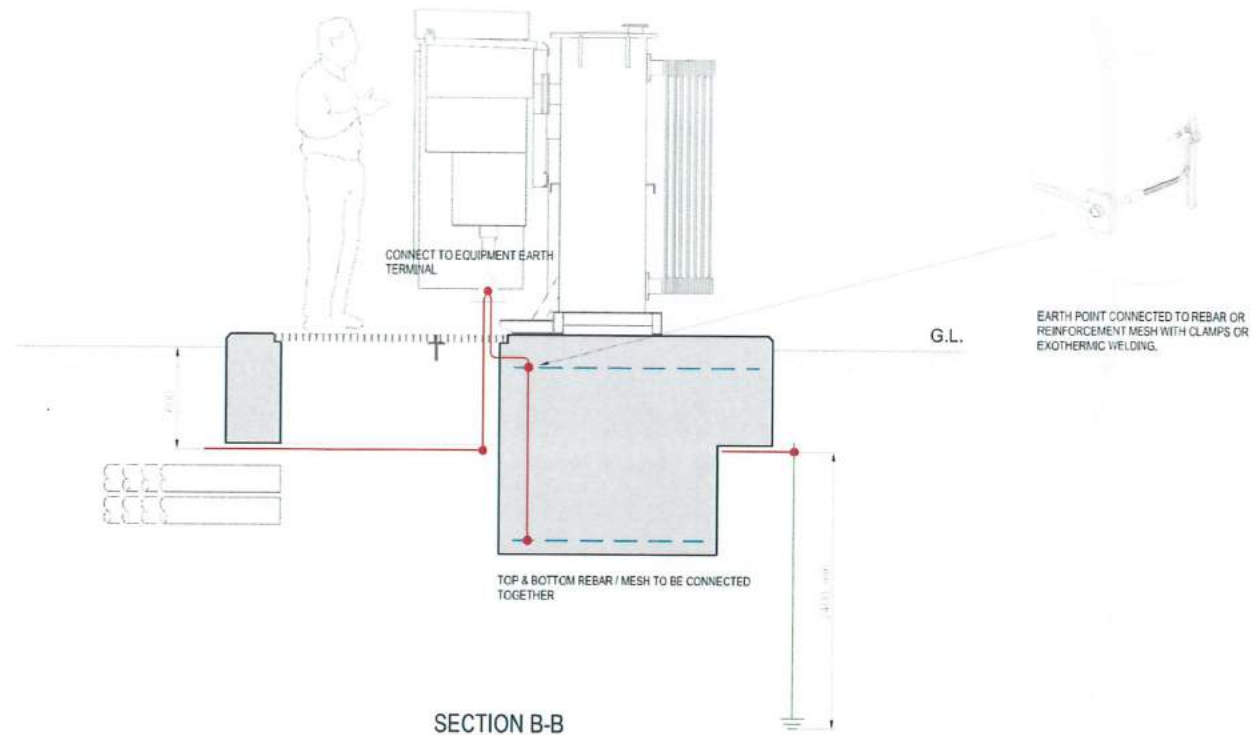
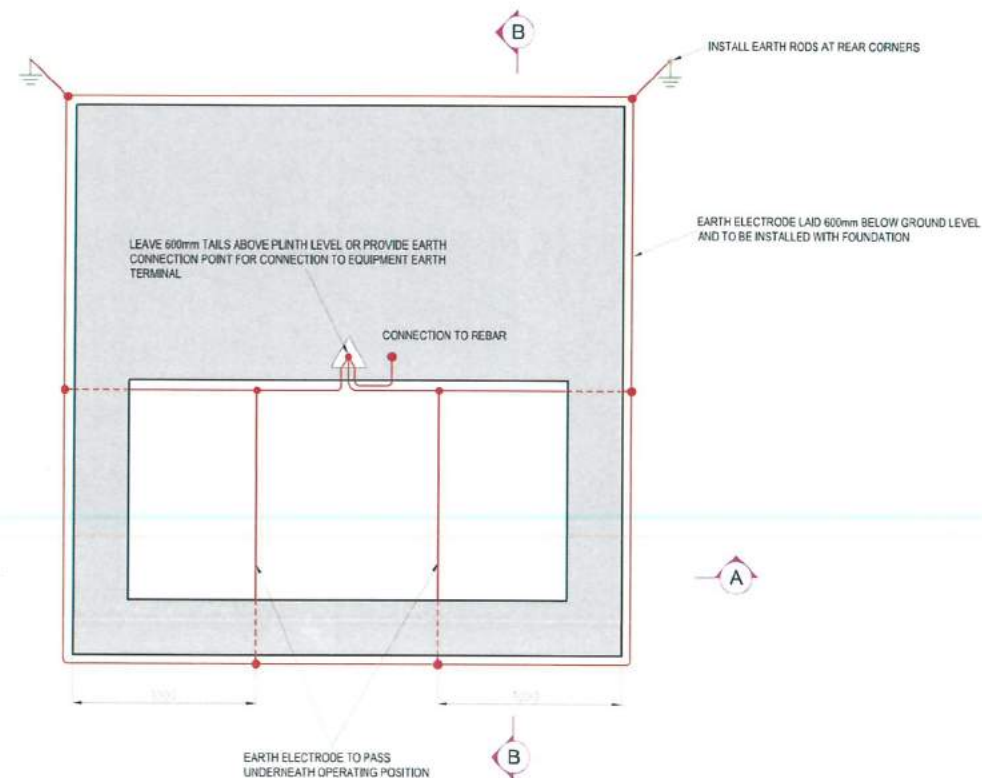


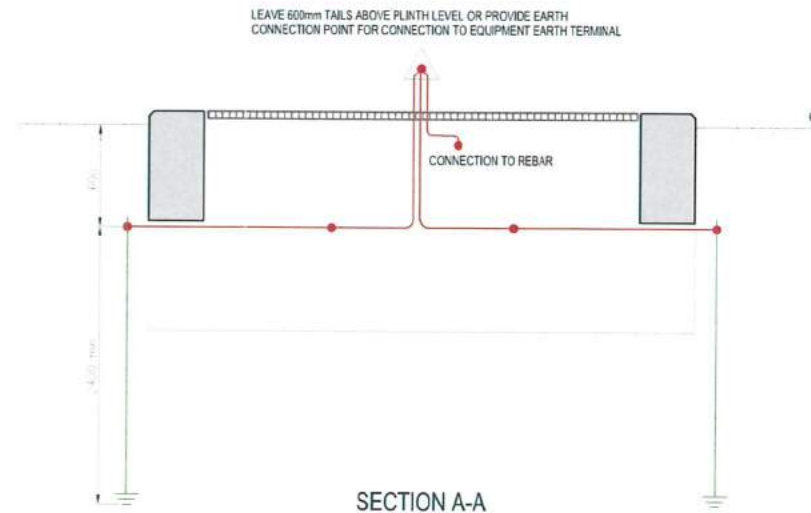
ISOMETRIC VIEW SHOWING EARTH ELECTRODES & RODS



SECTION B-B



GRP PLINTH FOUNDATION PLAN



SECTION A-A

NOTE: This drawing only shows the earthing associated with the ground works. Additional earthing may be required to achieve the earth resistance value and to ensure the substation is safe. Refer to the relevant earthing standard for the complete earthing and bonding requirements.

GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES.

WHEREVER POSSIBLE THE EARTHING SYSTEM SHOULD BE INSTALLED IN ASSOCIATION WITH THE GROUND WORKS TO ENSURE THAT EARTH ELECTRODES ARE CORRECTLY POSITIONED PRIOR TO PLACEMENT OF CONCRETE.

REBAR/MESH REINFORCEMENT

THE TOP AND BOTTOM REINFORCEMENT WITHIN THE PLINTH SHALL BE CONNECTED TOGETHER.

THE CONNECTION TO THE REINFORCEMENT WITHIN THE PLINTH SHALL USE EXOTHERMIC WELDING OR SUITABLE CLAMPS.

EITHER 600mm MINIMUM TAILS SHALL BE LEFT ABOVE PLINTH LEVEL OR AN EARTH CONNECTION POINT PROVIDED TO ENABLE THE REINFORCEMENT TO BE CONNECTED TO THE EARTH BARE EQUIPMENT.

ALL CONNECTIONS TO THE REINFORCEMENT SHALL USE A MINIMUM OF 70mm² STRANDED COPPER CABLE OR 25mm x 3mm COPPER TAPE.

EARTH ELECTRODE

THE EARTH RODS SHALL BE COPPER CLAD WITH APPROPRIATE FITTINGS, DRIVEN TO A MINIMUM DEPTH OF 2.4m.

THE EARTH ELECTRODE SHALL BE AS FOLLOWS

FOR EARTH FAULT LEVELS UP TO 80A USE 70mm² BARE STRANDED COPPER CABLE OR 25mm x 3mm COPPER TAPE.

FOR EARTH FAULT LEVELS UP TO 120A USE 120mm² OR 2 x 70mm² BARE COPPER CABLES OR 25mm x 4mm COPPER TAPE.

FOR EARTH FAULT LEVELS UP TO 150A USE 120mm² OR 2 x 70mm² BARE COPPER CABLES OR 25mm x 6mm COPPER TAPE.

EARTH RESISTANCE

THE MAXIMUM RESISTANCE THE EARTHING SYSTEM SHALL BE 1 OHM UNLESS A DIFFERENT VALUE HAS BEEN SPECIFIED BY THE UK POWER NETWORKS DESIGNER.

WHERE THE EARTHING SYSTEM IS INSTALLED BY A DEVELOPER OR CONTRACTOR CERTIFICATION CONFIRMING THE RESISTANCE OF THE EARTHING SYSTEM SHALL BE PROVIDED TO UK POWER NETWORKS PRIOR TO EQUIPMENT INSTALLATION.

FURTHER INFORMATION

REFER TO:

EDS 08-0014 SECONDARY SUBSTATION EARTHING DESIGN

EDS 08-0023 SECONDARY DISTRIBUTION NETWORK EARTHING CONSTRUCTION



| Version | Date | Description | Checked | Des. | Approved | Designed |
|---------|----------|-------------------------------------|----------|------|----------|----------|
| C | 01-05-12 | Revised earth connections and notes | S Tucker | RDH | | GD |
| B | 20-10-10 | . | S Tucker | WM | | GD |
| | | | PL | GD | | |
| A | 22-03-10 | ORIGINAL | MD | GD | | GD |
| | | | PL | GD | | |



TITLE
EARTHING ARRANGEMENT FOR UNIT/PACKAGE SUBSTATION WITH STANDARD PLINTH DETAIL & GRP ENCLOSURE

SCALE NTS @A1 APPROVED Version

DRAWING NO. EDS 07-0102.01 SHEET 2 OF 2 C

SITE SECONDARY SITES