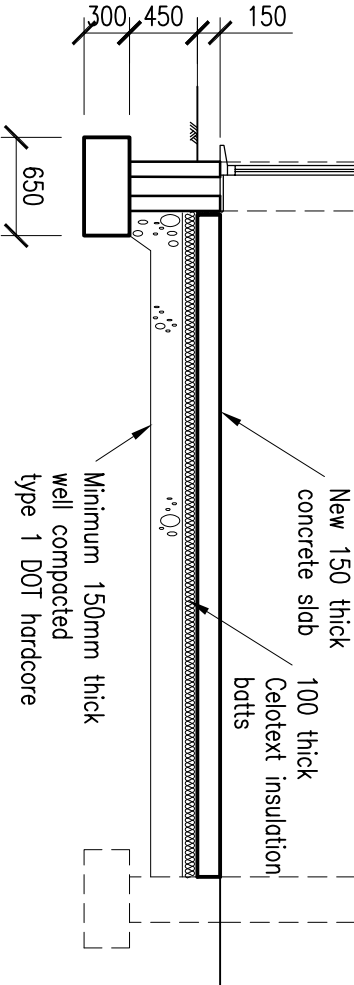


Fibreglas covered flat roof (below 1st floor window only). Rafter and trimmers doubled up both sides of flat roof.

75x100 s.w. wallplate

Line of structural beams beyond to Struct Engineers design

Beams/lintels over bi fold doors to Struct Engineers design



TYPICAL SECTION THROUGH PROPOSED EXTENSION

FOUNDATIONS TO CAVITY WALLS:

650mm wide mass concrete strip foundations to new external cavity walls, minimum depth of 300mm deep, taken down to suitable natural undisturbed ground which is to be approved by Local Authority Building Inspector. Final depth of foundations to be determined on site at time of excavation. Contractor to report to building inspector if the excavation reveals any variation to assumed good ground conditions immediately, so that alternative foundation construction can be agreed and incorporated on site. Foundations to be taken down to a depth so as to avoid any loads being imposed onto adjacent drainage.

VENTILATION:

Extract ventilation to be installed to kitchen with minimum capacity of 15 l/s with 15 minute overrun vented through external walls. Habitable rooms to have an openable area of no less than 1/20th of floor area and trickle vents providing 5000mm² equivalent area of background ventilation. Non-habitable rooms to have an openable area of no less than 1/20th of floor area and trickle vents providing 2500mm² equivalent area of background ventilation.

HEATING:

Suitably sized double radiator to be installed into new extension and run off existing combination boiler. Installation Engineer to provide all commissioning certification and instructions to client upon completion of installation.

CONSEQUENTIAL IMPROVEMENTS:

Upgrade existing main roof loft insulation to meet with current building regs (part L1)
Overall thickness of fibreglas insulation quilting to be 300mm to achieve a U value of 0.16W/m²/°C

STEEL WORK SPECIFICATION:

All steelwork to be grade 43 unless noted otherwise.
Steelwork to be workshop blast cleaned (grade S2½) and to receive 2 No of zinc based primer (shop applied).
Damaged pointwork caused in transit/handling should be touched up on site.
All bolts to be grade 8.8 unless noted otherwise and welds to be minimum 6mm fillet welds.

ELECTRICS:

All electrical installations to meet with Part P (Electrical Safety) and should be designed installed inspected and tested in accordance with BS7671 by qualified electrician competent to do so.

Council to be notified prior to covering up of cables or fittings so that an inspection may be made while still visible, and must be given opportunity to witness inspection and testing.

Electrical Installation Certificate must be provided to Council prior to completion along with sufficient information to the client for future maintenance.

GROUND FLOOR CONSTRUCTION:

150mm deep concrete (grade C20) with A192 anti cracking mesh laid in top on 1200gauge Visqueen d.p.m. on Celotex TB4000 insulation batts providing a U-value of 0.22 W/m²K, all on well consolidated and compacted type 1 hardcore in layers no thicker than 150mm.

DRAINAGE:

All details to be confirmed on site prior to commencement of work.
All plumbing to conform with BS5572.
Kitchen sinks to 50mm dia deep seal anti syphon trapped waste with connection for washing machine.

All new storm water to discharge into existing combined drain via new gulleys.

Where drains run below new building works then walls and foundations to be bridged by precast concrete lintels. All to satisfy Part H3-rainwater drainage requirements.

GLAZING:

Windows and external doors; New windows and glazed areas o be double glazed. 'K' low emissivity glass to BS6262 to be used. All glazing below 800mm (1500mm to doors) to be laminated or toughened glass.

CAVITY WALL CONSTRUCTION:

Above DPC – Smoothcast silicone render applied to 100mm blockwork to all elevations external skin, with 50mm clear cavity with 100mm thick Celotex C65000 insulation batts fitted to 100mm Thermolite insulation blockwork inner skin. All to achieve a U value of 0.21W/m²/°C
Below DPC – 100mm red facing brickwork with 150mm cavity filled with lean concrete mix and 100mm medium dense concrete block inner skin.

CONSERVATION OF FUEL AND POWER:

U VALUES FOR NEW WORKS
External walls 0.21W/m²/°C
Ground Floor Slab 0.22W/m²/°C
Windows and doors 1.6W/m²/°C
Glazed doors 1.8W/m²/°C
Ceiling/New pitched roof 0.15W/m²/°C

WALL CONNECTIONS:

Where new cavity walls abut existing walls 'Trifix' wall starters to be installed to manufacturers instructions

LATERAL RESTRAINT TO EXTERNAL WALLS:

Patent galvanised M.S. straps to be secured to ceiling joists and floor joists @ 1200mm c/c and fixed to inside skin of external cavity walls.

Where walls run parallel to joists then straps to be extended across 3 No joists.

PERCULATION TESTS:

Contractor to carry out percolation tests in rear/side garden and results sent into Building Control at Caerphilly County Council.

ROOF CONSTRUCTION:

Roof slatts to match existing on s.w. battens on untearable roofing felt on 50x200 rafters (grade C16) fixed to 100x75 sw wall plates.

CEILING CONSTRUCTION (Non Vaulted areas):

3mm plaster skim finish on 22mm plasterboard on ceiling joists 50x200 @ 450mm c/c, all on 75x100mm s.w. wallplates securely fixed to wall.

RADON PROTECTION (PART c):

Provide Visqueen radon protection membrane beneath proposed new slab. Ensure all joints will be continuously taped. All fitted to manufacturers details and instructions and linked to any existing radon protection barriers. If there are no existing barriers in place then new membrane to be suitably chased into existing walls.

Project Client MR & MRS BAILEY		Drawing Title PROPOSED SECTION AND SPECIFICATION	
Project Title 'GLEN VIEW' PONTFIR GWENT		Revision	Description
STRUCTURAL ENGINEERS & BUILDING CONSULTANTS		REV.A	
		REV.B	
		REV.C	
18 Rosstyn Road, Newport, South Wales NP19 8PD Office: (01633) 668308 Mobile: 07845 416086 Email: carreg@virginmedia.com		Scale @ A3 1:50 @ A3	Drawn By WJS
		Date NOV 2025	Checked
		Job No. 25-083	Drawing No. 13
			Rev.No.