Roof construction:

New section of pitched roof constructed of interlocking concrete tiles to match existing installed to manufacturers recommendations on 38mm x 38mm tilly treated battens on sarking felt on built up roof constructed of:

47x100 rafters at 450mm ctrs.
47x150 ceiling joists at 450mm ctrs.
75x225 purlin.
63x225 by 75x200 ceiling beams.
25x100 collars at ridge.
32x150 ridge.
50x100 Wall plates.

All structural timber to be grade SC3 marked dry or kiln dry.

Retain small section of existing pitched roof to front of garage with loss of rafters built in to new wall and existing ceilings retained to garage, utility, lobby, store and W.C. Existing ceiling joists to be suspended from new floor joists at max. 1.200 ctrs.

Main eaves construction to new roof to match existing and to incorporate roof void ventilation strip to provide min. 10,000mm² ventilation per metre.

New dormer roof to front elevation to be constructed to match existing with slates and mineral finish. High performance polyester based felt to be laid built up roof finish on min. 12mm thick exterior grade plywood decking on firrings to fall 1 in 60 on min. 50x100 joists at 400mm ctrs.
Joists to be supported on joist hangers on box beam and new cavity wall.

Pack out undersides of joists to provide void deep enough to accommodate 100mm thick fibreglass quilt insulation between joists with min. 50mm ventilation gap over.

Install roof void ventilation strip to soffits of new dormer window to provide min. 10,000mm² per metre ventilation.

Maintain min. 50mm ventilation gap above insulation throughout.

Flat roof finish taken up below roof tiles and parking on min. 18mm exterior grade plywood installed on top of rafter ends. Tiles to lap flat roof finish by min. 200mm.

30x5mm mild steel straps to be installed between new roof structure and perimeter walls at average 1.800 ctrs. Straps to be installed at ceiling level and at eaves of roof. Straps to extend over 3no. timbers at gable with solid noggings under.

Code 4 lead flashing together with cavity tray d.p.c. at junction of existing lower pitched roof and new cavity wall.

New u.p.v.c. gutters and downpipes to match existing and to be connected to existing.

Roof insulation:

Install to main roof slopes of 100mm fibreglass quilt insulation with 1 layer installed between and 1 layer over ceiling joists. Also install 1 layer of 100mm insulation above garage ceiling below bedroom.

Ceilings:

If existing ceiling in garage is not 12.5mm fireline board or other suitable material to give 30 minute fire protection the existing ceiling is to have an additional layer of 12.5mm plasterboard added with edges supported and Artex finish.

It is assumed that the existing ceilings to utility, lobby etc. are 9.5mm plasterboard. The existing insulation above these ceilings is to be retained.

New first floor ceilings to be 9.5mm plasterboard with perimeter edges supported and Artex finish.

Suspended floor:

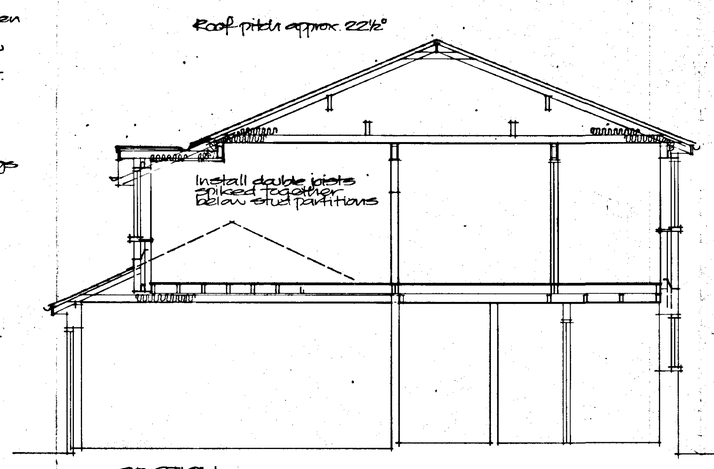
To be constructed of 22mm thick moisture resistant flooring grade T and G chipboard on 38x147 joists at 400mm ctrs installed to garage, utility, lobby, store and W.C.
Existing ceiling joists to be suspended from new floor joists at max. 1.200 ctrs.

Install 1 row of solid or herringbone strutting at centre of span.

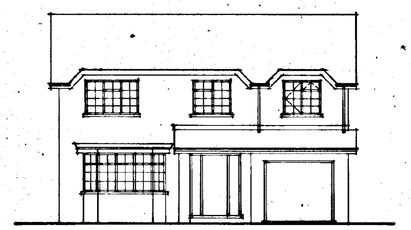
Install 30x5mm mild steel straps between floor joists and perimeter walls at average 1.800 ctrs. Straps to extend over 3no. timbers where at right angles with solid noggings under.

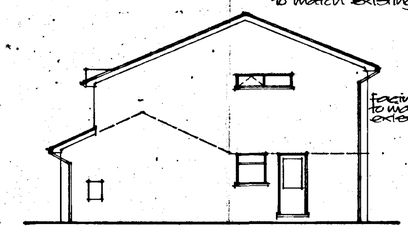
Foundations and existing lintels:

If and where required the existing foundations and lintels are to be exposed to confirm suitability.



SECTION.


FRONT ELEVATION



SIDE ELEVATION

Interlocking concrete tiles to match existing.


REAR ELEVATION

Cavity walls:

Constructed of 105mm facing brick, 65mm cavity and 100mm thick thermalite shield block with dense plaster internal finish. Walls to be insulated with 65mm thick fibreglass/mineral wool batts installed to manufacturers recommendations.

Average 'U' value = 0.40w/m²K.

Dpc. to reveals with frames lapping d.p.c. by min. 25mm.

Wall ties to be installed at 900mm ctrs horizontally, 450mm vertically and at 225mm ctrs within 225mm of reveals.

Tops of cavities to be sealed with Superfix or similar.

Walls to be bonded to existing with Furfix wall extension profiles or fully bonded (face brickwork).

Install cavity tray d.p.c. above existing lintels to cavity walls.

Lintels:

Install 1 no. type L1/S steel lintels to new openings in external walls with cavity tray d.p.c above gable window.
Install 1 no. type L1/S steel lintel to existing cavity wall to garage.
Install 1 no. box lintel 100 below wall plate to form main roof.
Install 1 no. box lintel 100 to altered opening from landing into bedroom.
All lintels to be installed to manufacturers recommendations.

Stud partitions:

To be constructed of 50x75 studs at 400mm ctrs with 50x75 sole and head plates and noggings.
Facing to both sides to be 12.5mm plasterboard with skim finish and mineral wool packing between studs.

Above ground drainage:

To comply with BS 5572 with 40mm dia. polypropylene waste from shower and 32mm dia. waste from wash basin all to be connected together with u/c to 100mm dia. stub stack with air admittance valve fitted above floor level. Stub stack to be within ventilated duct and connected to existing soil and vent stack.
Fittings to have 75mm deep seal traps.

Mechanical ventilation:

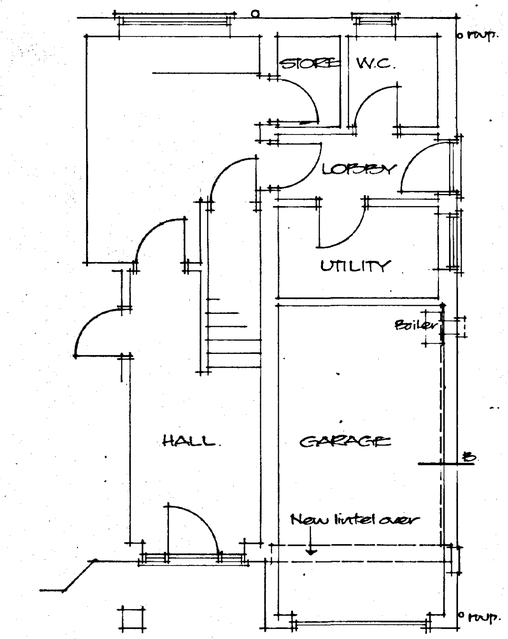
Install extract fan to en-suite to provide min. 15 litres per second extract.

Windows:

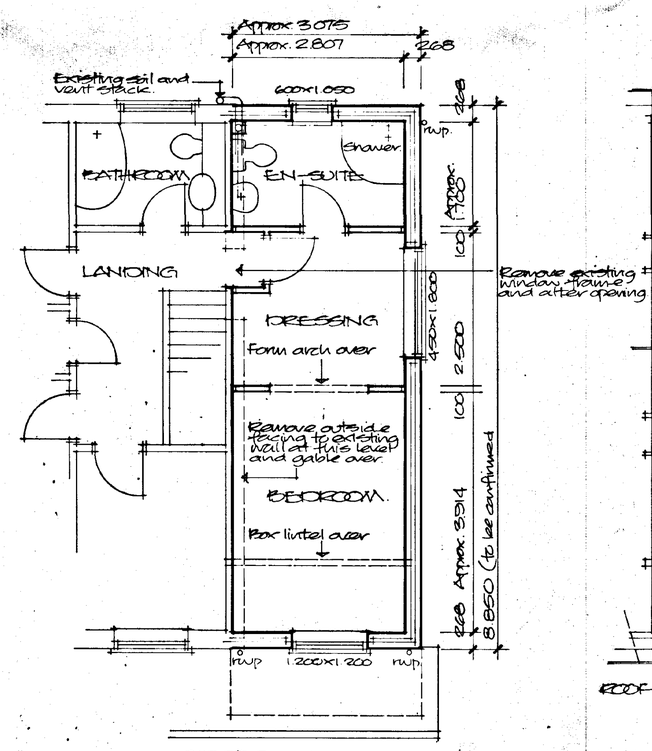
New windows to be u.p.v.c. double glazed with any glass within 800mm of floor safety glazed to BS 6206 and marked. Opening lights to be draught sealed.
Bedroom windows to provide at least 1/20th floor area as ventilation.
Install trickle vents to provide min. 8,000mm² vent to bedroom and 4,000mm² to en-suite.

Heating:

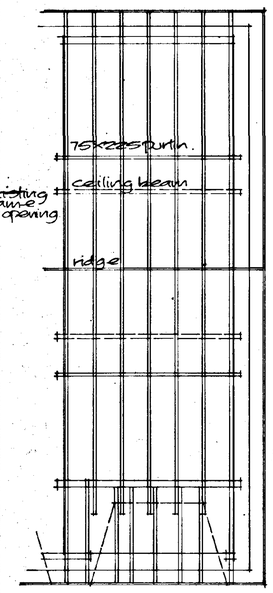
Existing central heating hot & cold water services extended into proposal with thermostatic valves fitted to new radiators. All hot water pipework insulated with Armaflex or similar as thickness to match pipe outside diameters.



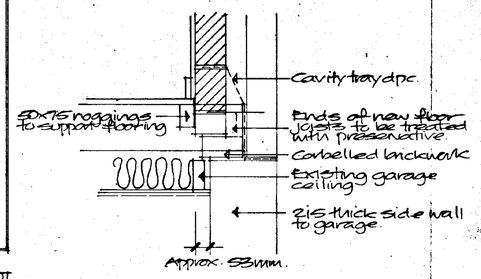
GROUND FLOOR



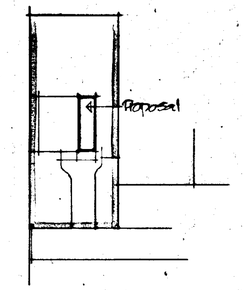
FIRST FLOOR



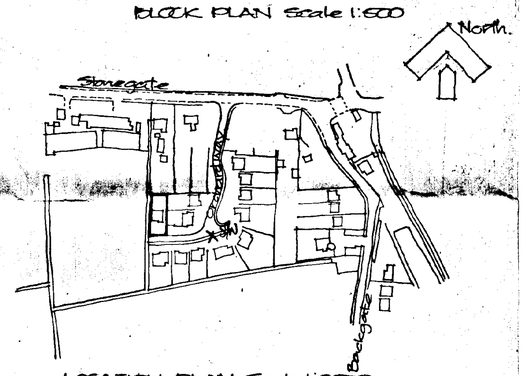
ROOF STRUCTURE LAYOUT



DETAIL 'B'



BLOCK PLAN Scale 1:500



LOCATION PLAN Scale 1:2500

DETERMINED PLAN

SOUTH HOLLAND DC
HOUSING & PLANNING
22 APR 1999
Ref: 0401/99

BROADGATE BUILDERS LTD
The Race Ground
Spalding
Lincolnshire
PE11 3AP
Telephone : 01775 725675
Fax : 01775 725097

Project
PROPOSED EXTENSION TO EXISTING HOUSE 10 ORCHARD WAY, COWBIT.

Client
MR & MRS R. TURNER

Scale 1:50/1:100
Date April 99