cables up to 16 sq mm / 4 c XLPE with suitable terminals for loop in and loop out of cable. Each lighting fixtures on the pole shall be individually protected with MCB of 10 Amps with 10 kA fault level The control gear components shall be mounted in the upper compartments of the pole on aluminium base plates. Heat resistant, rubber insulated, 600 V, flexible rated at 105 ºC cable shall be installed between the bulb and the control gear components.

B. Foundations shall be pre-cast waterproof concrete B 35, size 50 cm x 50 cm x 100 cm deep (or as shown on drawings) complete with anchor bolts and cable ducts for entry and exit. Surfaces of concrete shall be fair faced and coated with 300 micron epoxy. The pole foundation and anchor bolts shall be covered by hot dip galvanized steel sheet canopy after pole installation.

1.3.34 Earthing, Lightning Protection

1.3.34.1 Earthing

A. The earthing shall comply with the regulations of the Water and Electricity Authority and with VDE - Regulation 0100 & 0190, as approved by the Engineer.

a. The MCC panel shall be earthed by two individual earthing systems.

b. For mobile generators an additional earthing system shall be provided at the MCC

B. Earth electrodes shall comprise a number of rods with a cross-section of 19 mm diameter, minimum total 3 m long vertically driven into the ground at intervals not less than 6 m. Earth rods shall be made from copper and shall be provided with special hardened tips and caps to protect the rod from damage when driven into the ground. To enable testing, electrodes shall be installed in prefabricated concrete chambers with removable covers. The earth electrodes shall be of PVC sheathed copper conductors of not less than 70 mm² cross section buried to a depth of 0.60 m. or laid inside PVC duct The transfer resistance of individual earthing systems, when measured during the dry period, shall not exceed 2 Ohm and transfer resistance of main earthing system shall not be more than 1 Ohms when all the individual earthing pits are connected to earthing system. This limit shall be demonstrated by the Contractor to the satisfaction of the Engineer. If the value cannot be achieved, additional earth rods shall be driven into the ground or additional electrodes shall be provided and connected to the individual earthing system to reduce earth resistance. Test equipment shall be provided by the Contractor. The metallic parts of all electrical equipment supplied and installed