Part 1 General

1.1 REFERENCES

.1 American National Standards Institute (ANSI)

.1 ANSI A208.2, Medium Density Fiberboard (MDF) for Interior Applications.

.2 ANSI/HPVA HP-1-, Standard for Hardwood and Decorative Plywood.

.2 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)

.3 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-71.20-[M88], Adhesive, Contact, Brushable.

.4 CSA International

.1 CSA B111, Wire Nails, Spikes and Staples.

.2 CSA O112.4 Standards of Adhesives for Wood Adhesives.

.3 CSA O153-M1980, Poplar Plywood.

.5 National Hardwood Lumber Association (NHLA)

1.2 SUBMITTALS

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

.2 Shop Drawings:

.1 Submit fully dimensioned shop drawings showing layout and components.

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

.3 Indicate materials, thicknesses, finishes and specified cabinet hardware.

.4 Indicate locations of service outlets in casework, and connections, attachments, anchorage and location of any exposed fastenings.

.5 Indicate Glazing types and thicknesses.

.6 Indicate details of metal support brackets.

.3 Samples:

.1 Submit duplicate samples: sample size 305mm x 305 mm of all Poplar Plywood and Maple Veneer species with specified finished stain colors.

.2 Submit duplicate colour samples of laminated plastic and Melamine (TFL) for colour selection.

.3 Provide data sheets for all Cabinet Glazing Hardware systems and Hardware Components.

1.3 QUALITY ASSURANCE

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

.2 Plywood, particleboard and wood based composite panels in accordance with 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.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address. Protect millwork against dampness and damage during and after delivery.

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

.3 Storage and Handling Requirements:

.1 Store materials indoors 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.

Part 2 Products

2.1 MATERIALS

.1 Softwood lumber: unless specified otherwise, S4S, moisture content 4-9 % or less in accordance with following standards:

.1 CAN/CSA O141.

.2 AWMAC custom grade, moisture content as specified.

.3 NLGA Standard Grading Rules for Canadian Lumber

.2 Hardwood lumber: moisture content 4-9 % or less in accordance with following standards:

.1 National Hardwood Lumber Association (NHLA).

.2 AWMAC custom grade, moisture content as specified.

.3 Hardwood plywood: to ANSI/HPVA HP-1, CAN/CSA-Z809

.4 Poplar plywood (PP): to CSA O153, standard construction, CAN/CSA-Z809

.1 Plywood resin to contain no added urea-formaldehyde.

.5 Panel Materials: Interior mat- formed wood particleboard to ANSI A208.1, Grade: Industrial, Density (min): 753 kg/m3, Moisture Content <8%

.6 Hardwood Veneer: Species: maple, Cut: Quarter Sliced, Match: Book match, Panel match: Running.

.7 MDF (medium density fibreboard) core: to ANSI A208, Grade: Industrial, ¾” thick, Density (min.): 769 kg/m5, Moisture Content: 6-8%

.8 Laminated plastic for flatwork: to NEMA LD3, Grade general Purpose; based on wood grain, and metallic, colour range with finish as specified on drawings.

.9 Thermofused Melamine: to NEMA LD3 Grade VGL.

.1 High wear resistant Thermofused melamine: equal or exceed 400 cycles.

.2 Finish: To match Wilsonart Manitoba Maple- Matte Finish

.10 Nails and staples: to CSA B111.

.11 Wood screws: stainless steel, type and size to suit application.

.12 Splines: wood, plastic, metal.

.13 Wood Adhesive: to CSA 0112.4, of type recommended by manufacturer.

.14 Laminated plastic adhesive:

.1 Adhesive: urea resin adhesive to CSA O112.10 contact adhesive to CAN/CGSB-71.20.

.2 Adhesives: VOC limit 120 g/L maximum to [SCAQMD Rule 1168] [GS-36].

.3 Clear Wood Finishes: VOC limit 350 g/L maximum to GS-11 SCAQMD Rule 1113

.4 Paints: VOC limit 100 g/L maximum to GS-11 SCAQMD Rule 1113.

.15 PVC edge banding: extruded, thermoplastic, solid colour through PVC to suit door edge and match Melamine wood grain pattern.

.1 Acceptable products: Therm-O-Web, Woodtape.

.16 Linoleum sheet for tack surface (Bulletin Board): resilient homogeneous tackable surface, material shall be of natural materials consisting of linseed oil, granulated cork, resin binders and dry pigments, mixed and calendared onto a natural burlap backing. Color extends throughout thickness of material. Thickness: 1/4”. Colours as indicated on drawings.

.1 Acceptable material: Forbo Bulletin Board.

2.2 MANUFACTURED UNITS

.1 Display Cases (Fixed and Mobile) Casework: Fabricate caseworks to AWMAC custom quality grade:

.1 Furring, blocking, nailing strips, grounds and rough bucks and sleepers: AWMAC GRADE II

.2 Framing: Softwood Lumber, NLGA #1 grade.

.3 Case bodies (ends, divisions, interior and faces).

.1 Poplar plywood DFP, G2S grade, square edge, 19 mm thick.

.2 Edge banding: provide 10 mm thick solid matching wood strip on Poplar plywood

.2 Drawers: Fabricated drawers to AWMAC custom grade supplemented as follows:

.1 Sides and Backs.

.1 Poplar plywood DFP, G2S grade, square edge, 19 mm thick.

.2 Bottoms:

.1 Poplar plywood DFP, G2S grade, square edge, 19 mm thick.

.3 Fronts:

.1 Poplar plywood DFP, G2S grade, square edge, 19 mm thick.

.2 Edge banding: provide 10 mm thick solid matching wood strip on Poplar plywood.

.3 Casework Doors: Fabricated doors to AWMAC custom grade supplemented as follows:

.1 Poplar plywood DFP, G2S grade, square edge, 19 mm thick.

.2 Edge banding: provide 10 mm thick solid matching wood strip on Poplar plywood.

.4 Information Desk Casework: Fabricated caseworks to AWMAC custom quality grade.

.1 Casework Bodies (ends, Doors, Drawers, divisions, and bottoms): Thermofused Melamine (MEL-1): ¾" thick, to match Wilsonart Manitoba Maple where indicated.
.2 Backs: Typical: ¼" thick Hardboard
.3 Solid Surface Countertop: SS-1. 19mm Plywood substrate required for countertops. Refer to specifications on drawings.
.4 High Pressure Laminate (HPL): Location as indicated. Refer to specifications on drawings.

2.3 FABRICATION

.1 Set nails and countersink screws apply wood filler to indentations, sand smooth and leave ready to receive finish.

.2 Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.

.3 Shelving in information desk cabinetwork to be adjustable unless otherwise noted.

.4 Provide cut outs for grommets, 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.

.7 Ensure adjacent parts of continuous laminate work match in colour and pattern. Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 2400 mm.

.8 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edges.

.9 Apply laminate backing sheet to reverse side of core of plastic laminate work.

Part 3 Execution

3.1 EXAMINATION

.1 Verification of Conditions: verify conditions of substrates previously installed under other Contracts are acceptable for architectural woodwork installation in accordance with manufacturer's instructions.

.1 Visually inspect substrate before installation.

.2 Inform Contract Administrator 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 Contract Administrator.

3.2 INSTALLATION

.1 Do architectural woodwork to Quality Standards of AWMAC.

.2 Install millwork at locations shown on drawings. Position accurately, level, plumb straight. Install work plumb, true and square, neatly scribed to adjoining surfaces.

.3 Fasten and anchor display cabinet millwork securely.

.1 Supply and install heavy duty metal brackets and fixture attachments for floor mounted Display Cabinets.

.4 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.

.5 At junction of solid surface counter and adjacent wall finish, apply small bead of mildew resistant silicone sealant, clear color.

.6 Cabinet Hardware:

.1 Fit hardware accurately and securely in accordance with manufacturer's written instructions.
.2 Install pulls on mobile display cabinets and information desk drawer fronts. Install pulls on Information desk cabinet doors.
.3 Install specialty cabinet hardware on display cabinets as per manufacturer’s instructions.
.4 Install drawer glides and adjust for proper alignment and smooth function.
.5 Install door hinges and adjust for proper alignment and smooth function.

3.3 CLEANING

.1 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 – Cleaning and Waste Management.

.1 Clean millwork and Display cabinets, inside cupboards and drawers and outside surfaces.

.2 Remove excess glue from surfaces.

.3 Remove traces of primer, caulking, adhesives; clean doors and frames.

3.4 PROTECTION

.1 Protect 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.

.4 Protect and cover all finished surfaces and glazing by approved means. Do not remove until immediately before final inspection.

END OF SECTION