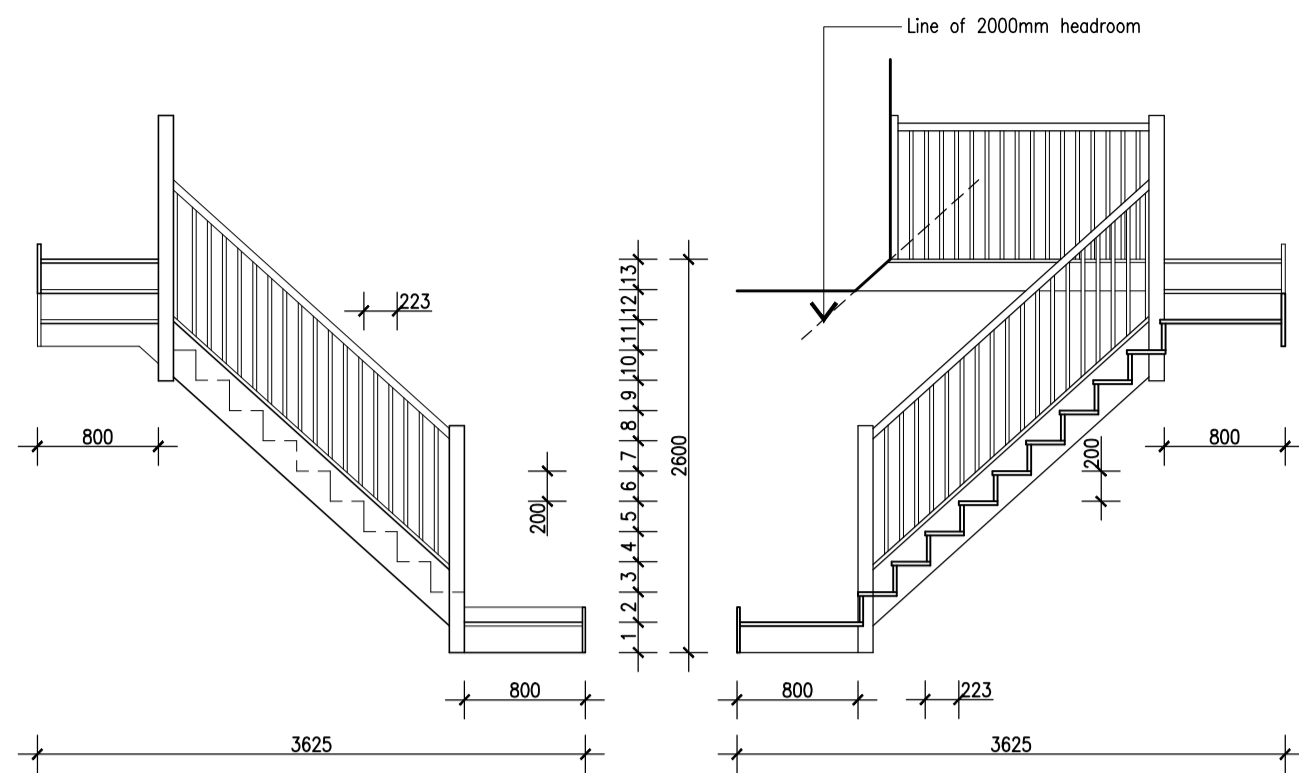
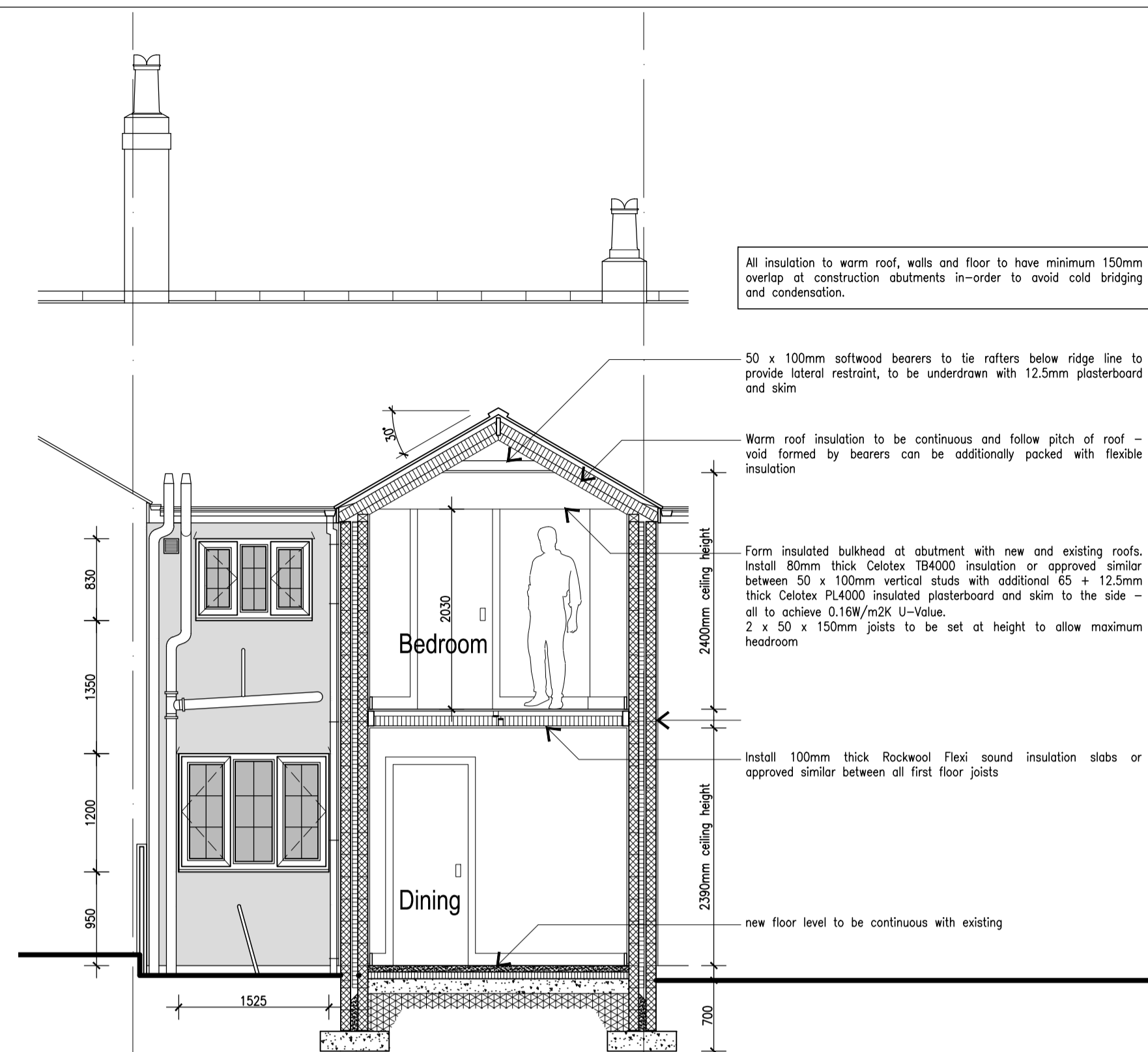


## Staircase Details



**Stairs:**  
To be constructed from 25mm thick softwood steps with 25mm thick risers in 275mm wide timber strings to comprise; 223mm goings with 13 x 200mm risers total rise to be approx. 2600mm - to maximum 42 degree pitch. Tapered treads to be minimum 50mm wide at the narrowest end. Minimum 200mm headroom to be maintained to new staircase measured from pitch line of stair to underside of new floor construction. Provide hand rail to one side of between 900 - 1000mm above pitch of stair, ex 32 x 32mm balustrades to be fixed at max 100mm centres, ex 100 x 100mm newel posts at top and bottom of flight as shown. Provide new half newel post of abutment with new internal partitioning, handrail and balustrades of 900mm high to form new landing.

## Section A-A



All insulation to warm roof, walls and floor to have minimum 150mm overlap at construction abutments in-order to avoid cold bridging and condensation.

50 x 100mm softwood bearers to tie rafters below ridge line to provide lateral restraint, to be underdrain with 12.5mm plasterboard and skim

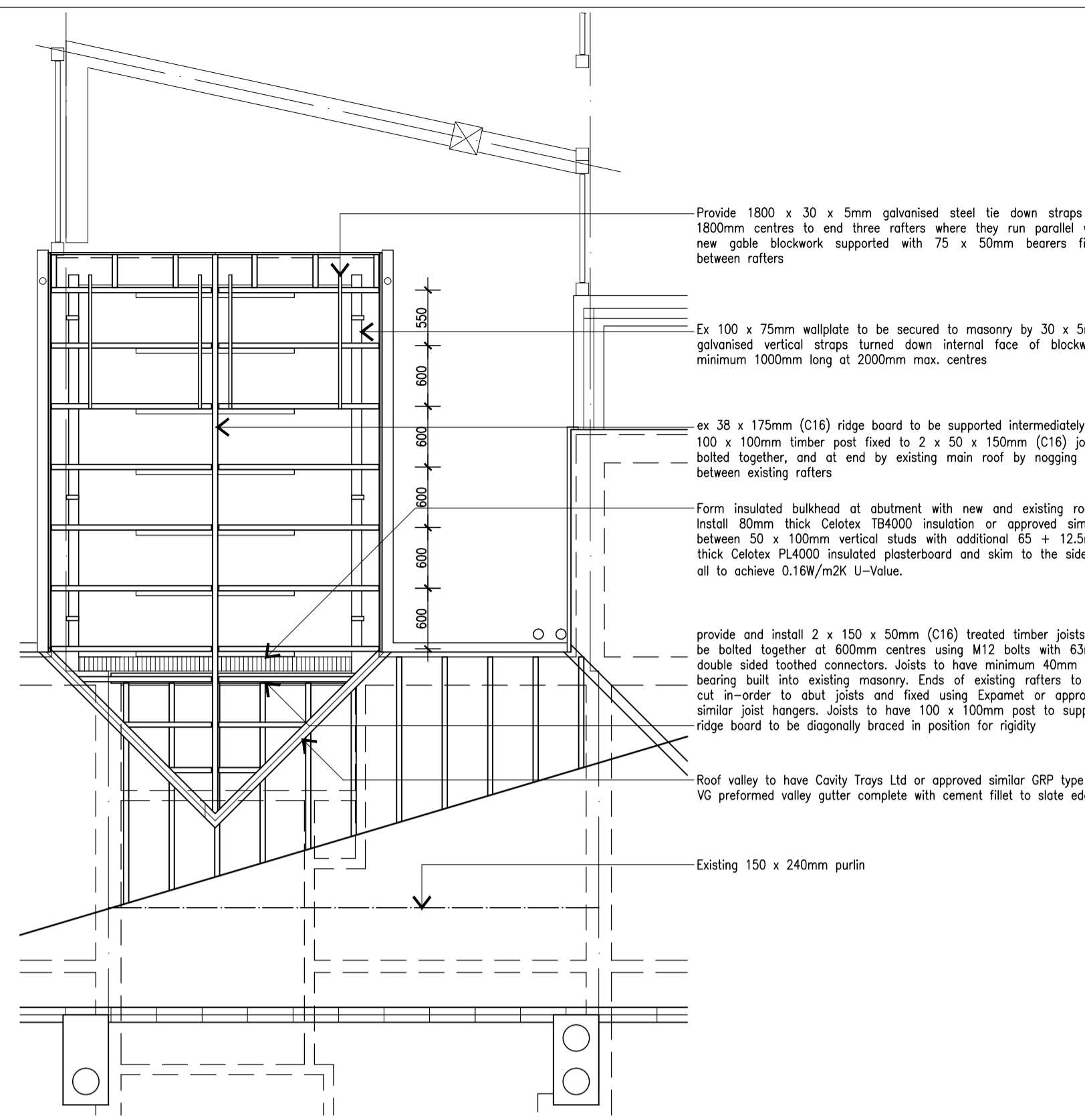
Warm roof insulation to be continuous and follow pitch of roof - void formed by bearers can be additionally packed with flexible insulation

Form insulated bulkhead at abutment with new and existing roofs. Install 80mm thick Celotex TB4000 insulation or approved similar between 50 x 100mm vertical studs with additional 65 + 12.5mm thick Celotex PL4000 insulated plasterboard and skim to the side - all to achieve 0.16W/m<sup>2</sup>K U-Value. 2 x 50 x 150mm joists to be set at height to allow maximum headroom

Install 100mm thick Rockwool flexi sound insulation slabs or approved similar between all first floor joists

new floor level to be continuous with existing

## Roof Structure



Provide 1800 x 30 x 5mm galvanised steel tie down straps at 1800mm centres to end three rafters where they run parallel with new gable blockwork supported with 75 x 50mm bearers fixed between rafters

Ex 100 x 75mm wallplate to be secured to masonry by 30 x 5mm galvanised vertical straps turned down internal face of blockwork minimum 1000mm long at 2000mm max. centres

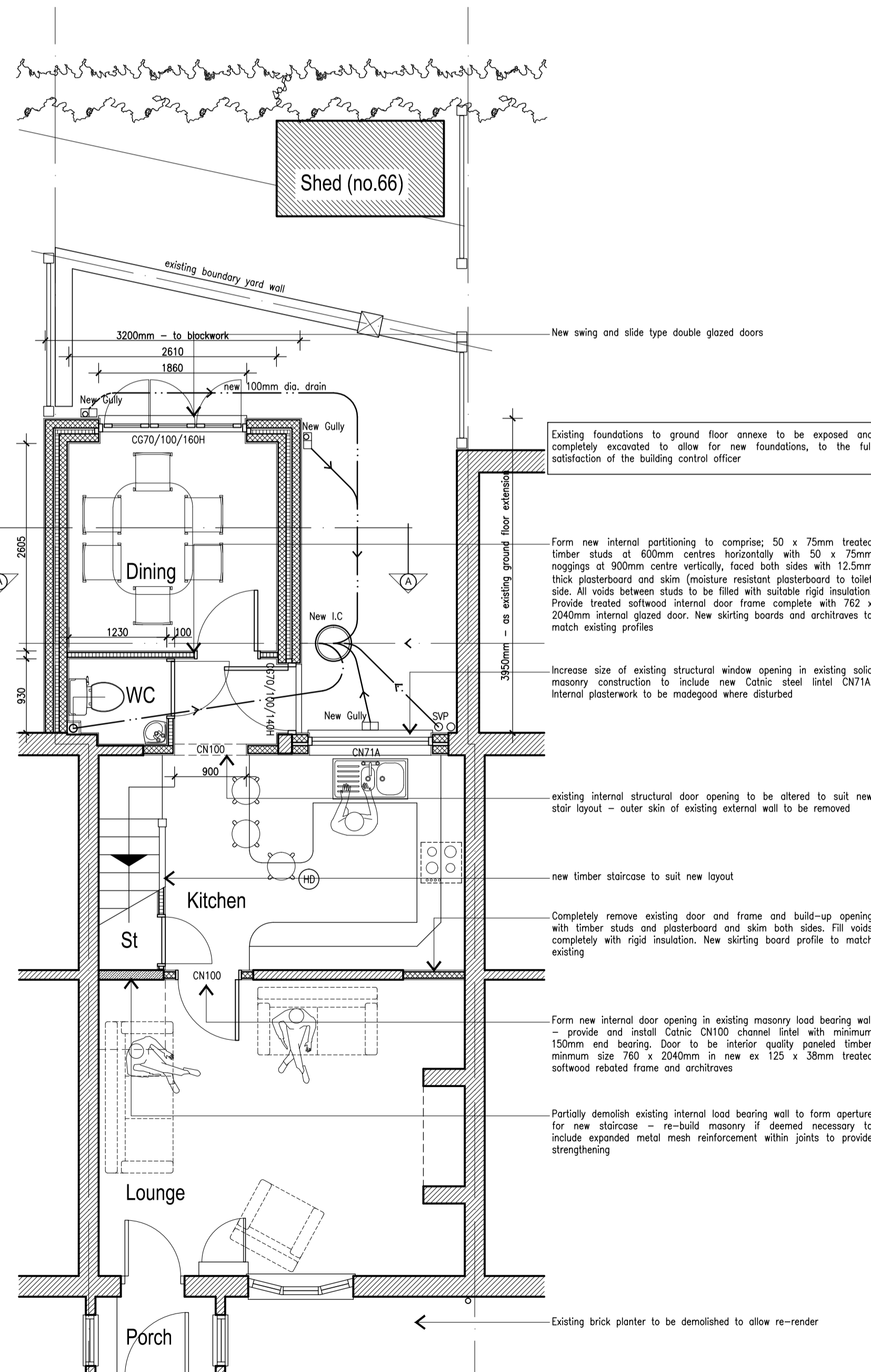
ex 38 x 175mm (C16) ridge board to be supported intermediately by 100 x 100mm timber post fixed to 2 x 50 x 150mm (C16) joists bolted together, and at end by existing main roof by noggling out between existing rafters

Form insulated bulkhead at abutment with new and existing roofs. Install 80mm thick Celotex TB4000 insulation or approved similar between 50 x 100mm vertical studs with additional 65 + 12.5mm thick Celotex PL4000 insulated plasterboard and skim to the side - all to achieve 0.16W/m<sup>2</sup>K U-Value.

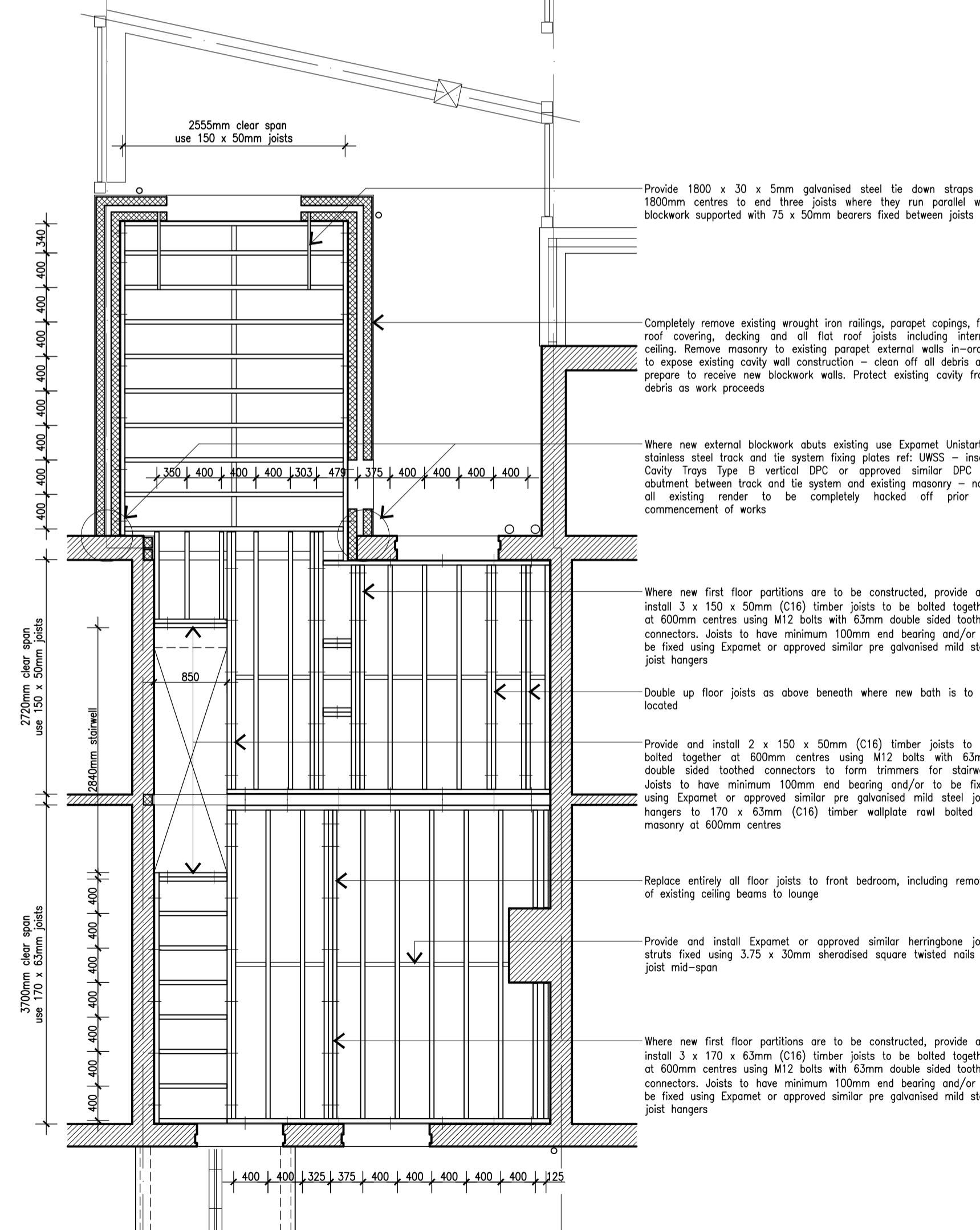
provide and install 2 x 150 x 50mm (C16) treated timber joists to be bolted together at 600mm centres using M12 bolts with 63mm double sided toothed connectors. Joists to have minimum 40mm end bearing built into existing masonry. Ends of existing rafters to be cut in-order to abut joists and fixed using Expamet or approved similar joint hangers. Joists to have 100 x 100mm post to support ridge board to be diagonally braced in position for rigidity

Roof valley to have Cavity Trays Ltd or approved similar GRP type VG preformed valley gutter complete with cement fillet to slate edge

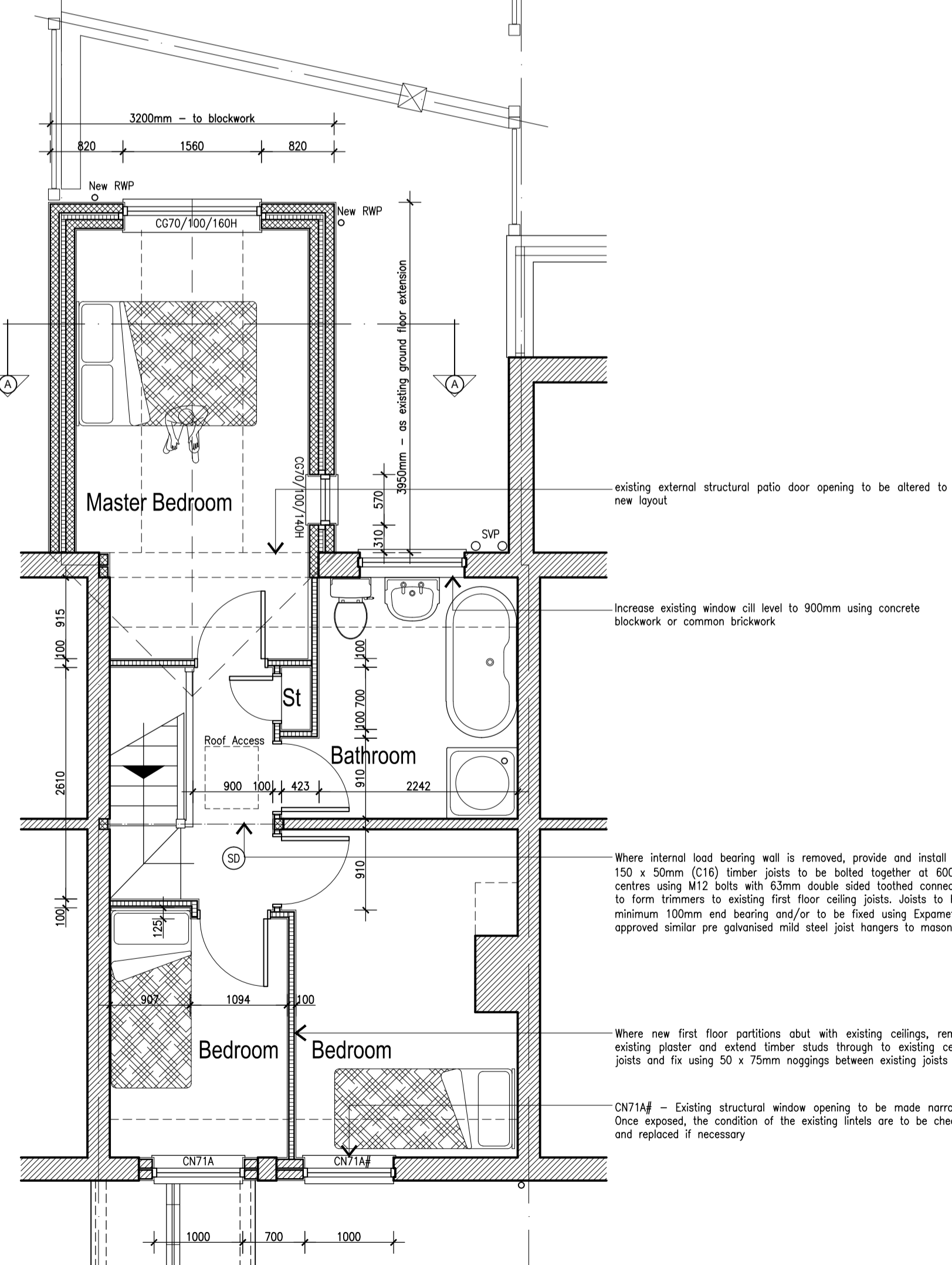
Existing 150 x 240mm purlin



## Ground Floor



## First Floor Joist



## First Floor

**General:**  
All work is to be carried out in accordance with local authority requirements, British Standards, Codes of Practice and manufacturers recommendations.  
All dimensions and levels to be checked on site prior to the commencement of work or the ordering of any materials or component parts.  
All structural timber is to be voc vac treated. All timber is softwood and is to be tanalised or primed for paint before fixing.

**Roof:**  
Pitched roof to be natural slate of equal size, colour and gauge with grey angular ridge tiles bedded in cement mortar on 25 x 38 battens on 38 x 38mm counter battens on Tyvek Supro breathable membrane or approved similar on 50 x 125mm rafters (strength grade C16) at 600mm centres. Rafters to be supported on new masonry on ex 75 x 100mm wallplate and at ridge using ex 38 x 175mm (C16) treated softwood ridge board.  
Install 80mm thick Celotex TB4000 insulation or approved similar between rafters complete with additional 65 + 12.5mm thick Celotex PL4000 insulated plasterboard and skim to the underside - all to achieve 0.16W/m<sup>2</sup>K U-Value.  
Existing main house roof - install 100mm thick Rockwool Roll between ceiling joists and an additional minimum 170mm thickness laid at 90 degrees over - total minimum thickness 270mm to achieve 0.16W/m<sup>2</sup>K U-Value. Existing insulation to existing roof to be upgraded accordingly.  
All rafters to be tied below ridge using ex 50 x 100mm bearers - to provide lateral restraint.  
Swish Building Products 'Ogee' or similar profiled fascia and barge boards to match existing to be white pvcu fixed to ends of rafters and loding to gables complete with white pvcu soffit board.  
Wallplate to be fixed to internal blockwork with 900 x 30 x 2.5mm galvanised steel straps at 1800mm centres max.  
Provide 1800 x 30 x 5mm galvanised steel tie down straps at 1800mm centres to end three rafters where they run parallel with new gable blockwork supported with 75 x 50mm bearers fixed between rafters.  
Roof valley to have Cavity Trays Ltd or approved similar GRP type VG preformed valley gutter complete with cement fillet to slate edge.

**Masonry:**  
Polymer external render on 100mm wide dense concrete blockwork (K-Value = 1.13 W/m<sup>2</sup>K), laid in stretcher bond in 10mm sand/cement mortar, 75mm cavity partially filled with 50mm thick Celotex CG5050 cavity wall insulation or approved similar rigid insulation with stainless steel cavity wall ties complete with insulation retainers at 900mm centres horizontally and 450mm centres vertically with additional ties around openings, 100mm thick canted flightweight blockwork (K-Value = 0.15 W/m<sup>2</sup>K) laid in stretcher bond with 10mm thick sand/cement mortar with 13mm thick plasterboard on adhesive dabs and Corfix board-finish plaster skim internally - all to achieve (S) 0.26W/m<sup>2</sup>K U-Value.  
Provide and fix Expamet Unistarter stainless steel track and tie system fixing plates ref: UWSS or approved similar where new brickwork/blockwork abuts existing.  
All cavities are to be continuous and closed at door and window openings with 'Cavity Trays' type H2 Cavitocloser or approved similar. Cavities to be closed at eaves using fibrous board bedded in cement mortar.  
Provide preformed Cathic steel lintels over all new openings, reference numbers shown on plan with minimum 150mm end bearing. Provide cavity trays Ltd preformed type C cavity trays complete with stop ends dressed over lintels to new external brick openings. All voids in lintel profile to be packed with flexible insulation material.  
Provide and install to both skins 100mm wide Cavity Trays Ltd Cavirill premium dpc or approved similar pitch polymer d.p.c. at 150mm above finished ground level.  
Sub-structure brickwork to comprise; two skins of concrete common bricks or approved trench concrete blockwork, 90mm cavity with ties as above filled to within 25mm of d.p.c with lean mix concrete chamfered to external leaf.  
Ground Floor:  
Floor to comprise; 65mm thick sand/cement screed on 1000 gauge polythene separation layer on 70mm thick Celotex FFS70 insulation slabs on 1200 gauge vitreous d.p.m with all joints taped and dressed up blockwork and tucked under d.p.c on 150mm thick grade C20P concrete floor slab with B283 steel mesh reinforcement (50mm min top cover) all to achieve 0.22w/m<sup>2</sup>K U-Value. 150mm thick hardcore compacted in layers and blinded with sand.  
Provide Celotex or approved similar perimeter insulation where floor slab abuts new masonry.  
All existing adjacent internal floors are solid - no ventilation required.

**Foundations:**  
To be 700 x 200mm thick grade C20P concrete strip foundations built off firm load bearing strata minimum 600mm below finished ground level to the complete satisfaction of the building control officer.  
Depth to correspond with invert levels of all drains within 1000mm range (which ever is greater).  
Existing foundations to existing external walls to be exposed to establish their size and suitability to the complete satisfaction of the local authority building control officer.

**Internal Partitions:**  
Form new internal partitioning to comprise; 50 x 75mm treated timber studs at 600mm centres horizontally with 50 x 75mm treated timber studs at 900mm centre vertically, faced both sides with 12.5mm thick plasterboard and skim (moisture resistant plasterboard to bathroom). All voids between studs to be filled with suitable rigid insulation. Provide treated softwood internal door frame complete with 762 x 2040mm internal doors. New skirting boards profile to match existing.

**Sherwood**  
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Status: **Building Regulations**

Client:

Project: **Proposed Rear Extension and Internal Alterations**

Title: **Proposed Layout (1 of 2)**

Scale: 1/50 @ A1 Date: February 2015 Drawn: Rob Sherwood

Drawing Number: **2014-09-03.1** Revision:

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