Roof construction:

Interlocking concrete tiles to match existing (smooth bold roll design) installed to manufacturers recommendations on 25×38 battens. Treated battens on sarking felt on built up timber roof structure formed of:

50×100 rafters and ceiling joists at max. 450mm cts.
50×150 purlin
50×150 ceiling beam over playroom supported at mid span by
50×100 hangers
50×100 collars at ridge.
50×150 ridge board.
50×100 wallplates.

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

Eaves construction to match existing and to incorporate roof void ventilation strips to provide min. 10,000mm² ventilation per metre.

Install 30×5mm mild steel straps at average 1800 cts between roof structure and perimeter walls. Straps to extend over 3no. timbers at gable with solid noggings under straps to be installed at ceiling level and at slope of roof.

Roof insulation:

Install 2 layers of 100mm thick fibreglass quilt insulation to new roof spaces with 1 layer between and 1 layer over ceiling joists. Maintain min. 50mm vent gap above insulation at eaves. Install 1 layer of 100mm thick insulation between roof joists to section of flat roof.

Flat roof:

Area of flat roof constructed of code 5 lead sheeting installed on 18mm thick plywood decking laid to falls on firrings to fall at 1 in 60 on 50×100 joists at max. 450mm cts. supported on steel lintel and 2no. 50×100 timbers bolted together at max. 600mm cts. supported on 114mm dia. tubular steel support posts at window with fixing plates welded to top and bottom. Beams also supported on wall/lintel. Lead treatment to fascia to match existing bay.

Gutters and downpipes:

New upvc gutters and downpipes to match existing. New downpipes to be connected to 110mm dia. upvc drains bedded on 100mm pea gravel to fall to new soakpit min. 1 metre cube and at least 5.000 from building.

Ceilings:

New ceilings formed of 9.5mm thick plasterboard with Artex finish and support to ceiling perimeter.

Floor construction:

Min. 65mm thick lightly reinforced sand/cement screed on 500 gauge separating membrane on 50mm thick grade 30 extruded polystyrene insulation on 1200 gauge polythene dpm, lapped with wall dpc. on approx. 150mm thick concrete on reinforced concrete raft foundation. (refer to structural engineers details and calculations for details of raft foundation and reinforcement in concrete below dpm.

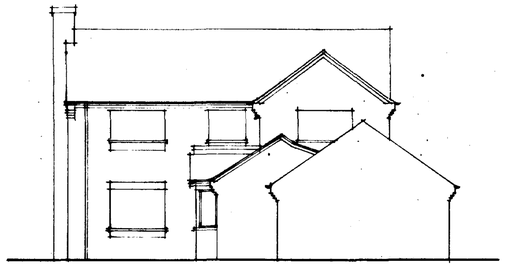
Cavity wall:

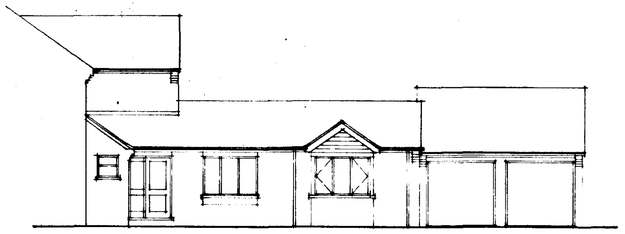
Constructed of 102mm thick facing brick to match existing, 65mm thick cavity and 100mm thick thermalite standard block or similar with plaster internal finish.
Install 65mm thick fibreglass batt cavity insulation to manufacturers recommendations.
Average U value = 0.45 w/m²K
Damp proof insulated dpc. to reveals with frames lapping by min. 15mm.
Dpc trays at cavities.
Install cavity wall ties at 900mm cts horizontally, 450mm cts vertically and at 225mm cts within 225mm of reveals.
Concrete blocks used below dpc level to be class B engineering bricks.
New internal blockwork walls to be 100mm thermalite standard blocks or similar.
Install fl/load d.p.c. min. 150mm above ground level (external skin)

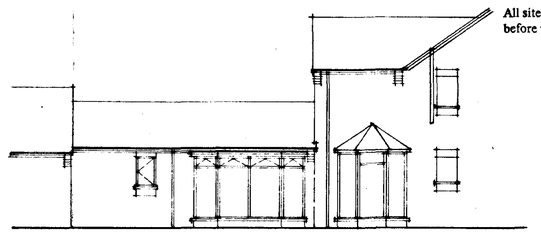
New walls bonded to existing with further wall extension profiles, refer to structural engineers layout for location.

Lintels:

Install 1 No. LI/HD 50 steel lintel to playroom window type LI/SD 50 to shower room window and type LI/SD 50 to sun room window. Install 2 no. 1 No. 150 lintel LSD steel lintels to new approx 1 metre wide opening from dining room into sun room.
All lintels to be installed to manufacturers recommendations.







Do not scale off this drawing
All site dimensions to be checked before work commences.

Windows:

New windows to be upvc with woodgrain finish. All glass to be double glazed with safety glass installed when glass within 800mm of floor level and to be to BS 6262.
Opening lights to be casement sealed installed with vents to provide min. 6000mm² background ventilation to playroom and 4,000mm² to shower room.
Provide opening lights to provide at least 1/20th of floor area as ventilation.

Window sizes:
Bay to playroom 1 350 deep
Bay to sun room 2,100 deep
Shower room window 1 050 deep approx 600mm wide

Mechanical ventilation:

Install extract fan to shower room to extract at a rate of 15 litres per second.

Heating/hot water:

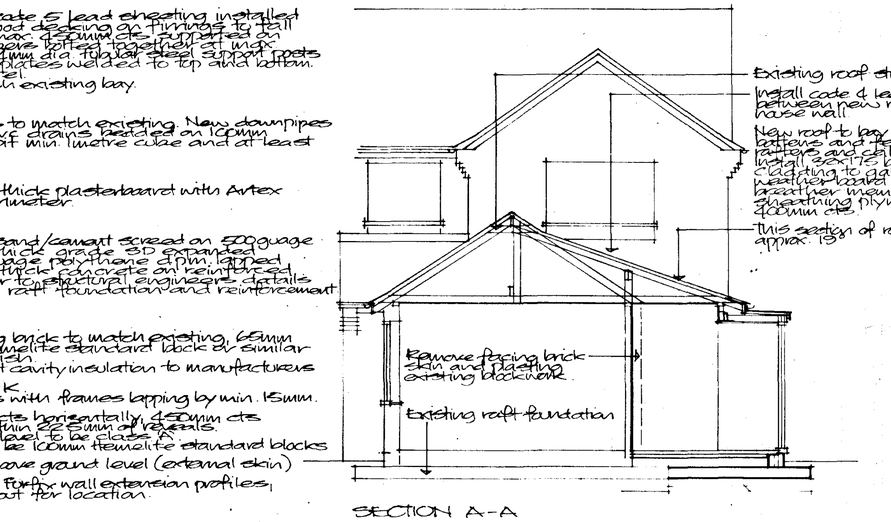
Extend existing heating and water services into proposal with new radiators fitted with thermostatic valves. All hot water pipes to be lagged with thermaflex or similar of thickness to match pipe outside diameter.

Above ground drainage:

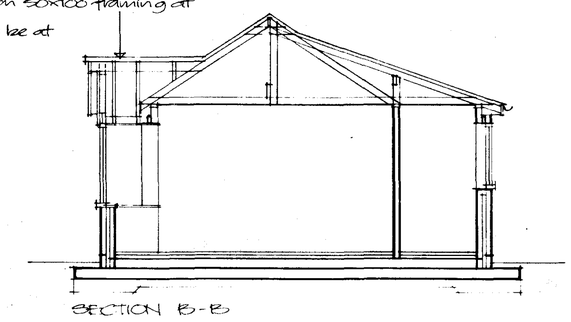
40mm dia. polypropylene waste from shower and 32mm dia. from wash basin with 50mm dia. combined waste. Install 75mm deep seal trap to wash basin and 50mm deep dressable trap to shower. All fittings connected to new 110mm dia. upvc stub stack fitted with air admittance valve above flood level. Stub stack installed within vented duct.

Below ground drainage:

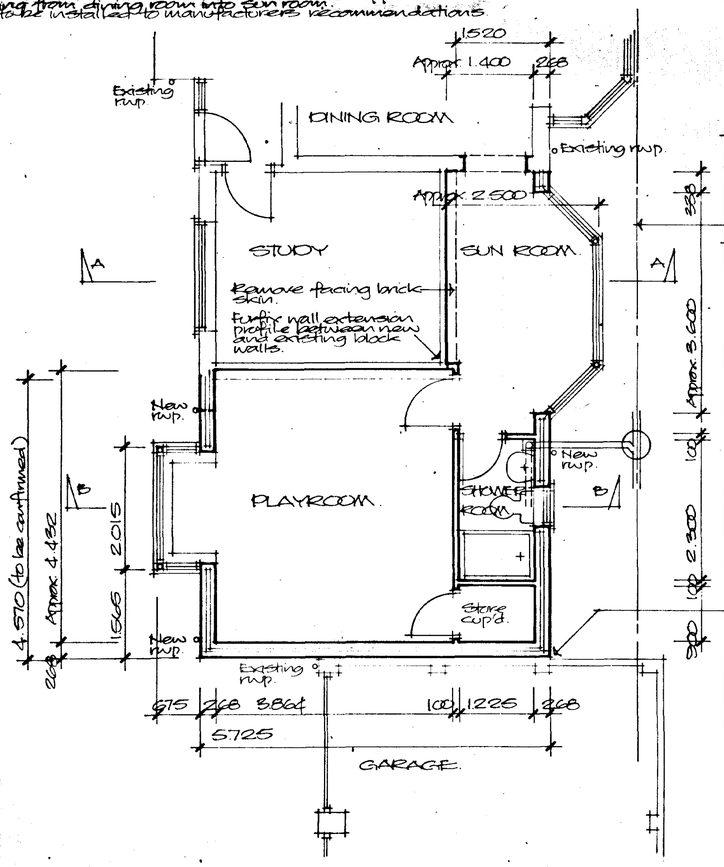
New stub stack connected to new 110mm dia. upvc drain bedded and surrounded in 100mm pea gravel to fall at 1 in 40 to new preformed polypropylene inspection chamber installed on existing foul drain run.

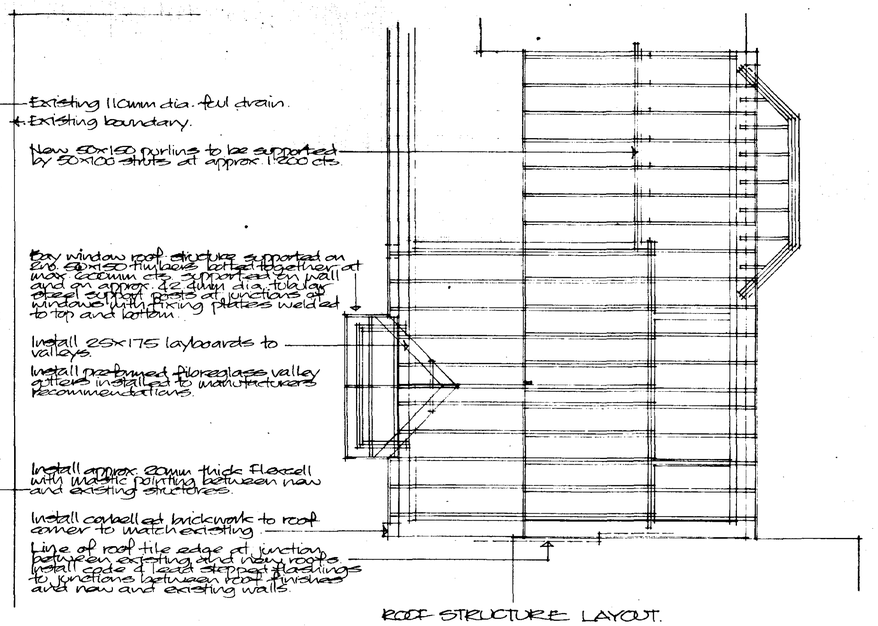


SECTION A-A

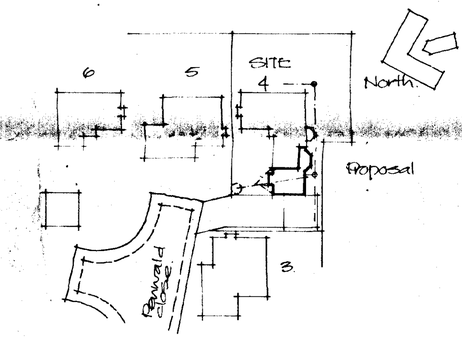


SECTION B-B

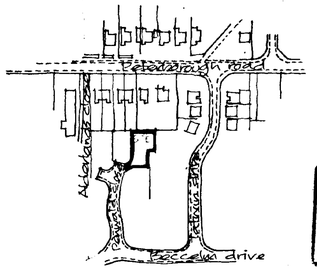




ROOF STRUCTURE LAYOUT.



BLOCK PLAN Scale 1:500



LOCATION PLAN Scale 1:2500

SOUTH HOLLAND DC
HOUSING & PLANNING
-8 NOV 2001
Ref: 1287/01

DETERMINED PLAN

Project
PROPOSED EXTENSION TO HOUSE 4 PENWALD CLOSE, CROYLAND.

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Scale 1:50/1:100
Date October 01
Drg. no. 01/64/01

Summit DS(UK) 0096