

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 01 74 19 – Waste Management and Disposal.
- .2 Section 05 50 00 – Metal Fabrications.
- .3 Section 08 80 50 – Glazing.
- .4 Section 09 65 19 – Resilient Tile Flooring.
- .5 Division 14.

1.2 REFERENCE STANDARDS

- .1 American National Standards Institute (ANSI)
 - .1 ANSI/ASME 18.6.1 1981 (R2012), Wood Screws (Inch Series)
 - .2 ANSI/BHMA A156.18-2012, Materials and Finishes
 - .3 ANSI/BHMA A156.20-2006, Strap and Tee Hinges and Hasps
 - .4 ANSI A208.1-09, Particleboard
 - .5 ANSI A208.2-09, Medium Density Fibreboard (MDF) for Interior Applications.
 - .6 ANSI/HPVA HP-1-10, Standard for Hardwood and Decorative Plywood
 - .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC)
 - .1 Architectural Woodwork Standards (AWMAC AWS), 2014.
 - .3 ASTM International
 - .1 ASTM A 153/A 153M-16, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - .2 ASTM E 1333-14, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber.
 - .3 ASTM F 1667-13 Standard Specification for Driven Fasteners: Nails, Spikes and Staples.
 - .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-11.3-M87, Hardboard.
 - .2 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable.
 - .3 CAN/CGSB-71.19-M88, Adhesive, Contact, Sprayable.
 - .5 CSA International
 - .1 CSA O112-M Series 1977 (R2006) Standards for Wood Adhesives.
 - .2 CSA O121-08(R2013), Douglas Fir Plywood.
 - .3 CSA O141-05 (R2014), Softwood Lumber.
 - .4 CSA O151-14, Canadian Softwood Plywood.
 - .5 CSA O153-M1980 (R2014), Poplar Plywood.
 - .6 CAN/CSA-Z809-08(R2013), Sustainable Forest Management.
 - .6 Forest Stewardship Council (FSC)
 - .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
 - .7 Green Seal Environmental Standards (GS)
 - .1 GS-11-2015, Paints, Coatings, Stains and Sealers.
 - .2 GS-36-2013, Adhesives for Commercial Use.
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- .8 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .9 National Electrical Manufacturers Association (NEMA)
 - .1 ANSI/NEMA LD-3-05, High-Pressure Decorative Laminates (HPDL).
- .10 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
 - .1 SCAQMD Rule 1113-A2011, Architectural Coatings.
 - .2 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.
- .11 Sustainable Forestry Initiative (SFI)
 - .1 SFI-2015-2019 Standard and Rules.

1.3 PRE-INSTALLATION MEETING

- .1 Prior to enclosing framing, convene a meeting of contractor, casework fabricator, casework installer, framing subcontractor and Departmental Representative.
 - .1 Review locations of backing required for casework installation as shown on shop drawings and as necessary for installation.
 - .2 Review method of attachment for backing to wall system.
 - .3 Review coordination with other affected sections.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Prepare and submit material list in accordance with AWMAC AWS, cross-referenced to specifications.
 - .2 Include manufacturer's instructions, printed product literature, data sheets and catalogue pages for all materials and products to be incorporated into architectural wood casework and include product characteristics, performance criteria, dimensions and profiles, finish and limitations on use.
 - .3 Submit two (2) copies of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3 Hardware List:
 - .1 Submit hardware list cross-referenced to specifications.
 - .2 Include manufacturer's specification sheets indicating name, model, material, function, finish, BHMA designations and other pertinent information.
- .4 Shop Drawings:
 - .1 Prepare and submit shop drawings in accordance with AWMAC AWS and as follows.
 - .2 Submit two sets of shop drawings for initial review in accordance with requirements of Division 01. Revise as directed, submit two (2) copies for final acceptance and distribution.
 - .3 Indicate details of construction, profiles, jointing, fastening and other related details.
 - .1 Scales: profiles full size, details half full size.
 - .4 Indicate materials, thicknesses, finishes and hardware.
 - .5 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.
 - .6 Show location on casework elevations of backing required in supporting structure for attachment of casework.
 - .7 Indicate AWMAC AWS quality grade where different from predominant grade specified.
 - .8 Include color schedule of all casework items, including all countertop, exposed, and semi-exposed cabinet finishes, finish material manufacturer, pattern, and color.

- .5 Samples:
 - .1 Prepare and submit samples in accordance with AWMAC AWS and as follows.
 - .2 Apply sample finishes to specified substrate or core material minimum 300 x 300 mm to match designer sample. For veneers with transparent finish submit three samples to illustrate range and colour of grain expected.
 - .3 Shop applied coatings:
 - .1 For transparent finish, submit duplicate samples of each species and cut of wood to be used, finished to match project sample as specified.
 - .2 For opaque finish, submit triplicate samples for each colour selection, finished to match project sample as specified.
 - .4 Submit duplicate samples of laminated plastic for each specified colour selection.
 - .5 Submit duplicate samples of laminated plastic joints, edging, cutouts and post-formed profiles.
 - .6 Certifications: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .7 Submit statement of experience and qualifications of architectural wood casework fabricator.

1.5 SUSTAINABLE DESIGN SUBMITTALS

- .1 Submit manufacturer's Chain-of-Custody Certificate number for CAN/CSA-Z809 or FSC or SFI certified wood.
 - .1 Submit manufacturer's FSC Chain-of-Custody Certificate number.
- .2 Submit ASTM E 1333 test report for formaldehyde emissions from composite wood products showing compliance with specified limits.
- .3 Submit product data indicating compliance with other specified sustainable design characteristics.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Deliver wood casework only when area of work is enclosed, plaster and concrete work is dry, and area is broom clean and site environmental conditions are acceptable for installation.
- .3 Protect millwork against dampness and damage during and after delivery.
- .4 Store millwork in ventilated areas, protected from extreme changes of temperature and humidity, and within range recommended by AWMAC AWS for location of project.
- .5 Store materials indoors, in dry location in clean, dry, well-ventilated area.
- .6 Protect architectural woodwork and hardware from nicks, scratches, and blemishes.
- .7 Replace defective or damaged materials with new.
- .8 Waste Management and Disposal:
 - .1 Waste Management and Disposal:
 - .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.
 - .2 Package Waste Management: recover packaging waste for reuse and manufacturer reuse of packaging materials such as pallets, crates, boards and other packaging material, in accordance with Section 01 74 19 – WASTE MANAGEMENT AND DISPOSAL.

1.7 WARRANTIES

- .1 Provide a written warranty against warping, delaminating or shifting for a period of two (2) years from the date of Substantial Performance of Work.

1.8 BRACING AND TOUCH-UPS

- .1 All required non identified fasteners and bracing must be added to ensure the solidity of the whole.
- .2 All required touch-ups to conceal joints and corrections shall be executed simultaneously, as well as for joints around electrical or mechanical equipment.

1.9 COORDINATION

- .1 Coordinate all bracing position (nailing backers) required for work execution.
- .2 Before fabricating the project millwork, coordinate equipment and mechanical and electrical outlet, gas and other, wherever dimensions may influence the millwork. This information must be indicated on the shop drawings.

PART 2 - PRODUCTS**2.1 QUALITY GRADE**

- .1 Provide all materials and perform all fabrication in accordance with AWMAC AWS Custom Grade and as follows, except where specified otherwise:
 - .1 Premium Grade.
- .2 In case of conflict between Contract Documents and AWMAC AWS grade requirements, Contract Documents govern.

2.2 LUMBER

- .1 Softwood and Hardwood Lumber: Sound lumber to specified AWMAC AWS quality grade requirements, kiln-dried to moisture content recommended by AWMAC AWS for location of the Work.
- .2 Machine stress-rated lumber is acceptable for all purposes.

2.3 PANEL MATERIALS

- .1 Interior mat-formed wood particleboard: to ANSI/NPA A208.1, industrial grade M-2 or M-3, medium density (640-800 kg/m³), thickness 19 mm unless indicated otherwise.

2.4 SOLID SURFACE

- .1 Solid acrylic surface, non-porous and uniform, composed of polymethyle methacrylate acrylic resin and natural minerals.
 - .1 Acceptable product: solid surface Avonite type.
 - .2 Colour: metallic black, such as Starshine #7820
 - .3 Thickness: 12 mm
 - .4 Flame spread index = 0, smoke emission index = 0
 - .5 Follow manufacturer's recommendations for handling and installation.

2.5 ACCESSORIES

- .1 Primer for porous substrate, type recommended by glazing manufacturer.
- .2 Silicone based adhesive, type recommended by glazing manufacturer, provided in Section 08 80 50 – Glazing.
- .3 Double-sided adhesive tape, type recommended by glazing manufacturer, provided in Section 08 80 50 – Glazing.
- .4 Stainless steel moulding, type 304, brushed finish, suitable dimensions.
- .5 Z fasteners for interior wall mounting, aluminum 6063-T6, 38 mm in length x 5 mm superposition projection of 2 Z's, 79 mm in total height.
- .6 Wood screws: stainless steel, type and size suitable to application.
- .7 Clous et cavaliers : to CSA B111 and ASTM F 1667.
- .8 Sealant: in accordance with Section 07 92 00 - Joint Sealants.

2.6 SHOP APPLIED FINISH COATINGS

- .1 Finish system: AWMAC AWS system.
- .2 Apply finish system component materials in accordance with manufacturer's instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for architectural woodwork installation in accordance with manufacturer's instructions.
 - .1 Visually inspect substrate in presence of Departmental Representative.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied [and after receipt of written approval to proceed from Departmental Representative.

3.2 MOUNTING

- .1 Cut wood panels to the size of glass.
 - .2 Ensure that the glass panel lacquer is not scratched before bonding on substrate. Ensure that the glass and lacquer are adequately fused before sticking it onto the substrate.
 - .3 Clean and dry glazing and wood panels before sticking. Prepare wooden panels.
 - .4 Adhere glass panels to wood panels using adhesive and duct tape as recommended by the glass manufacturer.
 - .5 Placement, in glass holes for handrail and bumper, provide adhesive tape.
 - .6 Allow sufficient time to dry flat, but not less than 48 hours.
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- .7 Trim and paste stainless steel mouldings. Install at required locations and in locations specified in drawings.

3.3 INSTALLATION

- .1 Install Z anchors at the back of wood panels and on elevator cab walls.
- .2 Install prefinished panels on elevator cab walls.
- .3 Fasten and anchor millwork securely.
- .4 Fit hardware accurately and securely in accordance with manufacturer's written instructions.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.
 - .1 Remove excess glue, pencil and ink marks from surfaces.

3.5 PROTECTION

- .1 Protect all work from damage until final inspection.
- .2 Protect installed products and components from damage during construction.
- .3 Repair damage to adjacent materials caused by architectural woodwork installation.
- .4 Leave work to be site finished ready for finishing by Section 09 91 99 – Painting for Minor Works.

END OF SECTION
