1. The Category 2 advertising device is provided as Active, Neutral and Earth supply from the Department's Sub. This is connected in the Department's bell joint in the same manner as an underpass lighting. Refer Standard Drawing 1637.

2. The Department to confirm ETU and voltage drop are satisfactory at the bell joint to allow for connection of the Category 2 advertising device.

3. Check existing bell joint for adequate space requirements. If space is limited, exchange existing bell joint with a new bell joint part number 254.

4. Combination fuse switch with 100A MCB fuse (type g5) to supply power to the Category 2 advertising device.

5. Neutral link and Earth link to fit 6mm² cables. No MCB link required at this point.

6. Combination fuse switch with 4A HRC fuse (type g5).

7. The installation of the Category 2 advertising device shall comply with AS/NSZ 3000 including the requirement for an RCD and discrimination of protective devices.

8. Install a third party pit.

9. All bell joints are to be clearly labelled to ensure ownership.


11. Earthling method.

   (a) Securely the earth electrode for the bell joint in the footing of the associated road lighting pole. If the earth electrode is not present, install a copper clad earth electrode in a P3 pit adjustment to the Department pit.

(b) Ensure there is no underground services in vicinity prior to installing earth electrode.

(c) The earth electrode must be driven no less than 1300mm vertically into ground, leaving a minimum 150mm exposed length of electrode in the base of the pit.

(d) In difficult soils, dig out the appropriate P3 pit size, larger a 75mm hole vertically to 1300mm, install the earth electrode in the centre of the hole, fill the upper hole with LSI (LiDio) compound or equal and install the pit over the earth electrode.

(e) Connect the electrode to the MEN point inside the bell joint with a length of 6mm² copper earth conductor.

(f) Attach a permanent label to the connection of the main earthing conductor to the earth electrode stating: "Warning: Main electrical earthing conductor DO NOT DISCONNECT."

(g) Only one earth electrode connected to one main earth conductor permitted in one earth pit.

12. Dimensions are in millimetres unless shown otherwise.

ASSOCIATED DEPARTMENTAL DOCUMENTS:

- Standard Drawings
- Specifications
- Traffic and Road Use Management Manual (TRUM Manual)
  - Volume 5.3 Bell Joint Assembly

REFERENCE DOCUMENTS:

- Departmental Standard Drawings:
  - 1149 Traffic Signals/Road Lighting/ITS – Installation of Underground Electrical and Communications Cables
  - 1389 Road Lighting – Slip Base Male/Female Connectors (Installation Details)
  - 1420 Road Lighting – Slip Base Male/Wireless Details
  - 1440 Traffic Signals/Road Lighting – Cable Jointing Pit (Rectangular Concrete Surrounded)
  - 1626 Road Lighting – Junction Box Three Phase Wiring Details
  - 1626 Road Lighting – Junction Box Active, Neutral and Earth Wiring Arrangements
  - 1637 Road Lighting – Underpass Lighting Wiring Details
  - 1699 Traffic Signals/Road Lighting/ITS – Parts List

Departmental Specifications:

- WRTS25 Power Cables
- WRTS258 Power Cables
- WRTS259 Power Cables

Australian Standards:

- AS/NSZ 3000 Electrical Installations (Wiring Rules)

**Installation of conduit and pits is the responsibility of the licenced electrical contractor.**