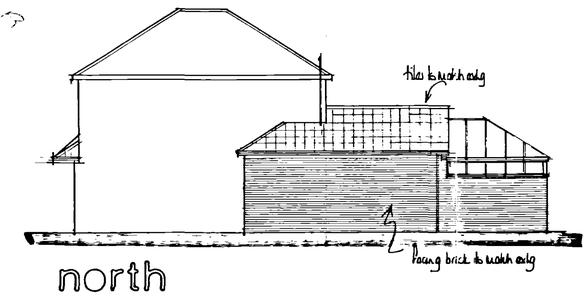
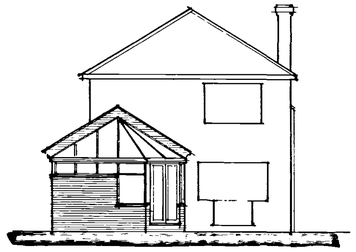
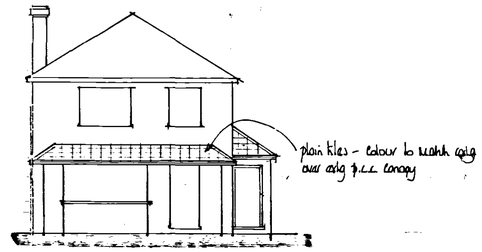


north



west

south



east

FOUNDATIONS

Foundations to be ST4 grade concrete

For 275mm walls foundations to be 700 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.
Strip off all vegetable soil beneath proposal.

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	extg door reused	CG70/100	1200
2	pr. internal doors	CG70/100	2100
3	to site dims	CG70/100	2700

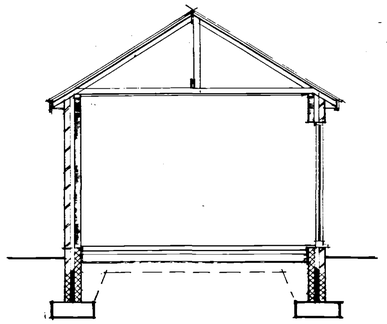
VENTILATION

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 kitchen is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 60 litres/sec or 30 litres/sec if in a cooker hood.

The 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.



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HOT WATER CENTRAL HEATING SYSTEM

A room sealed central heating boiler (having a min. SEDBUK rating of 78% if gas fired -85% if oil fired) is to be installed where indicated complete with fan assisted flue and combustion air vent, the area of which is to comply with the manufacturers recommendations. The flue is to be guarded externally with a stainless steel guard.

Separate timing controls (space heating and hot water) are to be provided to control the operating periods of the boiler, with the exception of combi boilers, and should only fire the boiler when space heating or the hot water cylinder thermostat calls for heat.

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.

The hot water system is to be vented.

A 3 kW immersion heater is to be fitted to a hot water cylinder insulated with 35mm thick factory applied coating of PL foam insulation plus an additional 50mm thick insulating jacket. The hot water cylinder is to be fitted with a thermostat and time switch.

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.

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 reinforced roofing felt, type 1F to BS 747, 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.

Verges
Verges are to be formed with 150mm wide asbestos cement strip onto which is bedded the tiles which form the verge projecting approx. 50mm over bargeboards or gable brickwork.

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.

Valleys
Valleys are to be formed with Code 4 lead lining supported by boards with the adjacent tiling neatly cut and bedded onto plain tile slips leaving a clear channel approx. 125mm wide.

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	100	x	50mm @ 400mm
Hip rafters	150	x	50mm
Ceiling ties	100	x	50mm @ 400mm ctrs
Binders	150	x	50mm
Hangers	75	x	50mm supported from principle rafters

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.

Ventilation
Provide over fascia ventilation (equal to a 10mm continuous gap) to provide cross ventilation to the roof space.

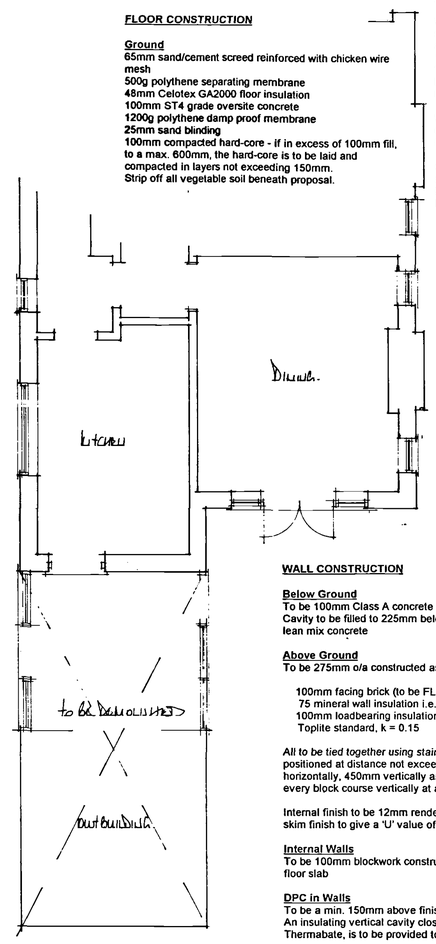
Rainwater Goods
Supply and fix 115mm PVC gutters to fascia with all necessary brackets, stop ends, outlets etc.

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.



existing ground floor plan

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

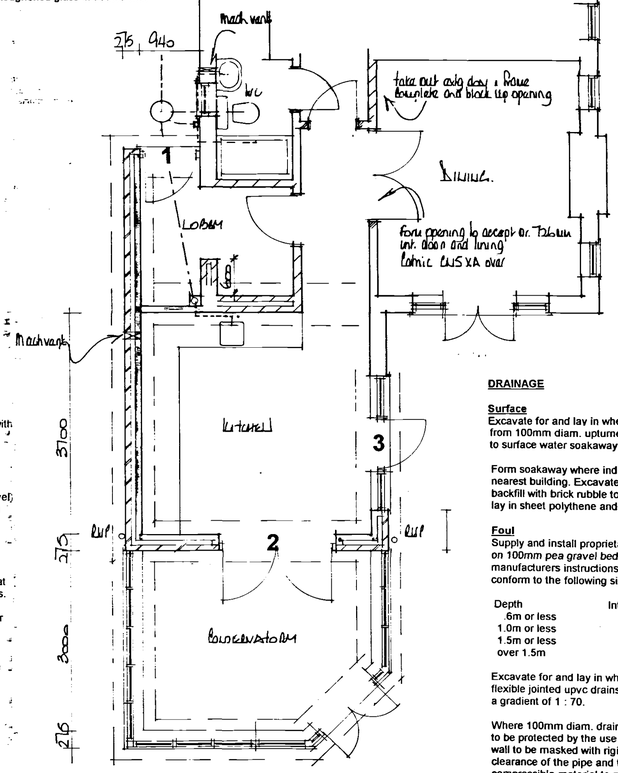
All to be tied together using stainless steel wall ties positioned at distance not exceeding 900mm horizontally, 450mm vertically and staggered. To be at every block course vertically at all returns and reveals.

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 the floor slab

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.



proposed ground floor plan

DRAINAGE

Surface
Excavate for and lay in where indicated 100mm diam. 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
Supply and install proprietary upvc inspection chambers on 100mm pea gravel bed in strict accordance with manufacturers instructions. Inspection chambers to conform to the following sizes : -

Depth	Internal diam	Cover diam
.6m or less	190mm	190mm
1.0m or less	450 mm	450mm
1.5m or less	1050mm	600mm
over 1.5m	1200mm	600mm

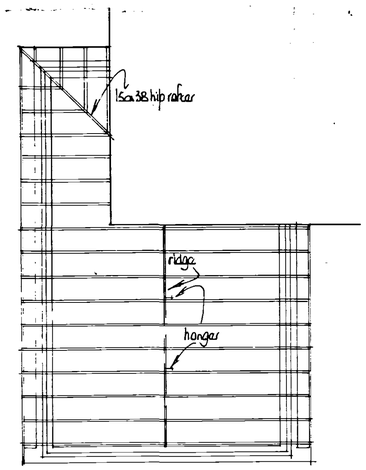
Excavate for and lay in where indicated 100mm diam. flexible jointed upvc drains on 100mm pea gravel bed at a gradient of 1 : 70.

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 where indicated 100mm diam. stub soil stack jointed to 100mm diam. upturned bend at base. Provide removable screw on lid/air admittance valve at head.



roof plan

Install where indicated trapped (roddable) gullies - waste pipes to discharge below grating level and above water level.

Install 40mm diam. pvc waste to sinks and showers, *(NOTE : shower trays to be constructed on a suitable plinth to maintain access to trap and waste)*, 32mm diam. pvc waste to hand basins all with 75mm deep traps. 40mm diam. pvc waste to bath with combined trapped waste and overflow. *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

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Planning Department
08 MAR 2004
Ref 03/0304

Client
Mr & Mrs S Bland

Project
Extension & Alterations At
30 Queen Street
Pinchbeck
Spalding.

Drawing
Plan, Section & Elevations

Scale 1:50 & 1:100

Date Jan '04 Drawn AL

Dwg No: 03/43/01 Rev.