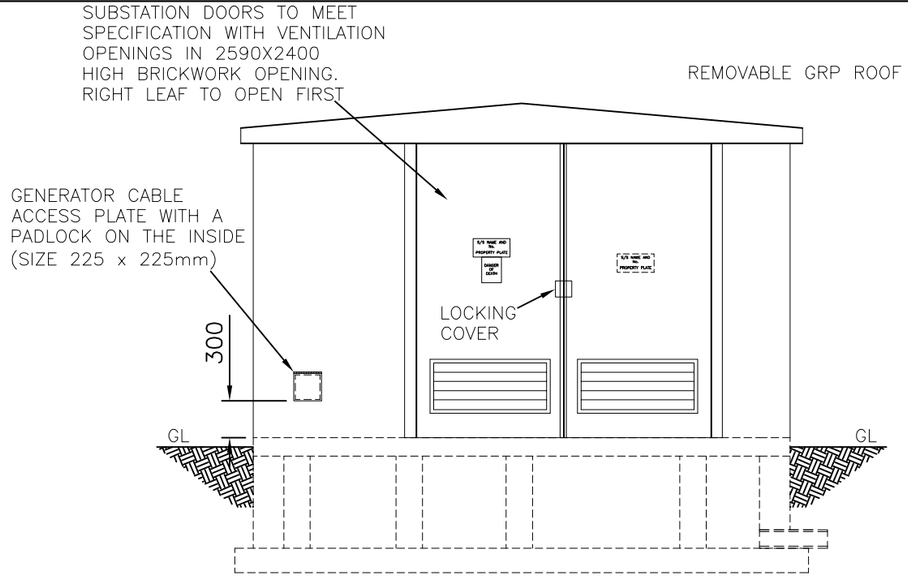
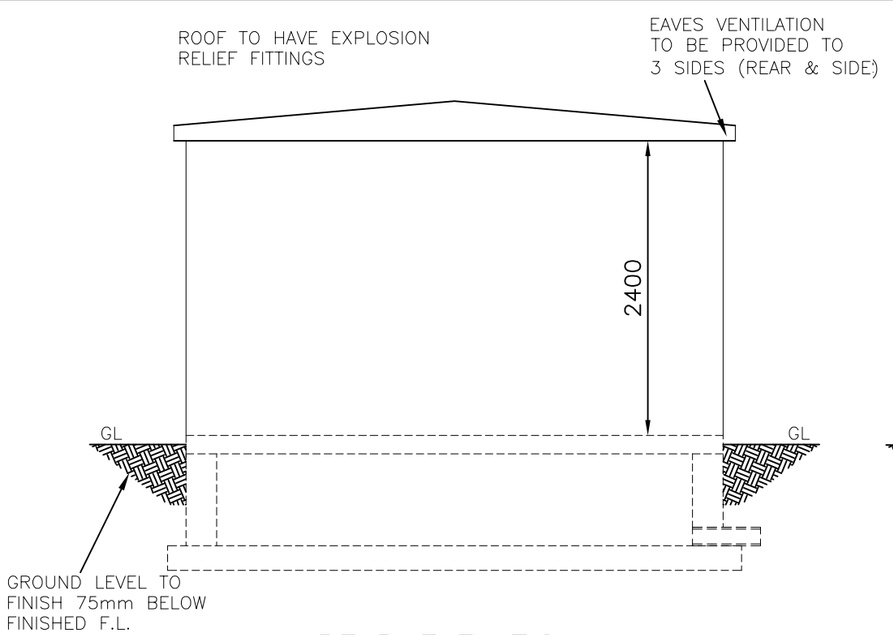
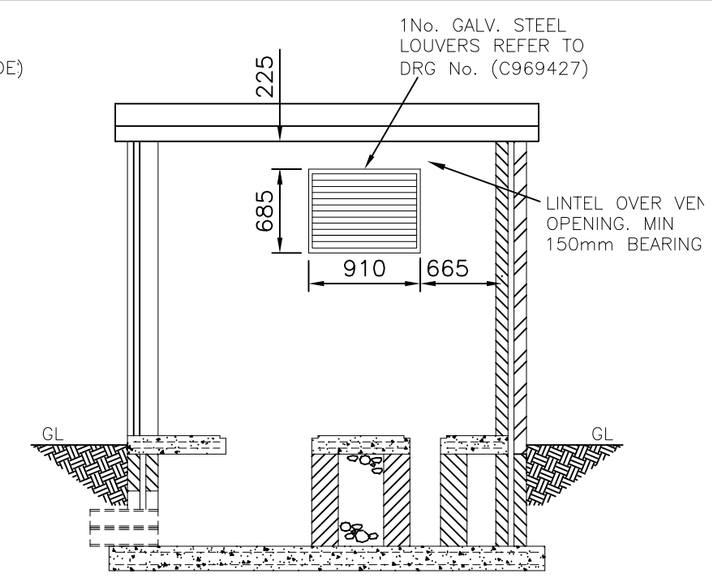


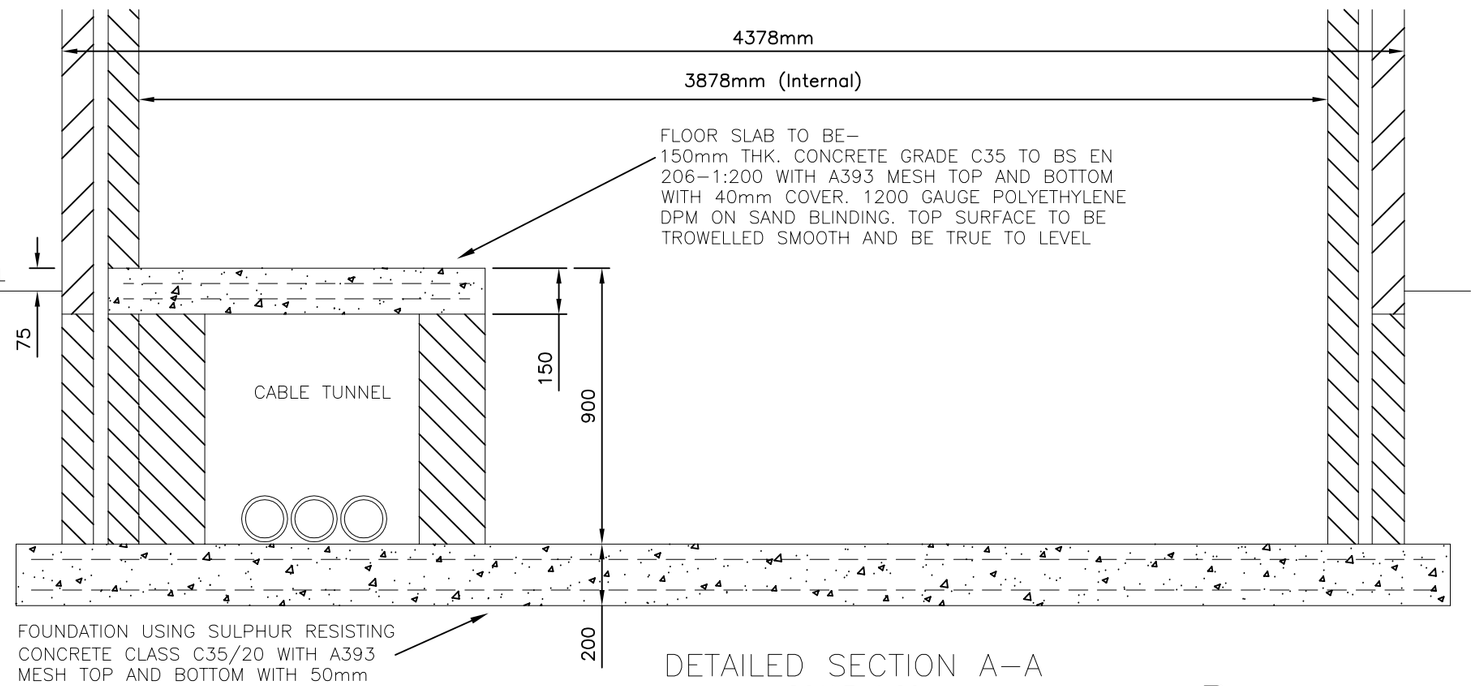
FRONT ELEVATION
SCALE 1:50



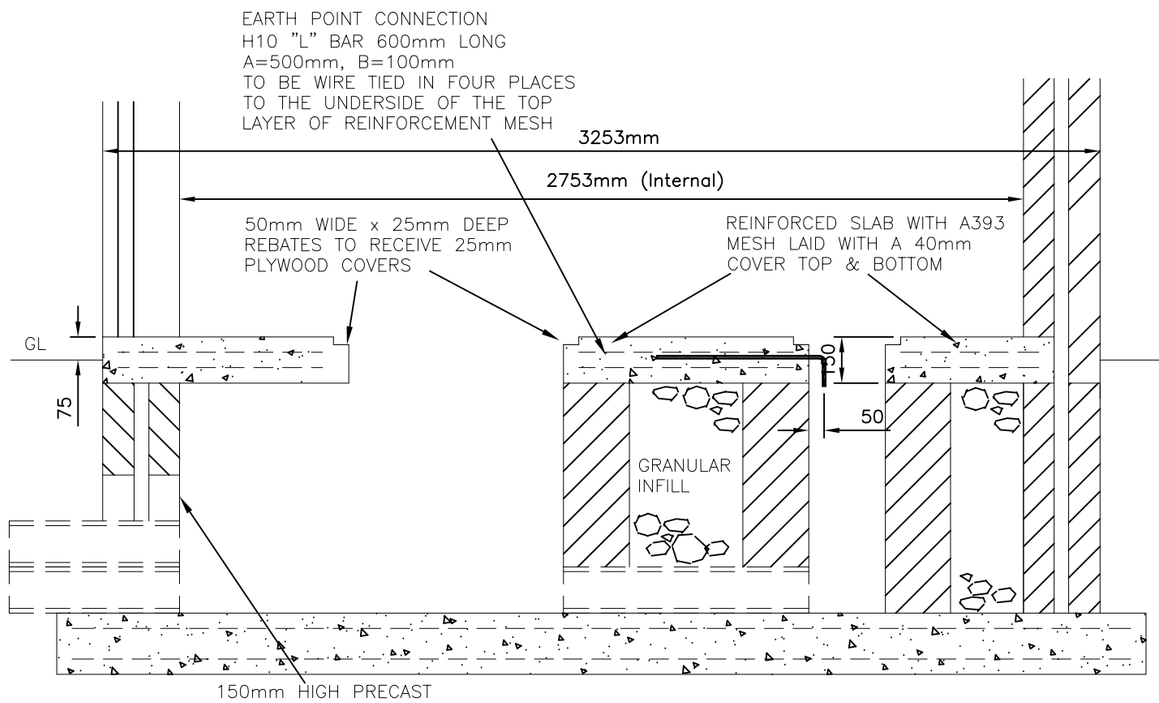
REAR ELEVATION
SCALE 1:50



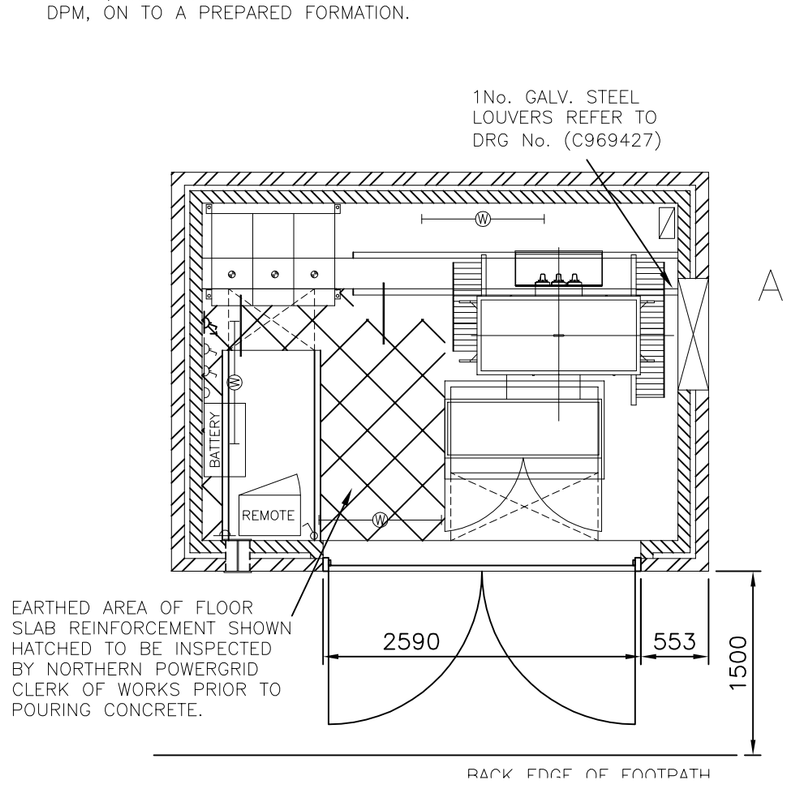
SECTION B–B
SCALE 1:50



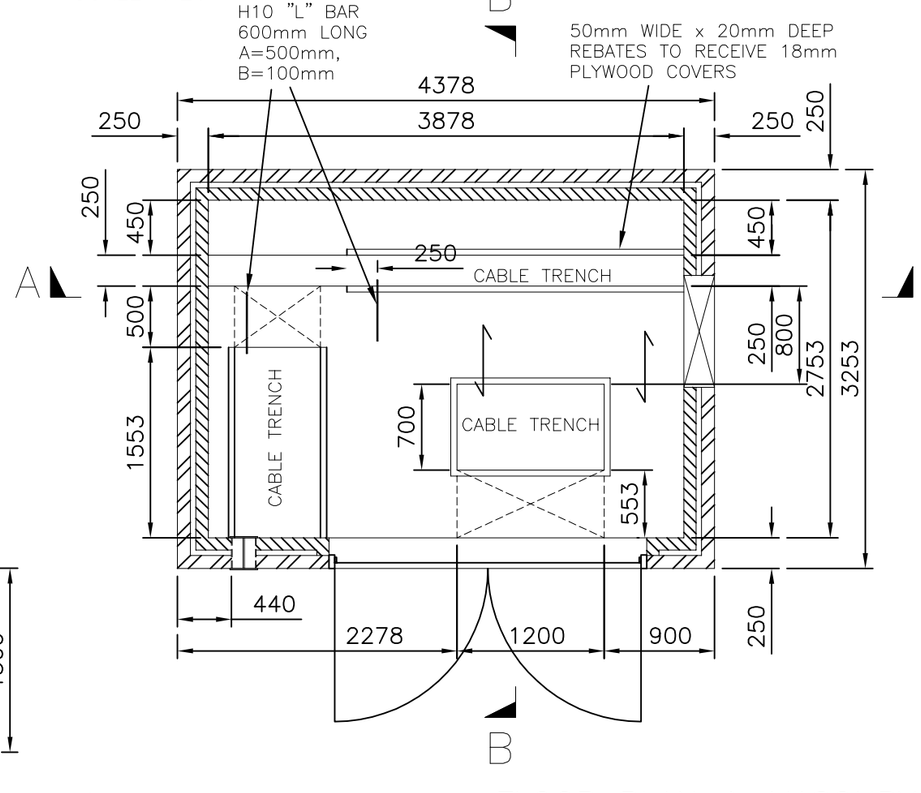
DETAILED SECTION A–A
SCALE 1:20



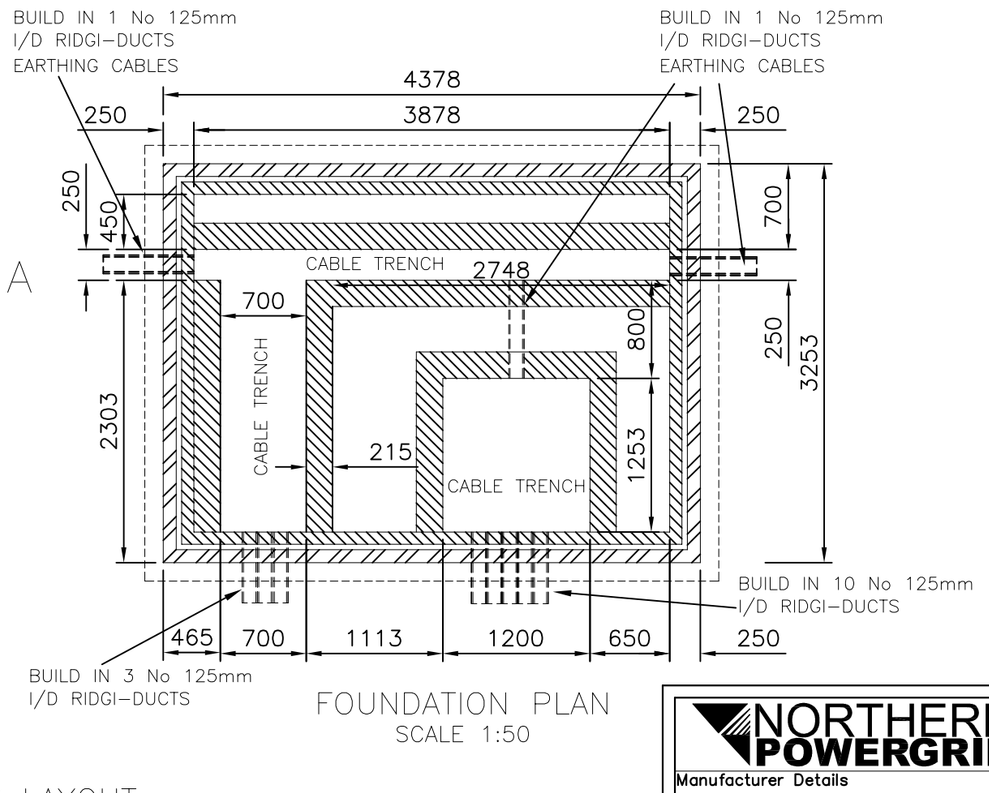
DETAILED SECTION B–B
SCALE 1:20



PLAN OF EQUIPMENT
SCALE 1:50



FLOOR PLAN & MASONRY LAYOUT
SCALE 1:50



FOUNDATION PLAN
SCALE 1:50

LIGHT SWITCH
SWITCHED SOCKET OUTLET
SWITCHED SOCKET OUTLET (TEST)
UNSWITCHED SPUR
CONSUMER UNIT WITH MCB's
FLUORESCENT TUBES IN IP56 FITTINGS (WALL MOUNTED)

ALL FITTING/CONDUIT TO BE PVC

FOR DETAILED INFORMATION SEE TECHNICAL SPECIFICATION NPS/006/001

INTERNAL CUBIC CAPACITY – 25.6m³

Substation doors to be set back a minimum of 1500mm from back edge of footpath. Any proposed reduction in this clearance to be approved by Northern Powergrid following submission of site specific risk assessment and operational method statement.

NOTES

FLOOR:

1. Foundations shown are based on a maximum weight of transformer of 40kN and a minimum ground bearing pressure of 80kN/m²
2. The foundations shown are for a substation built on natural ground, if ground is unsuitable the foundations are to be adjusted to structural engineers instructions.
3. Floor slab shall be designed to carry a minimum load of 7.5kNm². Floor to be level, steel float finish concrete, and sealed with approved concrete sealer or concrete paint.
4. Earthed area of floor slab reinforcement shown hatched (on electrical layout) to be inspected by Northern Powergrid clerk of works prior to pouring concrete.
5. Floor to be cast to front face of door opening, providing solid threshold. External level to be 75mm below finished floor level, allow unrestricted access for gear, and have a level landing area.
6. Trench covers to be 25mm exterior quality WBP ply, maximum width 1200mm, each cover to have 2 No. 35mm diameter finger holes, covers to be painted two coats silver gloss paint both sides and all edges
7. External paving and site finishes shall be provided as agreed with Northern Powergrid representative on site. As a minimum this shall consist of paving to full width of substation doors x 1200mm deep, with paving linking nearest highway path

ROOF:

8. Roof shall be to Northern Powergrid specification. Other roof types shall only be used with written approval from Northern Powergrid. Must accommodate an explosion relief device and must support distributed loading of 1.8kN/m². All roofs to be secured to walls via propriety fixings to be designed to BS6395 Part 3.

BRICKWORK:

9. Walls to be 215mm with blockwork or brick inner leaf. Internal walls minimum 100mm thick 7N concrete block or brickwork. Leafs to be tied together with stainless steel double triangle wall ties to BS1243 at 450mm centres vertical and 900mm centres horizontal.

DOORS:

15. Doors must be to Northern Powergrid specification. Each substation site will be given a security rating by Northern Powergrid, standard, enhanced or high, the minimum door specification shall match or exceed this site specific security rating. Door details must be submitted for approval prior to placing an order with the supplier.
16. Doors to include ventilation where shown via steel door louvres to Northern Powergrid specification and approval.
17. Door reveals & lintel soffits to be closed, closure to provide minimum one hour fire protection.

Care is to be taken to ensure that access to cable openings is not impaired.

No Gas, Sanitary, Water or other Services to run through or under the substation.

REFERENCE DRAWINGS :
C969427 – Wall Louvre Details
C969428 – Roof Details (GRP/STEEL)
C969998 – Generator Cable Access Detail
C978643 – Earth Point Connection Details

CUSTOMER NOTES

The customer to carry out all necessary lighting and heating installation and building work as described including the provision of the LV supply. The substation shall be wired independently of any other areas or customers accommodation.

Northern Powergrid will not install any equipment until the accommodation is deemed fit for purpose. Customer service will not be made live until completion certificate is issued. Customer or their agent to obtain all necessary Planning and Building approvals before construction work commences.

This drawing is intended to indicate the minimum requirements for the installation of Northern Powergrid apparatus and is not in any way intended to describe the building to architectural, structural or other requirements.

The customer shall provide full construction drawings minimum 15 days prior to commencement of works, to allow Northern Powergrid to check for compliance with their requirements. Substation to be designed in accordance with Northern Powergrid flood mitigation policy.

Northern Powergrid Project Engineer to be notified of commencement of site works to enable site inspections to be carried out during construction.

Substation doors to be set back a minimum 1500mm from back edge of footpath. Any proposed reduction in this clearance to be approved by Northern Powergrid following submission of site specific risk assessment and operational method statement.

NORTHERN POWERGRID

Lloyds Court, 78 Grey Street, Newcastle Upon Tyne, NE1 6AF

20kV DISTRIBUTION SUBSTATION UDE
IN MASONRY ENCLOSURE

Manufacturer Details			
Sheet No. 1	Scale AS SHOWN	Document Details STANDARD DISTRIBUTION SUBSTATION DRAWING	
Prepared By TD			
Revised	Grid Reference	Ref No. C991548	Historic Drawing No.
Date Issued 02.08.16	Checked By CD	Revision E	Notes