

The Executed Agreement including General Conditions and Supplementary Conditions, Division 01, applicable Drawings and amendments are part of and are to be read in conjunction with this Section.

PART 1: GENERAL

1.1 SUMMARY OF SECTION

- .1 As summarized and described but not restricted to the following:
 - .1 Provide factory manufactured factory finished modular casework as indicated;
 - .2 Provide solid surface countertops;
 - .3 Provide all cabinet hardware and accessories;
 - .4 Provide upholstered bench;
 - .5 Provide light boxes;
 - .6 Cabinets as noted to be equipped with keypad locks.

1.2 REFERENCES

- .1 American National Standards Institute (ANSI):
 - .1 ANSI-A208.2-2009, *Medium Density Fiberboard (MDF) for Interior Applications*,
 - .2 ANSI/NPA-A208.1-2009, *Standards for Particleboard*;
 - .2 American Society for Testing and Materials International (ASTM):
 - .1 ASTM-D2369-10e1, *Standard Test Method for Volatile Content of Coatings*,
 - .2 ASTM-D2832-92 (2011), *Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings*,
 - .3 ASTM-F1667-11ae1, *Standard Specification for Driven Fasteners: Nails, Spikes, and Staples*;
 - .3 Canadian General Standards Board (CGSB):
 - .1 CAN/CGSB-11.3-M87, *Hardboard*;
 - .2 CAN/CGSB-71.20-M88, *Adhesive, Contact, Brushable*.
 - .4 Canadian Standards Association (CSA):
 - .1 CSA-B111-1974 (2003), *Wire Nails, Spikes and Staples*,
 - .2 CSA-O115-M1982 (R2001), *Hardwood and Decorative Plywood*,
 - .3 CSA-O121-08 (R2013), *Douglas Fir Plywood*,
 - .4 CSA-O141-05 (R2014), *Softwood Lumber*,
 - .5 CSA-O151-09 (R2014), *Canadian Softwood Plywood*,
 - .6 CSA-Z8000-11, *Canadian Healthcare Facilities*;
 - .5 National Building Code of Canada (NBC) 2010;
 - .6 National Electrical Manufacturers Association (NEMA):
 - .1 LD-2005, *High Pressure Decorative Laminates*;
 - .7 National Lumber Grades Authority (NLGA):
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- .1 Standard Grading Rules for Canadian Lumber;
- .8 Business and Institutional Manufacturers Association (BIFMA);
- .9 UL Environment, GREENGUARD Environmental Certification.

1.3 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, including installation instructions, MSDS sheets, specifications and data sheets in accordance with Section 01 33 00 Submittal Procedures;
- .2 Samples:
 - .1 Submit samples in accordance with Section 01 33 00 Submittal Procedures;
 - .2 Submit samples of finishes used in casework:
 - .1 Plastic Laminate Finishes,
 - .2 ABS Edge banding,
 - .3 Melamine Composite Panel (MCP),
 - .4 Solid Surface Countertop material,
 - .5 Door and drawer pulls, if requested;
- .3 Shop Drawings:
 - .1 Submit shop drawings in accordance with Section 01 33 00 Submittal;
 - .2 Incorporate plans, elevations, sections, and details for all casework in scale. The details shall show all thicknesses, types and finishes and all cabinet hardware;
 - .3 No work shall be fabricated until the shop drawings have been reviewed and all related submittals and samples as required by the specification have been approved by the Consultant:
 - .1 Shop drawings shall clearly indicate proposed edge finish based on Drawings and options specified by this Section,
 - .2 Provide closure material between wall and cabinetry scribed to the wall surface,
 - .3 Indicate details of construction, profiles, jointing, fastening and other related details,
 - .4 Indicate locations of all service outlets in casework, typical and special installation conditions, and all connections, attachments, anchorage and location of exposed fastenings. Include all cabinet hardware attachment to the cabinet,
 - .5 Indicate seaming locations for countertop materials;
- .4 O&M Manual:
 - .1 Submit use and care information into product data manual.

1.4 ENVIRONMENTAL REQUIREMENTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of materials;
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- .2 All products shall be GREENGUARD Gold certified and shall comply with BIFMA X7.1 emission standards.

1.5 MOCK-UPS

- .1 Construct mock-ups in accordance with Section 01 45 00 Quality Control;
- .2 Allow forty-eight (48) hours for review of mock-up by Consultant;
- .3 When accepted, mock-up will demonstrate minimum standard for Work. Mock-up may remain as part of finished work;
- .4 Provide one lower and upper unit for each typical casework for review;
- .5 Provide one light valance for review.

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, handle, store and protect materials of this section in accordance with Section 01 61 00 Common Product Requirements;
- .2 Protect casework against dampness and damage during and after delivery, provide protective plastic wrap completely covering the casework;
- .3 Store casework in ventilated areas, protected from extreme changes of temperature or humidity;
- .4 Do not deliver until painting and similar operations have been completed in installation areas;
- .5 Handle materials to prevent damage to finished surfaces. Protect the protective coverings to prevent physical damage or staining following installation for duration of project. Store in secure area on site away from general work area;
- .6 Casework to be installed after finished walls, but prior to or after finish flooring, at owners' election and direction;
- .7 Shop fabricate in lengths suitable for transport;
- .8 All units to be fully packaged suitable for commercial transportation;
- .9 Ensure all cabinet hardware shop installed prior to delivery, with all extruding hardware installed internally, i.e. door/drawer pulls.

1.7 SEQUENCING AND PHASING

- .1 Coordinate fabrication schedule with construction progress to avoid delaying the Work.
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1.8 QUALITY ASSURANCE / QUALITY CONTROL

- .1 Conform to requirements of NBC 2010 for accessibility;
- .2 Manufacturer and installer to:
 - .1 Have minimum ten years of experience in the manufacture of similar custom laminated casework as specified,
 - .2 Be a current member of BIFMA in good standing;
- .3 Construct all casework in accordance with BIFMA standards, and certify compliance. Provide all relevant BIFMA test results.

1.9 EXTENDED WARRANTY

- .1 Provide twenty-five (25) year extended warranty for provision of casework from date of substantial completion;
- .2 Solid Surface Countertops: Provide ten (10) year commercial warranty against defects in Material and two (2) years on installation.

PART 2: PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- .1 Groupe Lacasse;
- .2 Nemschoff (Herman Miller inc.);
- .3 Steelcase Inc.

2.2 PANEL MATERIALS

- .1 Composite Panel Material:
 - .1 Thermally Fused Melamine Panels (MCP): to ANSI A208.1:
 - .1 Melamine Composite Panel (MCP): to NEMA LD3 #2005 Grade VGL decorative plastic laminate thermally fused under heat and pressure to particle board core:
 - .1 M-2 Grade particleboard substrate with 100% recycled wood fiber,
 - .2 Plastic laminate fused to both faces,
 - .3 Laminated plastic adhesive: contact adhesive to CAN/CGSB071.20. Test for acceptable VOC emissions in accordance with ASTM D2369 and ASTM D2832;
 - .2 Finish:
 - .1 **(PL1)**: Plastic Laminate, colour chosen by consultant from full colour range to match MCP1,

- .2 (MCP1): Melamine, colour chosen by consultant from full colour range. Standard of Acceptance: Uniboard R61 "Carnival",
- .3 (MCP2): Melamine, colour chosen by Consultant from full colour range. Standard of Acceptance: Uniboard 802 "Willow Grey";
- .3 Approved Melamine Manufacturer:
 - .1 Uniboard,
 - .2 Tafisa;
- .4 Approved Plastic Laminate Manufacturer:
 - .1 Formica,
 - .2 Wilson Art,
 - .3 Pionite,
 - .4 Nevamar;
- .2 Thermoformed door and drawer front panels. As an alternative to edgebanded fronts, construction may be specified with thermofoil bonded to MDF core. Thermofoil shall be a minimum of 0.3mm PVC or PET sheet bonded to the substrate utilizing heat and vacuum.

2.3 COUNTERTOPS

- .1 Solid Surface Countertops:
 - .1 Solid surface counter with front edge skirt, with integral backsplash and side splash at all wet areas unless noted otherwise;
 - .2 Countertop: 1/2" (1.27 cm) thick solid surface;
 - .3 Countertop Size: width as shown on drawings. Depth 25" (63.5 cm) unless noted or indicated on drawings otherwise;
 - .4 Colour (SS1): Cameo White;
 - .5 Edge profile: 1 1/2" (3.81 cm) thick built-up bullnose edge;
 - .6 Standard of Acceptance: Corian, or approved alternate.

2.7 CABINET HARDWARE

- .1 Door Hinges:
 - .1 135° degrees, fully adjustable, concealed, 110° degrees, fully adjustable, concealed where requested,
 - .2 Acceptable materials: Blum, Hettich, Salice,
 - .3 Soft Closing doors and drawers may be required;
 - .2 Door "D" Pull and Drawer Pulls:
 - .1 128 mm centers, 10 mm diameter, metal with nickel finish. Standard of Acceptance: Richelieu #BP6211128195 or approved alternate;
 - .3 Steel Drawer Slides:
 - .1 Standard of Acceptance: Accuride 7434 or approved alternate,
 - .2 Ball bearing carrier, fully extendable of quality to operate adequately for size and capacity of drawer. Capacity: 100 lb. for pair. 1" (2.54 cm) over-travel;
 - .4 Locks: where indicated:
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- .1 Cabinet Locks: Olympus 777 complete with Schlage Full Size Interchangeable Cores. All locks to be keyed to 111111 and turned over to Owner to re-key upon project completion;
 - .5 Catch:
 - .1 Magnetic; Standard of Acceptance: Richelieu #BP52090;
 - .6 Door and Drawer Bumpers:
 - .1 Standard of Acceptance: Model BP303-11, clear, supplied by Richelieu, or approved equal;
 - .7 Plastic Grommets:
 - .1 Richelieu or Hafele, plastic grommet, cover and case, or approved equal. Minimum of 2" (5.08 cm). Colour specified by Consultant from standard range;
 - .8 Shelf Supports (Wood Shelves):
 - .1 Metal shelf supports, 5 mm diameter, adjustable, for shelves behind doors,
 - .2 Metal wire supports in side groove, 3 mm diameter, concealed into shelf side, adjustable, anti-tip, for open bookcase sections;
 - .9 File System:
 - .1 4 sided railing system to accept letter and legal filing size in all directions;
 - .10 Keyboard and Mouse Support:
 - .1 Owner supplied, Contractor installed;
 - .11 CPU Holder:
 - .1 Owner supplied, Contractor installed;
 - .12 Countertop support bracket:
 - .1 Heavy duty to 500 kg (1100 lb),
 - .2 Standard of Acceptance: Hafele Hebgo Bracket, size to suit counter depth,
 - .3 Epoxy coated grey colour,
 - .4 Space brackets to AWMAC requirements and bracket manufacture requirements for load capacity required,
 - .5 Coordinate with Section 06 61 00 Rough Carpentry for extent of veneer plywood backing at brackets;
 - .13 Key Pads:
 - .1 Multi-Code access lock for Health Care Cabinets Standard of acceptance: Numeris ATS/ATH/ATV series keypad,
 - .2 The electronic management key shall carry an architectural finish of U.S. BHMA 619 (brushed nickel),
 - .3 The lock shall contain an LED light for visual feedback and a device for audible feedback,
 - .4 The electronic device shall be operated by an ADA compliant key;
 - .14 Vents:
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- .1 Rectangular vent. Minimum size: 4 5/8" (11.75 cm) x 3 5/8" (9.2 cm) should enclose the opening from the inside and the outside, max. material thickness 1" (2.54 cm), constructed black or grey metal;
- .15 Closet Rods:
 - .1 Material and Finish: Type 304 Stainless Steel,
 - .2 Wall Flange: 3" (7.62 cm) for 1 1/2" (3.81 cm) Diameter Tubing:
 - .1 Standard of Acceptance: Richelieu # 510112170,
 - .3 Tubing: 1 1/2" (3.81 cm) Diameter Tubing:
 - .1 Standard of Acceptance: Richelieu #01108170,
 - .4 Location: Millwork wardrobes;
- .16 Folding Supports for flip down solid surface diaper shelf:
 - .1 Standard of Acceptance: Richelieu # 206122G,
 - .2 Size to suit shelf depth,
 - .3 Location: NICU Patient bedrooms;
- .17 Wall Cabinet Suspension System:
 - .1 To be constructed of a laminate cleat mounted to the wall which allow to spread the load between the cabinet and the wall;
- .18 Base Cabinet Leveling Hardware:
 - .1 Levelers to allow a minimum of 2" (5.08 cm) of adjustment. To be constructed of a metal threaded rod and a Nylon glide to prevent marking on floor.

2.9 FASTENERS AND ACCESSORIES

- .1 Construction Adhesive: designed to bond materials indicated and to suit project conditions;
- .2 All casework and furniture to be manufactured utilizing metal on metal connections such as a combination of threaded metal insert, machined steel dowel and metal cam wherever hardware can be visible or when a component could be subject to reconfiguration and/or replacement over time;
- .3 All drawers to be fabricated using one-piece v-grooved folded drawer box construction in order to minimize seams;
- .4 Nails and Staples Shall not be utilized in casework construction;
- .5 Sealant Materials: refer to 07 92 00 Joint Sealants.

PART 3: EXECUTION

3.1 PREPARATION OF SUBSTRATE

- .1 Verify adequacy of backing and support framing. Casework shall not require wall blocking
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for overhead cabinets. Cabinets wall mounting cleat shall be able to reach proper amount of wall stud in order to properly spread the load;

- .2 Provide field measurements for casework before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying Work.

3.2 INSTALLATION

- .1 Fabricate casework to Quality Standards of the Business and Institutional Furniture Manufacturers Association (BIFMA), except where specified otherwise;
- .2 Install prefinished millwork at locations shown on drawings. Position accurately, level, plumb straight;
- .3 Fasten and anchor furniture securely. Provide heavy duty fixture attachments for wall mounted cabinets;
- .4 Install Countertops. Use draw bolts in countertop joints. Provide manufacturer-assembled and finished joints in solid surface countertops where feasible;
- .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. All fillers and utility covers shall be mechanically fastened and removable;
- .6 At junction of counter back splash and adjacent wall finish, apply small bead of sealant;
- .7 Fit hardware accurately and securely in accordance with manufacturer's directions;
- .8 Install shelving;
- .9 Form joints to conceal shrinkage and adjusting.

3.3 FABRICATION

- .1 Factory fabricate and factory finish all casework items, ready for delivery to site in size easily handled and to ensure passage through building openings;
 - .2 Construct all casework with metal on metal connections such as a combination of threaded metal insert, machined steel dowel and metal cam wherever hardware can be visible or when a component could be subject to reconfiguration and/or replacement over time;
 - .3 Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise;
 - .4 Provide adjustable shelving unless otherwise noted;
 - .5 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.
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Coordinate with Mechanical and Electrical;

- .6 Construction:
 - .1 Finish components in shop, under controlled conditions,
 - .2 Fabricate components in maximum size permissible for installation on site,
 - .3 Site fabrication and finishing shall be performed only on receipt of written approval of Shop Drawings;
- .7 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 Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.

3.4 CASEWORK SCHEDULE

- .1 Casework Boxes:
 - .1 1" (2.54 cm) thick Melamine Component Panels (MCP);
 - .2 Finish Colour: Refer to Part 2 Materials;
 - .3 Finish for edges, including concealed surfaces:
 - .1 Solid high impact edgeband, ABS, 2.5 mm thick,
 - .2 Machine applied edgebands,
 - .3 Trim face back and corners for a uniform appearance;
 - .4 Use low VOC Adhesive;
 - .5 Finished casework shall have no exposed particleboard, including concealed surfaces;
 - .2 Gables, Tops, Rails and Bottoms (MCP):
 - .1 5/8" (1.59 cm) thick Melamine Component Panels;
 - .2 Finish Colour: Refer to Part 2 Materials;
 - .3 Typical exposed edges:
 - .1 Solid high impact edgeband, ABS, 2.5 mm thick,
 - .2 Machine applied edgebands,
 - .3 Trim face back and corners for a uniform appearance;
 - .3 Backs:
 - .1 5/8" (1.59 cm) thick Melamine Component Panels;
 - .4 Shelves:
 - .1 Adjustable shelves:
 - .1 1" (2.54 cm) thick MCP for shelves under 24" (61 cm) wide,
 - .1 1" (2.54 cm) ABS for all edges,
 - .2 1" (2.54 cm) thick MCP for shelves over 24" (61 cm) wide and up to 42" (106.7 cm) with center shelf support,
 - .1 2.5mm ABS for all edges,
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- .2 Fixed shelves:
 - .1 1" (2.54 cm) thick MCP for shelves up to 41" (104.1 cm) wide,
 - .1 2.5mm ABS for all edges,
 - .2 Secured at side ends and back;
 - .3 Interior finish for all casework:
 - .1 Interior MCP to match exterior;
- .5 Doors - Standard:
 - .1 5/8" (1.59 cm) thick Melamine Component Panels (MCP) with 2.5 mm ABS edges,
 - .2 Doors are surface mounted, flush overlay style,
 - .3 Refer to section 08 80 00 for information on glazing in casework;
- .6 Drawer Faces:
 - .1 5/8" (1.59 cm) thick Melamine Component Panels (MCP) with 2.5 mm ABS edges,
 - .2 Drawers are surface mounted, flush overlay style;
- .7 Drawer Boxes:
 - .1 All drawers to be fabricated using one-piece v-grooved folded drawer box construction in order to minimize seams;
- .8 Toe Space:
 - .1 Integrated to base cabinets, all faces sealed, no exposed wood or particleboard,
 - .2 4" (10.16 cm) high,
 - .3 Installed after flooring is completed;
- .9 Filler panels:
 - .1 No wider than 2" (5.08 cm) between walls,
 - .2 No less than 2 1/2" (6.35 cm) at corner cabinets,
 - .3 Scribes of 1/32" (0.79 mm) PVC
 - .4 To match the adjacent finish;
- 10. Tack Board Surface:
 - .1 Covered with fabric with Crypton coating suitable for healthcare environments.

3.5 PROTECTION AFTER WORK COMPLETED

- .1 Protect casework from damage until final inspection.

3.6 CLEANING

- .1 Adjust doors, drawers, hardware, fixtures and other moving or operating parts to function smoothly and correctly;
 - .2 Clean casework inside cupboards and drawers and outside surfaces.
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MODULAR
WOOD CASEWORK

Section 12 32 00

END OF SECTION
