

GENERAL SPECIFICATION

FOUNDATIONS

Plain in-situ concrete, GEN mix 3, to BS 5328, 750 x 300mm under external walls. Where steps occur the concrete overlap to be twice height of step, foundation thickness or 300mm, whichever the greater.
Concrete blockwork, BS 6073: Part 1, 7N/mm2 to DPC level. 125mm cavity with vertical twist stainless wall ties to BS 1243, max 750mm centres horizontally and 450mm vertically. Concrete GEN 1 mix 1 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.
Dwelling floor to have a min. 'U' value of 0.18 W m2K minimum.

WALLS

100mm concrete block outer skin, rendered and dashed to match existing, 135mm wide cavity, with 85mm Celotex CG 4000 (0.02 WM/K) wall insulation fixed with retaining clips to inner skin to manufacturers requirements. 100mm concrete block inner skin rendered and skimmed, to be at least 120kg/m2. Cavities closed at eaves level. Insulated I.G. lintels with DPC cavity trays to openings. Construct 25mm min. check rebates to all window and door reveals. The frame should be set back behind the outer leaf of masonry, approved insulated vertical DPC's at reveals to openings. Alternatively, an insulated finned cavity closer may be used. Ground floor partitions to be concrete blockwork rendered and skimmed. First floor partitions to be 50 x 75mm min. studwork faced both sides with 15mm plasterboard with a min. mass per unit area of 10kg/m2 and skim finish. An absorbent layer of unfaced mineral wool batts or quilt (min. thickness 25mm, min. density 10kg/m3) which may be wire reinforced, suspended in the cavity.
External walls to have a min. 'U' value of 0.21 W/m2K minimum.

STEEL SUPPORT BEAMS

See Structural Engineer's design and calculations.

FLOORS

50 x 175mm SC3 sawn floor joists at 400mm centres, with herringbone strutting at centre span. Mild steel restraining straps at 2m centres extending over 3 No. joists, screwed to solid blocking support. 50 x 200mm 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/m2. Ceilings to be lined with 15mm plasterboard, skimmed finish, with a min. mass per unit area of 10kg/m2. 140mm Celotex XR4000 laid in floor cavity.
Floor to have 'U' value of 0.18 W/m2K

ROOF

GRP seamless flat roof covering laid in accordance with the manufacturers specification, laid on 140mm Celotex GA4000 insulation board (0.22W/mK), on vapour barrier, on 18mm external grade WBP plywood. 50 x175mm flat roof joists at 600mm centres.100 x 50mm softwood wall plate securely fixed and restrained with ms wall plate straps at 1200mm centre. Upvc fascia fixed to joist ends. Upvc soffit with 25mm minimum continuous vented grill. Rainwater goods to be UPVC, gutters laid to 1:600 fall minimum, with a flow rate of 3.23 litres/second. Downpipes to suit. Ceilings to comprise one layer 12.5mm plasterboard with skim finish.
Roof to have 'U' value of 0.15 W/m2K.

.WINDOWS AND DOORS

Windows and doors 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, and opening windows to other rooms. Window area to be 25% max of floor area. Glazing in critical areas to be Part N.
Windows and doors to have 'U' value of 1.6 w/m2

STAIRCASE

Staircase to have 220mm maximum rise and 220mm minimum go with a maximum pitch of 42°. Steps to have level treads. Minimum headroom of 2m must be provided from stair pitch line to minimum ceiling line, landings to be provided at top, midway and bottom of stairs, width and length of landing at least as great as the smallest width of the flight. Handrails to be provided on at least one side and be between 900 and 1000mm measured from top of handrail to pitch line. Guarding of the stairs should be such that a 100mm sphere cannot pass through any opening in the guarding.

ELECTRICAL INSTALLATION

Installation to be designed to comply with current I.E.E. requirements and be installed to N.I.C.E.I.C. 17th 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. External lighting to have the ability to be automatically extinguished when there is enough daylight, and when not required at night. Mechanical ventilation to kitchen and utility room to have capacity of 60 litres/second. Mechanical ventilation to bathroom and ground floor wc to have capacity of 15 litres/second with 15 minute over-ride. Provide mains power smoke and heat detectors with battery over-ride in locations as shown.

HEATING AND PLUMBING INSTALLATION

Central heating installation to be installed by a registered plumber. Heating system to be powered by gas fired condensing combination boiler rated A, with SEDBUK rating in excess of 86%. Temperature controls to be effected 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. All cold water feeds must be directly off the rising main supply. Wash hand basin waste to be 32mm min., bath, shower and sink waste to be 50mm min. 22mm overflows, 75mm deep seal traps. 110mm soil and vent pipe connected to new manhole. Provision should enable efficient operation without excessive boiler firing and primary circuit losses. Installation to be certified by Gas Safe registered plumber.

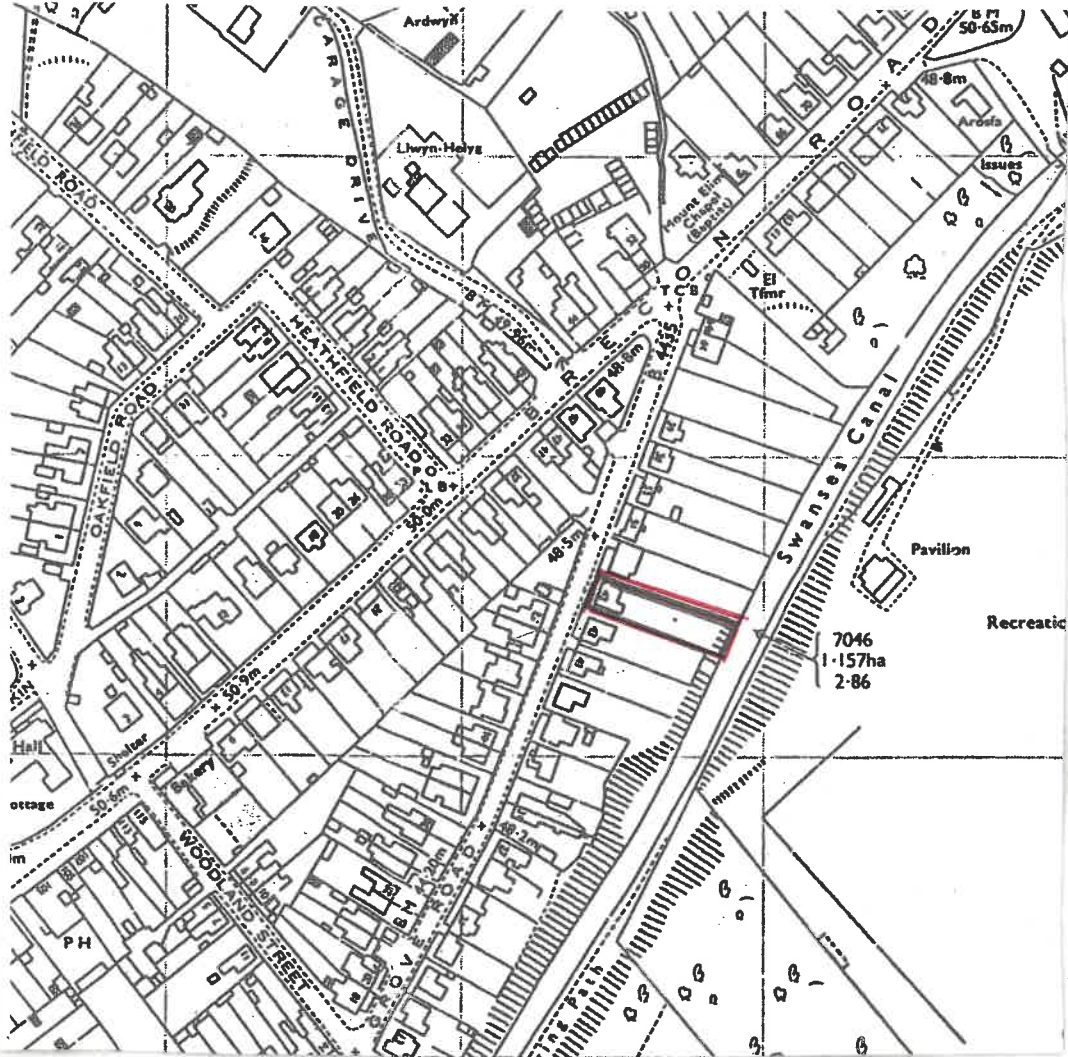
DRAINAGE - BELOW GROUND

100mm UPVC drainage pipes and fittings. Pipes laid to adequate falls and bedded and surrounded with granular material. Pipework beneath slab to be bedded and surrounded in concrete with minimum of 150mm cover. P.C.C. lintels over pipes where passing through walls, with 50mm space all around and rigid sheet material masking both sides. Manholes to be GRP/ Class B engineering brickwork with medium duty covers and frames. Foul drainage connected to existing foul sewer. Storm drainage taken to existing gullies or soakaways located 5m min. from buildings.

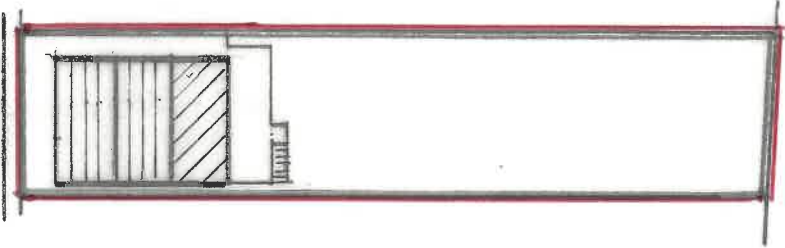
EXTERNALS

Steps to have 220mm maximum rise and 245mm minimum go with a maximum pitch of 42°. Steps to have level treads. Landings to be provided at top and bottom of stairs, width and length of landing at least as great as the smallest width of the flight. Handrails to be provided on at least one side and be between 900 and 1000mm measured from top of handrail to pitch line. Guarding of the stairs should be such that a 100mm sphere cannot pass through any opening in the guarding.
Guarding of the patio area to have handrails 1000mm high and should be such that a 100mm sphere cannot pass through any opening in the guarding.

LOCATION PLAN 1:2500



BLOCK PLAN 1:500



Name	N. Shenton		
Address	47 Grove Road Pontardawe Swansea SA8 4HH		
Project	Proposed Single storey Rear Extension and Associated Works		
Scale	1:2500 1:500	Drawing No.	NS/ 21/ 04