inch Series)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 687	(1993) High- Strength Nonheaded Steel Bolts and Studs
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ARCHITECTURAL WOODWORK INSTITUTE (AWI)

AWI QS	(1997) Architectural Woodwork Quality Standards and Quality Certification Program
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AMERICAN WOOD- PRESERVERS' ASSOCIATION (AWPA)

AWPA C2	(1996) Lumber, Timber, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes
AWPA C9	(1996) Plywood - Preservative Treatment by Pressure Processes

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC. (BHMA)

ANSI/ BHMA A156.9	(1994) Cabinet Hardware (BHMA 201)
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FEDERAL SPECIFICATIONS (FS)

FS FF-B-588	(Rev. C) (Amd. 1) Bolt, Toggle: and Expansion Sleeve, Screw
FS FF-N-105	(Rev. B) (Int Amd. 4) Nails, Brads, Staples and Spikes: Wire, Cut and Wrought
FS FF-S-325	(Int Amd. 3) Shield, Expansion; Nail, Expansion; and Nail, Drive Screw (Devices, Anchoring, Masonry)

NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA)

NELMA SGRNL (1997) Standard Grading Rules for Northeastern Lumber

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA LD 3 (1995) High- Pressure Decorative Laminates

NATIONAL HARDWOOD LUMBER ASSOCIATION (NHLA)

NHLA RMIHCL (1997) Rules for the Measurement and Inspection of  
Hardwood and Cypress Lumber

NORTHERN HARDWOOD AND PINE MANUFACTURERS

NHPMA SGRNEL 1978 (Rev. 3 1982) Standard Grading Rules for  
Northern and Eastern Lumber

U. S. DEPARTMENT OF COMMERCE PRODUCT STANDARDS (PS)

PS- 1 (1995) Construction and Industrial Plywood

PS- 20 (1970; R 1986) American Softwood Lumber Standard

PS-51 (1971) Hardwood and Decorative Plywood

PS- 58 (1974) Basic Hardboard

SOUTHERN PINE INSPECTION BUREAU (SPIB)

SPIB SPIBGR (1994 including Supplement 1-15) Southern Pine  
Inspection Bureau Grading Rules

WEST COAST LUMBER INSPECTION BUREAU (WCLIB)

WCLIB 17 (1996; Supp. VII and VIII) Standard Grading and  
Dressing Rules for Douglas Fir, Western Hemlock,  
Western Red Cedar, White Fir, Sitka Spruce Lumber

WESTERN WOOD PRODUCTS ASSOCIATION (WWPA)

WWPA WLGR (1998) Western Lumber Grading Rules

1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

1.2.1 SD- 04, Drawings

a. Countertops

#### 1.2.1.1 Drawing Submittal

Submit drawings showing prefabricated millwork. Include details and erection data associated with work of other trades; materials and species; arrangements; profiles of moldings; thicknesses; sizes of parts; construction; fastenings; and clearances.

#### 1.2.1.2 Samples

Submit samples of laminated plastic and solid surface material, showing each color, pattern, and texture for approval by the Contracting Officer.

#### 1.2.2 SD- 08, Statements

##### a. Certificates of grade

#### 1.2.2.1 Grade Requirements

Submit certificates of grade from the grading agency on graded but unmarked lumber or plywood attesting that materials meet the grade requirements specified herein.

### 1.3 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.

### 1.4 QUALITY ASSURANCE

#### 1.4.1 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.

#### 1.4.2 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 PS- 1.

#### 1.4.3 Hardboard and Particleboard

Materials shall bear a marking or statement identifying the producer and the applicable standard.

#### 1.4.4 Pressure- Treated Lumber and Plywood

Each treated piece shall be inspected in accordance with AWPA M2.

PART 2 - PRODUCTS

2.1 WOOD

2.1.1 Sizes and Patterns of Wood Products

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

Provide species and grades listed for materials to be paint finished.

TABLE OF GRADES FOR WOOD TO RECEIVE PAINT FINISH

Grading Rules	Species	Exterior and Interior Trim, Finish, and Frames
WWPA WLGR grading rules	Aspen Douglas Fir- Larch Douglas Fir- South Hem-fir Ponderosa Pine- Sugar Pine (Ponderosa Pine -Lodgepole Pine)	All Species: C & Btr. Select or Superior Finish.
WCLIB 17 standard grading rules	Douglas Fir- Larch Hem- Fir	All Species: C & Btr VG
SPIB SPIBGR grading rules	Southern Pine	C & Btr
NELMA SGRNL standard grading rules	Balsam Fir Eastern White Pine Norway Pine Northern Pine Northern White Cedar	All Species: C- Select except C & Btr for Eastern White Pine and Norway Pine
NHPMA SGRNEL Standard Specifications	Balsam Fir Eastern White Pine Northern Pine	All species: C & Btr Select
NHLA RMIHCL rules	Red Gum Soft Elm Birch	Select or Btr (for interior use only)

### 2.1.3 Shelving

Provide species of grade equal to or exceeding Boards, 3 Common Hem- Fir under WWPA WLGR.

### 2.1.4 Softwood Plywood

PS- 1, thicknesses as indicated.

#### 2.1.4.1 Plywood for Shelving

Interior type, A- B Grade, any species group.

#### 2.1.4.2 Plywood for Countertops

Exterior type, A- C Grade.

### 2.1.5 Hardwood Plywood

PS-51, Type II (Interior), Premium (A) grade face veneers of birch, of thickness specified.

### 2.1.6 Hardboard

PS- 58, standard type, 1/ 4 inch thick.

### 2.1.7 Particleboard

ANSI A208.1, Grade 1- M- 2 or 2- M- 2 or better.

### 2.1.8 Chair Rails

Wood species red oak suitable for transparent finish.

## 2.2 LAMINATED PLASTIC

NEMA LD 3.

### 2.2.1 Countertop Finish

Grade GP 50 or PF 42, satin finish. Color and pattern shall be as selected from manufacturer's full range of standard colors and patterns.

### 2.2.2 Backing Sheet

BK 20.

## 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 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 PRESERVATIVE TREATMENT OF WOOD PRODUCTS

### 2.4.1 Pressure Treatment

Lumber treated in accordance with AWWA C1 and AWWA C2, and plywood in accordance with AWWA C1 and AWWA C9 shall be used on wood members in contact with masonry or concrete. Treatment shall be verified by an approved inspection agency report, or the AWPB LP22 Quality Mark "LP-22" on each piece.

## 2.5 HARDWARE

Provide sizes, types, and spacings of manufactured building materials recommended by the product manufacturer except as otherwise indicated or specified. Provide hot-dipped galvanized steel or aluminum nails and fastenings where used on the exterior or exposed to the weather.

### 2.5.1 Wood Screws

ANSI B18.6.1.

### 2.5.2 Bolts, Nuts, Lag Screws, and Studs

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

## 2.6 FABRICATION

### 2.6.1 Countertops

Fabricate with lumber and a core of exterior plywood or particleboard, glued and screwed to form an integral unit. Bond laminated plastic under pressure to exposed surfaces, using type of glue recommended by plastic manufacturer. Countertop unit shall be post-formed type with no-drip nose, cove moulding, and Style A back splash, and covered with NEMA LD 3, Grade PF 42 plastic. Back splash shall be not less than 3 1/2 inches nor more than 4 1/2 inches high.

### 2.6.2 Cabinets

Wall and base cabinets shall be of the same construction and appearances. Fabricate with solid ends and frame fronts, or with frames all around. Frames shall be solid hardwood and, where exposed, of the same species as the plywood veneer, and not less than 19 by 3/4 by 1 1/2 inches. Ends, bottom, back, partitions, and doors shall be hardwood plywood. Mortise and tenon, dovetail, or dowel and glue joints to produce a rigid unit. Cover exposed edges of plywood with hardwood strips. Doors, frames, and solid exposed ends shall be 3/4 inch thick; bottom, partitions, and framed ends 1/2 inch minimum; shelves 5/8 inch minimum; back 1/4 inch minimum.

#### 2.6.2.1 Cabinet Hardware

ANSI/BHMA A156.9. Provide hardware for each door, including two semi-concealed self-closing hinges, Type B01577; magnetic catch, Type B03151; and doorpull, Type B0201. Provide two side-mounted metal drawer slides Type B05051; and a pull, type B0201 for each drawer. Hardware exposed to view shall be as specified in Section 08710, "Door Hardware".

### 2.6.2.2 Finish

Provide a prime painted factory finish on all wood surfaces to be painted, after fabrication. The finish shall be the fabricator's standard prime painted finish, except that it shall be equivalent to one coat of sealer and one coat of primer suitable for either latex or alkyd final coats to be field applied, as specified in Section 09900, "Paints and Coating" on all surfaces. Sand lightly and wipe clean between coats.

### 2.6.2.3 Plastic Laminate Finish

Comply with Fed. Spec. L-P-508, Style D, Type II, 0.042 inch thick, Class 1, Finish C. Colors as indicated on finish schedule.

## 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.

### 3.2 SHELVING

3/4 inch thick wood shelf material or 3/4 or 23/32 inch thick plywood shelf material supported substantially with end and intermediate supports and arranged to prevent buckling and sagging. Where adjustable shelving is indicated, provide standards and brackets or shelf rests for each shelf. Anchor standards to wall at not more than 2 feet o. c.

#### 3.2.1 Cleaning- Gear Closets

Provide shelves of size and arrangement indicated.

### 3.3 MISCELLANEOUS

#### 3.3.1 Counters

Construct as indicated. Conceal fastenings where practicable, fit counter neatly, install in a rigid and substantial manner, and scribe to adjoining surfaces. Provide counter sections in longest lengths practicable; keep joints in tops to a minimum; and where joints are necessary, provide tight hairline joints drawn up with concealed-type heavy pull-up bolts. Glue joints with water-resistant glue and, in addition, make rigid and substantial with screws, bolts, or other approved fastenings.

#### 3.3.2 Cabinets

Install level, plumb, and tight against adjacent walls. Secure cabinets to walls with concealed toggle bolts, and secure top to cabinet with concealed screws. Make cut-outs for fixtures to templates supplied by fixture manufacturer. Carefully locate cut-outs for pipes so that edges of holes will be covered by escutcheons.

### 3.3.3 Chair Rails

Install level, and plumb in locations shown on drawings. Chair Rails to be stained with transparent finish.

END OF SECTION