## Part 1 General

#### 1.1 SECTION INCLUDES

- .1 Roof curbs.
- .2 Blocking in wall and roof openings.
- .3 Wood furring and grounds.
- .4 Telephone and electrical panel back boards.
- .5 Concealed wood blocking for support of toilet and bath accessories, wall cabinets, wood trim and all other wall mounted equipment or furnishings shown on Drawings or Schedules.
- .6 Preservative treatment of wood.

#### 1.2 RELATED SECTIONS

- .1 Section 06 20 00 Finish Carpentry.
- .2 Section 06 41 11 Architectural Woodwork.
- .3 Section 08 11 00 Metal Doors and Frames.
- .4 Section 08 44 13 Glazed Aluminum Curtain Wall Windows.
- .5 Section 09 22 16 Non-Structural Metal Stud Framing.
- .6 Section 10 28 14 Toilet and Bath Accessories.
- .7 Structural, Mechanical and Electrical Specifications.

## 1.3 REFERENCES

- .1 CSA-O80 Series-08 Wood Preservation.
- .2 CSA-O121-08 Douglas Fir Plywood
- .3 CAN/CSA-O141-05 (R2009) Softwood Lumber.
- .4 CSA-O151-09 Canadian Softwood Plywood.
- .5 CSA-O153-M1980 (R2008) Poplar Plywood.
- .6 CSA-O437-93 (R2006) OSB and Waferboard.
- .7 NPA A208.1-2009 Particleboard.
- .8 APA (American Plywood Association) Grades and Specifications.

- .9 CANPLY (Canadian Plywood Association) Canadian Plywood Handbook.
- .10 National Lumber Grades Authority (NLGA) Standard Grading Rules for Canadian Lumber, 2007 Edition.

#### 1.4 **QUALITY ASSURANCE**

- .1 Lumber Products: Graded and stamped to NLGA requirements.
- .2 Plywood Products: Certified and graded to CANPLY requirements.

## Part 2 Products

#### 2.1 MATERIALS

- .1 Lumber: NLGA (Standard Grading Rules for Canadian Lumber).
  - .1 CAN/CSA-O141, softwood, SPF species, Select grade.
  - .2 19% maximum moisture content, pressure preservative treat.
- .2 Plywood: CSA-O121 (DFP).
- .3 Particleboard: NPA A208.1; sanded.
- .4 Mat-Formed Panelboards: CSA-O437, OSB.

## 2.2 ACCESSORIES

- .1 Fasteners and Anchors:
  - .1 Fasteners: Hot dipped galvanized steel for high humidity and treated wood locations, unfinished steel elsewhere.
  - Anchors: Toggle bolt type for anchorage to hollow masonry, expansion shield and lag bolt type for anchorage to solid masonry or concrete, and bolt or ballistic fastener for anchorages to steel, as required.

## 2.3 FACTORY WOOD TREATMENT

- .1 Wood Preservative (Pressure Treatment): CSA-O80 Series using water borne preservative with 0.25% retainage.
- .2 Wood Preservative (Surface Application): Clear type.

#### Part 3 Execution

#### 3.1 FRAMING

- .1 Set members level and plumb, in correct position.
- .2 Place horizontal members, crown side up.
- .3 Construct curb members of single pieces.

- .4 Space framing as indicated on Drawings.
- .5 Curb roof openings except where prefabricated curbs are provided. Form corners by alternating lapping side members.
- .6 Coordinate curb installation with installation of decking and support of deck openings and roofing vapour retardant.

## 3.2 SHEATHING

- .1 Secure sheathing to framing members with ends over firm bearing and staggered.
- .2 Install telephone and electrical panel back boards with plywood sheathing material where required. Size the back board as indicated on Electrical Drawings and specifications.

#### 3.3 SITE APPLIED WOOD TREATMENT

- .1 Apply preservative treatment in accordance with manufacturer's written instructions.
- .2 Brush apply two (2) coats of preservative treatment on wood in contact with cementitious materials or roofing and related metal flashings. Treat Site-sawn cuts.
- .3 Allow preservative to dry prior to erecting members.

## 3.4 DOOR FRAME INSTALLATION

- .1 Install door frames in rough openings square and level.
- .2 For exterior door, install a 300mm (12") wide strip of vapour barrier to window and door frames prior to installation.

#### 3.5 SURFACE-APPLIED WOOD PRESERVATIVE

- .1 Before installation, treat surfaces of material with wood preservative. Apply preservative after materials have been cut and fit to size.
- .2 Apply preservative by dipping, brush, or spray to completely saturate and maintain a wet film on the surface for a minimum of 3 minutes
- .3 Re treat surfaces exposed by cutting, trimming, or boring with liberal brush application of preservative before installation.
- .4 Touch-up all material as follows:
  - .1 Wood backing, curbs, nailers, sleepers on roof deck or below grade.
  - .2 Blocking for windows and exterior door frames.

## **END OF SECTION**

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# Part 1 General 1.1 **SECTION INCLUDES** .1 Finish carpentry items. .2 Installation of exterior wall siding. .3 Hardware and attachment accessories. 1.2 RELATED SECTIONS .1 Section 01 45 00 – Quality Control .2 Section 05 50 00 - Metal Fabrications. .3 Section 06 10 13 - Wood Blocking and Curbing. .4 Section 06 41 11 - Architectural Woodwork. Section 09 91 99 – Painting for Minor Works. .5 1.3 REFERENCES .1 AHA A135.4-2004 – Basic Hardboard. .2 ASTM E84-09c - Test Method for Surface Burning Characteristics of Building Materials. .3 BHMA A156.9-2003 - Cabinet Hardware. .4 CAN/CGSB-11.3-M87 - Hardboard. .5 CSA-O80 Series-08 - Wood Preservation. .6 CSA-O121-08 - Douglas Fir Plywood .7 CSA-O141-05 - Softwood Lumber. 8. CSA-O151-09 - Canadian Softwood Plywood. .9 CSA-O153-M1980 (R2008) - Poplar Plywood. NPA A208.1-2009 - Particleboard. .10 .11 NPA A208.2-2009 - Medium Density Fibreboard (MDF) for Interior Applications. .12 AWS (AWMAC Architectural Woodwork Standards) – 1st Edition, 2009.

CHPVA (Canadian Hardwood Plywood and Veneer Association) - Official Grading

Rules for Canadian Hardwood Plywood.

- .14 NEMA (National Electric Manufacturers Association) LD3-2000 High Pressure Decorative Laminates
- .15 NLGA (National Lumber Grades Authority) Standard Grading Rules for Canadian Lumber, 2007 Edition.
- .16 NHLA (National Hardwood Lumber Association).

## 1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Coordination:
  - .1 Coordinate with other work having a direct bearing on work of this section.
  - .2 Coordinate the work with mechanical and electrical rough-in, installation of associated and adjacent components.

## 1.5 SCOPE OF WORK

- .1 Section 06 41 11 Architectural Cabinetwork to supply custom fabricated architectural woodwork for installation by this Section. Miscellaneous material to be supplied by this Section to facilitate a complete installation.
- .2 Ensure that blocking has been provided by Section 06 10 13.
- .3 Countersink all nail fasteners and fill ready for specified finish.
- .4 Exposed fasteners: Refer to Drawings.
- .5 Finish hardware to be supplied by others unless specified in this Section.

#### 1.6 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Provide data on fire retardant treatment materials and application instructions.
- .3 Shop Drawings:
  - .1 Indicate materials, component profiles, fastening methods, jointing details, and accessories.
  - .2 Provide instructions for attachment hardware and finish hardware.

### 1.7 SUBMITTALS FOR INFORMATION

- .1 Section 01 33 00: Submission procedures.
- .2 Installation Data: Provide application instructions.

## 1.8 QUALITY ASSURANCE

.1 Perform work to AWMAC Premium quality.

- .2 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three (3) years experience.
- .3 Installer Qualifications: Company specializing in performing the work of this section with minimum three (3) years.

## 1.9 REGULATORY REQUIREMENTS

.1 Conform to applicable code for fire retardant requirements.

# 1.10 DELIVERY, STORAGE, AND PROTECTION

- .1 Section 01 61 00: Transport, handle, store, and protect products.
- .2 Protect work from moisture damage.

## 1.11 ENVIRONMENTAL REQUIREMENTS

.1 Do not install paneling when temperature or humidity conditions may have a detrimental effect on paneling.

### Part 2 Products

### 2.1 SHEET MATERIALS

.1 Softwood Plywood: CSA-O121; Graded to AWMAC Economy installation; veneer lumber core; Douglas Fir face species, square cut.

## 2.2 EXTERIOR CHANGE ROOM WOOD BENCH PLANKS

- .1 Standard of Acceptance:
  - .1 Kebony, Radiata as distributed by North on Sixty. Ph. (877)-985-2458. Product Number: #2480.
  - .2 Size: 68mm x 38mm thick.
  - .3 Fasteners: Oval head stainless steel carriage bolt fasteners with stainless steel nuts and washers. Refer to Drawings.

### 2.3 WOOD BENCH IN UNIVERSAL WASHROOM:

- .1 Standard of Acceptance:
  - .1 Grade: Select Aspen, Edge Grain Fir, S4S
  - .2 Size:  $1\frac{1}{2}$ " thick x  $3\frac{1}{2}$ " wide
  - .3 Fasteners: As detailed on Drawings.
  - .4 Finish: Natural penetrating stain (by Section 09 91 99).

## 2.4 ADHESIVE

.1 Adhesive: Type recommended by AWMAC to suit application.

# 2.5 FASTENERS

- .1 Fasteners: Of size and type to suit application; zinc finish in concealed locations and stainless steel in exposed locations, unless noted otherwise.
- .2 Concealed Joint Fasteners: Threaded steel.

#### 2.6 ACCESSORIES

.1 Lumber for Shimming, Blocking: Softwood lumber of SPF species.

## 2.7 FABRICATION

- .1 Fabricate to AWMAC Premium standards.
- .2 Shop assemble work for delivery to Site, permitting passage through building openings.
- .3 When necessary to cut and fit on Site, provide materials with ample allowance for cutting.

### 2.8 SHOP FINISHING

- .1 Sand work smooth and set exposed nails or screws refer to Drawings.
- .2 Apply wood filler in exposed nail and screw indentations.
- On items to receive transparent finishes, use wood filler which matches surrounding surfaces and of types recommended for applied finishes.
- .4 Seal stain and varnish clear exposed to view surfaces.

### Part 3 Execution

## 3.1 EXAMINATION

- .1 Verify that field measurements are as indicated on Shop Drawings.
- .2 Verify adequacy of backing and support framing.
- .3 Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

## 3.2 INSTALLATION

- .1 Install work to AWMAC Premium Quality Standard.
- .2 Set and secure materials and components in place, plumb and level.

- .3 Carefully scribe work abutting other components, with maximum gaps of 1 mm (1/32 inch). Do not use additional overlay trim to conceal larger gaps.
- .4 Install components with nails or screws as detailed.
- .5 Install components with wall adhesive by gun application where adhesive is indicated.

# 3.3 ERECTION TOLERANCES

- .1 Maximum Variation from True Position: 1.5 mm (1/16 inch).
- .2 Maximum Offset from True Alignment with Abutting Materials: 1 mm (1/32 inch).

## **END OF SECTION**

## Part 1 General

## 1.1 SECTION INCLUDES

- .1 Prefinished surfaces.
- .2 Washroom countertops
- .3 Preparation for installing utilities.

#### 1.2 RELATED SECTIONS

- .1 Section 01 45 00 Quality Control
- .2 Section 05 50 00 Metal Fabrications
- .3 Section 06 10 13 Wood Blocking and Curbing: Grounds and support framing.
- .4 Section 06 20 00 Finish Carpentry.
- .5 Section 09 91 99 Painting for Minor Works.
- .6 Structural, Mechanical and Electrical Specifications.

## 1.3 REFERENCES

- .1 ASTM E84-09c Test Method for Surface Burning Characteristics of Building Materials.
- .2 ASTM C97/C97M-09 Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.
- .3 ASTM D3884-09 Standard Guide for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method).
- .4 ASTM D4705-00(2010) Standard Test Method for Stitch Tear Strength of Leather, Double Hole.
- .5 BHMA A156.9-2003 Cabinet Hardware.
- .6 CAN/CGSB-11.3-M87 Hardboard.
- .7 CSA-O141-05 Softwood Lumber.
- .8 CSA-O121-08 Douglas Fir Plywood.
- .9 CSA-O80 Series-08 Wood Preservation.
- .10 CSA O112.4 Series, Standards for Wood Adhesives.
- .11 CSA O112.5 Series, Urea Resin Adhesives for Wood (Room and High Temperature Curing).

- .12 CSA O112.7 Series, Resorcinol and Phenol Resorcinol Resin Adhesives for Wood (Room and Intermediate Temperature Curing).
- .13 CSA O151, Canadian Softwood Plywood.
- .14 CSA O153, Poplar Plywood.
- .15 HPVA HP-1, Standard for Hardwood and Decorative Plywood.
- .16 NPA A208.1-2009 Particleboard.
- .17 NPA A208.2-2009 Medium Density Fibreboard (MDF) for Interior Applications.
- .18 National Hardwood Lumber Association (NHLA) Rules for the Measurement and Inspection of Hardwood and Cypress.
- .19 National Lumber Grades Authority (NLGA) Standard Grading Rules for Canadian Lumber.
- .20 AWS (AWMAC Architectural Woodwork Standards) 1st Edition, 2009.
- .21 NEMA (National Electrical Manufacturers Association) LD3-2005 High-Pressure Decorative Laminates.

## 1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Section 01 31 00: Project management and coordination procedures.
- .2 Pre-installation Meetings: Convene one (1) week before starting work of this section.
- .3 Site installation to be quoted to the Contractor separately on the same bid form. The Architectural Woodwork Subcontractor is to supply, fabricate and Site install the work specified in this Section.

#### 1.5 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Submittals of manufacturer's data, installation instructions, and samples are required upon Contract Administrator's request.
- .3 Shop Drawings: Indicate materials, component profiles and elevations, layout, ends, cross sections, service run spaces, and location of services assembly methods, joint and anchorage details and locations, fastening methods, accessory listings, hardware location and schedule of finishes.
  - .1 Include layout of units with relation to surrounding walls, doors, windows and other building components. Site confirm and indicate on the drawings critical dimensions.
  - .2 Co-ordinate shop drawings with other work involved.
  - .3 Scales: profiles full size, details half full size.

- .4 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.
- .4 Product Data: Provide data for hardware accessories.
- .5 Samples:
  - .1 Washroom Countertop
    - .1 Submit two (2), 300mm x 300mm (12 x 12 inch) samples, showing, veneer, surface finish and edge profile.
  - .2 Samples will be reviewed by Contract Administrator for colour, texture, and pattern only. Compliance with other specified requirements is the exclusive responsibility of the Contractor.

#### 1.6 CLOSEOUT SUBMITTALS

.1 Section 01 78 00: Closeout Submittals.

## 1.7 QUALITY ASSURANCE

- .1 Products of This Section: Manufactured to ISO 9000 certification requirements.
- .2 Perform work to AWMAC/AWS Premium quality.
- .3 Maintain one copy of AWMAC/AWS Manual on Site.
- .4 Fabricator Qualifications: Company in good standing with AWMAC/AWS and specializing in fabricating Products specified in this section with minimum five (5) years documented experience.
- .5 Installer Qualifications: Company specializing in performing the work of this section with minimum five (5) years documented experience.

## 1.8 DELIVERY, STORAGE, AND PROTECTION

- .1 Section 01 61 00: Transport, handle, store, and protect products.
- .2 Protect units from moisture damage as specified in AWMAC/AWS QSI Section 1700.

## 1.9 ENVIRONMENTAL REQUIREMENTS

.1 During and after installation of work of this section, maintain the same temperature and humidity conditions in building spaces as will occur after occupancy.

## 1.10 WARRANTY

.1 All materials and workmanship covered by this Section will carry a one (1) year warranty from date of acceptance.

## Part 2 Products

#### 2.1 LUMBER MATERIALS

- .1 Lumber: To the requirements of AWMAC/AWS grades specified.
- .2 Hardwood Lumber: to NHLA "FAS" Grade.
  - .1 Birch species, plain sawn, maximum moisture content of 7%; with vertical grain, of quality suitable for transparent finish. Finger jointing not permitted.
- .3 Softwood Lumber: to CSA 0141 1970.
  - .1 Douglas Fir species, plain sawn, maximum moisture content of 6%; with grain, of quality suitable for transparent finish; to AWMAC premium grade.

#### 2.2 SHEET MATERIALS

- .1 Refer to drawings for locations.
- .2 Sheet Materials: To the requirements of AWMAC/AWS grade specified.
- .3 Hardwood Plywood: CSA O121; Veneer core; Douglas Fir Birch face species, rotary cut; of quality suitable for opaque finish.
- .4 Softwood Plywood: to CSA 0151 M1978; Veneer core; Douglas Fir to CSA 0121 face species, rotary cut; of quality suitable for opaque finish.
- .5 Particleboard: NPA A208.1; medium density; of grade to suit application; sanded faces.
- Medium Density Fibreboard (MDF): NPA A208.2; composed of wood fibres, medium density, moisture resistant (when in plumbing cabinetry); of grade to suit application; sanded faces.

## 2.3 ACCESSORIES

- .1 Adhesive Type recommended by AWMAC/AWS to suit application
- .2 Fasteners: Size and type to suit application as recommended by AWMAC/AWS.
- .3 Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; zinc finish in concealed locations and stainless steel finish in exposed locations.
- .4 Concealed Joint Fasteners: Threaded steel.
- .5 Tape: Aluminum foil, insulating and heat dissipating tape.
- .6 Adhesive: To manufactures recommendations.

## 2.4 CUSTOM FABRICATED WOODWORK

.1 Shop assemble work where applicable in sizes that can be easily transportable to the Site. Custom cabinetry integrated with building walls and structure to be Site constructed.

- .2 Provide cutouts for plumbing fixtures, electrical services, kitchen appliances and other equipment and fixtures built.
- .3 Refer to Drawings for custom fabricated woodwork details, materials and finishes.
  - .1 WASHROOM COUNTERTOPS
    - .1 Refer to Drawings and Schedules.
    - .2 Fabricate to AWS Premium quality grade.
    - .3 Fasteners to be concealed as indicated on drawings.
    - .4 Install countertop support hardware per drawings and hardware manufacturer's written instructions.

## 2.5 FABRICATION

- .1 Shop prepare and identify components for matching during Site assembly.
- .2 Shop assemble for delivery to Site in units easily handled and to permit passage through building openings.
- .3 When necessary to cut and fit on Site, provide materials with ample allowance for Site cutting and scribing.
- .4 Inspect material for defects prior to fabrication.
- .5 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
- .6 Ensure adjacent parts of continuous work match in colour and pattern.
- .7 Provide cutouts for service penetrations. Verify locations of cutouts from on-Site dimensions. Finish cut edges as indicated.

### Part 3 Execution

## 3.1 EXAMINATION

- .1 Verify adequacy of backing, substrates, and support framing.
- .2 Verify location and sizes of utility rough-in associated with work of this section.

## 3.2 INSTALLATION

- .1 Install Work to AWMAC/AWS Premium Grade.
- .2 Install to manufactures recommendations.
- .3 Set and secure casework in place; rigid, plumb, and level.
- .4 Use attachments in concealed locations for wall mounted components.

- .1 Attachments to fasten into structural wall elements. Use coarse threaded screw with minimum 25mm (1inch) penetration through studs. Fasteners to be located at 400mm (16inch) o.c. horizontally and 300mm (1') o.c. vertically.
- .5 Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.
- .6 Co-ordinate painting requirements with 09 91 99.

## 3.3 ADJUSTING

- .1 Test installed work for rigidity and ability to support loads.
- .2 Adjust moving or operating parts to function smoothly and correctly.
- .3 Fill and retouch nicks, chips, and scratches. Replace damaged items that cannot be repaired.

#### 3.4 PROTECTION AND CLEANING

- .1 Section 01 74 00: Cleaning installed work.
- .2 Protect finished surfaces as per manufactures recommendations.
- .3 Protect woodwork from damage until final inspection.
- .4 Remove excess glue from surfaces.
- .5 Remove masking and excessive adhesives and sealants. Clean exposed surfaces.

#### 3.5 SCHEDULES

.1 Refer to Drawings.

**END OF SECTION**