

Template Version: C220070516

## PART 1 - GENERAL

### 1.1 REQUIREMENTS OF REGULATORY AGENCIES

- .1 Fabricate and install labelled steel fire rated doors and frames to NFPA 80-1975 except where specified otherwise.

### 1.2 SHOP DRAWINGS

- .1 Submit shop drawings; indicate each type of door and frame, material core thickness, reinforcements, glazing, location of exposed fasteners, U.L.C. fire rating, and arrangement of hardware.

### 1.3 FABRICATION STANDARDS

- .1 Fabricate doors and frames to "Canadian Manufacturing Specifications for Steel Doors and Frames", latest edition, except where specified otherwise.
- .2 Latest U.L.C. standards for fire door and frame construction.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

Note that the following is a generic list of products, review drawings to confirm exact requirements.

- .1 Sheet steel shall be commercial grade steel to ASTM A-366-70 Class 1 and ASTM A525-80a exterior doors: 16 gauge finished to ASTM (1975) WR5, wiped interior door 20 gauge zinc finish.
- .2 Door frames: 14 gauge, (1.6 mm) welded for public doors.
- .3 Doors: Face sheets 16 gauge (1.2 mm) for all exterior and public doors complete with interior ribs at (150 mm) 6" o.c.
- .4 Honeycomb (Hollow) Core Doors: "Honeycomb" core material, laminated under pressure to face sheets. Reinforce for hardware as specified. Top and bottom of door closed with recessed spot-welded channel end closures. Longitudinal edges mechanically interlocked and ground, etc. as required to form a neat smooth product capable of withstanding normal usage without deformation or collapse.
- .5 Glazed Doors: Opening reinforced with 20 gauge, (0.9 mm) channel, before stops and trim applied.
- .6 Exterior Doors: apply waterproof filler at top channel. Omit honeycomb core and provide insulated core to "R: factor of 12 (R.S.I. of 2.11) using "polyise" or urethane rigid board or sprayed insulation. Fill all door and frame cavities including specially reinforced areas.
- .7 Glazing: Wire glass shall confirm to CAN2-12.11-M76 Type 1 wire mesh Style 3, 6 mm thick.

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1. Wire glass shall conform to Cane-12-11-in 76 Type 1 wire mesh, style 3, 6 mm thick.
2. Exterior entry glazing sealed unit to be: Exterior lite to be 3/8" thick lexan, interior lite to be mm. tempered one way vision glass.
- .8 Glazing Tape: Tremco 800 preformed tape (Tremco Poly Shim) may be used where by of outer stop returns more than 4.5 mm.
- .9 Setting blocks: Neoprene, Shore "A" dorometer hardness 80, 10 mm thick x 100 mm long x 6 mm high.
- .10 Glazing Splines: Neoprene or polyvinyl-chloride manufacturer's standard dry glazing splines to suit hollow metal frames.

## 2.2 DOOR FRAME CONSTRUCTION

- .1 Generally, frames shall be one-piece, welded construction throughout.
- .2 Retrofit frames (Applied after wall construction is completed) may be Standard 16 gauge, knock-down frames.
- .3 In light traffic areas, use of knock-down frames may be used on written authorization of Contract Administrator prior to tender closing date.
- .4 Insulate frame with polyise or urethane insulation where latter is called for.
- .5 Thermally-broken frames shall be fabricated in accordance with CMSSDF standards and recommendation or shall have industry-wide acceptance.

## 2.3 LABELLED FIRE DOORS

- .1 Provide labelled doors and frames for openings requiring fire protection ratings as scheduled.

## 2.4 DOOR GRILLES

- .1 If indicated on Door Schedule, grilles shall be AIROLITE 685M approved equal in accordance with B6. Number, sizes and locations as shown on drawings and schedules. Supply primed ready for painting or in wipe-coat galvanized finish.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- .1 Label each door, frame and hardware item with door code as indicated on architectural drawings. Deliver frames, doors and hardware as requested by General Contractor.
- .2 Provide complete installation instruction to the finish carpentry Contractor with all materials supplied.

**END OF SECTION**

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## PART 1 - GENERAL

### 1.1 SAMPLES

- .1 If requested by the Contract Administrator, submit one representative model of typical overhead door panel, tracks, weather stripping, etc.

### 1.2 SHOP DRAWINGS

- .1 Submit shop drawings clearly indicate materials and large scale details for head, jamb, and sill, profiles of components, elevations of unit, anchorage details, description of related components.

## PART 2 - PRODUCT

### 2.1 INSULATED STEEL SECTIONAL OVERHEAD DOORS

- .1 Door panels shall be 2" (510mm) thick formed from 0.016" thick exterior galvanized steel c/w pre-finished exterior finish, white colour. Interior skin shall be 26 gauge galvanized steel.
- .2 The interior of door panels shall be insulated with CFC-Free polyurethane core, R value to be R-17.5.
- .3 All joints between door panels shall be sealed with continuous EPDM rubber seal and thermal break.
- .4 Hinges are to be formed from galvanized steel and secured to integral steel hinge mounting reinforcement strip.
- .5 Overhead door track system is to be, 2" (50 mm) continuous galv. steel roller channels c/w support brackets and fastenings to suite door weight and operation.
- .6 Full perimeter weather stripping is to be installed.
- .7 Operation shall be manual by pull rope and interior lift handle, also provide 2 slide locks to secure door into door tracks.
- .8 Torsion spring counterbalance, lift cable and cable drum shall be sized to suit weight of door.

### 2.2 OVERHEAD SECTIONAL DOORS, considered to meet the requirements of paragraph 2.1 are:

- .1 Overhead Door Model – 495 Flush Panel Style

## PART 3 – INSTALLATION

- 3.1 .1 Provide to General Contractor all required information for installation of all require blocking and backing locations.
- .2 Install Work plumb, square, level free from warp, twist and superimposed loads.

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- .3 Secure all mounting hardware securely in required position and align and adjust to ensure smooth door operation.
- .4 Install weather stripping and position to effectively seal entire perimeter of door opening.

**END OF SECTION**

## PART 1 - GENERAL

### 1.1 REFERENCE STANDARDS

- .1 Do wood windows to CAN3-A440-M (latest) except where specified otherwise.

### 1.2 SAMPLES

- .1 If requested by the Contract Administrator, submit one representative model of each type PVC framed windows.
- .2 Show frame, sash, sill, glazing and weather-stripping method, insect screens, surface finish and hardware. Include 150 mm long samples of head, jamb, sill meeting rail, mullions to indicated profile.

### 1.3 SHOP DRAWINGS

- .1 Submit shop drawings clearly indicate materials and large scale details for head, jamb, and sill, profiles of components, elevations of unit, anchorage details, description of related components.

### 1.4 TEST REPORTS

- .1 Submit test report from approved independent testing laboratory, certifying windows comply to performance requirements of CAN3-A440-M (latest) and this specification.

## PART 2 - PRODUCT

### 2.1 PVC FRAMED WINDOWS

#### 2.2 PVC framed windows shall meet or exceed the following requirements:

- .1 Frames and sashes PVC framed c/w 2" (50mm) brickmolding. Brickmould and frame colour to be white
- .2 Non-operating windows may be constructed as "unsashed" units unless specified otherwise on the drawings.
- .3 Non-operating windows shall meet the fixed, B3, C3 rating of CSA Standard CAN3-A440.
- .4 Glazing shall be triple hermetically sealed units with two 1/2"(12mm) air spaces and Low E coating equal to Jeld-Wen TSA. Sealed units shall have a written five year warranty against failure of the seal. Exterior lites to be 6 mm thick tempered glass.

#### 2.4 Windows considered to meet the requirements of paragraph 2.2 are:

- .1 Jeld-Wen- ES2000 PVC framed

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- .2 Paramount – PVC framed.
- 2.5 Windows are to supplied to Rough Carpentry (06100) Contractor for installation.

**END OF SECTION**

## PART 1 - GENERAL

### 1.1 REQUIREMENTS OF REGULATORY AGENCIES

- .1 Use ULC listed and labelled hardware for doors in fire separations and exit doors.

### 1.2 SAMPLES

- .1 Submit samples of each type hardware specified, when requested by Contract Administrator.
- .2 Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.

### 1.3 HARDWARE LIST

- .1 Submit hardware schedule to Contract Administrator.
- .2 Clearly indicate hardware proposed, including make, model, material, function, finish and all other pertinent information for each door or pair of doors.

### 1.4 MAINTENANCE DATA

- .1 Provide maintenance data, parts list, and manufacturer's instructions for each type door closers, locksets, door holders and panic hardware for incorporation into maintenance manual.
- .2 Brief maintenance staff regarding proper care of hardware such as lubrication of locksets, adjustments of door closers, cleaning and general maintenance.

### 1.5 DELIVERY & STORAGE

- .1 Store finishing hardware in locked, clean and dry area.
- .2 Package each item of hardware separately or in like groups of hardware, label each package as to item definition and location.

## PART 2 - PRODUCTS

### 2.1 DOOR HARDWARE MATERIALS

- .1 Refer to Door & Hardware Schedule as indicated on drawings.

### 2.2 FASTENINGS

- .1 Supply screws, bolts, expansion shields and other fastening devices required for satisfactory installation.
- .2 Exposed fastening devices to match finish of hardware.
- .3 Where pull is scheduled on one side of door and push plate on other side, supply fastening devices, and install so pull can be secured through door from reverse side. Install push plate to cover fasteners.

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## 2.3 KEYING

- .1 Keying shall be under Master Key System. Prior to keying, check with The City as to type of keyway section to supply.
- .2 Supply three keys for each independent lock and each independent group. Supply three keys of each Sub-master Group.

## PART 3 - EXECUTION

### 3.1 INSTALLATION INSTRUCTIONS

- .1 Furnish wood & metal door and frame manufacturers with complete instructions and templates for preparation of their Work to receive hardware and for hardware installation.
- .2 Furnish manufacturer's instructions to Finish Carpentry Contractor (Section 06200) for proper installation of each hardware component.
- .3 Install 1 1/2 pair of butts for doors up to 914 wide x 2200 high and 2 pair of butts for doors over 914 wide or 2200 high.
- .4 Install hardware at following heights from finished floor to centre line of item:

Door pull:	1140 mm
Push plate:	1140 mm
Door bar:	1070 mm
Door knob:	1015 mm
Dead lock:	1350 mm
Panic bolt:	1015 mm
- .5 Where door stop contacts, door pulls, mount stop to strike bottom of pull.

**END OF SECTION**