

Part 1 General

1.01 RELATED SECTIONS

- .1 Section 06 20 00 - Finish Carpentry.

1.02 SUMMARY

- .1 Construction finishing and installation of custom millwork components in accordance with AWI/AWMAC Architectural Woodwork Standards. (AWS) Second Edition.
- .2 Complete millwork including:
 - .1 Custom wood casework constructed from plastic laminate covered plywood.
 - .2 Countertops fabricated from solid acrylic polymer and quartz polymer.
 - .3 Installation of associated hardware, accessories and fittings.

1.03 REFERENCES

- .1 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI).
 - .1 Architectural Woodwork Standards. (AWS) Second Edition 2014.
- .2 National Electrical Manufacturer's Association (NEMA).
 - .1 ANSI/NEMA LD3-2005. High - Pressure Decorative Laminates (HPDL).

1.04 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide product data for all materials and finishes. Submit manufacturers standard product literature on accessories and hardware. Submit manufacturer's specifications, data, and installation instructions for each manufactured product.
- .3 Submit shop drawings in conforming to the requirements of the Architectural Woodwork Standards.
 - .1 On casework elevations indicate the location of blocking and backing support required in wall assemblies for attachment.
 - .2 Indicate details of construction, profiles, jointing, fastening and other related details.
 - .3 Provide details as follows: profiles full size, details ½ full size. Indicate all materials, thicknesses, finishes and hardware. Indicate typical and special installation conditions, all connections, attachments, anchorage and location of exposed fastenings. Indicate shop applied and site applied finishes for each component.
 - .4 Indicate details of wood trim. Indicate profiles of wood, jointing, fastening and other related details. Indicate all materials, thicknesses and finishes.
 - .5 Indicate cross sections and dimensions of all trim components. Indicate details of construction for all profiles, jointing, fastening and other related details. Indicate all materials, sizes, thicknesses and finishes.
 - .6 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.
 - .7 Indicate details for all cutouts in casework.

- .8 Indicate location of removable service panels. Indicate how panels will be secured.
- .9 Indicate installation details for all accessories and hardware items. Indicate how hardware will be installed. Indicate recesses, dadoes or modifications required to accommodate hardware.
- .10 Submit complete fabrication drawings.
- .4 Submit duplicate samples. Submit 300 x 300 mm size for panel products and 600 mm lengths for other items unless specified otherwise.
 - .1 Submit sample panels of each type of Plastic laminate specified. Adhere plam to plywood substrate.
 - .2 Submit samples of countertops. Submit samples in each material and colour specified. Prepare samples adhered to substrate as detailed. Submit countertop samples complete with each style of edge profile.
 - .3 Submit duplicate samples in specified finish of each hardware component.

1.05 QUALITY ASSURANCE

- .1 Fabricator Qualifications: Company specializing in fabricating custom designed, premium grade millwork products and components specified in this section with minimum 5 years documented experience.
- .2 Submit list of similar projects with description of scope of work for each project to Consultant.
- .3 Convene pre-installation meeting before wall framing is complete and before starting work and on-site installations of this section. Consultant, casework manufacturer casework installer and framing contractor to attend.
 - .1 Verify project requirements, co-ordinate with other building trades, establish condition of building and review manufacturer's installation instructions.
 - .2 Review the locations of backing required for casework installation as indicated in the shop drawings.
 - .3 Review method of attachment of the backing to the wall system.

1.06 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver materials only when the project is ready for installation and the general contractor has provided a clean storage area. Deliver only when products can be off loaded and installed immediately upon arrival on site.
- .2 Protect millwork against dampness and damage during and after delivery. Store millwork in ventilated areas, protected from extreme changes of temperature or humidity.
- .3 Maintain indoor temperature and humidity within the range recommended by the Architectural Woodwork Standards.

1.07 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction / Demolition Waste Management and the Waste Reduction Workplan, to the maximum extent economically possible.
- .2 On site, separate wood waste in accordance with Waste Management Plan and place in designated areas for recycling.
- .3 Separate corrugated cardboard in accordance with Waste Management Plan and place in designated areas for recycling.

Part 2 Products

2.01 WOOD MATERIALS

- .1 Hardwood Lumber: Yellow Birch. Plain sawn. To AWS. Section 3. Premium grade. Kiln dried to a maximum average moisture content of 6-8% at time of fabrication. No knots, pinholes, sap pockets or other visible defects will be permitted. No finger jointed, or built-up or laminated lumber will be permitted.
 - .1 Interior framing: Use in concealed location on interior of cabinets where it is not exposed to view.
- .2 Plywood: veneer core construction. Species and face grades to AWS recommendations and as recommended by plastic laminate manufacturer. No particleboard or MDF cores will be permitted. Thicknesses as indicated in the drawings.
- .3 Adhesive: as recommended by AWS to suit application. Minimum: Type II.

2.02 PLASTIC LAMINATE

- .1 Plastic Laminate: High performance decorative laminate to ANSI/NEMA LD 3. Manufacturers standard decorative surface papers with melamine resins, bonded under heat and pressure to kraft paper backing sheet with phenolic resins. Properties as follows:
 - .1 General Purpose Grade: HGS. Grade 10. For exposed surfaces including door and drawer faces, backs and edges. Thickness 1.1 mm.
 - .2 Horizontal Grade: HGL. For cabinet interiors, drawer construction components and in concealed locations. Thickness: as selected from manufacturer's standard products.
 - .3 Sheet sizes: as selected from manufacturer's standard width and length.
 - .4 Acceptable Materials:
 - .1 PL1: Caramello 18, Formica. Finish: matte.
 - .2 PL2: Greystone. Formica. Finish: matte.
 - .3 PL3: Novanoir 888. Formica. Finish: matte.
- .2 Plastic Laminate adhesive: contact adhesive. Heavy duty, water based adhesive recommended by laminate manufacturer for specific type of laminate and substrate.
- .3 Edges. Casework doors, drawers, shelves and other components that receive plastic laminate: Apply plastic laminate to all exposed edges. Same type, colour and grade as the exposed faces. Trim edges flush with face sheets and mitre to remove sharp edges.

2.03 ACCESSORIES

- .1 Fasteners: size and type to suit. Utilize fasteners that are 100% concealed in final assembly.
 - .1 Nails and staples: to AWS recommendations. Hot dip galvanized finish.
 - .2 Wood screws: brass or galvanized steel, type and size to suit application.
 - .3 Splines: solid hardwood.
 - .4 Concealed Joint Fasteners: Threaded steel.

2.04 HARDWARE

- .1 General: select all hardware to meet the requirements of AWS for the grade specified. Finish as follows:
 - .1 Exposed: matte chrome for all components visible in the final assembly.
 - .2 Semi exposed hardware: manufacturer's standard finish.

- .2 Pulls: contemporary metal pull. 96 mm centre to centre.
 - .1 Acceptable product: Richelieu 5632. BP5632596174. Matte Chrome.
- .3 Drawer Guides: full extension, concealed slides. Meeting requirements of AWS for type and size of drawer. Under drawer mounted. Self closing. Rated for 30kg.
 - .1 Acceptable product: Blum. Tandem runner series with Blumotion.
- .4 Hinges: concealed European style hinges. Minimum 110 degree opening. Self closing function.
 - .1 Acceptable product: Blum. Clip top with Blumotion.
- .5 Shelf Supports: recessed pilaster standards. Gauge: 19. Width: 5/8 inch. Thickness: 3/16 in. Zinc coated steel. Lengths as indicated in the drawings. Minimum 2 standards per shelf. Provide 3 standards for wide or heavy shelves as indicated in the drawings. Provide with matching pilaster shelf clips.

2.05 COUNTERTOP SURFACING

- .1 CN2. Solid acrylic polymer: Cast, nonporous, homogeneous material. Composition: acrylic polymer, aluminum trihydrate filler and pigment. Not coated, laminated or of composite construction. Through body colors. Thickness as indicated in the drawings. Provide in maximum sheet size to eliminate seams.
 - .1 Seam: manufacturer's standard seam compounds. Colour matched to create invisible joints.
 - .2 Backsplash and endsplash: seams and joints to be invisible in final assembly. Profiled as detailed.
 - .3 Acceptable product: Corian. Colour: Deep Espresso. Finish. selected from manufacturers standard range.
- .2 CN1 Quartz: Homogeneous quartz surfaces material. manufactured from approximately 93 % quartz polymers and pigments. Thickness as indicated in the drawings. Provide in maximum sheet size to eliminate seams.
 - .1 Seam: manufacturer's standard seam compounds. Colour matched to create invisible joints.
 - .2 Backsplash and endsplash: seams and joints to be invisible in final assembly. Profiled as detailed.
 - .3 Acceptable product. Ceasarstone. Colour Organic White 4600. . Finish. selected from manufacturers standard range.

2.06 COUNTERTOP FABRICATIONS

- .1 Counter tops: fabricate countertops to AWS Section 11 - Countertops. Premium grade. Fabricate from solid materials as detailed. Provide front edges profiled as detailed. Provide in one piece length per location.

2.07 FABRICATION

- .1 Fabricate all components in accordance with AWS Second Edition. Section 10 - Plastic Laminated Casework and to category and construction as described below.
- .2 Fabricate all floor supported casework with fully adjustable support legs and to accommodate hardware as specified.
- .3 Construct all millwork to Custom Grade as defined by AWS.

- .4 Cabinet case bodies, ends, dividers, tops and bottoms: Frameless Construction, Full overlay except where indicated. Plastic Laminate covered components. Thickness of each component as indicated in the drawings.
- .5 Joinery: to meet requirements of AWS for Grade specified.
- .6 Finishes:
 - .1 Exposed exterior surfaces. Plastic laminate. Grade HGS.
 - .2 Exposed interior surfaces: grade HGS or HGL in color and pattern matching exposed surfaces.
 - .3 Semi exposed surfaces: grade HGL or HGS in colour and pattern to match exposed surfaces.
- .7 Components:
 - .1 Cabinet frame: plywood with plastic laminate to both faces and on all plywood edges that are exposed in the final assembly.
 - .2 Backs: plywood with plastic laminate on both faces. Including the interior of cabinets. Apply HGL grade plastic laminate veneer for faces that are not exposed in the final installation.
 - .3 Countertop supports: solid hardwood. Minimum 19 mm thick or as detailed.
 - .4 Shelving: plywood with plastic laminate both faces and on all edges.
 - .1 Thickness: 19 mm core for shelves that span less than 800 mm. 25 mm thick plywood core for spans over 800 mm. Maximum span 1200 mm.
 - .5 Doors and drawer fronts: plywood with plastic laminate to both faces and on all edges.
 - .6 Drawer sides, backs and false front: plywood core with plastic laminate both sides and all edges. Bottom: 10 mm plywood with plastic laminate both sides. Construction: dovetailed full height. Fabricate drawers with false front for application of drawer front panel.
 - .7 Kick plates: plywood with plastic laminate on front face. Apply lower grade plastic laminate for rear faces. Apply solid hardwood at end of each length where joints occur and exterior corners where kick wraps around base cabinets. Fabricate in longest practical sections.
- .8 Prepare base cabinets for countertops as indicated. Provide additional supports and corner blocks as required for support and secure attachment.

2.08 JOINERY

- .1 Apply plastic laminate edge banding to all exposed edges of plywood. Trim flush and round edges as detailed.
- .2 Fabricate with traditional rabbet and dado joinery techniques. No pocket hole, dowels, biscuit joinery will be permitted.
- .3 Form joints to conceal shrinkage.

2.09 FABRICATION

- .1 Shop assemble components in finished sizes as indicated and in accordance with Shop Drawings. Shop assemble work as much as is practical for delivery to site in size easily handled and to ensure passage through building openings.
- .2 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.

- .3 Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.
- .4 Where screws are required in final assembly, install stainless steel screws with stainless steel cup washers.
- .5 Shop install cabinet hardware for doors, shelves and drawers. Provide shelf supports for each shelf.
- .6 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.

2.010 FINISHING

- .1 Factory apply all plastic laminate in accordance with AWS standards and as specified. Site application will be limited to touch up of damaged surfaces and to conceal fastening and installation components.
- .2 Finish all panels with Plam on both sides with the same or similar materials as specified for the face of the panel. Finish adjacent panels together to achieve maximum uniformity of color. Finish entire elevations together to minimize the differences in colour or final appearance.

Part 3 Execution

3.01 INSTALLATION

- .1 Do architectural woodwork to AWS manual, Premium Grade except where specified otherwise.
- .2 Install all components in accordance with AWS Section 10 - Casework Installation. Provide attachment of casework according to the recommended fastening schedule.
- .3 Install millwork at locations as indicated in the drawings. Position accurately, level, plumb and aligned.
- .4 Scribe components to adjoining fixed surfaces to create neat, hairline joints where fixed components meet wall, floor and ceiling finishes.
- .5 Fasten and anchor millwork securely. Provide heavy duty fixture attachments.
- .6 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.
- .7 At junction of counter and adjacent wall finish, apply small bead of sealant.
- .8 Make field joints between adjacent components invisible.
- .9 Fit hardware accurately and securely in accordance with manufacturer's written instructions. Adjust moving or operating parts to function smoothly and correctly.
- .10 Site Finishing: Site finishing is restricted to repair of surfaces cut for installation. Field repairs and touch up of finishes to be made invisible in the final assembly to the approval of the Consultant.

3.02 SITE QUALITY CONTROL

- .1 Consultant will conduct inspection of final installation of finish carpentry components.
- .2 Inspection and review of all interior carpentry items will be carried out in accordance with AWS Compliance Rules as follows
 - .1 Finishing: AWS Section 5.

.2 Installation: AWS Section 10.

3.03 CLEANING AND PROTECTION

- .1 Clean millwork inside and outside surfaces. Remove excess glue from surfaces.
- .2 Protect millwork and cabinet work from damage until final inspection.

END OF SECTION