## 1.0 GENERAL

#### 1.1 **REFERENCES**

.1 Comply with the requirements of the Canadian Manufacturing Standards for Steel Doors and Frames published by the Canadian Steel Door and Frame Manufacturers' Association except where specified otherwise.

### 2.0 PRODUCTS

#### 2.1 MATERIALS

- .1 Provide materials in accordance with following:
- .2 Frames:
  - .1 Frames: 1.6 mm for exterior doors, commercial quality steel cold rolled to ASTM A653M-96; zinc-coated to Z275 coating designation for exterior frames, ZF075 for interior frames;
  - .2 Accessories: floor anchors, channel spreaders, 1.6 mm tee anchors, zinc-coated to ASTM A653M-96, coating designation ZF075 Lag bolts, shields and bushing for existing or concrete openings.
  - .3 Reinforcement for Hardware: carbon steel, prime painted, to the following thicknesses:
    - Hinge & Pivot reinforcements 30 mm x 250 mm 3.5 mm
    - Strike reinforcements 1.6 mm
    - Flush Bolt reinforcements 1.6 mm
    - Surface hardware reinforcements 2.5 mm
  - .4 Door Jamb Reinforcement: 100 mm x 40 mm structural steel channel to CAN3-G40.21-92.
- .3 Doors
  - .1 Sheet Steel: to ASTM A653M-96 commercial quality steel, cold rolled, zinc-coated to ZF075 coating designation.
  - .2 Honeycomb core material: rigid pre-expanded resin impregnated kraft paper having maximum 25 mm hexagonal shaped cells.
  - .3 Reinforcement for Hardware: carbon steel, welded in place, prime painted, to the following thicknesses:
    - Hinge, pivot reinforcements:3.5 mm
    - Lock face, flush bolts, concealed bolts: 2.5 mm

- .4 Steel face sheet thickness: Exterior doors: 1.6 mm.
- .5 Core Construction shall be one of the following:
  - .1 Internally steel stiffened with continuous vertical steel stiffeners at 150 mm O.C. spot welded to both face sheets; fill voids with glass fibre insulation.
  - .2 Composite construction consisting of honeycomb core with steel face sheets pressure laminated to core.
- .6 Join door faces at intersecting edges with continuous welds, fill and grind smooth. Finish door faces flush without visible joints or distortion.
- .7 Close top and bottom edges of door with recessed 1.2 mm steel channel, full width welded. Provide closure channel at top edge of exterior doors. Provide weep holes in exterior door bottom channel.

# 3.0 EXECUTION

#### 3.1 INSTALLATION

- .1 Install frames, doors and hardware in accordance with templates and the manufacturer's instructions. Maximum permissible warp: 3 mm measured diagonally across the door.
- .2 Set frames in plumb and square at the correct elevation. Limit of acceptable frame distortion: 2 mm out of plumb measured on the face of the frame, maximum twist corner to corner: 3 mm.
- .3 Secure anchorages and connections to adjacent construction. Anchor door jamb reinforcement securely to the structure.
- .4 Provide a formed metal drip section the full width of the frame opening for exterior doors.

#### END OF SECTION