# 1. GENERAL

## 1.1 Work Included

.1 Provide a complete system of boxes for the installation of wiring and equipment.

#### 1.2 References

.1 CSA C22.1-Canadian Electrical Codes, Part 1.

## 2. **PRODUCTS**

## 2.1 Outlet and Conduit Boxes General

- .1 Size boxes in accordance with CSA C22.1.
- .2 102 mm square or larger outlet boxes as required for special devices.
- .3 Gang boxes where wiring devices are grouped.
- .4 Blank cover plates for boxes without wiring devices.
- .5 Combination boxes with barriers where outlets for more than one system are grouped.

# 2.2 Outlet Boxes for Metal Conduit

- .1 Materials:
  - .1 Surface mounting exposed: Cast ferrous for threaded conduit, with attached lugs, corrosion resistant two coats finish.
- .2 Components:
  - .1 Ceiling outlets, surface mounting:
    - .1 Cast outlet boxes suitable for rigid conduit.
    - .2 Crouse Hinds VXF/VFT series.
  - .2 Wall outlets, surface, exposed mounting or used for outdoor outlets: One or more gang, Crouse-Hinds FS series or FD series, condulet.
  - .3 Covers: Unless wiring devices and plates are mounted, provide blank, round canopy covers to match boxes.

#### 2.3 Concrete Boxes

.1 Electro-galvanized sheet steel concrete type boxes for flush mount in concrete with matching extension and plaster rings as required.

## 2.4 Conduit Boxes

.1 Cast FS or FD feraloy boxes with factory-threaded hubs and mounting feet for surface wiring of switches and receptacle.

## 2.5 Fittings - General

- .1 Bushing and connectors with nylon insulated throats.
- .2 Knock-out fillers to prevent entry of debris.
- .3 Conduit outlet bodies for conduit up to 32 mm and pull boxes for larger conduits.
- .4 Double locknuts and insulated bushings on sheet metal boxes.

## 3. EXECUTION

#### 3.1 Installation

- .1 Support boxes independently of connecting conduits.
- .2 Fill boxes with paper, sponges or foam or similar approved material to prevent entry of debris during construction. Remove upon completion of work.
- .3 Provide correct size of openings in boxes for conduit, mineral insulated and armoured cable connections. Reducing washers are not allowed.
- .4 Install all outlets flush and surface mounted as required for the installation.
- .5 Surface mount above suspended ceilings, or in unfinished areas.
- .6 Adjust position of outlets in finished masonry walls to suit course lines. Coordinate cutting of masonry walls to achieve neat openings for all boxes.
- .7 Do not distort boxes during installation. If boxes are distorted, replace with new boxes.
- .8 Use plaster rings to correct depth. Use 30 mm on concrete block.
- .9 Do not use sectional boxes.
- .10 Provide boxes sized as required by the Canadian Electrical Code.
- .11 Install vapour barrier material to surround and seal all outlet boxes located on exterior walls of building. Maintain wall insulation.

- .12 Outlets installed in partition walls to be offset by a minimum of one stud space.
- .13 Primary bushings in termination box for cable connection.
- .14 Secondary bushings in termination box for bus duct connection.
- .15 Control junction box.
- .16 Stainless steel nameplate and connection diagram.

# **END OF SECTION**