

PART 1 - GENERAL

1.1 REFERENCES

- .1 CSA International
 - .1 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.
 - .2 CSA O121-08, Douglas Fir Plywood.
 - .3 CSA O141-05(R2009), Softwood Lumber.
 - .4 CSA O151-09, Canadian Softwood Plywood.
 - .5 CAN/CSA-O325.0-07, Construction Sheathing.
 - .6 CAN/CSA-Z809-08, Sustainable Forest Management.
- .2 Forest Stewardship Council (FSC)
 - .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
- .3 Green Seal Environmental Standards (GS)
 - .1 GS-11-11, Paints and Coatings.
- .4 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber 2010.
- .5 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
 - .1 SCAQMD Rule 1113-A2011, Architectural Coatings.
- .6 Sustainable Forestry Initiative (SFI)
 - .1 SFI-2010-2014 Standard.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for rough carpentry work and include product characteristics, performance criteria, physical size, finish and limitations.

1.3 MAINTENANCE MATERIALS SUBMITTALS

- .1 Extra Stock Materials:
 - .1 Electrical and telephone equipment backboards: Provide backboards for mounting service equipment/panels, 19 mm thick CSP on 19 x 38 mm furring around spacing, perimeter and at maximum 300 mm intermediate, at heights and locations as required. Secure to wall stud locations or to block walls. Prime and paint exposed face side and edges

on accordance with this section.

1.4 QUALITY ASSURANCE

- .1 Lumber identification: by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .2 Plywood identification: by grade mark in accordance with applicable CSA standards.
- .3 Plywood, OSB and wood based composite panel construction sheathing identification: by grademark in accordance with applicable CSA standards.
- .4 Sustainable Standards Certification:
 - .1 Certified Wood: submit listing of wood products and materials used in accordance with CAN/CSA-Z809 or FSC or SFI.

1.5 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 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect wood from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
- .4 Develop Waste Reduction Workplan related to Work of this Section and in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .5 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding, banding, and packaging materials as specified in Waste Reduction Workplan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Lumber: unless specified otherwise, softwood, S4S, moisture content 19% or less in accordance with following standards:
 - .1 CAN/CSA-O141.
 - .2 NLGA Standard Grading Rules for Canadian Lumber.
 - .3 CAN/CSA-Z809 or FSC or SFI certified.
- .2 Furring, blocking, nailing strips, grounds, rough bucks, cants, curbs, fascia backing and sleepers:
 - .1 Board sizes: "Standard" or better grade.
 - .2 Dimension sizes: "Standard" light framing or better grade.
 - .3 Post and timbers sizes: "Standard" or better grade.
- .3 Panel Materials:
 - .1 Douglas fir plywood (DFP): to CSA O121, standard construction.
 - .1 Urea-formaldehyde free.
 - .2 Canadian softwood plywood (CSP): to CSA O151, standard construction.
 - .1 Urea-formaldehyde free.
 - .3 Plywood, OSB and wood based composite panels: to CAN/CSA-O325.
 - .1 Urea-formaldehyde free.
- .4 Primers Paints Coatings: in accordance with manufacturer's recommendations for surface conditions:
 - .1 To be in accordance with Section 01 47 15 - Sustainable Requirements: Construction.

2.2 ACCESSORIES

- .1 Fasteners: to CAN/CSA-G164, for exterior work, interior highly humid areas, pressure-preservative, fire-retardant and treated lumber.
- .2 Nails, spikes and staples: to CSA B111.
- .3 Bolts: 12.5 mm diameter unless indicated otherwise, complete with nuts and washers.
- .4 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, explosive actuated fastening devices, recommended for purpose by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other

Sections or Contracts are acceptable for rough carpentry installation in accordance with manufacturer's written 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 PREPARATION

.1 Treat surfaces of material with wood preservative, before installation.

.2 Apply preservative by dipping, or by brush to completely saturate and maintain wet film on surface for minimum 3 minute soak on lumber and 1 minute soak on plywood.

.3 Re-treat surfaces exposed by cutting, trimming or boring with liberal brush application of preservative before installation.

.4 Treat material as follows:

.1 Wood cants, fascia backing, curbs, nailers, sleepers on roof deck.

.2 Wood sleepers supporting wood subflooring over concrete slabs in contact with ground or fill.

3.3 INSTALLATION

.1 Comply with requirements of NBC, supplemented by the following paragraphs.

.2 Install furring and blocking as required to space-out and support casework, cabinets, wall and ceiling finishes, facings, fascia, soffit, siding and other work as required.

.3 Align and plumb faces of furring and blocking to tolerance of 1:600.

.4 Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.

.5 Install wood cants, fascia backing, nailers, curbs and other wood supports as required and secure using galvanized fasteners.

.6 Install wood backing, dressed, tapered and recessed slightly below top surface of roof insulation for roof hopper.

.7 Install sleepers as indicated.

- .8 Use caution when working with particle board. Use dust collectors and high quality respirator masks.
- .9 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.
- .10 Countersink bolts where necessary to provide clearance for other work.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - 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 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI A208.1-09, Particleboard.
 - .2 ANSI A208.2-09, Medium Density Fibreboard (MDF) for Interior Applications.
 - .3 ANSI/HPVA HP-1-10, American National Standard for Hardwood and Decorative Plywood.
- .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)
 - .1 Architectural Woodwork Quality Standards, 1st edition, 2009.
- .3 ASTM International
 - .1 ASTM A 123/A 123M-09, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-11.3-M87, Hardboard.
- .5 CSA International
 - .1 CSA B111-74(R2003), Wire Nails, Spikes and Staples.
 - .2 CSA O121-08, Douglas Fir Plywood.
 - .3 CSA O141-05(R2009), Softwood Lumber.
 - .4 CSA O151-09, Canadian Softwood Plywood.
 - .5 CSA O153-M1980(R2008), Poplar Plywood.
 - .6 CAN/CSA-Z809-08, Sustainable Forest Management.
- .6 Forest Stewardship Council (FSC)
 - .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
- .7 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber 2010.
- .8 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
 - .1 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.
- .9 Sustainable Forestry Initiative (SFI)
 - .1 SFI-2010-2014 Standard.
- .10 Underwriters Laboratories of Canada (ULC)
 - .1 CAN/ULC-S104-10, Standard Method for Fire Tests of Door Assemblies.
 - .2 CAN/ULC-S105-09, Standard Specification for Fire Door Frames.

1.2 ACTION AND
INFORMATIONAL
SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for plywood particleboard, OSB and MDF and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit two copies of WHMIS MSDS in accordance with Health Canada / Workplace Hazardous Materials Information System.
- .3 Shop Drawings:
 - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.
 - .2 Indicate details of construction, profiles, jointing, fastening and other related details.
 - .3 Indicate materials, thicknesses, finishes and hardware.
- .4 Samples:
 - .1 Upon request, submit samples in accordance with Section 01 33 00 - Submittal Procedures
- .5 Certifications: submit certificates signed by manufacturer certifying materials comply with specified performance characteristics and physical properties.
- .6 Test and Evaluation Reports: submit certified test reports for composite wood from approved independent testing laboratories, indicating compliance with specifications for specified performance characteristics and physical properties.

1.3 QUALITY
ASSURANCE

- .1 Lumber by grade stamp of agency certified by Canadian Lumber Standards Accreditation Board (CLSAB).
- .2 Sustainable Standards Certification:
 - .1 Certified Wood: submit listing of wood products and materials used in accordance with CAN/CSA-Z809 or FSC or SFI.
- .3 Plywood, particleboard, OSB and wood based composite panels to CSA and ANSI standards.
- .4 Wood fire rated frames and panels: listed and labelled by an organization accredited by Standards Council of Canada to CAN/ULC-S104 and CAN/ULC-S105.

1.4 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 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect wood products from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
- .4 Develop Waste Reduction Workplan related to Work of this Section and in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .5 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding, and packaging materials as specified in Waste Reduction Workplan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Softwood lumber: S4S, moisture content 19% or less in accordance with following standards:
 - .1 CSA O141.
 - .2 CAN/CSA-Z809 or FSC or SFI certified.
 - .3 NLGA Standard Grading Rules for Canadian Lumber.
 - .4 AWMAC custom grade, moisture content as specified.
 - .5 Machine stress-rated lumber is acceptable.
 - .6 Hardwood lumber: moisture content 6% or less in accordance:
 - .1 National Hardwood Lumber Association (NHLA).
 - .2 AWMAC custom grade, moisture content as specified.
 - .3 CAN/CSA-Z809 or FSC or SFI certified.
- .2 Panel Material: urea-formaldehyde free
 - .1 CAN/CSA-Z809 or FSC or SFI certified.
 - .2 Douglas fir plywood (DFP): to CSA O121, standard construction.

- .3 Canadian softwood plywood (CSP): to CSA 0151, standard construction.
- .4 Hardwood plywood: to ANSI/HPVA HP-1.
- .5 Poplar plywood (PP): to CSA 0153, standard construction.
- .6 Particleboard: to ANSI A208.1.
- .7 Hardboard: to CAN/CGSB-11.3.
- .8 Medium density fibreboard (MDF): to ANSI A208.2, density 640-800 kg/m3.
- .9 Low density fibreboard: to CSA-A247M.

2.2 ACCESSORIES

- .1 Nails and staples: to CSA B111; galvanized to ASTM A 123/A 123M for exterior work, interior humid areas and for treated lumber; plain finish elsewhere.
- .2 Wood screws: plain, type and size to suit application.
- .3 Splines: wood.
- .4 Adhesive and Sealants: in accordance with Section 07 92 00 - Joint Sealants.
- .1 VOC limit in accordance with Section 01 47 15 - Sustainable Requirements: Construction.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for wood products installation in accordance with manufacturer's written 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 INSTALLATION

- .1 Do finish carpentry to Quality Standards of (AWMAC).
- .2 Scribe and cut as required, fit to abutting walls, and surfaces, fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects.
- .3 Form joints to conceal shrinkage.

3.3 CONSTRUCTION

- .1 Fastening:
 - .1 Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.
 - .2 Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.
 - .3 Set finishing nails to receive filler. Where screws are used to secure members, countersink screw in round smooth cut hole and plug with wood plug to match material being secured.
 - .4 Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.
- .2 Standing and running trim:
 - .1 Butt and cope internal joints of baseboards to make snug, tight, joint. Cut right angle joints of casing and base with mitred joints.
 - .2 Fit backs of baseboards and casing snugly to wall surfaces to eliminate cracks at junction of base and casing with walls.
 - .3 Make joints in baseboard, where necessary using a 45 degrees scarf type joint.
 - .4 Install door and window trim in single lengths without splicing.
- .3 Interior and exterior frames:
 - .1 Set frames with plumb sides and level heads and sills and secure.
- .4 Panelling:
 - .1 Secure panelling and perimeter trim using adhesive recommended for purpose by manufacturer. Fill nail holes caused by temporary fixing with filler matching wood in colour.
 - .2 Secure panelling and perimeter trim using concealed fasteners.
 - .3 Secure panelling and perimeter trim using counter sunk screws plugged with matching wood plugs.

3.4 INSTALLATION OF TRIM

- .1 Standing and running trim:
 - .1 Interior:
 - .1 Grade: custom.
 - .2 Solid stock: resistant species.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - 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 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.6 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by finish carpentry installation.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI A208.1-09, Particleboard.
 - .2 ANSI A208.2-09, Medium Density Fiberboard (MDF) for Interior Applications.
 - .3 ANSI/HPVA HP-1-10, Standard for Hardwood and Decorative Plywood.
- .2 ASTM International
 - .1 ASTM E 1333-10, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber.
 - .2 ASTM D 2832-92(R2011), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings.
 - .3 ASTM D 5116-10, Standard Guide For Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.
- .3 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)
 - .1 Architectural Woodwork Quality Standards Illustrated, 8th edition, Version 1.0 (2009).
- .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable.
- .5 CSA International
 - .1 CSA B111-74(R2003), Wire Nails, Spikes and Staples.
 - .2 CSA O112.10-08, Evaluation of Adhesives for Structural Wood Products (Limited Moisture Exposure).
 - .3 CSA O121-08, Douglas Fir Plywood.
 - .4 CSA O141-05(R2009), Softwood Lumber.
 - .5 CSA O151-09, Canadian Softwood Plywood.
 - .6 CSA O153-M1980(R2008), Poplar Plywood.
 - .7 CAN/CSA-Z809-08, 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-11-11, Paints and Coatings.
 - .2 GS-36-11, Commercial Adhesives.
- .8 Health Canada/Workplace Hazardous Materials

Information System (WHMIS)

.1 Material Safety Data Sheets (MSDS).

.9 International Organization for Standardization (ISO)

.1 ISO 14040-2006, Environmental Management-Life Cycle Assessment - Principles and Framework.

.2 ISO 14041-98, Environmental Management-Life Cycle Assessment - Goal and Scope Definition and Inventory Analysis.

.10 National Electrical Manufacturers Association (NEMA)

.1 ANSI/NEMA LD-3-05, High-Pressure Decorative Laminates (HPDL).

.11 National Hardwood Lumber Association (NHLA)

.1 Rules for the Measurement and Inspection of Hardwood and Cypress 2011.

.12 National Lumber Grades Authority (NLGA)

.1 Standard Grading Rules for Canadian Lumber 2010.

.13 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.

.14 Sustainable Forestry Initiative (SFI)

.1 SFI-2010-2014 Standard.

1.2 ACTION AND
INFORMATIONAL
SUBMITTALS

.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for architectural woodwork and include product characteristics, performance criteria, physical size, finish and limitations.

.2 Submit two copies of WHMIS MSDS in accordance with Health Canada/Workplace Hazardous Materials Information System.

.3 Shop Drawings:

.1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.

.2 Indicate details of construction, profiles, jointing, fastening and other related details.

.1 Scales: profiles full size, details

half full size.

.3 Indicate materials, thicknesses, finishes and hardware.

.4 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.

.4 Samples:

.1 Upon request, submit for review and acceptance of each unit.

.2 Upon request, submit duplicate samples of hardwood softwood plywood fibreboard OSB particleboard: sample size 1200 x 1200 mm or 1200 mm long.

.3 Upon request, submit duplicate samples of laminated plastic for colour selection.

.4 Upon request, submit duplicate samples of laminated plastic joints, edging, cutouts and postformed profiles.

.5 Certifications: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

1.3 QUALITY ASSURANCE

.1 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

.2 Sustainable Standards Certification:

.1 Certified Wood: submit listing of wood products and materials used in accordance with CAN/CSA-Z809 or FSC or SFI.

.3 Plywood, particleboard, OSB and wood based composite panels to CSA and ANSI standards.

1.4 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 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.1 Protect millwork against dampness and damage during and after delivery.

.2 Store millwork in ventilated areas, protected from extreme changes of temperature or humidity.

.3 Storage and Handling Requirements:

.1 Store materials off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated

area.

.2 Store and protect architectural woodwork from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

.4 Develop Waste Reduction Workplan related to Work of this Section and in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

.5 Packaging Waste Management: remove for reuse and return by manufacturer of pallets, crates, padding, and packaging materials as specified in Waste Reduction Workplan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 MDF (medium density fibreboard) core: to ANSI A208.2, Grade M-1 strength, density 769 kg/m³, CAN/CSA-Z809 or FSC or SFI certified.
 - .1 Medium density fibreboard performance requirements to: ANSI A208.2.
 - .2 MDF resin to contain no added urea-formaldehyde.
- .2 Laminated Plastic for Flatwork: to NEMA LD3
 - .1 Type: General Purpose
 - .2 Grade: HGS, VDS
 - .3 Size: .71 to 1.22 mm thick
 - .4 Colour: Multi-layered
 - .5 Pattern:
 - .1 PLAM-1: Standard of Acceptance:
 - .1 Wilsonart, #7209-K-78, Nepal Teak with fine grain premium finish
 - .2 Formica, #5481-43 Oiled Olivewood with Artisan finish
 - .3 Pionite, #HP360, Afternoon Showers with suede finish
 - .2 PLAM-2: Standard of Acceptance:
 - .1 Arborite, #P-375-CA, Morning Sleet with cashmere finish
 - .2 Wilsonart, #4928-38, Venetian Ivory with 38 finish
 - .3 Nevamar, #ES7001T, White Essence with textured finish
- .3 Thermofused Melamine: to NEMA LD3 Grade VGL.
 - .1 High wear resistant thermofused melamine: equal or exceed 400 cycles (Minimum standard for HPL abrasion test).
- .4 Nails and staples: to CSA B111.

- .5 Wood screws: steel plain, type and size to suit application.
- .6 Splines: wood.
- .7 Sealant: in accordance with Section 07 92 00 - Joint Sealants.
 - .1 Sealants: VOC limit in accordance with Section 01 47 15 Sustainable Requirements: Construction.
- .8 Laminated plastic adhesive:
 - .1 Adhesive: Water base contact type with low or zero VOCs.
 - .2 Adhesives: VOC limit in accordance with Section 01 47 15 Sustainable Requirements: Construction.
 - .3 Clear Wood Finishes: VOC limit in accordance with Section 01 47 15 Sustainable Requirements: Construction.
 - .4 Paints: VOC limit in accordance with Section 01 47 15 Sustainable Requirements: Construction.

2.2 MANUFACTURED UNITS

- .1 Casework:
 - .1 Fabricate caseworks to AWMAC custom quality grade.
 - .2 Furring, blocking, nailing strips, grounds and rough bucks and sleepers.
 - .1 S2S is acceptable.
 - .2 Board sizes: "standard" or better grade.
 - .3 Dimension sizes: "standard" light framing or better grade.
 - .4 Urea-formaldehyde free.
 - .3 Framing maple species, NLGA grade.
 - .4 Case bodies (ends, divisions and bottoms).
 - .1 MDF: Standard or better grade, 19mm thick
 - .6 Backs:
 - .1 Fibreboard, Medium Density Fibreboard, laminated with thermofused melamine, 19mm thick.
 - .7 Shelving:
 - .1 Particleboard, laminated with thermofused melamine, 19mm thick.
 - .2 Edge banding: provide strips same width as particleboard. Matching colour in 3 mm PVC or HPL wood.
- .2 Drawers:
 - .1 Fabricate drawers to AWMAC custom grade supplemented as follows:

- .2 Sides and Backs and Bottoms.
 - .1 Fibreboard: medium density fibreboard. Sides and backs to be 12mm thick, bottoms to be 6mm thick and covered in plastic laminate.
- .3 Fronts:
 - .1 Medium density fibreboard: 19mm thick, HPL.
- .3 Casework Doors:
 - .1 Fabricate doors to AWMAC custom grade supplemented as follows:
 - .2 Medium Density Fibreboard, laminated HPL grade M2, 19mm thick.

2.3 FABRICATION

- .1 Set nails and countersink screws apply wood filler to indentations, sand smooth and leave ready to receive finish. On items to receive transparent or semi-transparent finishes, use wood filler to match surrounding surfaces and of a type recommended for applied finishes.
- .2 Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.
- .3 Shelving to cabinetwork to be adjustable unless otherwise noted.
- .4 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.
- .5 Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.
- .6 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.

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 INSTALLATION

- .1 Do architectural woodwork to Quality Standards of AWMAC.
- .2 Install prefinished millwork at locations shown on drawings.
 - .1 Position accurately, level, plumb straight.
- .3 Fasten and anchor millwork securely.
 - .1 Supply and install heavy duty fixture attachments for wall mounted cabinets.
- .4 Use draw bolts in countertop joints.
- .5 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects, leaving gaps no greater than 1.5mm maximum.
- .6 Apply bituminous coating over wood framing members in contact with masonry or cementitious construction.
- .7 Fit hardware accurately and securely in accordance with manufacturer's written instructions.

3.3 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - 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 11 - Cleaning.
 - .1 Clean millwork and cabinet work inside cupboards and drawers and outside surfaces.
 - .2 Remove excess glue from surfaces.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.4 PROTECTION

- .1 Protect millwork and cabinet 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.

3.5 SCHEDULES

- .1 Refer to Millwork Elevations and Section 08 70 05 - Cabinet and Miscellaneous Hardware.

END OF SECTION