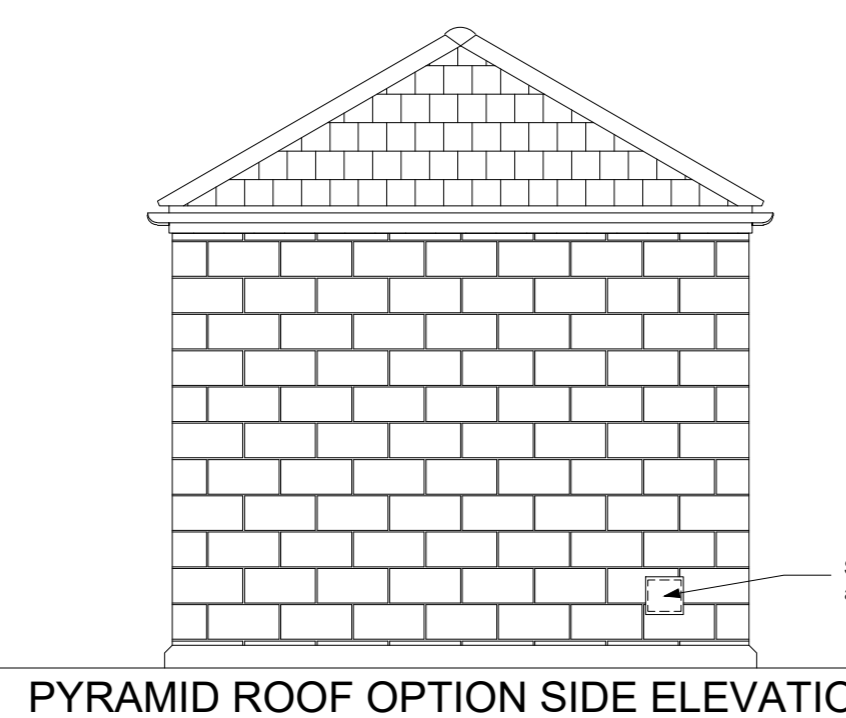
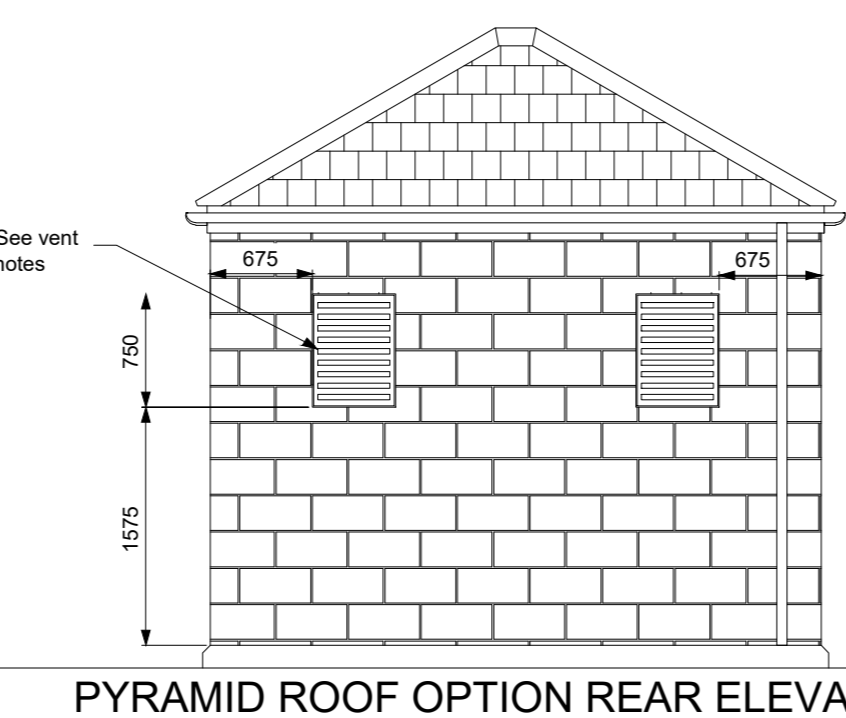


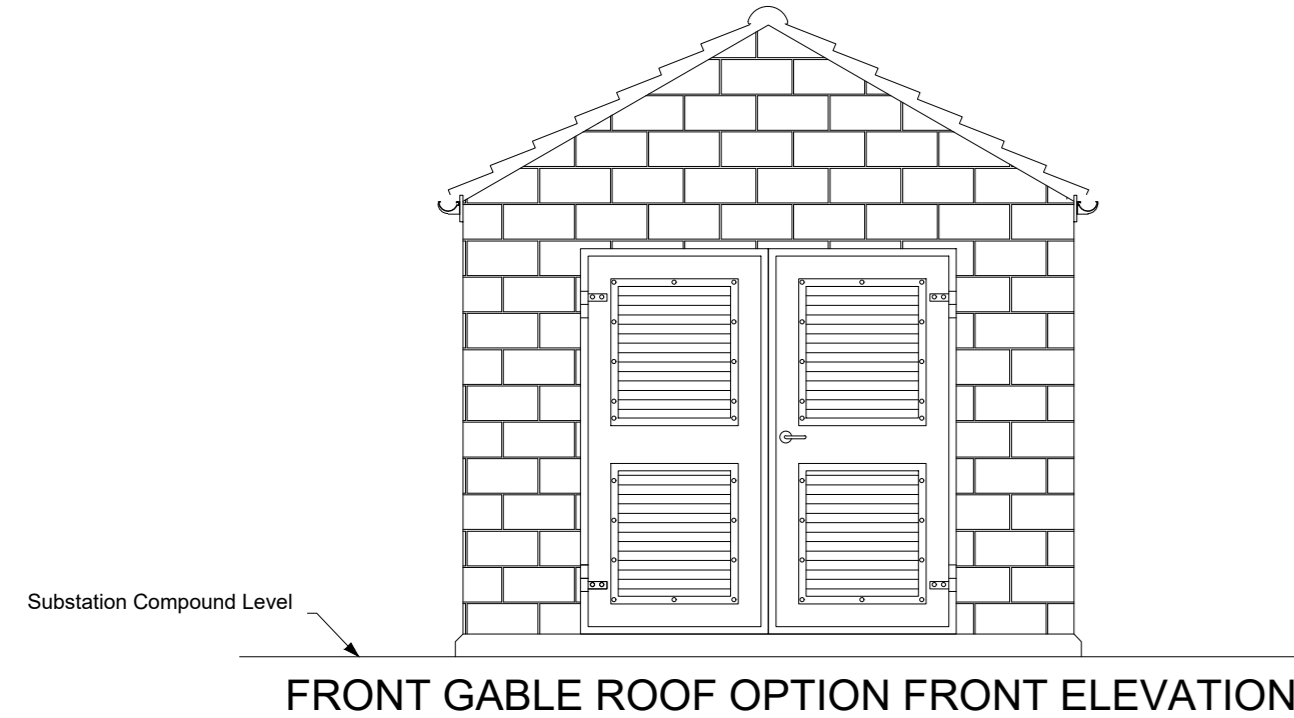
PYRAMID ROOF OPTION FRONT ELEVATION



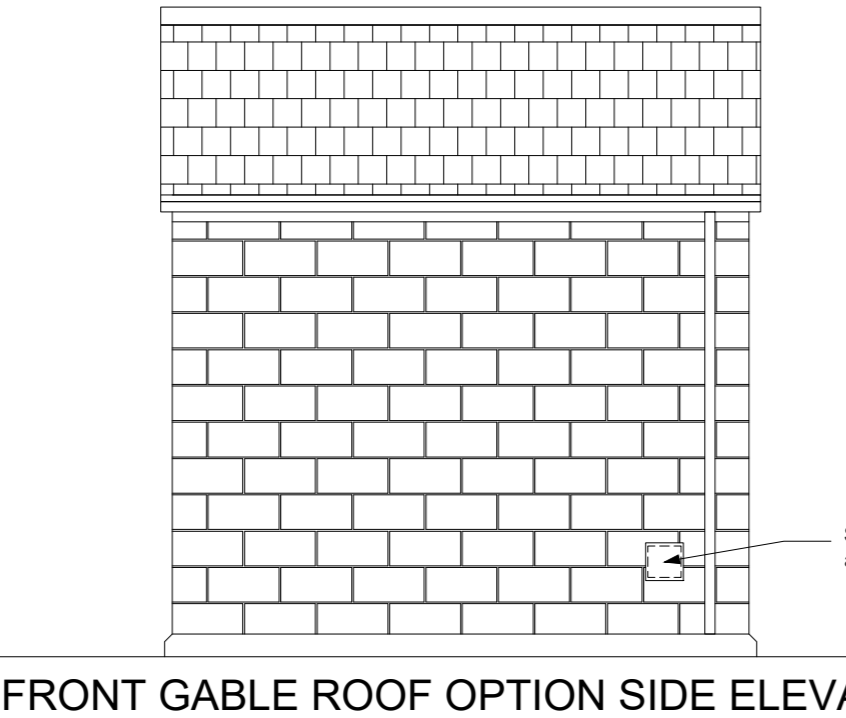
PYRAMID ROOF OPTION SIDE ELEVATION



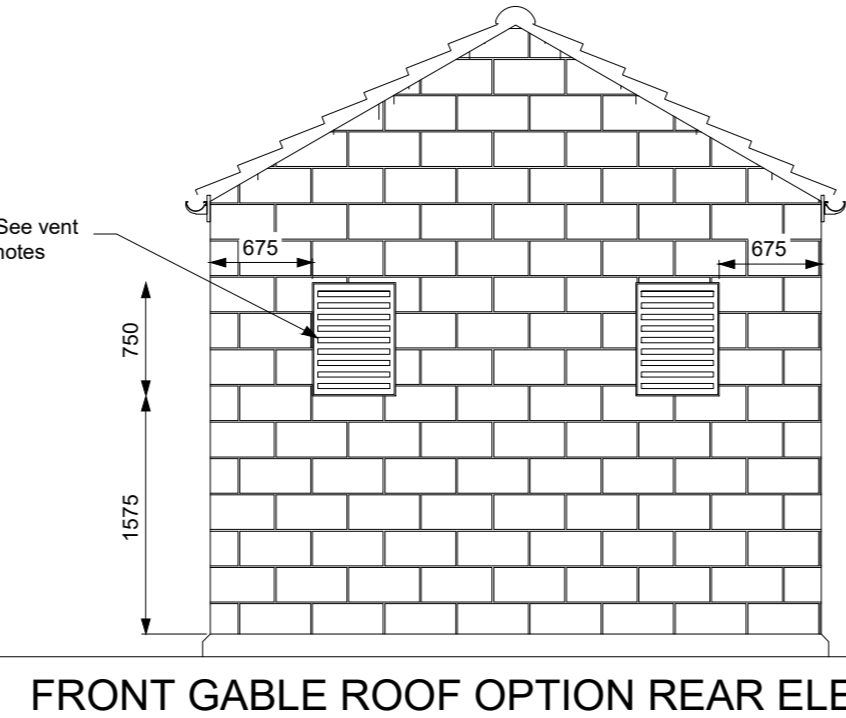
PYRAMID ROOF OPTION REAR ELEVATION



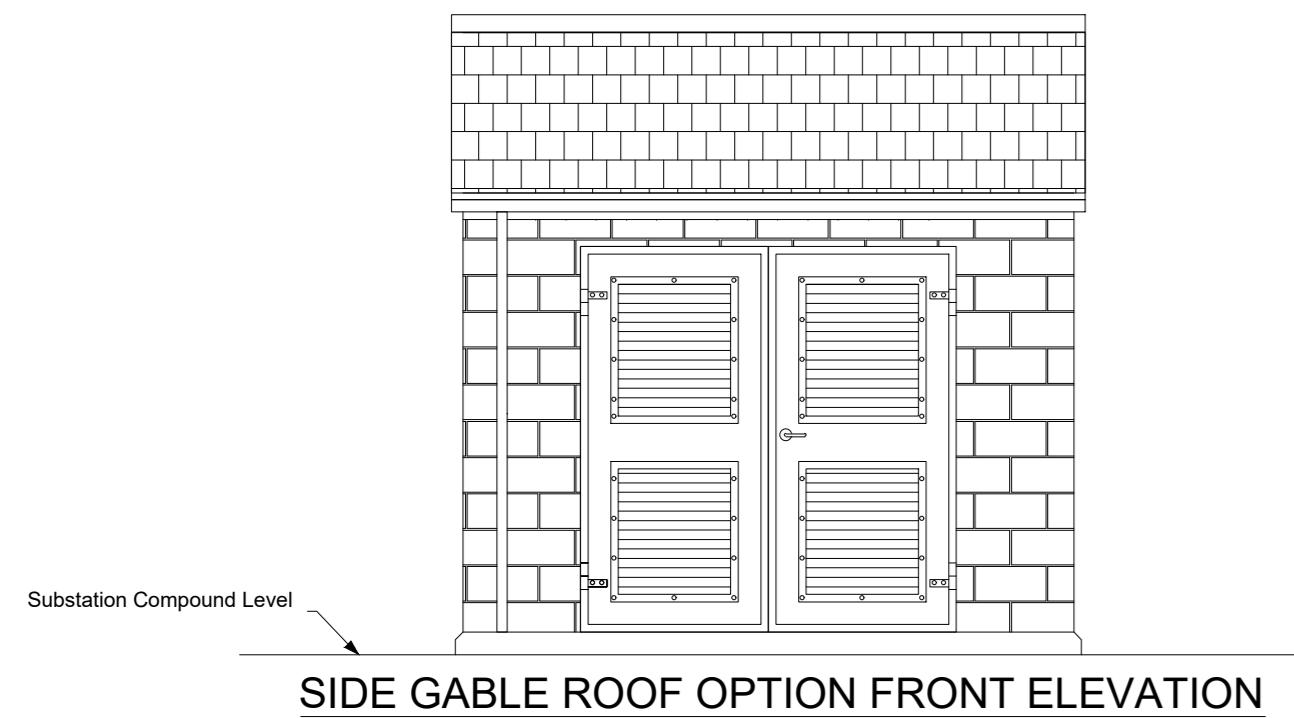
FRONT GABLE ROOF OPTION FRONT ELEVATION



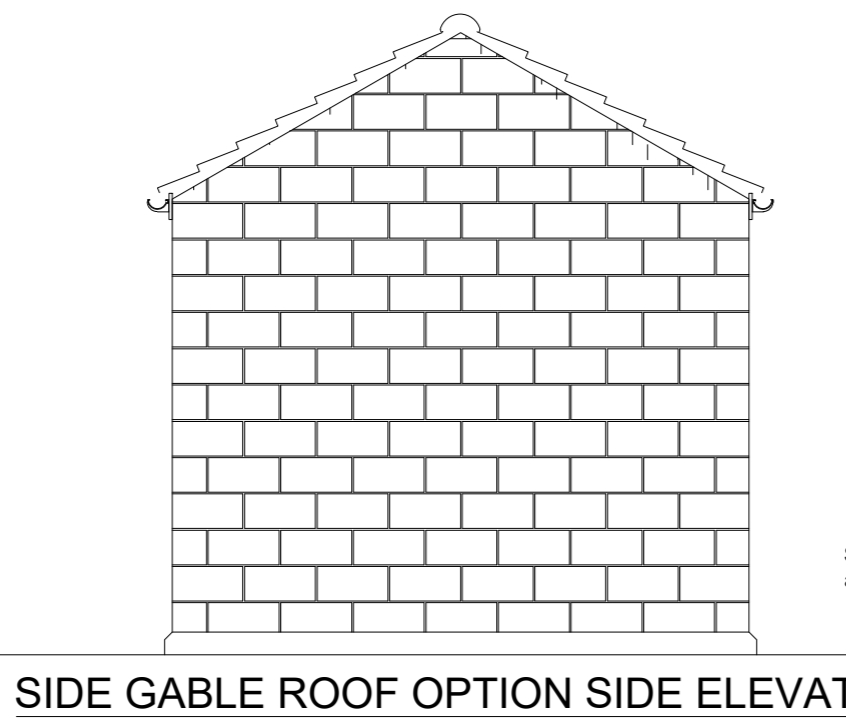
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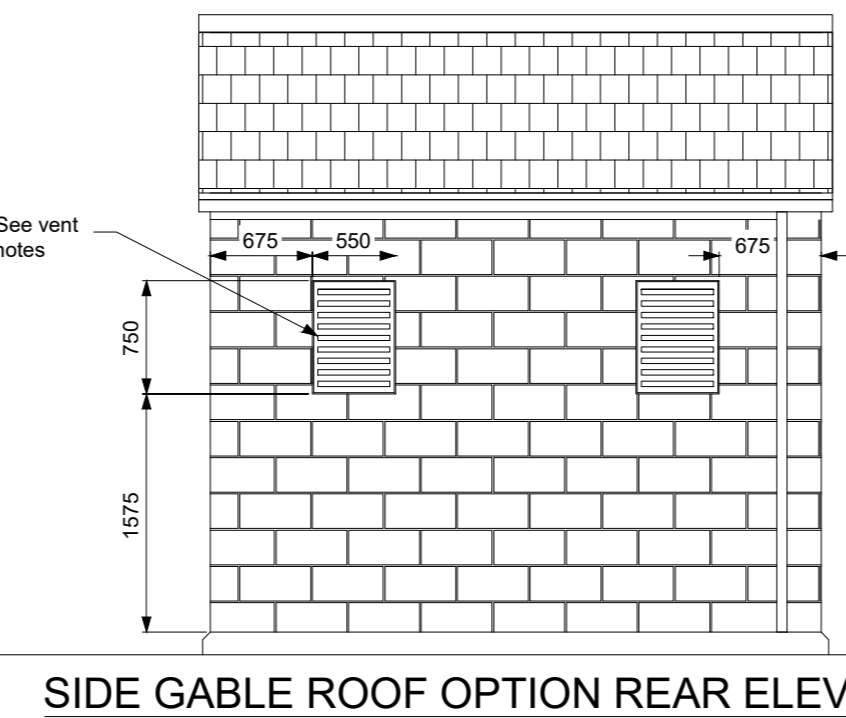
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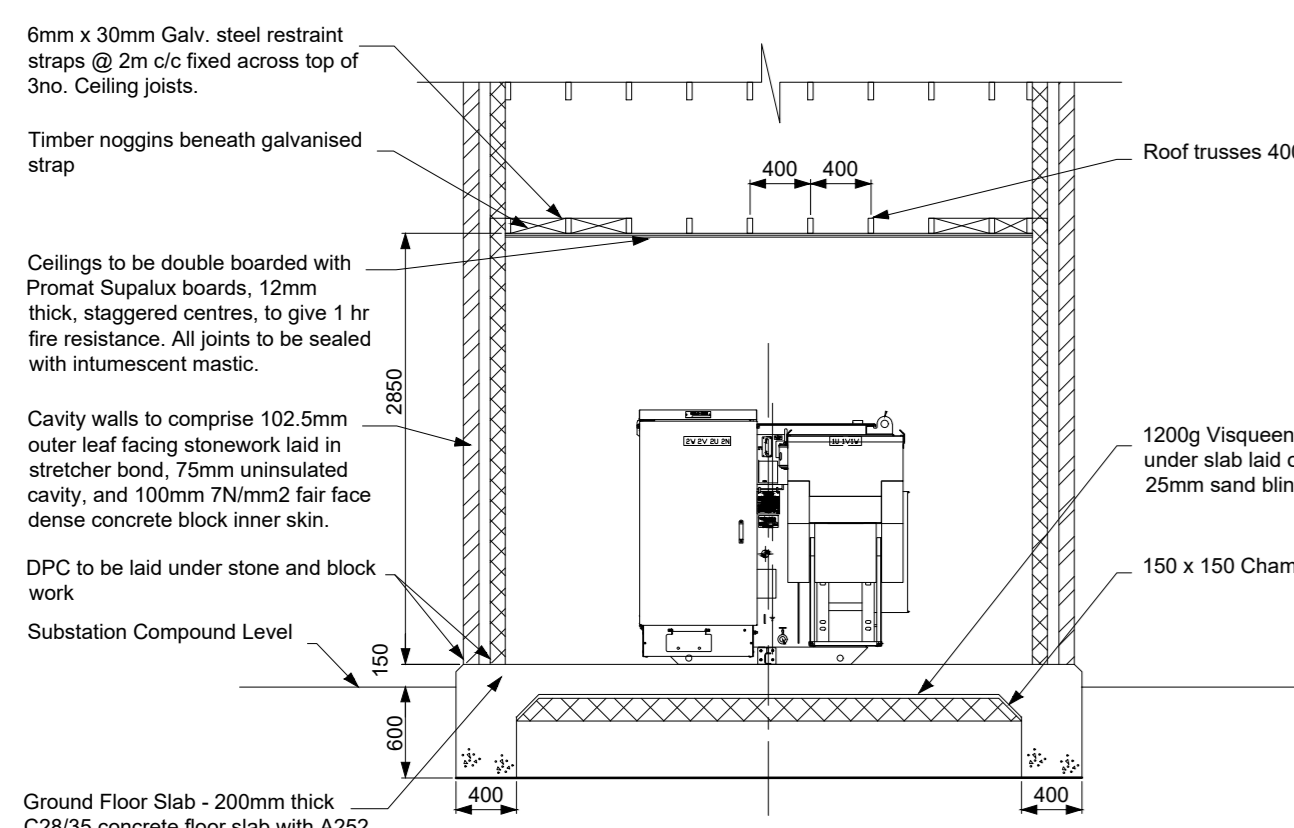
SIDE GABLE ROOF OPTION FRONT ELEVATION



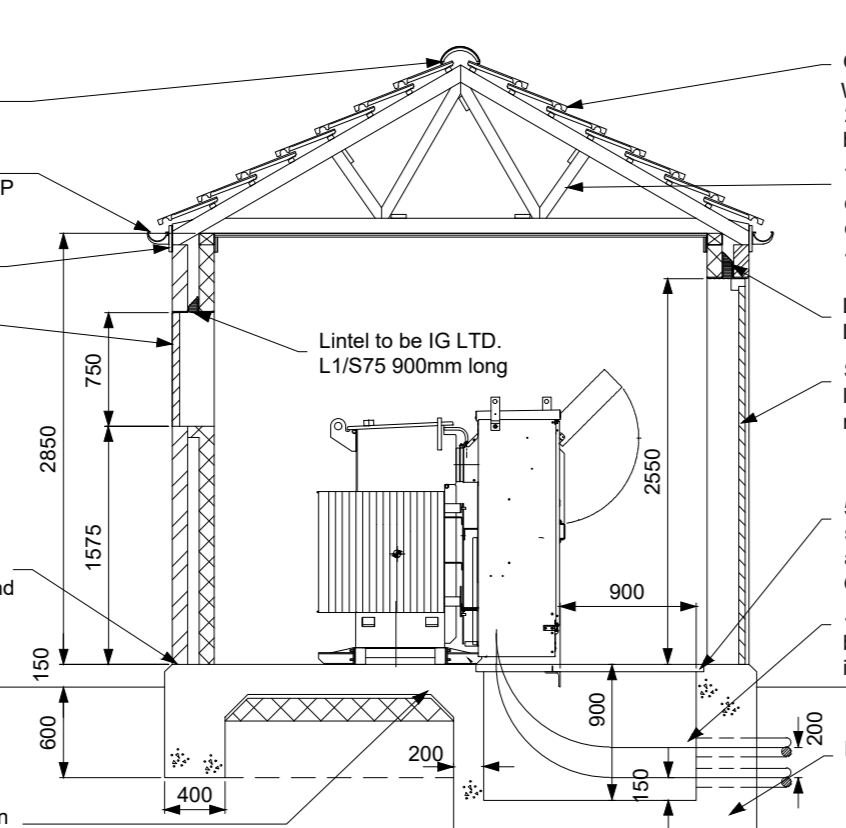
SIDE GABLE ROOF OPTION SIDE ELEVATION



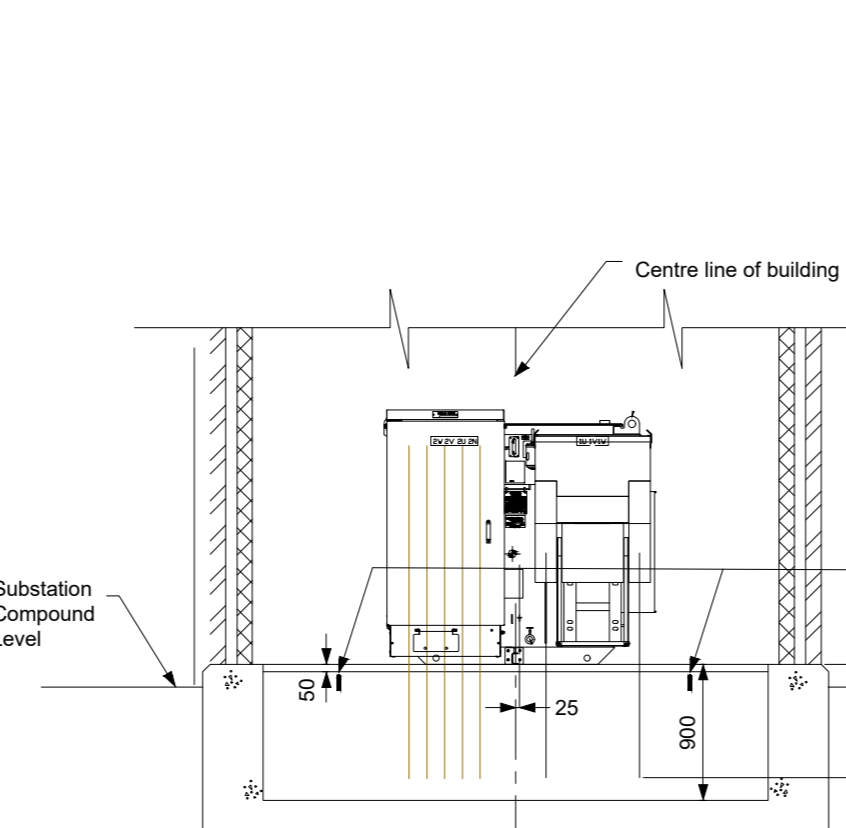
SIDE GABLE ROOF OPTION REAR ELEVATION



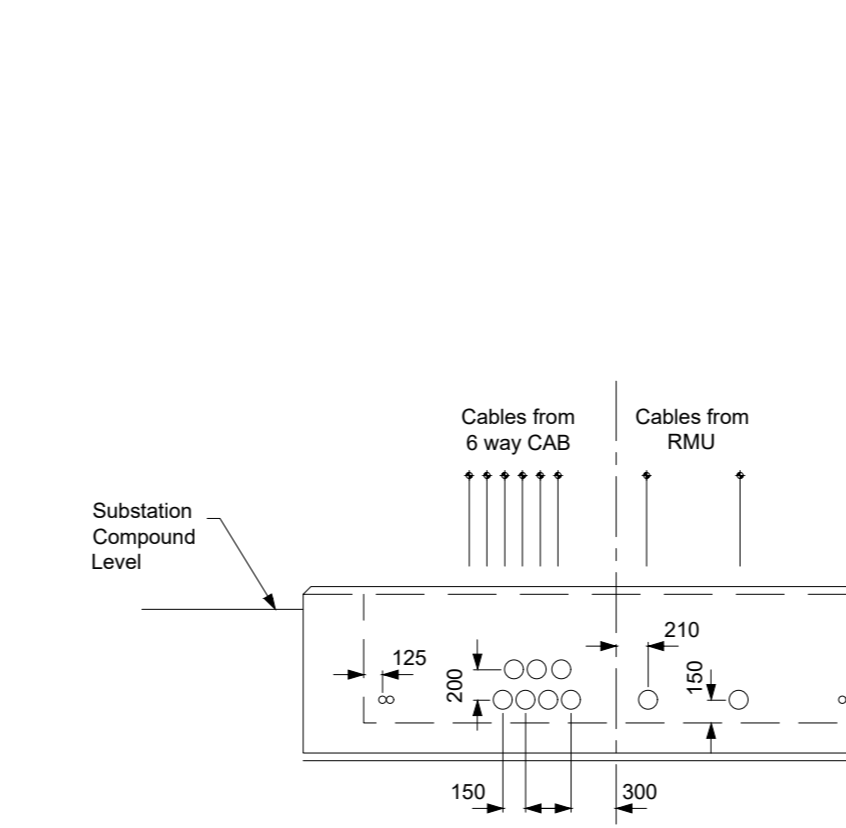
SECTION A-A



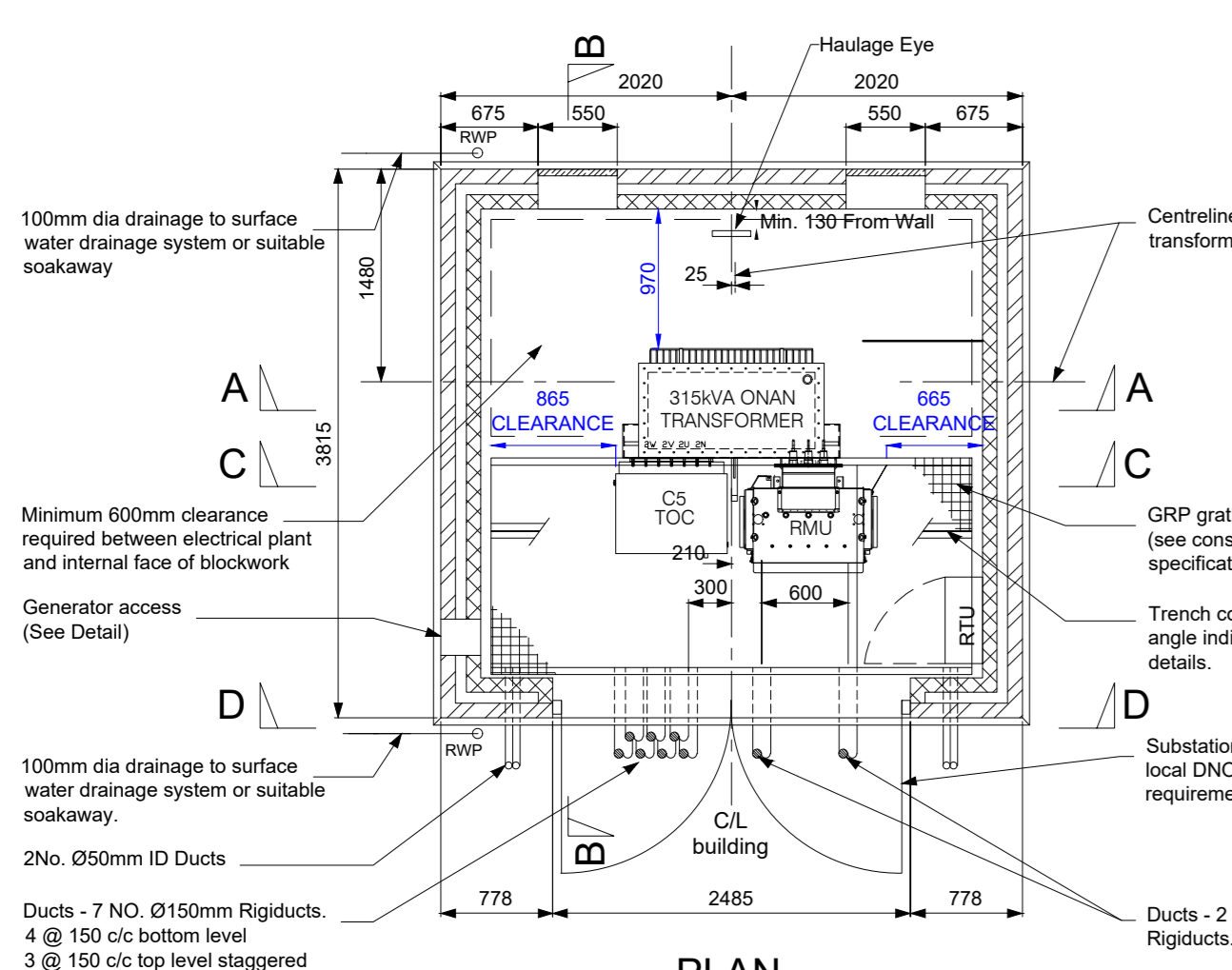
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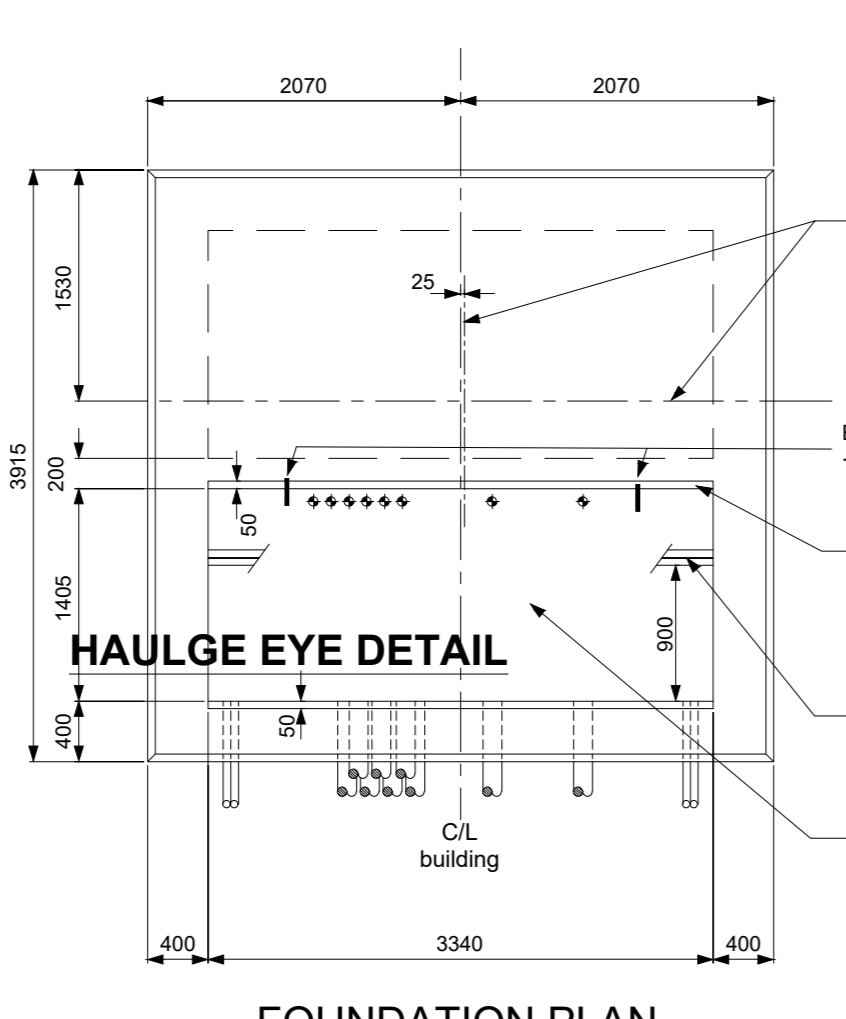
SECTION C-C



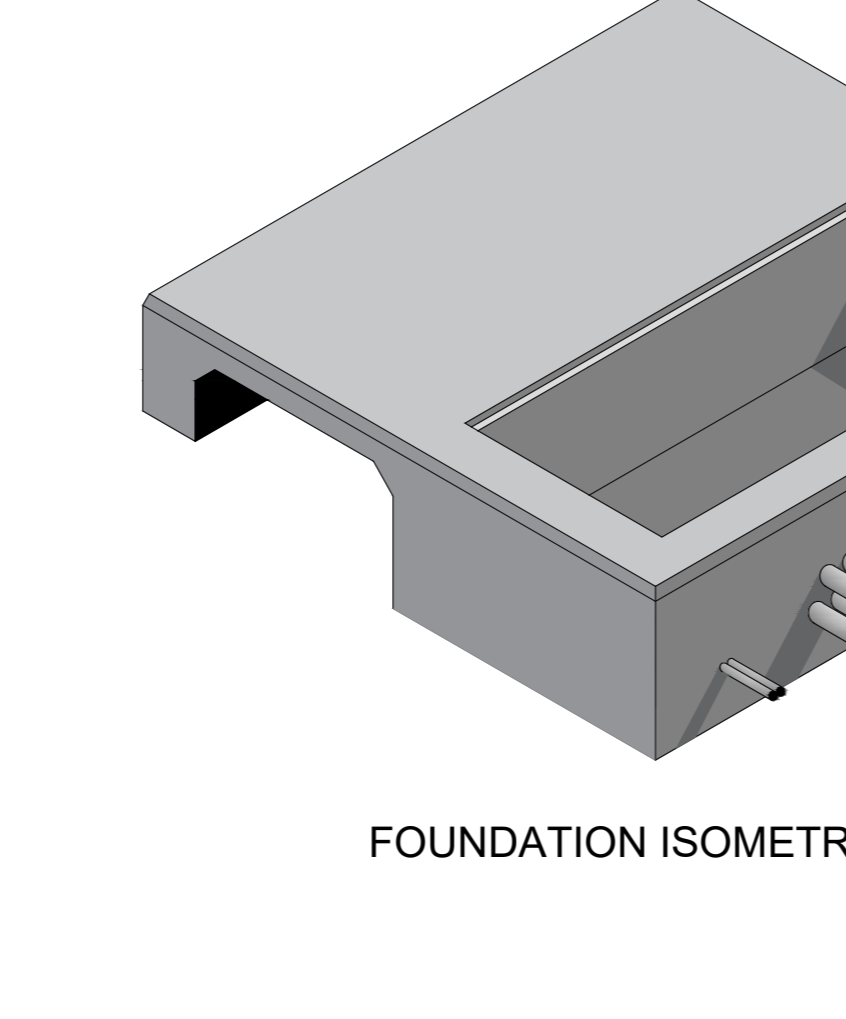
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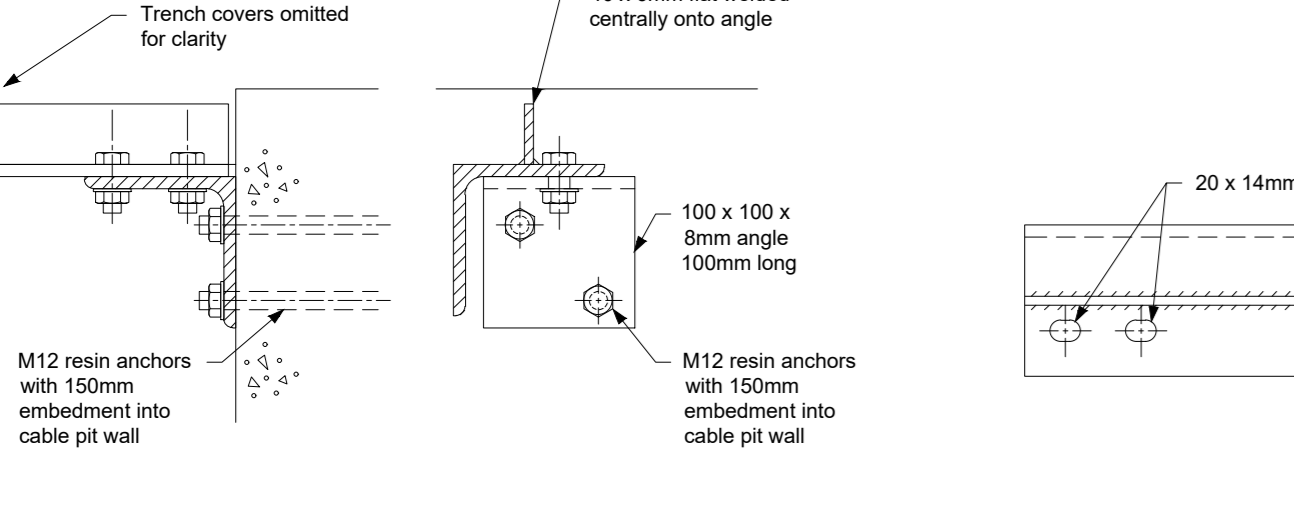
PLAN



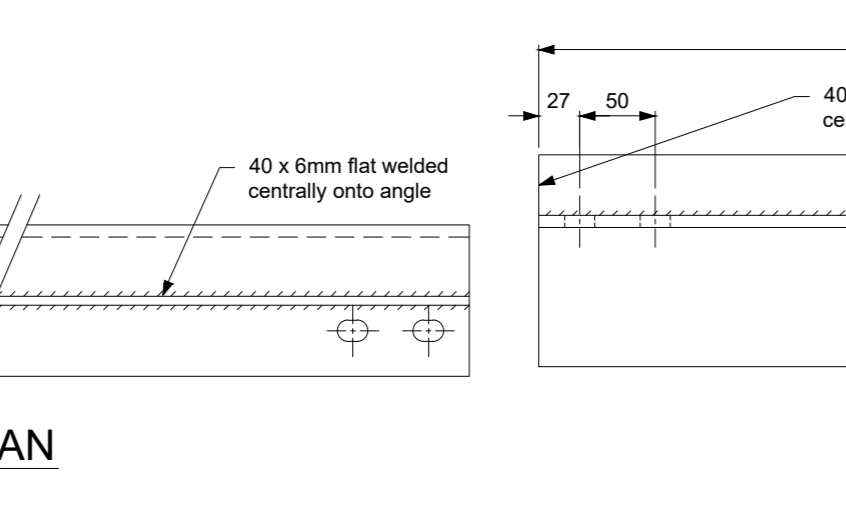
FOUNDATION PLAN



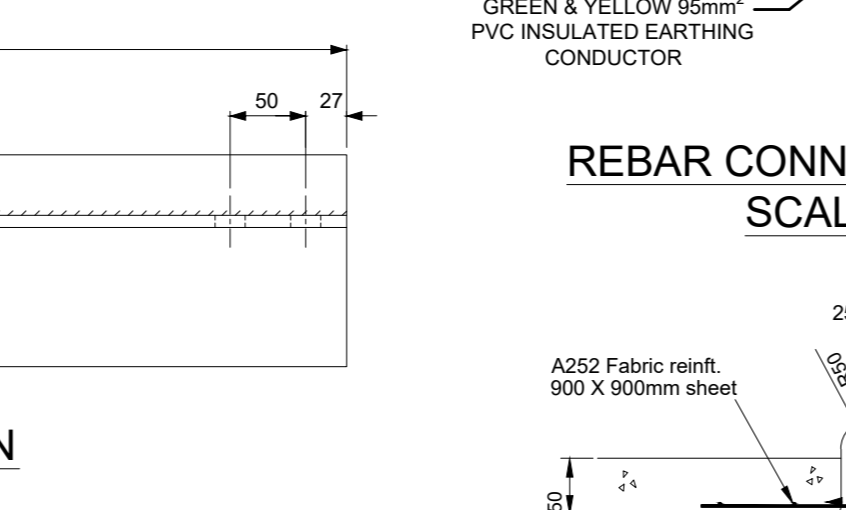
HAULGE EYE DETAIL



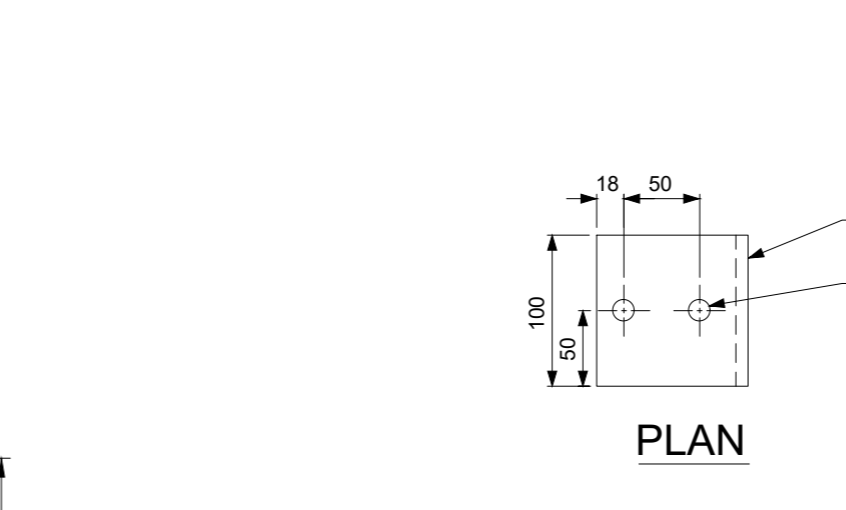
TRENCH COVER SUPPORT ANGLE ON BRACKET DETAIL SCALE 1:5



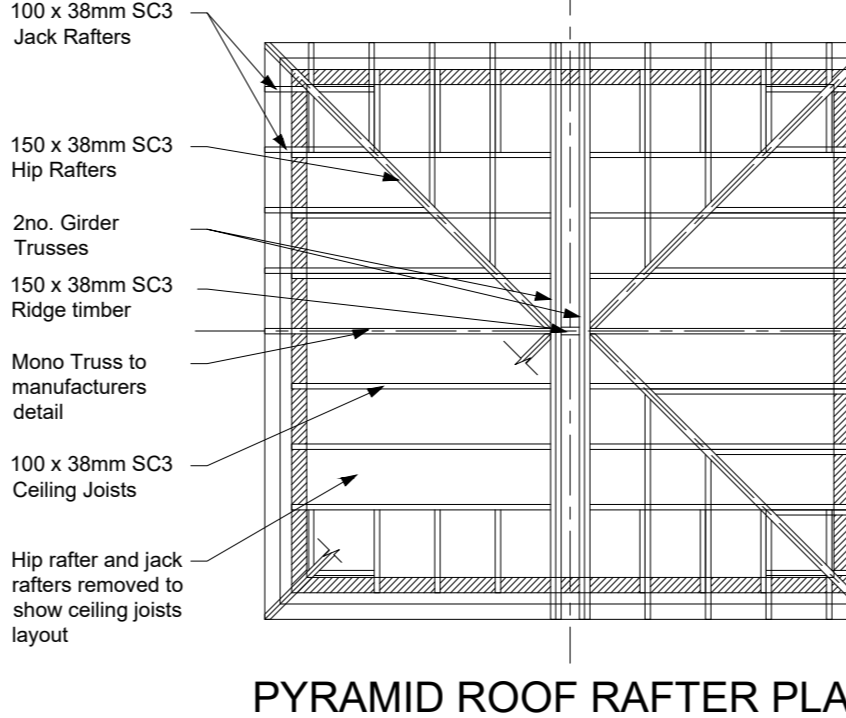
TRENCH COVER SUPPORT ANGLE SCALE 1:5



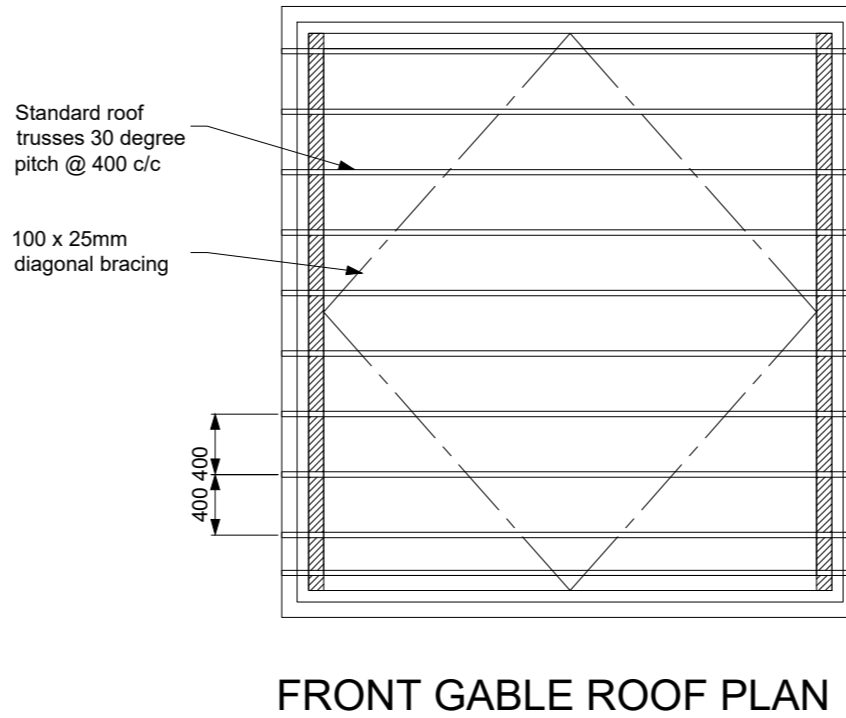
REBAR CONNECTION DETAIL SCALE: NTS



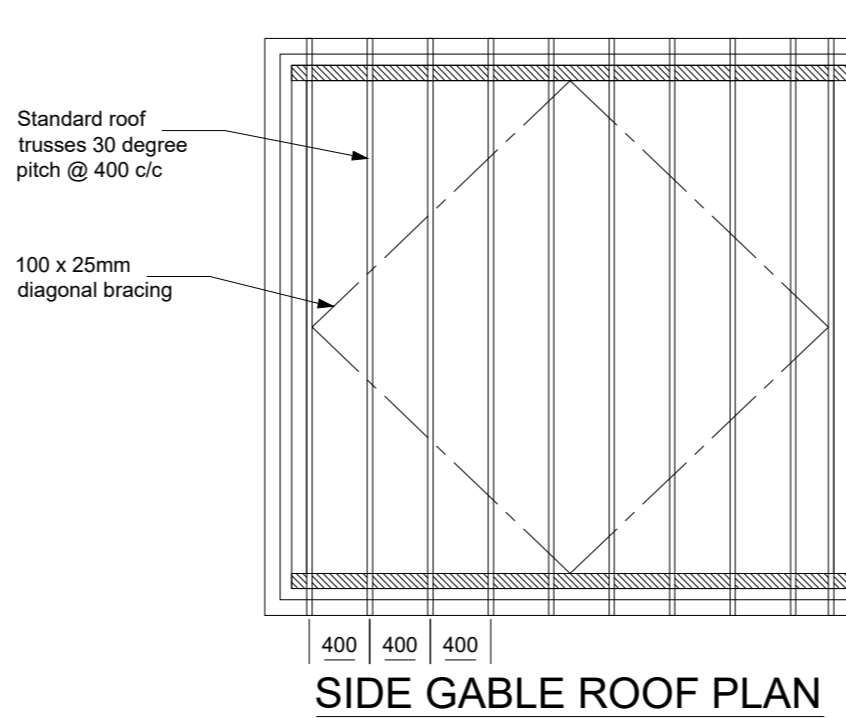
ANGLE BRACKET 2 N SCALE 1:5



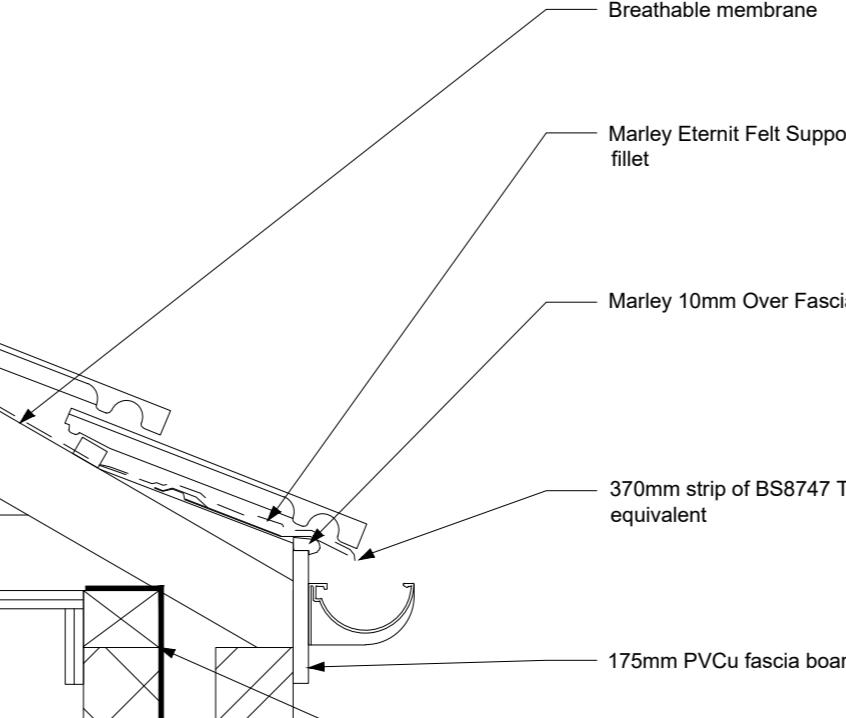
PYRAMID ROOF RAFTER PLAN



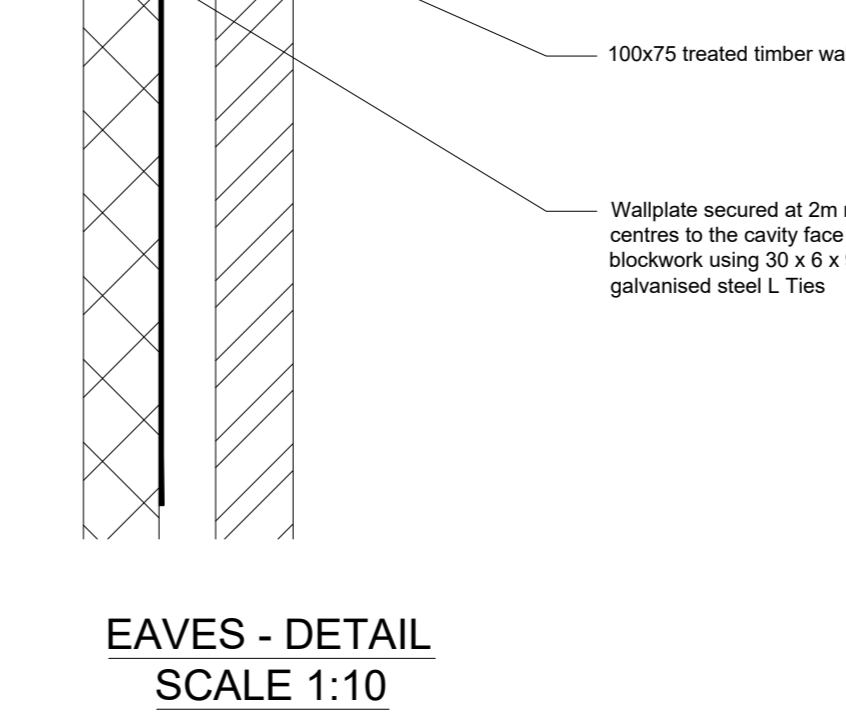
FRONT GABLE ROOF PLAN



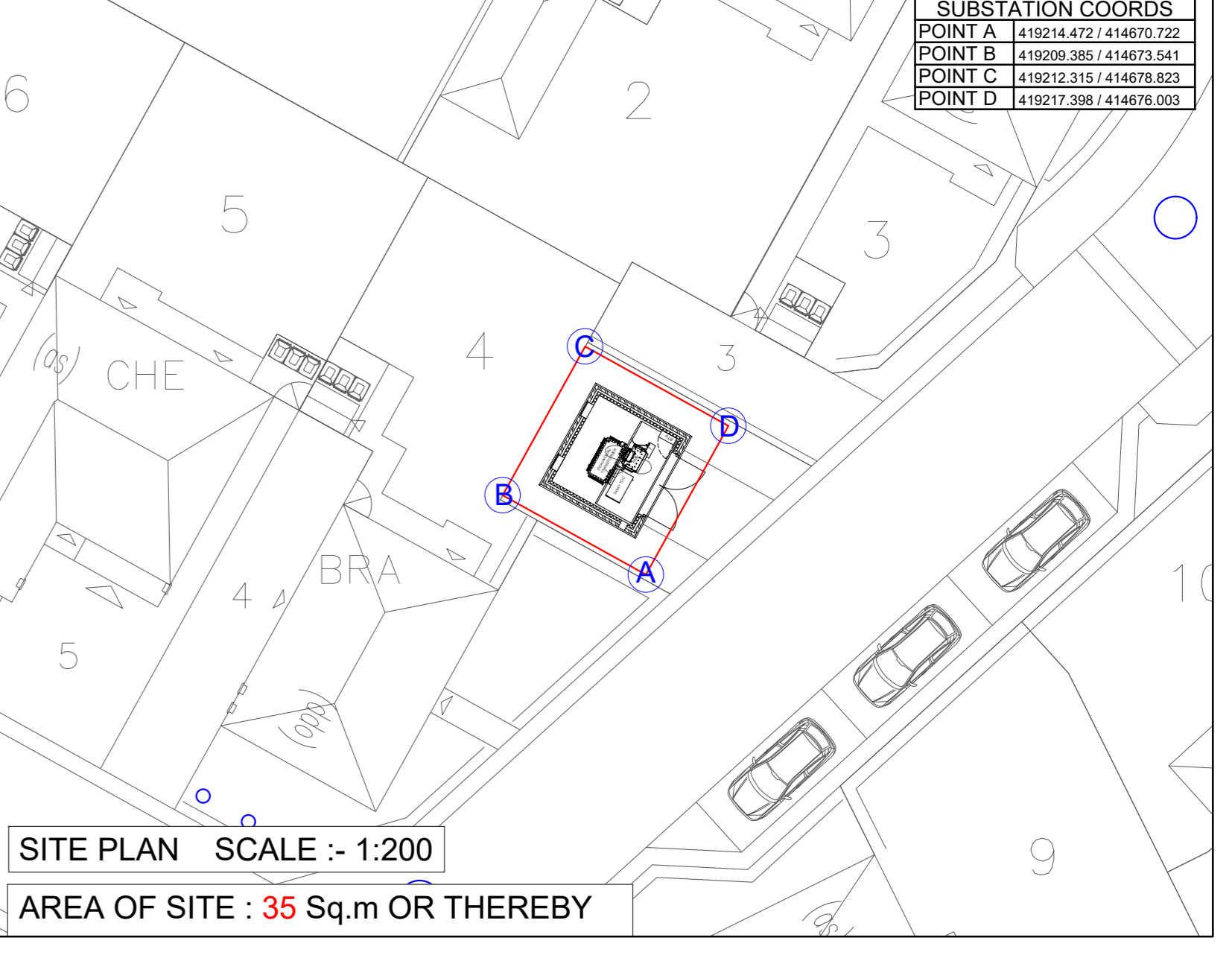
SIDE GABLE ROOF PLAN



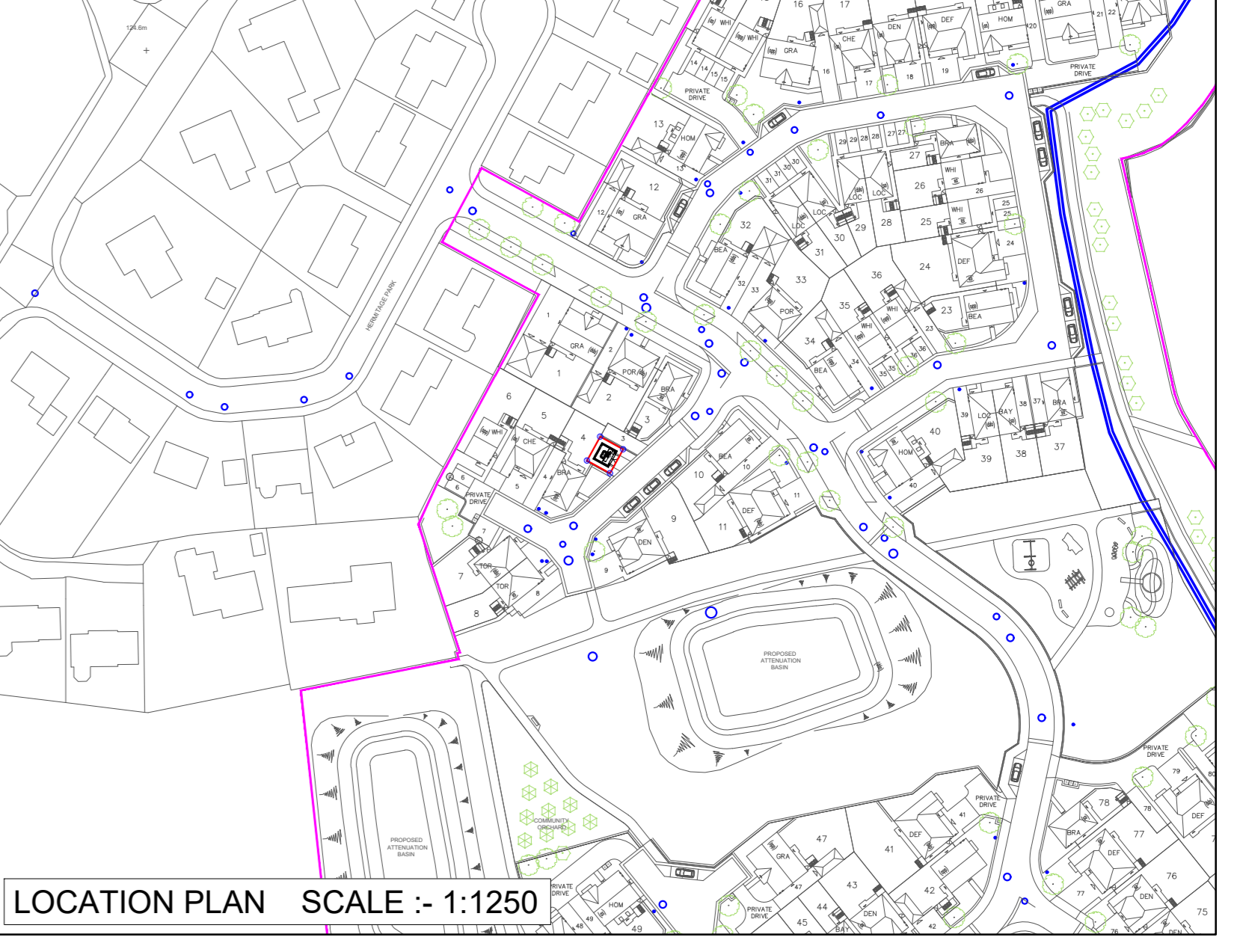
EAVES - DETAIL SCALE 1:10



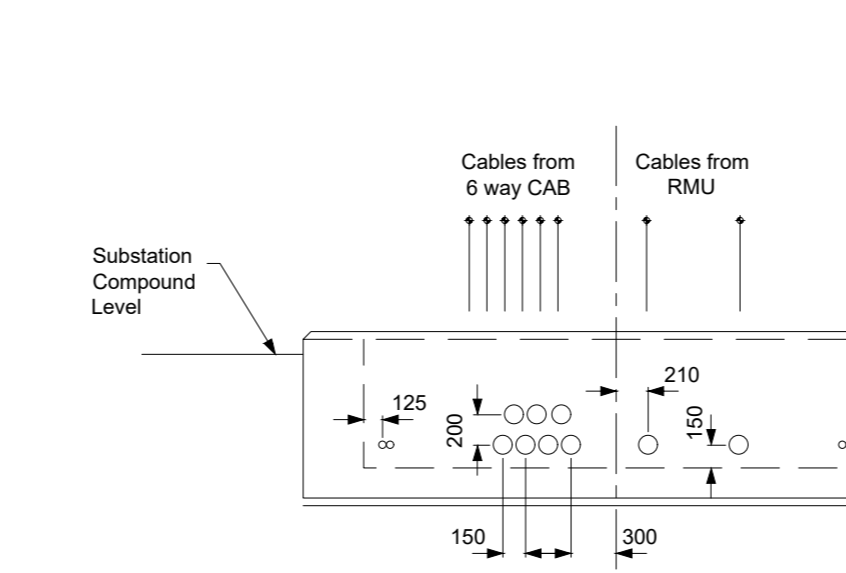
GABLE ROOF VERGE - DETAIL SCALE 1:10



SITE PLAN SCALE :- 1:200
AREA OF SITE : 35 Sq.m OR THEREBY



LOCATION PLAN SCALE :- 1:1250



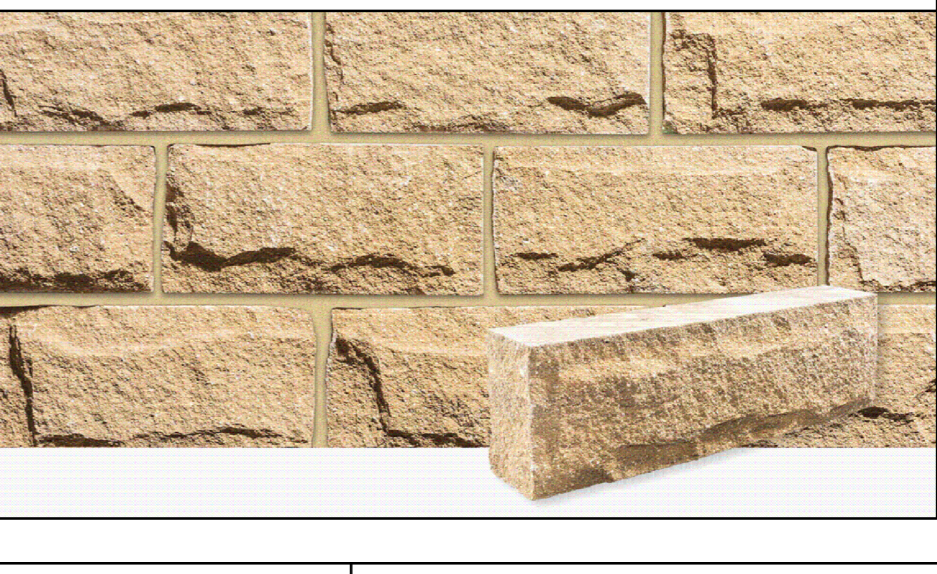
FOUNDATION ISOMETRIC VIEW

Plant shown in drawing is based on Schneider Electric 1000kVA Transformer and C5 TOC
Drg No. ADH1014200

THE PROVISION AND INSTALLATION OF SMALL POWER & LIGHTING AND ASSOCIATED DUCTING REQUIREMENTS ARE THE RESPONSIBILITY OF THE CUSTOMER AND SHOULD BE TO HOST DNO SPECIFICATION.

NOTES
This drawing is to be read in conjunction with SMC-EEC-202 Energetics Secondary Package Substation, Brick Built With Roof Variants, Civil Specification.
All work is to be carried out to the approval of Energetics.
Workmanship and materials to conform to the latest edition of the relevant codes of practice or British Standards and Eurocodes.
The contractor is to locate and divert services as necessary prior to excavation work. All proprietary materials and products to be installed in accordance with the manufacturers recommendations.
Foundations
Excavations to be kept free from water at all times.
All concrete to be grade C28/35 with min. cement content of 300 Kg/m³ and max. w/c ratio of 0.6. Cement to be Sulphate Resisting to BS 12. Aggregate to be 20mm max size. Cover to reinforcement to be 50mm. Minimum lap of A252 mesh reinforcement to be 400mm. Reinforcement mesh to be supported on proprietary chairs. Mesh is not to be broken into the concrete surface.
Floor slab, stairs and rear walls and base of cable pit to be 200mm thick C28/35 concrete with A252 mesh reinforcement as indicated. 50mm cover. Floor slab to be steel fixed finish to plus or minus 3mm ± 3m length.
Trench fill foundations up to underside of floor slab to be C28/35 concrete.
The concrete piers and chimneys above ground level, and external to the building to be Type 8 finish to BS8115. The concrete should be thoroughly compacted and all surfaces should be true, with clear areas. Only very minor surface blemishes should occur, with no staining or discoloration from the release agent.
100kg (250mm) voqueven membrane between floor slab, laid on 25mm sand bedding, all on top of 150 thick well compacted sub base.
Masonry
Cavity walls to comprise 102.5mm outer leaf facing Reconstituted stonework laid in stretcher bond, 75mm un-insulated cavity, and 100mm 7/6mm2 fair face dense concrete block inner skin. Facing stone to be F2.52 quality. Stone colour and type to be agreed with the local planning authority.
Outer leafing stonework and inner leaf face blockwork to have bucket finish finish. Mortar designation is to be BS5628, 1:6 cement sand with plasticiser for all stonework and blockwork above DPC.
Wall ties to cavity walls to be Type 2 to PD 6697 (Masonry General Purpose). Ties at 400mm vertical and 900mm horizontal staggered centres.
Wall ties to be placed 25mm from door and vent opening reveals at 225mm vertical centres.
All air door and vent openings, the cavity to be closed with blockwork and vertical / horizontal DPC.
Sub to be constructed using reconstituted Stone.
Lintels
Lintel over double door to be IG Ltd. L11675 2850mm long.
Lintels over vents to be IG Ltd. L11675 900mm long.
Cable Pit Covers
Cable pit covers to be 50mm thick GRP gratings, light grey in colour, with 50mm x 50mm cellular structure and an anti-slip surface. Cable pit cover plate dimensions to be not greater than 1m x 1m. Minimum cable pit cover width to be 300mm.
GRP gratings to be supported on 50x50mm formed concrete recesses cast into the pit wall, or galvanised steelwork supports as per drawing details. Gratings to be seated level, without noticeable rocking and flush with the concrete floor level.
Gratings to be installed on completion of the floor construction, and cable cut-outs to be formed after cable installation.
Covers to be manufactured by Fibergate Ltd, or similar approved.
Small Power and Lighting
Small power and lighting to be installed in accordance with BS 7671.
Internal lighting to achieve a minimum lux level of 500 lux as per HSG 38.
Emergency lighting to be installed to meet BS 5266 part 1 and 2.
Security Doors
Security doors shall meet the requirements of the local DNO. The type (Steel or GRP) will be based on risk assessment and local DNO's requirement. Standard security doors to be 45mm thick flush double door set from 1.2m nominal thickness zinc coated steel.
Doors to incorporate locked handle top and bottom of each leaf.
Right hand leaf viewed from outside to open out, with a dual locking facility to meet the requirements of the local DNO. Passive leaf to be secured with 16mm spring loaded bolts for steel doors.
Both door leaves filled with 90 degree hot open door slugs. Each door leaf to have a minimum of 3 horizontal heavy duty stainless steel hinges with dog bolts.
Door sets to be fitted with weather seals.
An overpanel with a removable transom and may be required, which shall be of the same construction as the door leaves. The removable transom shall be securely bolted to place internally to allow normal operation of the doors.
Door frame to be the polymer powder coated with colour to suit customer / Planning Authority requirements.
Door frames to be 50mm nominal thickness zinc coated steel sheet to BS EN 10152 (BS6687). Construction can be either single or double rebate providing there is sufficient wall to cover any vertical dangle profile courses, and to provide sufficient fixing points. Masonic pointing to frames external.
Vents
Two Joire vents to be positioned at the rear of the substation, as indicated on rear elevations. The type (Steel or GRP) will be based on risk assessment and local DNO's requirement. Each Joire vent to be made to suit 500mm wide by 750mm high structural opening. The type (Steel or GRP) will be based on risk assessment and local DNO's requirement.
Where steel vents are selected these are to be polyester powder coated in a colour to suit developer or DNO requirements, and fitted with an internal insect mesh.
Vents to be fixed internally using proprietary brackets and stone anchors to stone / block cavity walls.
Vents to be flush with stone face and mastic pointed all around framework.
Roof Construction
Roof tiles to be grey concrete tiles, or similar approved, on 25x30mm treated battens on breathable membrane on 30 degree pitch roof trusses / cables.
Mortar designation is to be BS5628, 1:6 cement sand with plasticiser for all stonework and blockwork above DPC.
Roof tiles to be designed by manufacturer and to be vac-tac treated. Trusses to be at 400mm centres.
Horizontal, diagonal and chevron bracing to be detailed as per manufacturers drawings. Ceilings to be double boarded with Promat Supalux boards, 12mm thick, staggered centres, to give 1 hr fire resistance. All joints to be sealed with intumescent mastic. Walls to be double boarded internally with Promat Supalux boards, 100mm wide x 12mm thick.
Other roof construction variants may be considered, subject to Energetics approval.
Paint Specification
There is no specific requirement for Energetics; however, internal painting should meet the requirements of the local DNO where they are to adopt it.
Structural Steel Work
All structural steel to be hot galvanised to BS EN ISO 1461:2009.
No galvanised steel work is to be out to suit on site.
Cable Ducts
100 Cable ducts shall be (ID) 125mm. Twin wall HDPE, complying with Energy Networks Association (ENA) Technical Specification 12.24. Plastic Ducts for Buried Electric Cables. All cable ducts are to be sealed on completion of cable installation. Cables installed in ducts are to be located in the duct before the sealing material is applied. The sealing material must conform to local DNO requirement which may be Polyfoam or expanded polystyrene foam.
Any earth wires to be positioned in cable ducts prior to sealing.
The use of GRP grating must comply with the following 7 points:
1. The floor area in front of or surrounding the substation plant is covered by proposed GRP grating which is composed of glass and/or a fully insulated material. Being fully insulated, the GRP grating is deemed very low risk and therefore is acceptable on the provision that the earthing system is fully compliant with ENA TS 4-1 (4-1) (2018) or EN 524.
2. The concrete base shall have embedded earthed re-bars.
3. Where the anti-slip design is such that its internal anti-slip surface is downwards into a trench, then GRP grating is not acceptable.
4. If the GRP grating is used instead of solid trench covers, it shall be fully rated for the duty and weight bearing load equal to or greater than solid trench covers.
5. The GRP grating is supported / located / inset into a suitable concrete pit/recess as per drawing details.
6. The GRP grating is of a shape and size that shall not slip or dislodge from the trench when the trench is open or full hazard can be created.
7. The GRP grating when in place forms a continuous level floor standing with the concrete pit/wall with no discernible change in level that may present a trip or slip risk.

RECONSTITUTED STONEMWORK



DESIGN APPROVED BY
NORTHERN POWERGRID
Date - 13.03.26

Rev	Revision Details	By	Date
001	Preliminary Design	J/DAM	16.09.25
002	Sub construction changed from Brickwork to Stonework. Notes updated.	B/MMM	25.11.25
003	Foundation Isometric View Added. Requested GRP Notes Added.	R/WMM	26.02.26

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Client: Miller Homes Wakefield

OS Grid Reference: 419232 / 414692

Drawn by: R. Wilson Checked by: M. MEEvey

Date Drawn: 26.02.26 Date Checked: 26.02.26

Sheet Size: A3 Scale: 1:5

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