

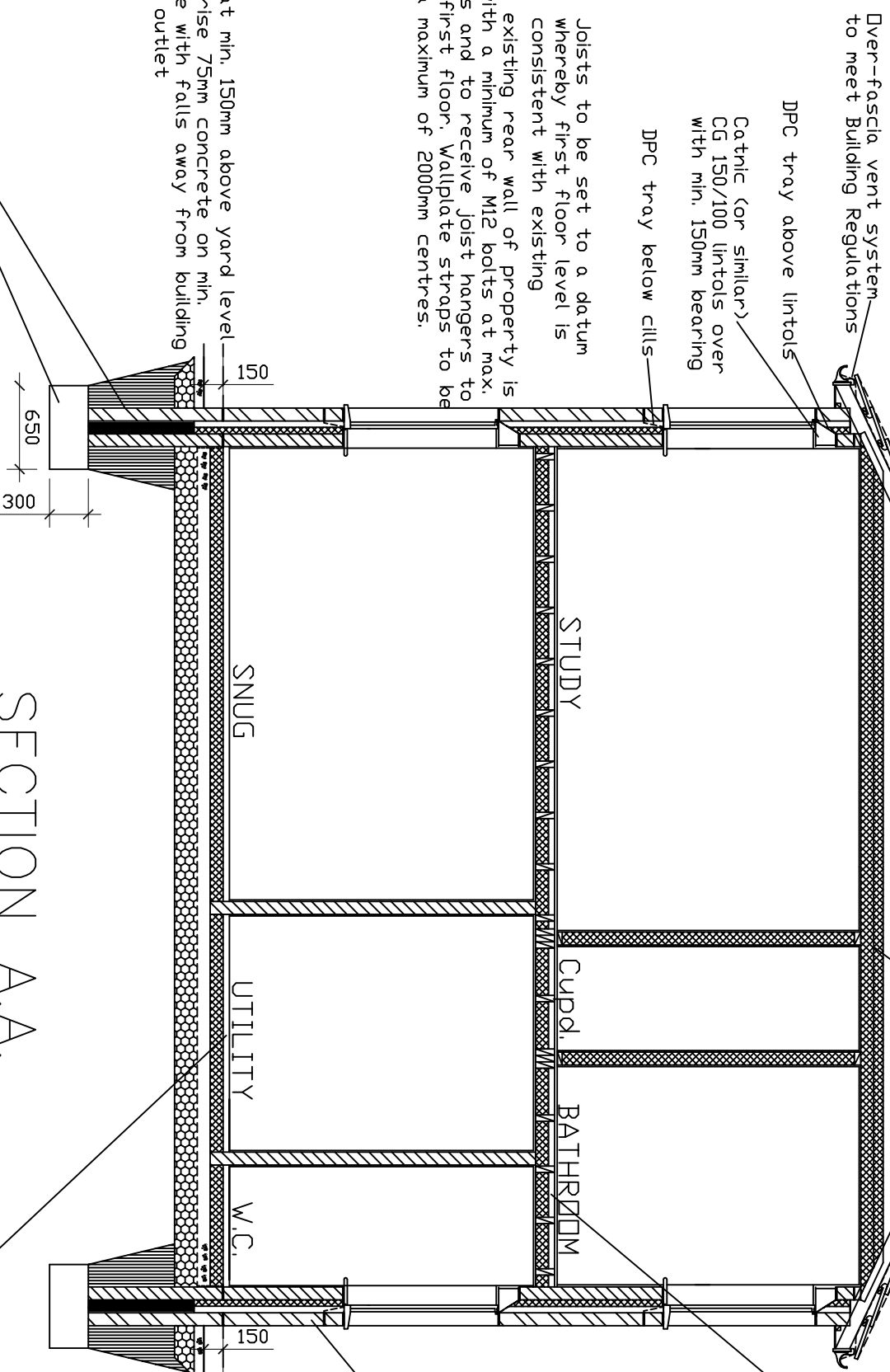
Detail in addition to already indicated must comply in all respects with the current Building Regulations and any allied legislation. All pipes and tanks in attic void.

Continuous 5mm ventilation gap to be provided at ridge level and over fascia vent system to be provided at eaves to satisfy the Building Regulations. Gable ladder to BS 5268 Pt.3:1985 secured to cavity wall with 900x30x5mm galv. mild steel straps at max. 2000mm c.c. straps to reach uncut blocks. Roof trusses to be similarly fixed using lateral restraint straps at maximum of 2000mm centres. Provide 100x25mm bracing as reqd. by Truss Manufacturer.

Over-fascia vent system to meet Building Regulations. DPC tray above lintols. Catnic (or similar) CG 150/100 lintols over with min. 150mm bearing. DPC tray below cills. Joists to be set to a datum whereby first floor level is consistent with existing. Wall plate to existing rear wall of property is to be fixed with a minimum of M12 bolts at max. 600mm centres and to receive joist hangers to support new first floor. Wallplate straps to be provided at a maximum of 2000mm centres.

DPC level at min. 150mm above yard level. Yard to comprise 75mm concrete on min. 75mm hardcore with falls away from building to a suitable outlet.

## SECTION A.A. CONSTRUCTION DETAIL



Roof construction to comprise interlocking roof tiles or reconstructed slate finish on treated s.w. battens installed to BS5534 : 2015 on Tyeck breathable membrane on trusses supplied and designed by Specialist to BS268 Part 3 1985 and to include all necessary temporary & permanent struts, trimmers, ties, binders and bracing. Roof and ridge tiles are to be mechanically fixed to BS5534 : 2014. Calculations to be provided by Truss Manufacturer for approval prior to fixing of truss.

Roof insulation to be cross lapped between and over ceiling joists and comprise 100mm Kingspan Kooltherm K107 between joists with 75mm Kooltherm K107 laid over joists in opposite direction to provide a U value of 0.12W/m<sup>2</sup>K. Alternative insulation combinations can be utilised providing they satisfy the minimum U value of 0.13

All new windows to be upvc double glazed with a 20mm air gap and low E glazing. Cavity to be closed at sill level with an insulation block to prevent thermal bridging. Provide Catnic or similar insulated steel lintols over openings with 150mm end-bearing and cavity tray over. Provide lead core or similar insulated dpc around all external openings. New windows to meet 1.4 W/m<sup>2</sup>K U value and horizontal and vertical dpc to be provided to all cavity closures such as eaves, cills and reveals throughout the construction.

22mm T&G flooring grade moisture resistant chipboard type C4 to BS8201:2011 fixed in accordance with manufacturers recommendations on 145 x 47mm C16 floor joists as indicated to BS EN 1995-1-1:2004+A2:2014.

100mm thick Rockwool Flexi insulation laid between the floor joists to provide sound insulation, minimum weight of insulation to be 10kg/m<sup>3</sup>. All joists are to be regularized in depth unless otherwise stated on drawings. Joists shall be 25-75mm clear of wall face when running parallel. Joists to include herringbone strutting, plasterboard support at all wall and ceiling junctions. Floor joists to be restrained when running parallel to external wall with 30x5mm mild steel straps @ max. 2000mm centres and built into blockwork inner skin.

Trimming joists where necessary to be doubled up joist size floor members bolted together @ 600mm c.c. with 12mm bolts with dog toothed type washers. Timber to timber connections to be made using type TTL Catnic or similar approved galvanised mild steel joist hangers fully secured to timbers with manufacturers recommended fixings.

38x38mm herringbone strutting @ the mid-point span of floor joists where the distance between is between 2.5 and 4.5 metres and at every third of the span where gap exceeds 4.5 metres. Strutting is not required below 2.5m. New cavity wall to proposed extension to comprise 100mm external skin of face brick/rendered blockwork, 150mm cavity with 220mm flexible stainless steel wall ties spaced at 750mm horizontal & 450mm vertical to BS1243. 100mm Kingspan Kooltherm K108 insulation board to cavity to leave 50mm clear to external skin 100mm concrete blockwork internal with 9.5mm plasterboard on 15mm plaster dabs cavity & 3mm skim. Wall to achieve min. U value of 0.18. Catnic CG 150/100 lintols over openings with min. 150mm end bearing & 225mm long cavity wall ties. Cavity to be sealed at eaves with non-combustible cavity barrier such as 6mm masterboard or gypsum based boards of minimum 12mm thickness. Cavities to be closed at the external door/window reveals with Kingspan Kooltherm vertical cavity closer or similar approved to suit cavity width and are to lap into cavity tray upstands fitted to all ground floor openings with weepholes at max. 450mm centres and min. of 2 per opening. All frames to be bedded at their cills on impregnated foam strips, pointed to their perimeter externally with an approved mastic compound with a polyethylene strip backing & sealed from the inside generally with expanding polyurethane foam. Cavity trays to extend a minimum of 25mm beyond the cavity closer and cover the ends of the lintols and in turn to be closed at their end with proprietary cavity tray stop ends. Tray to rise a min of 140mm above the top of the opening.

Min. 65mm reinforced self leveling screed on a 500 gauge vapour controlled layer/membrane draped over 100mm Kingspan Kooltherm K103 insulation board or similar approved to achieve a U value of 0.15W/m<sup>2</sup>K and turned up under dpc at wall abutments. Joints to be taped between insulation boards. Insulation to be laid on 100mm mass concrete floor slab (1:3:6) mix C30 N/mm<sup>2</sup> with a separating layer of minimum of 500 gauge polythene between. 20mm nominal coarse aggregate on 1200 gauge Visqueen dpm and Radon protection. Membrane to BS8215:1991. Dpm to lap with new cavity tray fitted at dpc level throughout new building works. All joints to be lapped, folded and taped on 50mm sand blinding on minimum of 150mm compacted/consolidated hardcore. Where site levels require hardcore in excess of 150mm then lay & compact in max. 225mm layers.

### PROJECT

PROPOSED IMPROVEMENTS/ALTERATIONS  
9, BRYN OWAIN,  
PENYRHOL,  
CAERPHILLY.

### DRAWING CONSTRUCTION DETAIL - SECTION A.A.

SCALE 1:50 @ A3 DATE DECEMBER 2023  
DRAWN RE DRG. NO. 7

Below ground cavity walls to be formed with Class A dense concrete blockwork 7N/mm<sup>2</sup> 20kg or Class B semi-engineering brickwork with thickness to match cavity walls above. Provide a minimum of 3 courses of facing brickwork from dpc level down to below existing ground level. All bed in (1:3) sand and cement mortar. Wall ties as described in external walls. Cavity to be filled with weak mix of concrete to within 225mm of dpc level. The foundations indicated are based on the assumption that ground conditions on site are good. If necessary the foundations are to be designed & detailed by a structural engineer appointed by the client. Foundations designed in accordance with BS8004 2015 / BS EN8103-1: 2011 Code of Practice for Foundations. Profile of foundations as indicated in sections, generally 650x300mm mass concrete grade C25/20 - 20N/mm minimum strength, 20mm nominal coarse aggregate to CP 2004 foundations taken down to firm natural soils with minimum safe allowable bearing pressure of 110kN/m<sup>2</sup>. Excavation for foundations to be taken down to a minimum of 760mm below existing ground level to the satisfaction of L. A. building control officer.