Part 1 GENERAL

1.1 GENERAL REQUIREMENTS

1. Conform to Sections of Division 1 as applicable.

1.2 RELATED WORK

1. Installation of wood doors: Section 06 41 00, Carpentry and Millwork

2. Hardware installed by Section Section 06 41 00, Carpentry and Millwork

3. Glazing: Section 08 81 00, Glass and Glazing.

4. Metal louvres supplied by Section 08 91 00, Aluminum Louvres and installed by Section Section 06 41 00, Carpentry and Millwork

5. Supply of Exterior Wood Doors: Section 08 14 33, Heritage Style Wood Doors.

6. Painting of Doors: Section 09 91 00, Painting & Finishing.

1.3 REFERENCES

ASTM E90-90 - Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions

ASTM E152-81a	-	Methods of Fire Tests of Door Assemblies
ASTM E413-87	-	Classification for Rating Sound Insulation
AWMAC 1991	-	Architectural Woodwork Manufacturers Association of Canada
CAN/CGSB-11.3-M87	-	Hardboard
CAN3-A172-M79	-	High Pressure Paper Base, Decorative Laminates
CSA O112 Series-M77	-	CSA Standards for Wood Adhesive
CSA O115-M82	-	Hardwood and Decorative Plywood CAN/CSA-O132.2
Series-90	-	Wood Flush Doors
CAN3-O188.0-M78	-	Standard Test Methods for Mat-Formed Wood Particleboards and Waferboard
CAN3-O188.1-M78	-	Interior Mat-Formed Wood Particleboard
CAN4-S104-M80	-	Standard Method for Fire Tests of Door Assemblies
CAN4-S113-79	-	Standard Specification for Door, Wood Core, Meeting the Performance Required by CAN4-S104 for Twenty Minute Fire Rated Closure Assemblies
UL 10B	-	Underwriters Laboratories Fire Tests for Door Assemblies
NFPA 252	-	Standard Methods of Fire Tests of Door Assemblies
AWMAC	-	Quality Standards

1.4 SUBMITTALS

1. Shop Drawings:

   1. Comply with pertinent provisions of section 01 33 00.

   2. Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required, special beveling, special blocking for hardware, identify cut outs for louvres glazing and other openings.

3. Illustrate details and construction of architecturally designed doors.

4. Submit product data indicating door core materials and construction; and face type.

2. Samples:

Submit 300 mm x 300 mm (12" x 12") samples of each type of corner construction showing finish, wood grain, colour and gloss, with cut away door facing to expose core and edging.

1.5 REGULATORY REQUIREMENTS

1. Submit certification that fire-rated door (and panel construction) has been tested in conformance to CAN4-S104-M or UL 10B, ASTM E152 and NFPA 252 as indicated on Drawings and Schedule.

2. Submit certification that acoustic rated door construction meets ASTM E90 and ASTM E413 classification as indicated on Drawings or Schedule.

1.6 DELIVERY, STORAGE AND HANDLING

1. Do not accept delivery to Site until work of wet trades is complete and moisture readings of surfaces in proposed storage area is less than 18%.

2. Accept doors at Site in manufacturer's individual protective packaging.

3. Store doors flat on level surface in dry, well ventilated area inside building.

4. Cover top of pile with waterproof covering but allow air circulation at sides. Use opaque covering where sunlight might bleach veneer.

1.7 WARRANTY

1. Warrant work of this Section against defects and deficiencies for period of 3 years in accordance with General Conditions of the Contract. Promptly correct defects and deficiencies which become apparent during warranty period, to satisfaction of the Consultant and at no expense to Owner. Defects include, but are not limited to, bubbling, delaminating of faces, or edges, warp, twist bow exceeding 6 mm (1/4"), and telegraphing of core. "Correct" referred to herein include installing hardware, finishing, hanging and fitting.

Part 2 PRODUCTS

2.1 MANUFACTURERS

1. Products of following manufacturers are acceptable subject to conformance to requirements of Drawings, Door Schedule and Specifications:

- Baillargeon Doors Inc.
- Cambridge Door Company Ltd.
- JWS Manufacturing Inc.
- Premdor Inc.
- Weyerhaeuser Architectural Door Division

2.2 MATERIALS

1. Conform to CAN/CSA-O132.2 Series for wood flush doors and AWMAC for stile and rail doors, except as specified herein.

2. Supply wood doors from same manufacturer.

3. Door Construction:

   1. Solid Particleboard Core Wood Flush Doors:

      - Construction: 7 ply.
      - Core: Solid mat-formed wood particleboard core conforming to CAN3-O188.1-M Grade DC. Minimum 513 kg/m^3 (32 pcf) density.

   2. Solid Mineral Core Wood Flush Doors:

      - Construction: 7 ply.
      - Fire Rating: 45 min
      - Core: Fire rated noncombustible mineral core with top bottom and intermediate blocking.

   3. Door Facing:

      1. Facing: Medium Density Overlay (MDO) face veneer for painting.
      2. Exposed Vertical Edges: Veneer minimum 13 mm (1/2") thick of same species as face veneer for paint finish.

   4. Adhesives

      1. Type II: CSA 0112.5-M. Moisture resistant urea formaldehyde resin adhesive.

4. Accessories

   1. Metal Louvres: Specified in Section 08 91 00.
   2. Vision Frames for Unrated and 20 Minute Rated Doors: Wood, to receive paint finish mitre corners; prepared for countersink style tamper proof screws.

2.3 FABRICATION

1. General:

   1. Fabricate flush doors in accordance with CAN/CSA-O132.2 and CAN4-S113 and custom and stile and rail doors in accordance with AWMAC except as specified herein.

   2. Size doors for 1.6 mm (1/16") clearance of heads and jambs and 9 mm (3/8") at bottom.

   3. Bevel vertical edges of single acting doors 3 mm in 50 mm (1/8" in 2") on lock side and 1.5 mm in 50 mm (1/16" in 2") on hinge side.

4. Radius vertical edges of double acting doors to 60 mm (2-3/8") radius.

5. Seal wood edges and edges of cut outs before units are placed in unheated storage areas at plant or shipped to Site.

2. Flush Doors:

1. Fabricate doors using 7 ply dry bond construction technology. Bond stiles and rails together using Type II adhesive. Sand for uniform thickness. Laminate door facing, cross banding and assembled core in cold press.

2. Thoroughly sand back face of plastic laminate face veneer to provide homogeneous bonding surface. Apply plastic laminate to both faces of doors and transoms using adhesive. Apply face veneer directly on core and/or cross banding. Bond material under pressure in accordance with material manufacturer's printed specifications, to smooth surface, free from distortion, waves, ridges or core ghost lines. Adhere plastic laminate door edge bands to stile after applying veneer facings. Finish plastic laminate edges of doors and bevel between 15° and 25°.

3. Factory sand assembled door leaf.

4. Factory machine doors for finish hardware in accordance with hardware requirements and dimensions.

5. Factory cut glass light and louvre openings. Ensure openings are square with internal corners slightly rounded. Ensure portion between cutout and door edge is not less than 125 mm (5") wide at any point. Ensure cut out area is not greater than 40% of area of door face. Ensure cut out does not exceed half height of door.

6. Provide solid oak glass stops, finished to match face veneer, for vision panels in unrated doors

7. Factory fit doors for frame opening dimensions identified on shop drawings.

8. Provide inner blocks at lock edge top of door closer and bottom for hardware reinforcement as required.

9. For raised panels that are less than 250 mm (10") provide solid lumber.

10. Sand exposed surfaces to suit paint finish.

PART 3 EXECUTION

3.1 INSTALLATION

1. Supply wood doors to Section 06 41 00, Carpentry and Millwork for installation.

End of Section 08 14 00