





LEGEND

PROPOSED

BURIED EARTH ELECTRODE, 0.5m DEEP (25mm x 4mm BARE COPPER TAPE OR 70mm² BARE STRANDED COPPER CABLE)

SURFACE LAID EARTH TAPE (SIZE AS ABOVE)

CONNECTION TO EQUIPMENT

EARTH ROD (MIN 1.2m - LENGTH TO BE DETERMINED BY POLICY)

REBAR CONNECTION

EARTH BAR

CLAMP METER

FREDERICK ROAD, SALFORD
M6 6QH
TEL 0161 6041370

DRAWN
APPROVED
MD
DATE
SCALE
APPROVED
ND
DATE
SHEET SIZE
A1

DROPOSED EARTHING LAYOUT
SCHNEIDER COMPACT 11kV SUBSTATION

DRAWN
SCALE
1:20
SITE NAME
DWG STATUS
DRAFT
OLD DWG NO
ESL-900350-007
REV
O

Installation Requirements

a. All excavation routes to be checked for existing buried services and an appropriate excavation method agreed with the

b. All buried earth electrode to be copper conforming to BS EN 13601. Above ground conductor to be copper to BS EN 13601.
c. The soil in contact with buried copper conductor must have a pH between 6 and 10 and contain no ash, coke breeze or any other material that is corrosive to copper. Where the pH is outside these limits, the electrode should be surrounded by a minimum of 150mm radius of correct pH soil. Encapsulation in Bentonite or Marconite may be necessary if the soil is

d. Copper to copper tape joints should ideally be brazed or welded. Compression joints conforming to BS 3288-1 may be used on stranded conductor. Earth tape may be bolted providing the drilled holes do not exceed one third of the width of the tape (otherwise larger tape must be used) and where this is buried it must be protected against moisture ingress. All

f. Earth rods to be connected to horizontal copper ring via an approved clamp and wrapped to prevent moisture ingress.
 g. The re-bar of new equipment plinths is to be bonded to the main earthing system. Bonding of the upper layer of welded

site SAP to avoid inadvertent contact or damage.

equipment connections must have double bolt fittings wherever practicable.

e. Ensure there are two earth connections to all main equipment.

excessively corrosive.

mesh re-bar is sufficient.

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