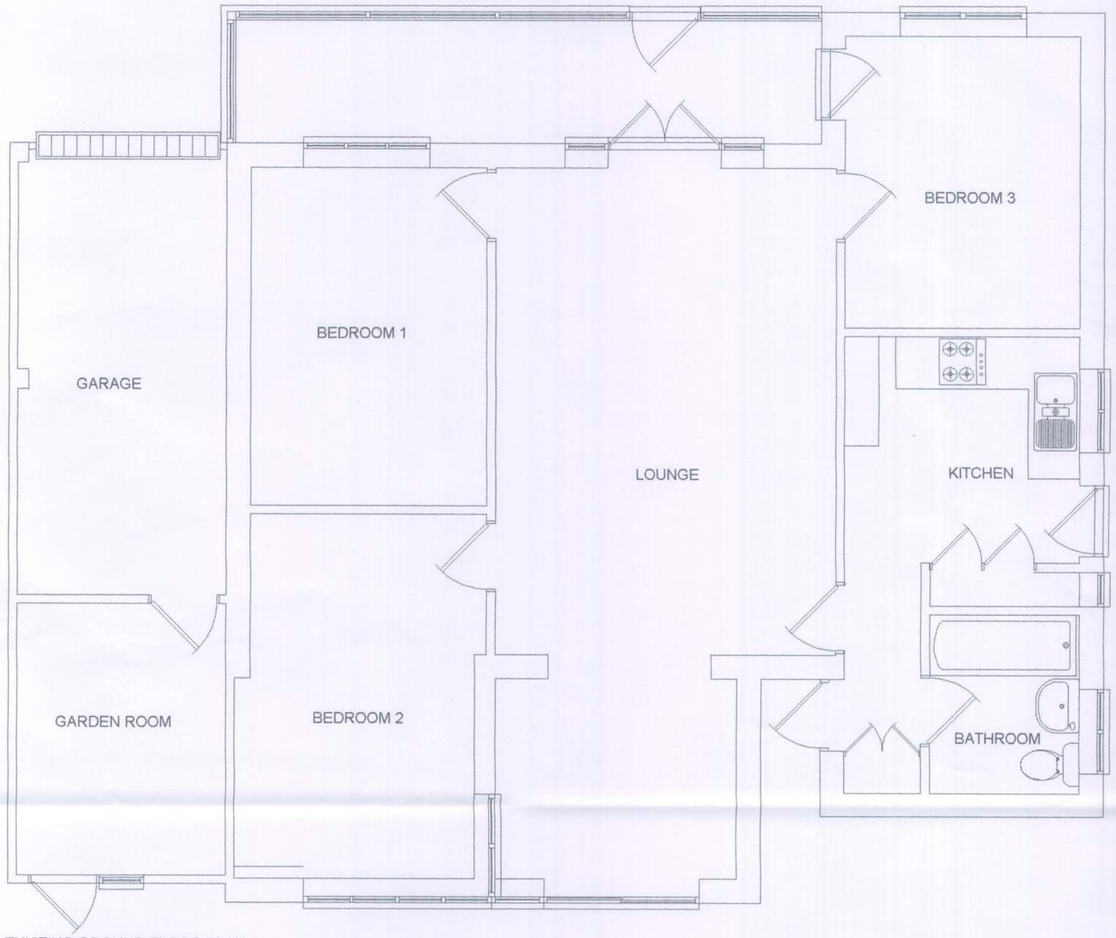
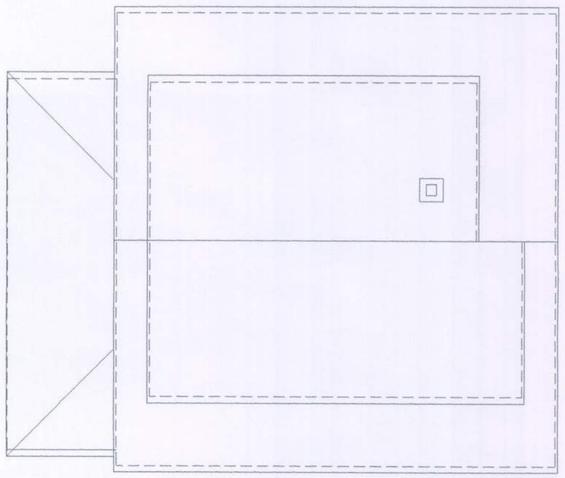


EXISTING GROUND FLOOR PLAN



ROOF PLAN

FOUNDATIONS Building Regulation A1/A2.
229 mm Walls, 2 x 7N solid concrete blocks minimum cover to foundations 1 m or to local authority requirements. Cavities to be filled with lean mix concrete to to a mimum level of 225mm from DPC. Foundations concrete 1 : 3 : 6 20 mm Premix 600mm wide x 225mm deep. DPC to be 150mm above ground level. If any trees are within 30m of the foundation the foundation depth will need to be increased as this may affect the design.

SUSPENDED TIMBER GROUND FLOORS Building Regulation C4. & Part L
20mm T&G flooring on 100 x 50mm C16 joist on 100 x 50mm wall plates on 100mm wide DPC on brick honeycomb sleeper walls on 100mm concrete 1 : 4 : 2 Pre-mix on 1200 polythene DPM on 25 mm sand blinding on 100 mm hard core. All voids and excavation to walls filled with hardcore. Provide A142 mesh within the bottom of concrete slab over drainage runs. 100mm XR3110 Celotex floor insulation fixed between timber joist to provide minimum U - Value of 0.25 W/m2k.
1500mm2 under floor ventilation per meter run to all walls above ground level.

EXTERNAL WALLS Building Regulation A1/A2.
Outer skin to be 100mm concrete blocks and plastered to match existing
Inner skin to be 100mm Toplite GTI blocks with 45mm
CW3045 Celotex cavity insulation, minimum U - Value of 0.3 W/m2k in a minimum 50mm wide cavity and a maximum of 95mm wide cavity including insulation. Wall ties to be stainless steel type 750 x 450mm c/c 225mm vertical spacing at reveals, insulated to prevent cold bridging. Fire stop to head of cavities.

The chimney to be built in non combustible material not less than 100mm thick and to terminate not less than 600mm from top of ridge excluding chimney pot, all lined with 200 x 200mm rebated clay flue liners to BS1181. Provide fabricated lintel and gathering unit with throat of 110mm. Fireplace recess to be not less than 200mm thick non combustible material Hearth to project minimum 500mm from front of jamb and extend minimum 150mm each side of opening and not less than 125mm thick. Provide 2N0 100 cm2 permanently open air vents. Provide check list on completion, notice plate with details of heath and flue construction fixed inside the house. Any combustible material to be at least 200mm clear of any flue and 40mm clear of the chimney stack.

LINTELS.
Reinforced concrete or steel to manufacturer's specification, 150 mm bearings either side. All installed to manufacturer's detail.

FIRST FLOOR JOIST Building Regulation A1 A2.
Joist to be 47 x 200mm @ 400mm c/c C16 Table 6 Double joist under partition walls 1 No. 75 x 200mm to support stairs. Provide 30 x 5mm steel restraint straps at 2m intervals at right angles to the joist, to extend over 3 No. joist with noggings.

ROOF Building Regulation A1/A2 and TRADA technology.
Concrete or clay tiles to match existing on wooden battens on reinforced roofing felt to BS747 on 50 x 150 mm C16 rafters (table 28) 50 x 120mm C16 ceiling joist, (table 8) 75 x 220mm C16 purlins (table 34) 63 x 200mm c16 binder,(table 10) or to engineer's calculations on 50 x 100mm wall plates, hold down straps every 2m run to wall plates and rafters/gables. 150mm fibreglass laid between joist with 100mm laid across joist. Continuous ventilation strip 25mm wide to all soffits.
Provide 30 x 5mm steel restraint straps at 2m intervals at right angles to the rafters, to extend over 3 No. rafters with noggings.
Triple rafters both sides of dormer. 2 No 100 x 50mm timber posts to corners of dormer. Constructed in 100 x 50mm C16 timber rafters, ceiling joist and stud work cheeks.

FLASHING Building Regulation C4.
To be code 4 lead. Cavity tray to be provided between extension roof and joining wall, including chimney flashings. Chimney trays to be Code 6 lead.

STUD WALLS
External and internal stud walls to be in 50 x 100mm C16 timber

Staircase, angle of pitch not more than 42deg, maximum rise 220 mm and minimum going of 220 mm. Headroom 2m from pitch line vertically. Balustrade from pitch line minimum 900 mm vertically, and 1000mm horizontally, gaps not more than 100 mm between spindles. All tapering treads to have the same taper. The width of taper treads to be the same width on the centre line as the going on the straight treads, minimum going at any part of the tread not less than 50mm.

PLUMBER Hot water and central heating Building Regulations G3/J and L. Including Parts L1A and L1B April 2006.
The hot water and central heating system will be extended to include the new extension to comply with approved documents J & L, by a competent plumbing and heating engineer. All gas installations will be installed by a qualified Gas Safe engineer. Central Heating and Hot and Cold water in copper to BS864.
Boiler replacement is to be Condensing type sufficient to provide heating and hot water to the whole of the property. Provide boiler commissioning Certificate on completion.
RAIN WATER Building Regulation H3 Table 2 100mm Gutter, 75mm down pipes discharging into 100mm Osma drains into soakaways 5m from buildings, large area of roof must be proportional to the size of soakaway.
All underground drains to be Osma below ground type surrounded with pea shingle.

All traps from sinks,baths and basins are to be deep seal 76 mm, showers 50 mm seal shower traps. Bath,shower and sink waste pipe to be 40 mm dia. basin waste to be 32 mm dia. access plugs where necessary, 110 mm pipe soil and vent pipe. Building Regulation H1

ELECTRICITY. Building Regulation Part P (Electrical Safety)
To comply BS 7671 (I.E.E. Wiring Regulations 17th Edition). Fit mechanical extractor to Bathrooms, Kitchens and Utility rooms to vent: 30 litre /sec. adjacent to hob and 60 litres/sec. elsewhere in kitchens. 30 litres/sec. utility rooms, 15 litres/sec. for bathrooms/toilets. All switches and sockets to be positioned between 450mm and 1200mm above floor level. Certificate to comply with BS7671 to be issued after completion of the work.

Smoke alarms, mains operated and interconnected, to be fitted to ground and first floor, located not more than 3m from any bedroom and not more than 7.5m from any other room. Heat detector fitted in kitchen. Building Regulation B1.

PLASTERING
Ceilings to be boarded with 12mm plasterboard and skimmed with plaster. Internal walls to be dry- lined with 12mm plasterboard. External walls to be plastered to match existing.

GLAZING Building Regulations F1 Table 11.1 Ventilation, N1 Glazing.
Windows and doors to be double glazed with 16 mm separation low emissive glass to give maximum 2.U-Value. New windows ventilation not less than 1/20 of room floor area and total are of windows, doors and rooflights not more 25% of total floor area. Fitted with a minimum 8000mm2 trickle ventilator to habitable rooms, all other rooms 4000mm2. All new external doors and joining windows to be glazed in safety glass in an area 1500mm high from bottom of glass and extend 300mm either side of door frame opening. All internal glass doors and screens to be in safety glass. All to BS6206 and supplied by FENSA approved installer.

EMERGENCY ESCAPE WINDOWS Building Regulation B1/2.11.
All habitable rooms to incorporate opening sash for means of escape not less than .33 m2, width of opening not less than 450mm, window height from floor to cill not less than 800mm not more than 1100mm. except roof windows (bottom of opening 600mm above floor).

PASSAGE OF SOUND Building Regulation E Resistance to passage of sound.
Stud partition walls to include sound insulation to regulation E2 with 75mm minimum distance between 12mm plaster board linings. 25mm wool batts or quilt, minimum density 10 kg/m, suspended in cavity. Solid block walls type C minimum mass per unit area, excluding finish, 120 kg/m2
Sound insulation to first floor to be mineral wool a minimum 100mm thick, minimum density 10kg /m3 laid between joist. Provide test certificate for Local Authority.

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INSULATION SCHEDULE

Ground floors Suspended timber P/A = .87 Front and .56 Rear = 110mm XR3110 Celotex = 0.22 W/m2K.

Cavity walls 90mm brick outside skin 100mm Toplight GTI inside skin 45mm CW3045 Celotex = 0.3 W/m2K.

Windows to achieve 'U' value of 1.8 W/m2K.

Timber stud walls and Dormer cheeks to roof space 75mm GA3075 Celotex between studs pressed forward to outside face of stud with 25mm gap and 12mm Celotex to inside face plus 12.5mm plasterboard = .3 W/m2k.

Pitched roof ceilings 75mm GA3075 Celotex between rafters pressed forward to underside of batten plus 55mm GA3055 Celotex underside of rafter = 0.2 W/m2K.

Ceiling level to achieve 'U' value of 0.16 W/m2K.

Do not scale from drawings
(excepting Local Authorities)
All dimensions to be checked on site

All work to comply with Building Regulations, British Standards, manufacturer's instructions /specifications and engineer's calculations at all times. Construction must also comply with all safety at work regulations.Additional work may be requested by the building inspector as work proceeds to ensure the new building complies with all building regulations.

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