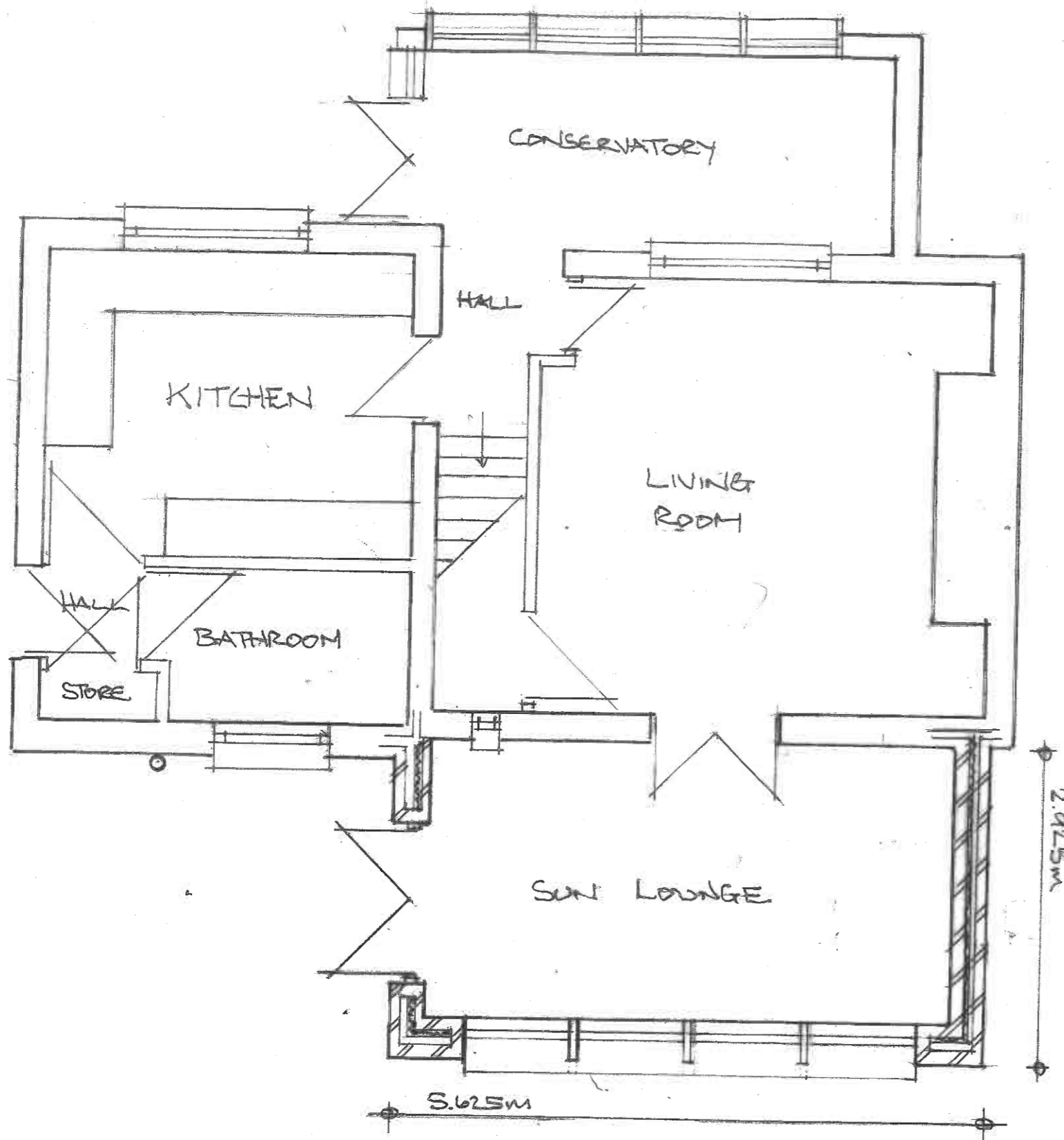


# PROPOSED GROUND FLOOR



## GENERAL SPECIFICATION

### DEMOLITIONS and ALTERATIONS

Remove existing roof coverings, linings and roof structure to single storey extension and cart away.

### FOUNDATIONS

Excavate trial pit to expose existing foundations for inspection by Building Control, to confirm adequacy for approval.

Plain in-situ concrete GEN mix 3, to BS 5328, 700 x 225 under external walls. Where steps occur the concrete overlap to be twice height of step foundation thickness or 300mm. Facing brickwork/concrete blockwork BS 6073: Part 1 7N/mm<sup>2</sup> to DPC level. 100mm cavity with vertical twist stainless steel wall ties to B&E 1243, max 750mm centres horizontally and 450mm vertically. Concrete GEN 1 mix cavity fill to 225mm below ground level. 50mm screed on 100mm oversite slab, 90mm Celotex GA4000 floor insulation (0.019 Wm/K) turned up on edge of slab, 1200 gauge damp proof membrane turned up and on to horizontal DPC. 150 mm minimum hardcore bed well consolidated with 25mm dust/sand blinding.

Depth and final design of foundations to Local Authority approval.

### WALLS

100mm concrete block outer skin, rendered and finished to match existing, 100mm wide overall cavity with 50mm clear, with 50mm Kooltherm K108 (0.018 WM/K) insulation fixed with retaining clips to inner skin to manufacturers requirements. 100mm Celcon Solar block (0.11 WM/K) inner skin lined with 32.5mm Kooltherm K118 laminated plasterboard dot & dab and skimmed. Cavities closed at eaves level. Insulated I.G. lintels with DPC cavity trays to openings. Construct 25mm min. check rebates to all window reveals. The frame should be set back behind the outer leaf of masonry, damcor or similar approved insulated vertical DPC's at reveals to openings. Alternatively, an insulated finned cavity closer may be used.

External walls to have a min. 'U' value of 0.18 W/m<sup>2</sup>K minimum.

### FLOOR

50 x 175mm C24 sawn floor joists at 400mm centres, with solid strutting at centre span. Joists to be 'doubled - up' under line of partitions. Mild steel restraining straps at 2m centres extending over 3 No. joists, screwed to solid blocking support. 50 x 175mm plate bolted to wall at 400mm centres with joist hangers securely fixed as support for floor joists. 18mm weyroc tongued and grooved floor boarding moisture resistant screwed and glued to joists, to have a min. mass per unit area of 15kg/m<sup>2</sup>. Ceilings to be lined with 15mm plasterboard, skimmed finish, with a min. mass per unit area of 10kg/m<sup>2</sup>. An absorbent layer of mineral wool (min. thickness 100mm, min. density 10kg/m<sup>3</sup>) laid in floor cavity.

### WALLS

100mm concrete block outer skin, rendered and finished to match existing, 75mm wide overall cavity with 50mm clear, with 40mm Kooltherm K108 (0.018 WM/K) insulation fixed with retaining clips to inner skin to manufacturers requirements. 100mm Celcon Solar block (0.11 WM/K) inner skin lined with 32.5mm Kooltherm K118 laminated plasterboard dot & dab and skimmed. Cavities closed at eaves level. Insulated I.G. lintels with DPC cavity trays to openings. Construct 25mm min. check rebates to all window reveals. The frame should be set back behind the outer leaf of masonry, damcor or similar approved insulated vertical DPC's at reveals to openings. Alternatively, an insulated finned cavity closer may be used.

External walls to have a min. 'U' value of 0.18 W/m<sup>2</sup>K minimum.

### ROOF

Concrete roof tiles, type and colour to match, reuse existing tiles where possible, on 25 x 50mm treated battens, on reinforced felt to BS 747, with 180mm minimum laps, all to be fixed strictly in accordance with the manufacturers instructions. 38 x 170mm softwood ceiling joists at 600mm centres, 38 x 150mm softwood rafters at 600mm centres. 25 x 175mm softwood ridge board. 25 x 100mm softwood diagonal and lateral bracings in accordance with manufacturer's instructions. 100 x 50mm softwood wall plate securely fixed and restrained with mild steel wall plate straps at 1200mm centres. Upvc fascia and bargeboard to match existing and fixed to rafter ends and gable ladders. Soffit to match existing with 25mm minimum continuous vented gridded. Rainwater goods to be UPVC, gutters laid to 1:600 fall minimum, with a flow rate of 3.23 litres/second. Downpipes to suit. 300mm overall thickness of Earthwool/ Rockwool rollbatt loft insulation, first layer laid between rafters and second layer laid at 90° over rafters. Ceilings to comprise one layer 12.5mm plasterboard with skim finish.

Roof to have a min. 'U' value of 0.15 W/m<sup>2</sup>K.

### WINDOWS AND DOORS

Windows to be upvc double-glazed with 16mm gap, glazing to be Low - E, EN = 0.15, supplied by FENSA registered manufacturer. Window openings to be 1/20th min. of floor area to habitable rooms. Window area to be 25% max. of floor area. Windows to have opening area of at least 0.33m<sup>2</sup> and at least 450mm high and 450mm wide with the bottom of the openable area not more than 1100mm above the floor. Glazing in critical areas to be Part N.

Windows and doors to have a min. 'U' value of 1.6 w/m<sup>2</sup>

### ELECTRICAL INSTALLATION

Installation to be designed to comply with current I.E.E. requirements and be installed to N.I.C.E.I.C. 17<sup>th</sup> edition standards. Switches and sockets to be at appropriate heights between 450mm and 1200mm from floor level. Provide lamps having a luminous efficacy greater than 40 lumens per circuit - watt in all locations. External lighting to have the ability to be automatically extinguished when there is enough daylight, and when not required at night. Provide mains power heat detector with battery over-ride in location as shown. Mechanical ventilation to bathroom to have capacity of 15 litres/second with 15 minute over-ride.

### HEATING AND PLUMBING INSTALLATION

Extend existing heating system. Temperature controls to be affected by individual thermostatic radiator valves. A timing device will be provided to control periods when the heating system operates. System controls must switch boiler off when heat is not required. Provision should enable efficient operation without excessive boiler firing and primary circuit losses. Installation to be certified by Gas Safe registered plumber. All cold water feeds must be directly off the rising main supply. Sink waste to be 50mm min. 75mm deep seal traps.

### DRAINAGE

Foul drainage taken to existing soil and vent pipe.

Storm drainage taken to existing rainwater gullies or soakaways min. 5m from building

Name	D Freeman	
Site Address	141 Brecon Road Ystradgynlais Swansea SA9 1QL	
Project	First Floor Bedroom and Bathroom Extension and Rear Sun lounge	
Scale	1:50	Drawing No. DF/24/03