Roof construction:

New section of pitched roof constructed of interlocking concrete tiles to match existing and installed to manufacturers instructions on 25×38 fully treated battens on sarking felt on built up roof constructed of :

- 50×100 rafters at 600mm cts.
- 50×125 ceiling joists at 600mm cts.
- 100×225 purlins
- 100×200 ceiling beams
- 75×200 main collars at mid span (approx).
- 150×150 ridge beam
- 25×100 collars at ridge
- 38×100 hanger to support collars at mid span.
- 60×100 wallplate and pole plate.

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

Retain small area of existing pitched roof over front of garage with joist and rafters built into new wall and ceiling joists fixed to new floor joist and suspended from rafters with 38×100 hangers.

Eaves construction to match existing together with verge construction.

Install roof void ventilation strips in eaves to give equivalent of 6000mm² ventilation per metre. Maintain min 50mm vent gap above roof insulation.

300×5mm mild steel straps to be installed between roof structure and walls at average 1800 cts. straps to be installed at ceiling level and at apex of roof with straps extending over min. 3 no. timbers where at right angles with solid noggings under.

Roof insulation to consist of 2 layers of 100mm fibreglass quilt insulation with 1 layer between and 1 layer over ceiling joists.

112mm nr upvc gutters with 68mm dia. downpipes connected to existing downpipes/drainage.

Code 4 lead flashing together with cavity tray dpc at junction of lower roof and new wall.

Lintels:

New lintels to external openings to be I.G. type L/S with cavity tray d.p.c. to front bedroom opening.
Install 1 no. type L1/1b over garage to support front wall of extension.
Install 1 no. box lintel 100 to enlarged opening (approx 1800 clear) in existing retained inner skin of gable wall.

Ceilings:

Ceiling to garage formed of 12.5mm thick Supalux Fireline board to ceiling to be retained if possible together with existing ceiling joists which would be supported by new floor joists (existing 12.5mm fireline board).
Existing 12.5mm plasterboard ceiling and ceiling joists to be retained to hall, store and lobby with new floor joists slotted between.
New first floor ceiling to be 12.5mm plasterboard with artex finish and all edges supported.

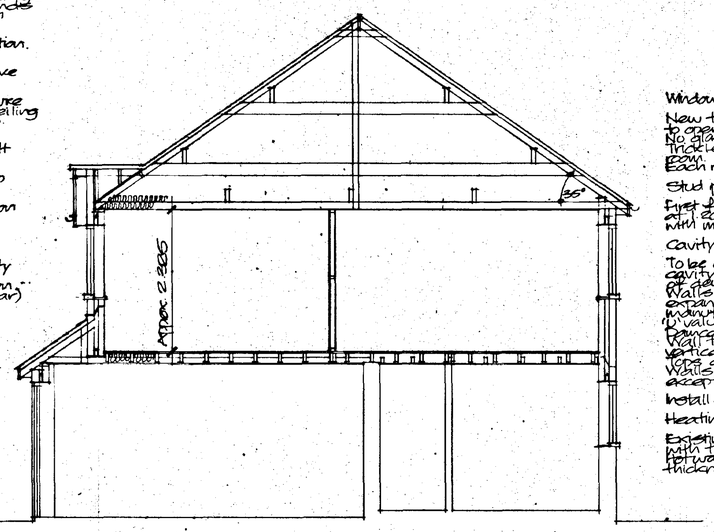
Install 150mm thick fibreglass quilt insulation between floor joists above garage.

Suspended floor:

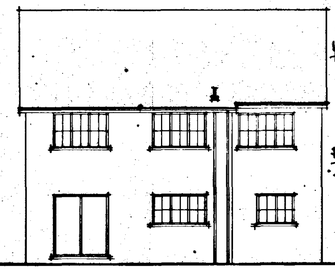
To be constructed of 18mm thick flooring grade T&G chipboard on 38×147 joists at 400mm cts. with row of solid herringbone strutting at centre span.
Install 300×5mm mild steel straps between floor joists and walls at average 1800 cts with straps extending over min 3 joists where at right angles with solid noggings under.
Install double joists spiked together below first floor stud partitions.

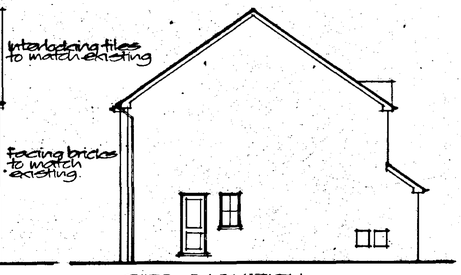
Foundations:

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




FRONT ELEVATION


REAR ELEVATION



SIDE ELEVATION

Windows:

New timber framed windows to match existing to have draught seals to opening lights and to be double glazed (4mm gap).
No glass is within 800mm of floor.
Trickle vents to be installed giving min. 8000mm² ventilation to each room.
Each room to have at least 1/20th floor area as opening lights.

Stud partitions:

First floor stud partitions constructed of 50×75 studs with noggings at 1200 cts clad both sides with 12.5mm plasterboard and skim with mineral wool infill between studs.

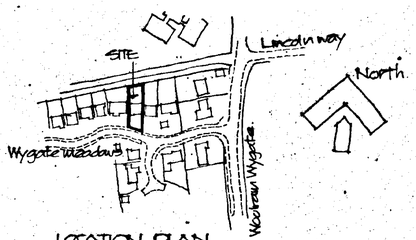
Cavity walls:

To be constructed of 103mm facing brick to match existing, 57mm cavity and 100mm celcon standard blockwork with internal finish of lightweight plaster.
Walls to be insulated with R.M.C. Polybead or similar approved expanded polystyrene bonded bead insulation installed to manufacturers recommendations.
U value - Approx 0.45 W/m²K average.
Provide insulated D.P.C.'s to reveals to lap frames by min. 15mm.
Wall ties to be installed at 900mm cts horizontally, 450mm cts. vertically and at 225mm cts within 225mm of reveals.
Tops of cavities to be sealed with Combi Supaflex or similar.
Walls to be bonded to existing with Furfix wall extension profiles except front facing brick which is to be fully bonded.

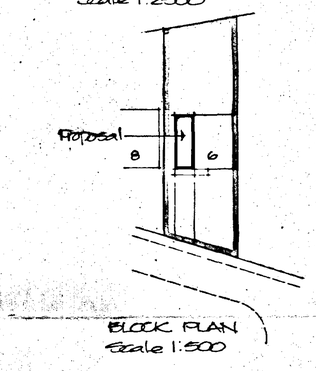
Install cavity tray dpc. in new wall above ground floor lintels.

Heating:

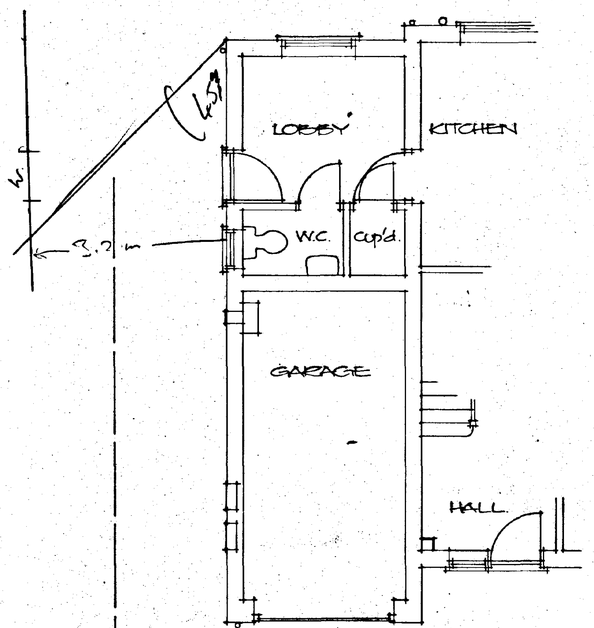
Existing central heating system to be extended into new area with thermostatic valves fitted to new radiators.
Hot water pipes to be insulated with Armaflex or similar of thickness to match pipe outside diameter.



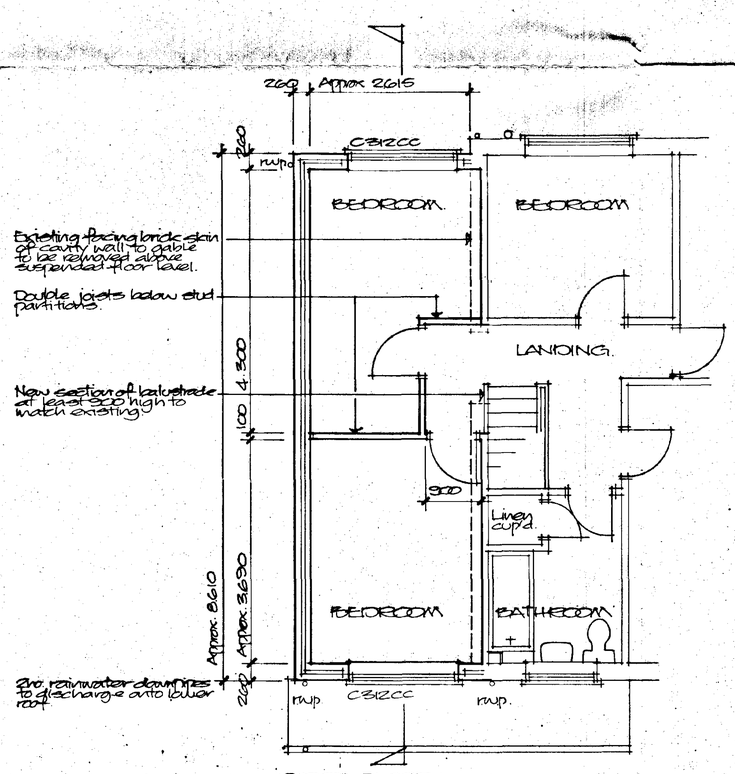
LOCATION PLAN
Scale 1:2500



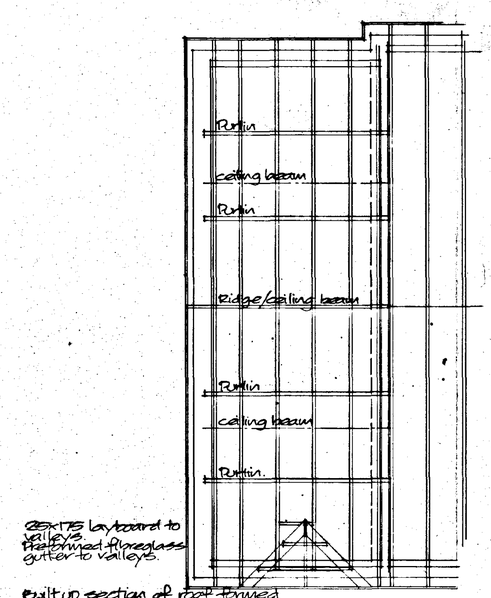
BLOCK PLAN
Scale 1:500



GROUND FLOOR.



FIRST FLOOR



225×75 layboard to valleys Reinforced fibreglass gutter to valleys.
Built up section of roof formed of 38×100 rafters and ties at 600mm cts and 225×125 ridge board.
ROOF STRUCTURE LAYOUT.

DETERMINED PLAN
SOUTH HOLLAND DISTRICT COUNCIL
HOUSING & PLANNING
26 FEB 1998
Ref: 0220/98

BROADGATE BUILDERS LTD
The Race Ground
Spalding
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PE11 3AP
Telephone: 01775 725818
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Client: MR & MRS S. HAYWARD

Job Title: PROPOSED EXTENSION TO HOUSE, 6 WYGATE MEADOWS, SPALDING.

Scale: 1:50 & 1:100

Date: Feb 98 | Drawn by: ACH

Drg. No. | Rev