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

Pitched roof construction:

Install Redland Mini Stonewold interlocking concrete tiles to manufacturers recommendations on 25x38 fully treated battens on sarking felt on existing timber roof structure strengthened as follows:

- Install 178x102x19 RSJ where shown above proposed ceiling level.
- Install 2no. new 63x225 purlins supported with 100x75 timber props off top of new steel beam and on existing wall.
- Purlins to support existing 47x100 rafters at approx. 500mm cts. max. Maximum span from eaves to new purlin to be 2.100.
- Install new 75x200 ceiling beam mid span of ceiling joists with 38x100 hangers at approx. 1.000 cts. Ceiling beam to run full length of room with support from new steel beam.
- Existing 47x150 ceiling joists to be retained and new 47x150 ceiling joists installed (shown with broken line) at approx. 500mm cts. with support from new eaves beam, ceiling beam and new wall.

Install new timber eaves beams to be 63x175 supported on existing/new sections of wall and on 114.3mm dia. 5mm thickness round hollow steel support posts with 10mm thick steel spreader/fixing plates welded to top and bottom of each post.
Posts to be bolted down to existing cavity wall inner skin at window cill level (door cill level to french doors) and to be coach bolted to new timber eaves beams.

Eaves beams to be fixed together around curve with 30x5mm mild steel straps at least 1 metre long each.

Rafters to be fixed to eaves beam with truss clips.

Install 25x100 ties above ceiling joists between corners on curve and mid span point of steel beam with ties fixed to tops of ceiling joists.

Existing roof pitch approx. 22½°

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

Install 30x5mm mild steel straps between new walls and timber roof structure (2no. to each side of room). Also install straps between new flat roof structure and perimeter walls at average 1.800 cts with straps extending over 3no. timbers where at right angles.

Install 38x100 props to existing rafters to curve supported off new steel beam. Props to be bolted to rafters and to incorporate toothed connectors.

New flat roof construction:

Formed of min. 12mm thickness of mineral chippings bedded in bitumen to 3 layer high performance built up roof finish to be at least to B.S. 747 standard, on 18mm thick exterior grade Plywood decking on firrings to fall 1 in 60 on 38x150 joists at max. 450mm cts. supported on new wall and on joist hangers on existing wall.

Flat roof finish to be taken up under new roof tiles on plywood decking with tiles lapping felt by min. 300mm.
Install ventilated upstand against parapet wall above toilet to provide min. 25,000mm² vent per metre to roof void.
Maintain min. 50mm ventilation gap above flat roof insulation.
Pitched roof and flat roof ventilation to be linked.

Fascia to be approx. gx. 25x200 with roof void ventilation strip installed between fascia and wall to provide min. 25,000mm² vent per metre.

Roof void ventilation:

Install over fascia roof void ventilation strips above fascia to pitched roof to provide min. 25,000mm² ventilation per metre. Maintain min. 50mm vent gap above insulation.

Roof insulation:

Install 2 layers of 100mm thick fibreglass quilt insulation to pitched roof area with 1 layer between and 1 layer over ceiling joists.

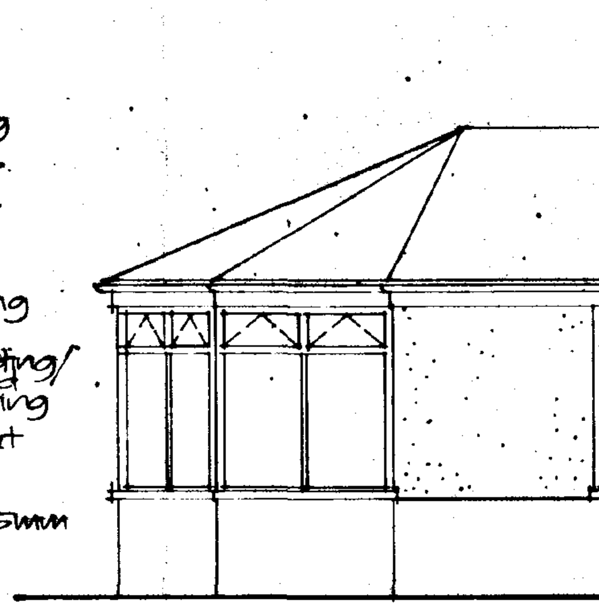
Install 1 layer of 100mm thick fibreglass quilt insulation to flat roof installed between joists with min. 50mm vent gap.

Ceilings:

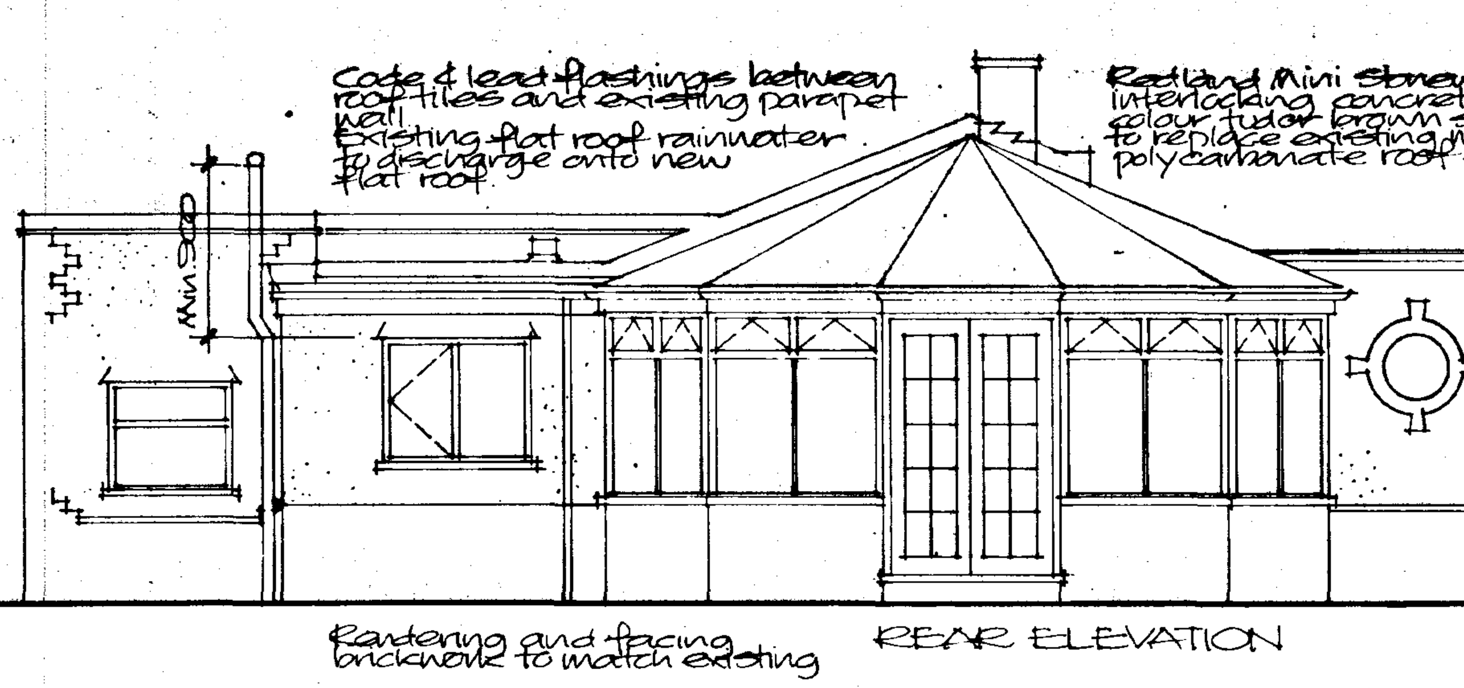
New ceiling to pitched roof area to be 12.5mm plasterboard with Artex finish and all edges and joints supported.
Ceiling to new flat roof area to be min. 9.5mm plasterboard with Artex finish and perimeter edges supported.

Gutters and downpipes:

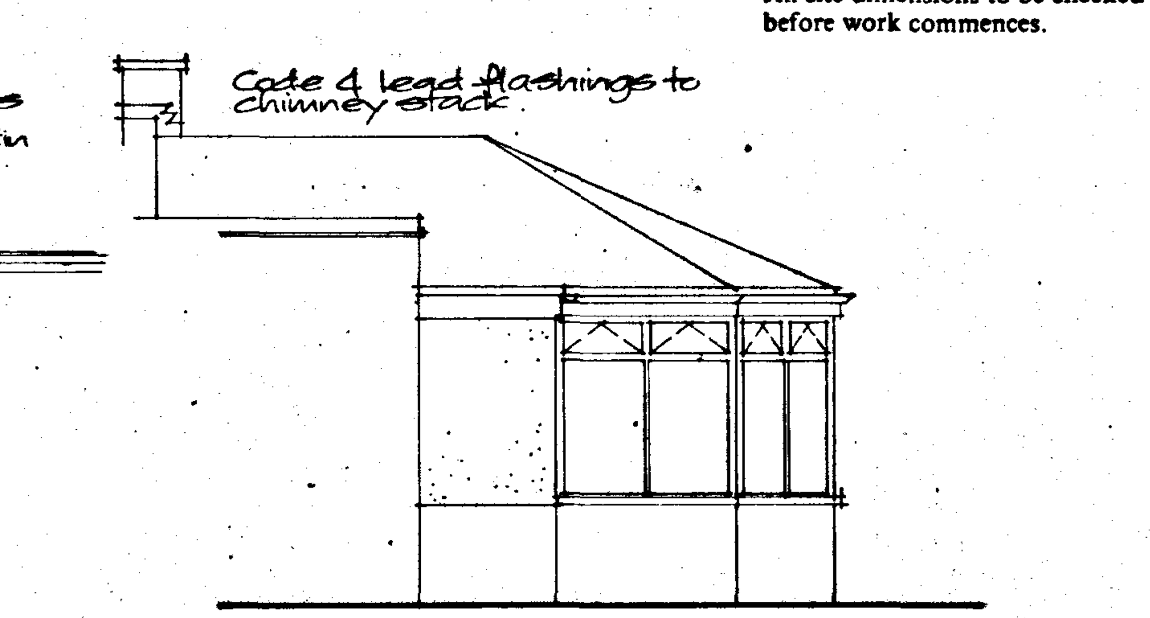
To be Upvc. to match existing with new downpipe connected to 110mm dia. drain bedded on 100mm peagravel to fall to soakpit 1 metre cube at least 5.000 from building.



SIDE ELEVATION



REAR ELEVATION



SIDE ELEVATION

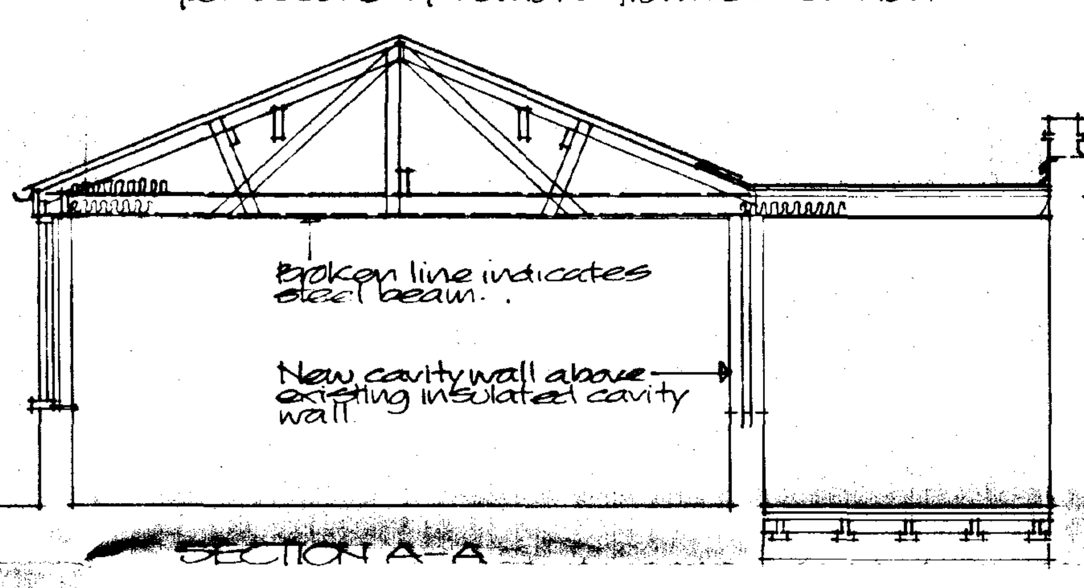
Heating and hot water:

Existing central heating system to be extended/altered with any new radiators fitted with thermostatic valves.
Install additional gas fired wall mounted boiler within toilet for local hot water services, size of boiler to be determined.
Boiler flue outlet to be fitted with guard.
New hot water/heating pipes to be insulated with Armaflex or similar of thickness to match pipe outside diameter.

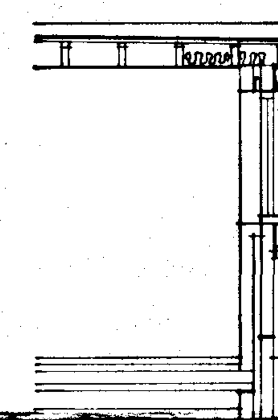
Existing log burner to sun room retained complete with hearth but flue to be connected to new brick chimney stack built into existing wall and corbelled out above ceiling level.
Chimney stack to be 440x440 and to have clay flue linings of 225mm dia. with sockets installed uppermost all to BS1181.
Provide suitable combustion air vent into floor void adjacent to hearth.

Mechanical ventilation:

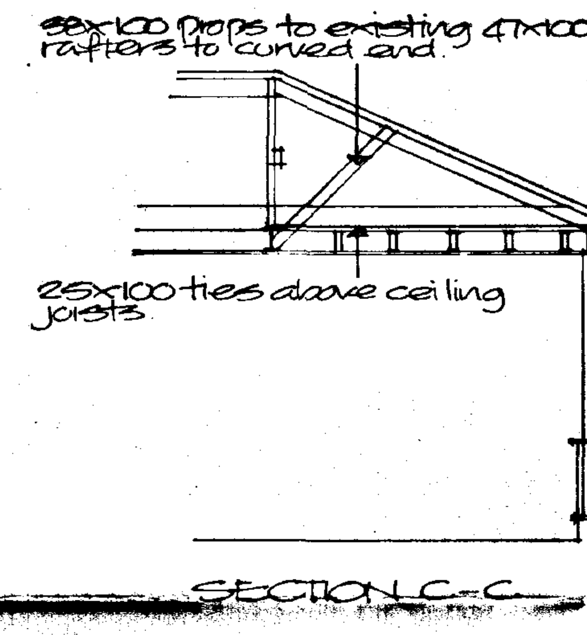
Install extract fan to kitchen within cooker hood or adjacent to provide min. 30 litres per second ventilation or 60 litres per second if remote from cooker hob.



SECTION A-A



SECTION B-B



SECTION C-C

Drainage:

Install new 110mm dia. soil and vent stack connected to new polypropylene preformed inspection chamber installed on existing drain run. Remove/seal off all redundant drains, inspection chamber etc.
Connect existing W.C. to new stack and seal off old drain.
Install 40mm dia. polypropylene wastes from kitchen sink and washing machine and 32mm dia. from wash basin with 50mm dia. combined wastes to new soil stack. Fittings to have 75mm deep seal traps.

Existing disused rainwater cistern to be emptied and filled with consolidated hardcore (150mm max. layers). Top of cistern to be demolished to allow for void below new floor.

Any drains passing through walls to be protected by prestressed concrete slab lintels with 50mm clearance around pipe and protection from vermin entry.

Cavity wall construction:

Formed of 103mm thick facing brickwork to lower section up to sun room cill level and 100mm thick Hemelite standard blockwork above with render finish to match existing with expanded metal ref. 547 render stop to base, 65mm thick cavity and 100mm thick Hemelite standard block inner skin with dense plaster finish.
Install 65mm thick fibreglass cavity insulation batts to manufacturers instructions.
Average 'U' value = 0.42 W/m²K.
Install Damcor insulated d.p.c. to reveals with window frames lapping by min. 12mm.
Cavity 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 6mm Superlux or similar.
Concrete blockwork used below d.p.c. level to be class A.
Install Hyload d.p.c. min. 150mm above ground level to external skin and below floor beams to inner skin.

Install Furfix wall extension profiles between new walls and existing.

Foundations:

New concrete strip foundations to be 225x600 grade ST4 concrete min. 750mm deep (1.000 in shrinkable soil). Depth to be confirmed on site with L.A. building inspector. If required existing foundations to be exposed to confirm suitability.

Lintels:

Install I.G. type L1/S steel lintel to new kitchen window and type L1/HD to double doors between kitchen and sun room.
Install prestressed concrete slab lintels to enlarged opening between kitchen and extension (approx. 1.650 clear span).

Windows/external doors:

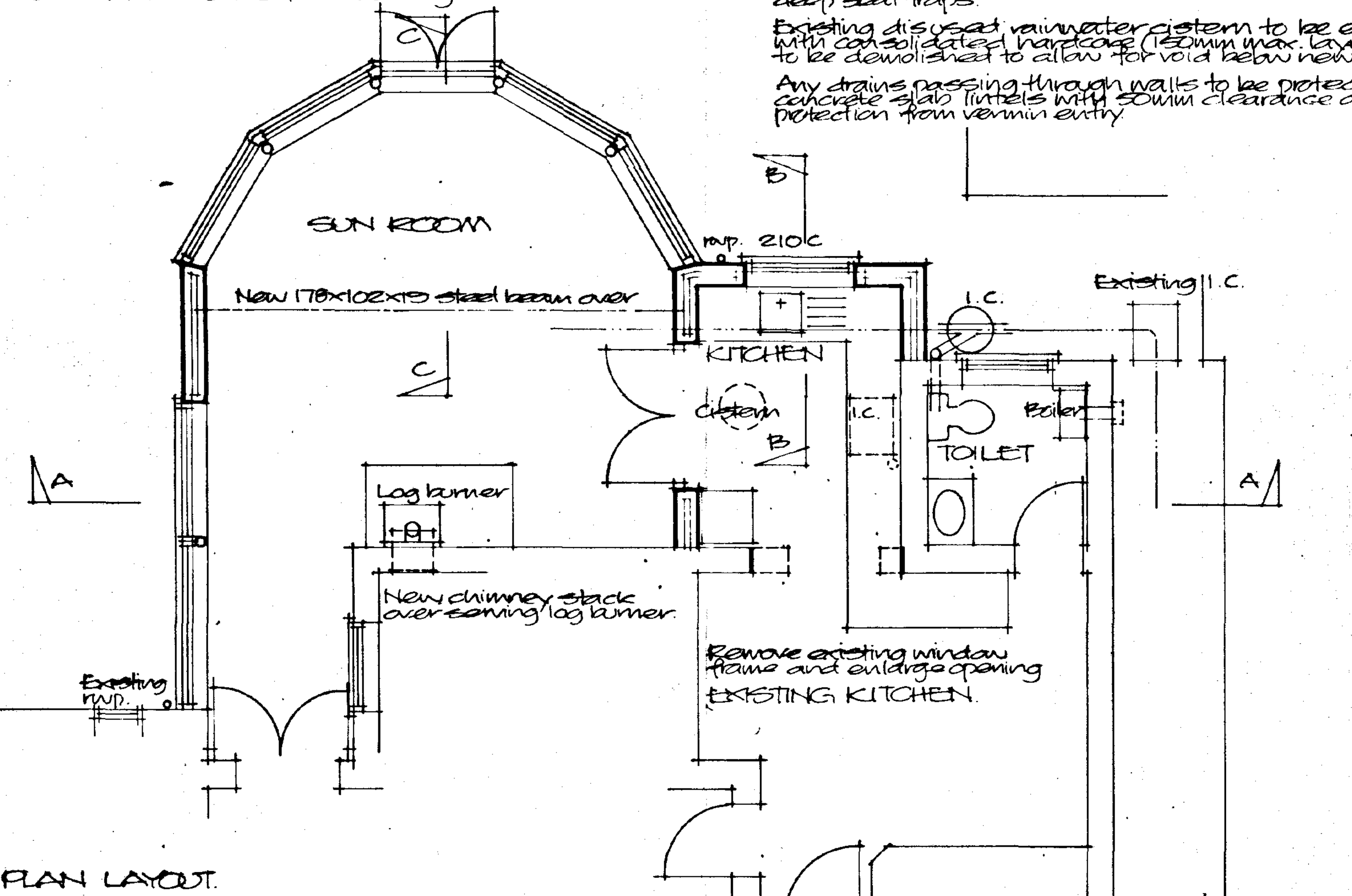
Windows and french doors to sun room are all existing retained and are all at present double glazed.
New window to kitchen to be standard timber window with double glazing. Opening light to new window to be draught sealed.
Install trickle vent to window to provide at least 4000mm² background ventilation.

Ground floor:

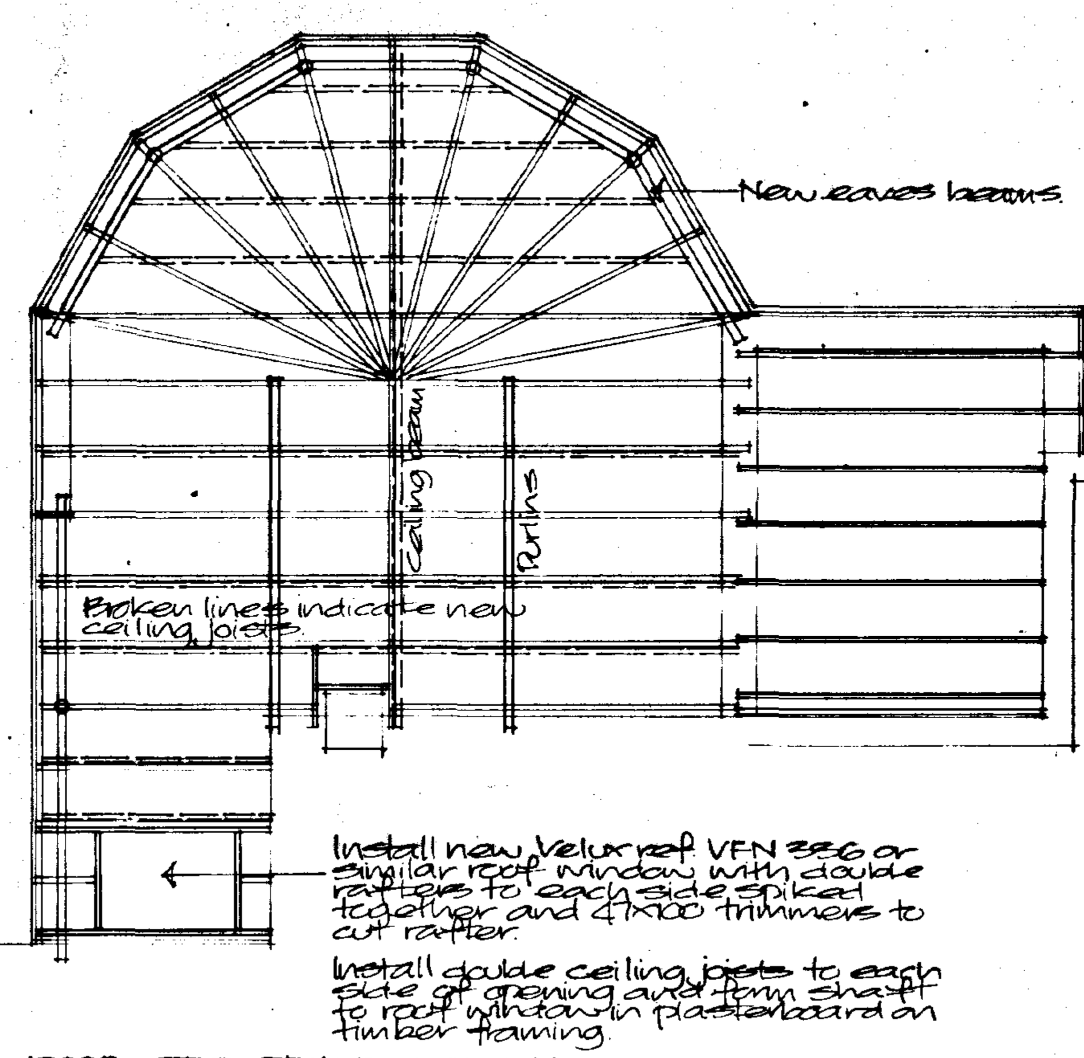
Floor to kitchen extension to be formed of 65mm thick lightly reinforced sand/cement screed on 1200 guage polythene separating membrane on 50mm thick SD grade expanded polystyrene insulation on prestressed beam and infill block floor with min. 150mm void below.
Prestressed beams to be designed and supplied by specialist manufacturer with infill blocks to manufacturers recommendations.
Install 2no. periscope vents to floor void. Allow openings between new floor void and existing void below sun room for cross ventilation.
Ground below void to be covered with polythene with sand loading.

DETERMINED PLAN

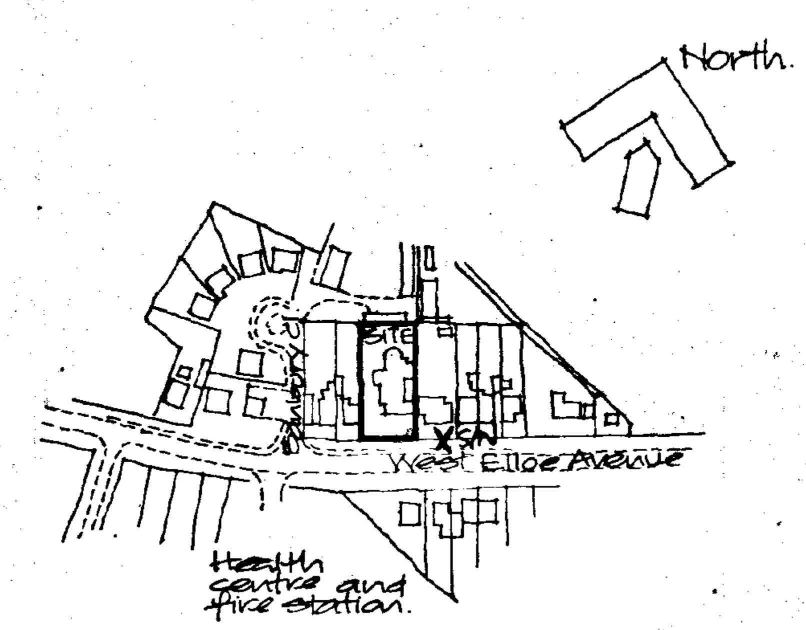
SOUTH HOLLAND DC
HOUSING & PLANNING
02 JUN 1999
Ref: 0544/99



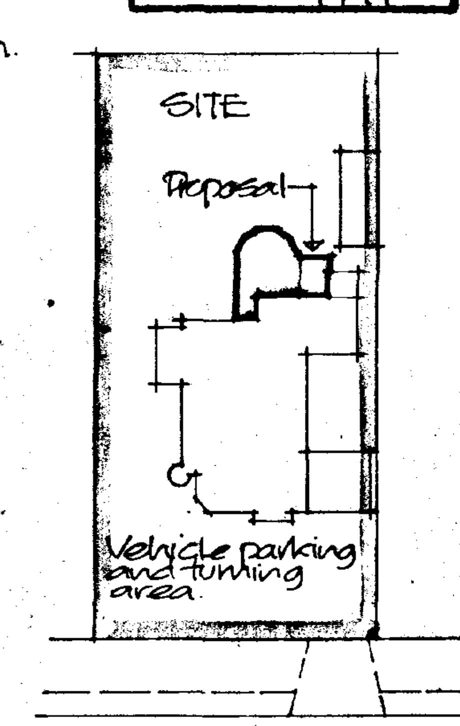
PLAN LAYOUT



ROOF STRUCTURE LAYOUT



LOCATION PLAN Scale 1:2500



BLOCK PLAN Scale 1:500

Project	ALAN HORNSBY ARCHITECTURAL SERVICES
PROPOSED EXTENSION AND ALTERATIONS TO BUNGALOW. 47 WEST ELLOE AVENUE, SPALDING.	'Little Acre' Peak Hill, Cowbit, Spalding, Lincs. PE12 6AW Tel. Holbeach (01406) 380591

Client	Scale	Drg. no.
MR & MRS K. SESTON	1:50	99/23/01
	Date May 99	

AM ADMEL 230