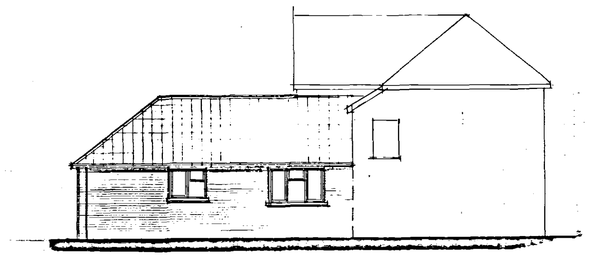


west

north



east

FOUNDATIONS

Foundations to be ST4 grade concrete

For 275mm walls foundations to be 700 x 230mm
For 100mm " " " 450 x 230mm

Foundations to be taken down to a firm loadbearing strata, a min. 1.0m if in shrinkable sub soil, in accordance with the requirements of the Local Authority Building Control Dept. and in accord with the NHBC guidelines for building near trees.
Site soil surveys are recommended in respect of foundations to establish specific site conditions before foundation work is undertaken.

FLOOR CONSTRUCTION

Ground
65mm sand/cement screed reinforced with chicken wire mesh
500g polythene separating membrane
48mm Celotex GA2000 floor insulation
100mm ST4 grade oversite concrete
1200g polythene damp proof membrane
25mm sand blinding
100mm compacted hard-core - if in excess of 100mm fill, to a max. 600mm, the hard-core is to be laid and compacted in layers not exceeding 150mm.
Where 100mm internal walls are constructed off the floor slab the slab is to be thickened to 230mm for a min. width of 450mm
Strip off all vegetable soil beneath proposal.

WALL CONSTRUCTION

Below Ground
To be 100mm Class A concrete blocks
Cavity to be filled to 225mm below lowest dpc level with lean mix concrete

Above Ground
To be 275mm o/a constructed as follows :-

100mm facing brick (to be FL quality below dpc level)
75 mineral wall insulation i.e. Dritherm (k = 0.036)
100mm loadbearing insulation blocks i.e. Tarmac Toplite standard, k = 0.15

All to be tied together using stainless steel wall ties positioned at distance not exceeding 900mm horizontally, 450mm vertically and staggered. To be at every block course vertically at all returns and reveals.

Internal finish to be 12mm render with gypsum plaster skim finish to give a 'U' value of 0.303W/mK

Internal Walls
To be 100mm blockwork constructed off a dpc off a foundation

DPC in Walls
To be a min. 150mm above finished ground level
An insulating vertical cavity closer and dpc, i.e. Thermabate, is to be provided to all cavity closures.
A dpc cavity tray, stepped as applicable, is to be constructed within the wall immediately above an abutment.

LINTELS

Lintels to be Catnic, or similar and equivalent, to have a min. 150mm end bearing and be installed in strict accordance with manufacturers instructions with a dpc cavity tray over where applicable.

Lintels over internal openings to be Catnic CN102 lintels unless specified otherwise.

Lintels to be protected with min. 15mm gypsum plaster skim finish to give a min. half-hour fire protection.

WINDOWS & DOORS

Windows and doors to be purpose made UPVC, or similar and approved, double glazed using glass having a soft low E coating with an emissivity value of 0.05 with 12mm air gap to sealed units and weather stripped.
'U' value of double glazing to be 2.0W/m²K
Double glazing manufacturers certificate to be provided to prove compliance of the glazing to that specified.

Windows to habitable rooms are to incorporate a controllable trickle vent of 8000mm², 4000mm² to non habitable rooms.

Glazing to windows less than 800mm and doors (include sidelights to doors) less than 1500mm above floor level is to be laminated or toughened glass in accord with BS6206 : 1981.

WINDOW/DOOR & LINTEL SCHEDULE

Location	window/door ref. Width	x height	lintel ref. &	length
1	2160	2100	CG70/100	2550
2	630	1050	"	900
3	630	1050	"	900
4	1200	1050	"	1500
5	1800	1200	"	2100

VENTILATION

All habitable rooms are to have windows containing opening vents, the combined total of which is equal to not less than 1/20th of the floor area of the room.

The WC/ shower room is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 15 litres/sec.

The utility is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 30 litres/sec.

SMOKE DETECTION

Self contained smoke alarms complying with BS5446 : Pt 1 : 1990 are to be installed where indicated SD on the drawing. An alarm must be positioned within 3.0m of bedroom doors.

The alarms are to be permanently wired to a separately fixed circuit at the distribution board operating at a low voltage via a mains transformer.

Where more than one smoke alarm is required the units are to be interconnected so that the detection of smoke by one unit operates the alarm signal in all units.

The wiring installation is to comply with the I.E.E. Regulations.

HOT WATER/CENTRAL HEATING SYSTEM

Thermostatic radiator valves are to be installed with a room thermostat provided to switch off the boiler when there is no demand for heating or hot water.

All pipes not contributing to useful heat requirements are to be insulated using an insulation material with a thermal conductivity not exceeding 0.45W/mk and a thickness equal to the external diameter of the pipe up to a max. of 40mm.

DRAINAGE

Surface
Excavate for and lay in where indicated 100mm diam. flexible jointed UPVC drains on 100mm pea gravel bed from 100mm diam. upturned bend at base of downpipe to surface water soakaway.

Form soakaway where indicated a min. 5.0m from the nearest building. Excavate 1200 x 1200 x 1200mm deep, backfill with brick rubble to 300mm below ground level, lay in sheet polythene and make up with vegetable soil.

Foul
Excavate for and lay in where indicated 100mm diam. flexible jointed upvc drains on 100mm pea gravel bed at a gradient of 1 : 70.

Where 100mm diam. drains pass through walls they are to be protected by the use of a lintel over. Both sides the wall to be masked with rigid sheet material with 50mm clearance of the pipe and the void filled with compressible material to prevent entry of gas.

Where flexible pipes are not under a road and have less than 600mm cover they are to have concrete paving slabs with a compressible filler laid as bridging above the pipes for protection and are to have a min. 75mm granular material between the top of the pipe and the underside of the compressible filler.

Install where indicated a 100mm diam. soil and vent pipe jointed to 100mm diam. upturned bend at base. Finish at top, a min. 900mm above window head height, with a durable cage.

Install 40mm diam. pvc waste to shower, 32mm diam. pvc waste to hand basins all with 75mm deep traps.
Unless specified other wise on plan.
All waste pipes to have rodding access at each change of direction and be readily accessible throughout their length.

Above ground drainage to comply with BS5272 : 1978
Below ground drainage to comply with BS8301 : 1985

All drainage items are to be installed in strict accordance with the manufacturers instructions.

ROOF CONSTRUCTION

Tiles
The roof is to be covered with interlocking concrete roof tiles fixed in strict accordance with manufacturers instructions.

Battens
Approved quality tanalised s/w battens, 38 x 25mm, are to be laid at a gauge suitable for the tiles and fixed with 90 x 3.35mm wire nails. Battens should be at least 1.2m in length and should be of sufficient length to be supported at each end and intermediately by at least three rafters, trusses or walls. Butt joints over intermediate supports should be staggered and the ends must be sawn.

Underlay
Approved breathable membrane,ie Tyvak or similar, is to be laid over the rafters lapped 150mm at the joins and secured with clout nails. The underlay should extend over the fascia board and into the eaves gutter. In order to prevent water traps behind the fascia it is recommended that a strip of 6mm marine plywood is provided to support the underlay. The ply is to be laid over the rafters and under the roofing felt positioned as close as possible to the last tiling batten and secured to the fascia.

Eaves
Eaves are to be formed with standard size tiles and purpose made eave fillers must be nailed to the fascia board. Eave tiles must be laid at the same pitch as the main body of tiling and should overhang the fascia by an amount sufficient to ensure that the water discharges into the centre of the gutter.

Ridge
The ridge is to be covered with segmental ridge tiles of the same colour as the main body of tiling, unless specified otherwise, and secured using a proprietary ventilated dry ridge system having ventilation equivalent to a continuous 6mm gap.

Hips
Hips should be covered with Marley segmental ridge tiles of similar colour and texture to that of the main roof tiles. The tiling should be cut closely to the rake of the hip and the ridge tiles bedded, with solid bedding at butt joints, onto the adjacent roof tile.

A galv. hip iron, 6mm thick, should be fixed at the base of the hip tree with 2No 2.65mm diam. screws.

The first hip tile should be shaped at the foot to the line of tiling at the eaves and the fair end filled with mortar inset with pieces of tile and neatly pointed.

The junction of the hip and ridge should be mitred using a standard three way mitre and solid bedding.

Abutments
The tiling is/to be cut closely at abutments and weathered by Code 4 lead flashing dressed down over the tiles and up the abutment a min. 150mm

Mortar
All bedding mortar is to consist of 3 parts sharp sand to 1 part Portland cement and should be struck off to give a smooth face and pointed in one operation.

Traditional roof construction

Ridge	150 x 38mm
Rafters	150 x 50mm @ 400mm
Hip rafters	225 x 63mm
Ceiling ties	125 x 50mm @ 400mm ctrs

All timber to be SC3 grade unless specified otherwise.

Insulation
To be Rockwool Rollbatts (k = 0.037 W/mK), 150mm laid between joists with a further layer of 150mm laid at right angles over the top.

Ceilings
12.7mm foil backed plasterboard, fixed in accordance with manuf. instructions with all necessary noggins etc., and finish with artex/skim finish in accord with clients instructions.

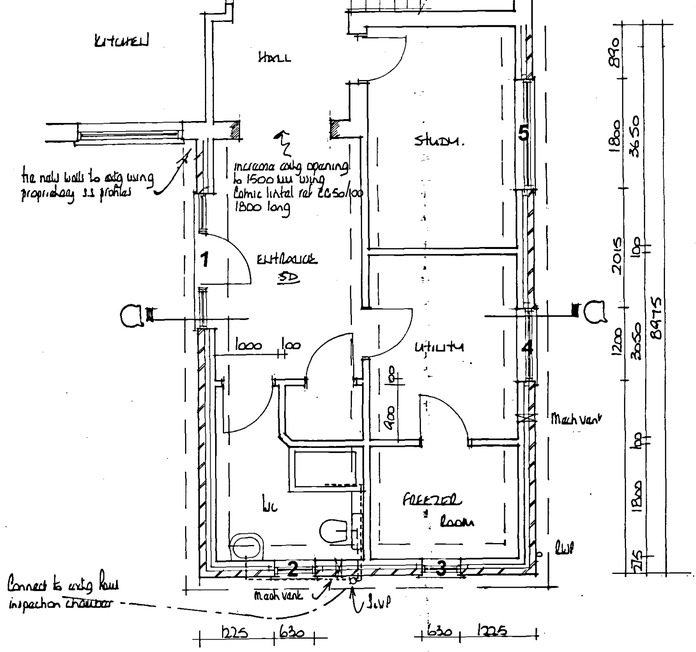
Rainwater Goods
Supply and fix 115mm PVC gutters to fascia with all necessary brackets, stop ends, outlets etc.

Supply and fix 64mm PVC downpipes securely clipped to walls at 1800mm cts with all necessary offsets, swannecks, adaptors etc. and taken into 100mm diam. upturned bend at base.

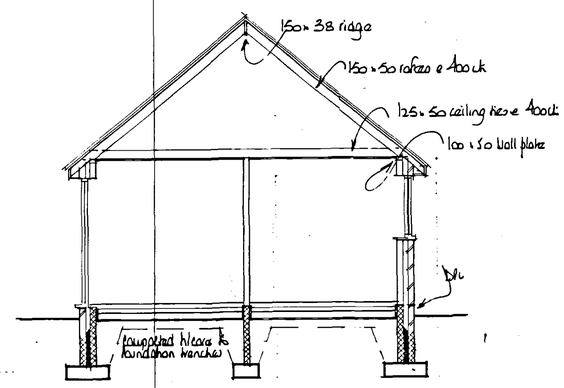
STRAPPING

Where rafters, floor joist and ceiling ties run parallel to walls they are to be strapped at 1800mm cts. Straps to be fixed to a min. 3No. rafters etc., having nogged between beforehand, and hooked into the cavity a min. 150mm.
Similar straps to be used at 1800mm cts to hold down the wall plate.

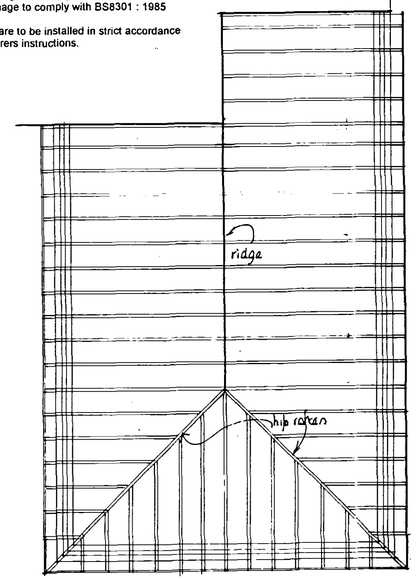
Straps to be 30 x 6mm galv. m.s.



floor plan



section a-a



roof plan

DETERMINED PLAN

SHDC
Planning & Development
28 JUN 2004
Ref: 0867/04

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Client
Mr M Bannister & Ms. S. Kelly

Project
Extension to dwelling at
Fields Farm
Spalding Gate
Lumphole . Spalding.

Drawing
Plan & Elevations

Scale
1:50 & 1:100

Date
June '04

Drawn

Dwg No:
04/14/01

Rev.