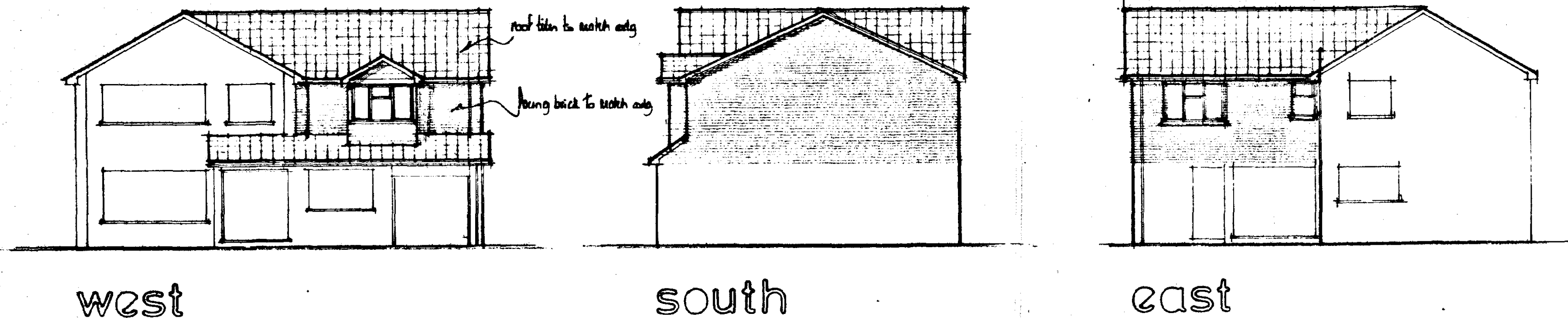




#### FOUNDATIONS

Foundations to be ST4 grade concrete and to be as specified by structural engineer.

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.

Any investigation work relating to extra foundations should be carried out prior to the commencement of any works to ensure that what is proposed is suitable.

#### FLOOR CONSTRUCTION

**Floor**  
18mm Weyroc floor panels  
150 x 50mm SC3 grade tanalised timber joists at 400mm cts with min. 1 row herringbone strutting midspan 12.7mm Gypsum Fireline plasterboard, fixed in accord with manufacturers instructions, with all necessary noggins etc. and with skim finish.

#### 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 265mm o/a constructed as follows :-

100mm facing brick (to be FL quality below dpc level)  
85 mineral wall insulation i.e. Dritherm (k = 0.036)  
100mm loadbearing insulation blocks (i.e. Hemelite (k = 0.44))

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 0.414W/mK

**Stud Partitions**  
to be constructed as follows :-

75 x 50mm head and sole plate  
75 x 50mm studs at 400mm cts with min. 2 rows  
75 x 50mm noggins equally spaced  
75mm glassfibre insulation within framework  
face both sides with 12.7mm plasterboard, tape joint and skim finish

stud partitions to be constructed off doubled up floor joists (bolted together at 1.0m cts) at first floor level when running parallel to joists, and off 75 x 50mm sole plate, with solid blocking between joists, when running perpendicular to joists

#### 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.

#### LINTELS

Lintels to be Galvic, 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 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 double glazed UPVC with 12mm air gap to sealed units and weather stripped.

Windows to habitable rooms are to incorporate a controllable trickle vent of 8000mm<sup>2</sup>, 4000mm<sup>2</sup>, to non habitable rooms.

Windows to first floor habitable rooms are to contain openings which are a min. 450mm x 450mm, have an area of 0.33m<sup>2</sup>, and have a cill level no more than 1100mm above finished floor level. Key operated locking devices are not permitted to first floor windows.

Glazing to windows less than 900mm 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. | Lintel ref. | Length |
|----------|------------------|-------------|--------|
| 1        | 630 x 1050       | CN7A        | 900    |
| 2        | 1800 x 1200      | CN7A        | 2100   |
| 3        | 1800 x 1200      | CN5XA       | 2100   |

#### 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 shower room is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 15 litres/sec.

#### SMOKE DETECTION

Self contained smoke alarms complying with BS5446 Pt 1 : 1990 are to be installed where indicated SD on the drawing. An alarm must be positioned within 3.0m of bedroom doors.

The alarms are to be permanently wired to a separately fixed circuit at the distribution board operating at a low voltage via a mains transformer.

Where more than one smoke alarm is required the units are to be interconnected so that the detection of smoke by one unit operates the alarm signal in all units.

The wiring installation is to comply with the I.E.E. Regulations.

#### ELECTRICAL INSTALLATION

The Electrical Contractor is to ensure that the electrical installation is in full compliance with the latest edition of the I.E.E. Regulations.

Any electrical fitting indicated on the drawing in a position contravening these regulations must be relocated in order to achieve full compliance.

All switches, sockets, tv points and telephone jackpoints are to be located at a height between 450 and 1200mm above finished floor level.

#### HOT WATER/CENTRAL HEATING SYSTEM

A room thermostat or radiator valves are to be installed.

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.

#### DRAINAGE

**Surfaces**  
Excavate for and lay in where indicated 100mm diam. flexible jointed UPVC drains on 100mm pea gravel bed 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.

**Cast**  
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 |
|--------------|---------------|------------|
| 8m or less   | 100mm         | 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.

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 40mm diam. pvc waste to shower. (NOTE: shower trays to be constructed on a suitable plinth to maintain access to trap and waste). 32mm diam. pvc waste to hand basins etc with 75mm deep traps. 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 BS6301 : 1985

All drainage items are to be installed in strict accordance with the manufacturers instructions.

#### 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 joints 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 filters 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 5mm 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.

**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  
100 x 50mm @ 400mm cts to be double up at 1.6m cts sandwiching 200 x 50 collar tie and collar tie with all necessary packers etc and bolted together at 600mm cts with M10 bolts, with double sided galv. m.s. tooth plate connectors between each member, to form principle rafters.  
300 x 50mm  
300 x 50mm  
Collar ties  
Purlins  
Ceiling ties  
Blindings  
Hangers  
175 x 50mm @ 400mm cts  
175 x 50mm  
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 60mm PVC downpipes securely clipped to walls at 1800mm cts with all necessary offsets, swanlocks, 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 1000mm cts. Straps to be fixed to a min. 3No. rafters/struts having rodding between beforehand, and hooked into the cavity a min. 150mm.  
Similar straps to be used at 1800mm cts to hold walls the wall plate.

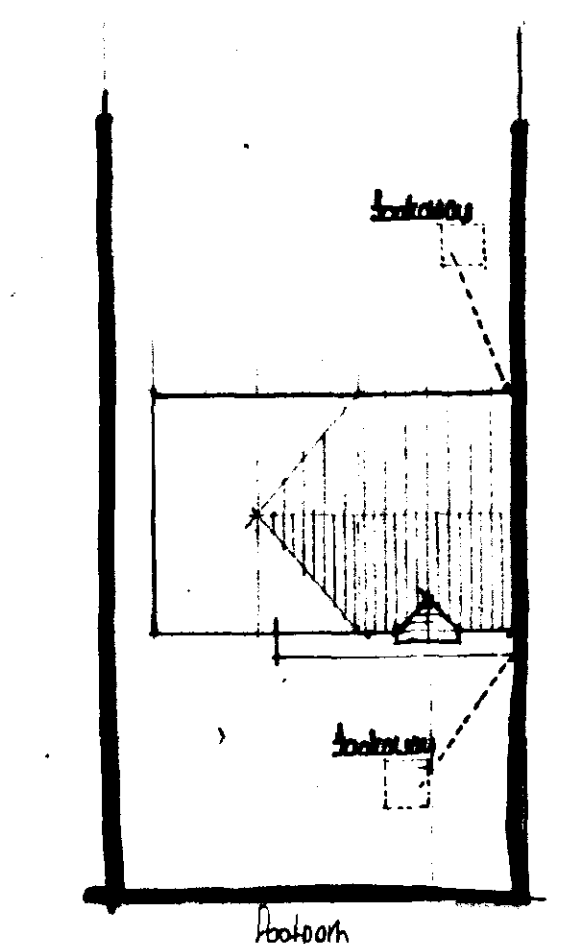
Straps to be 30 x 6mm galv. m.s.

#### DORMER CHIEK & FACE CONSTRUCTION

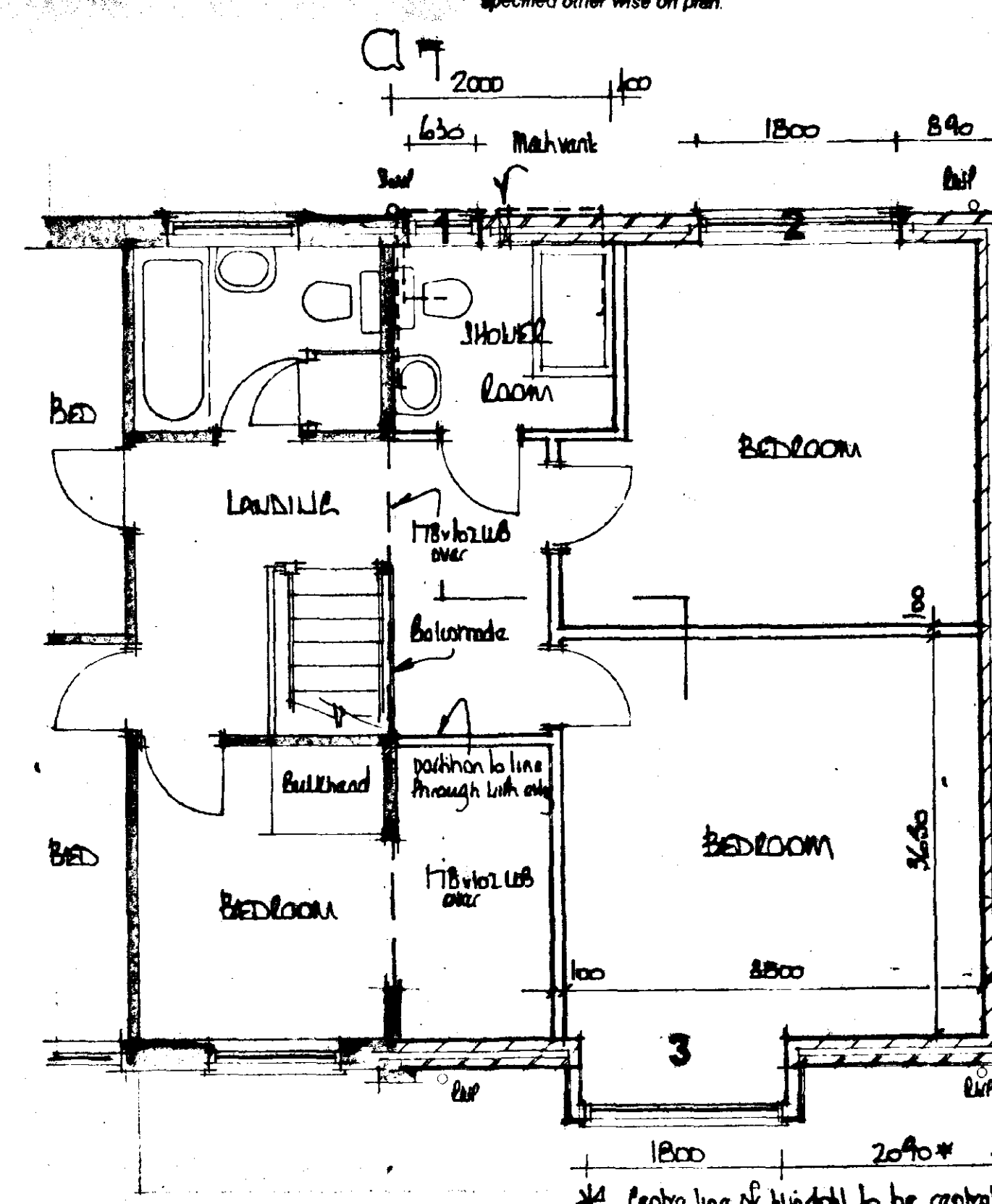
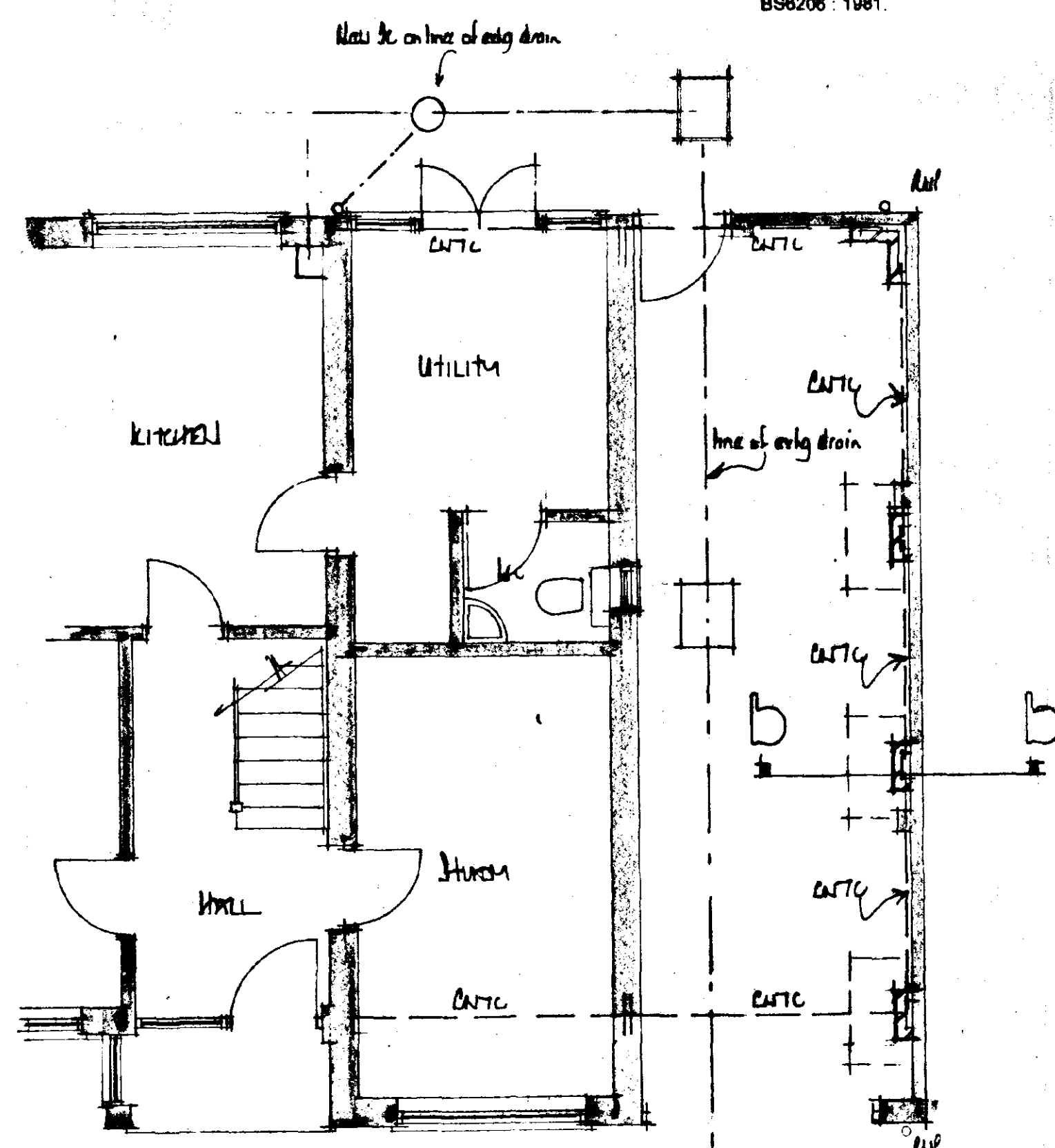
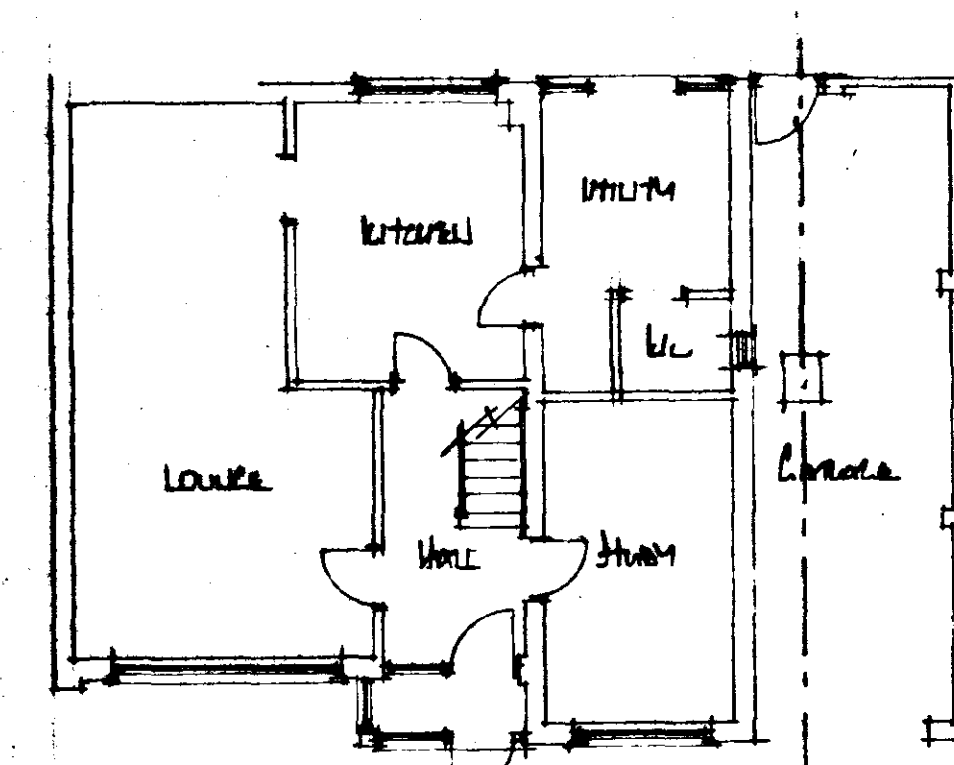
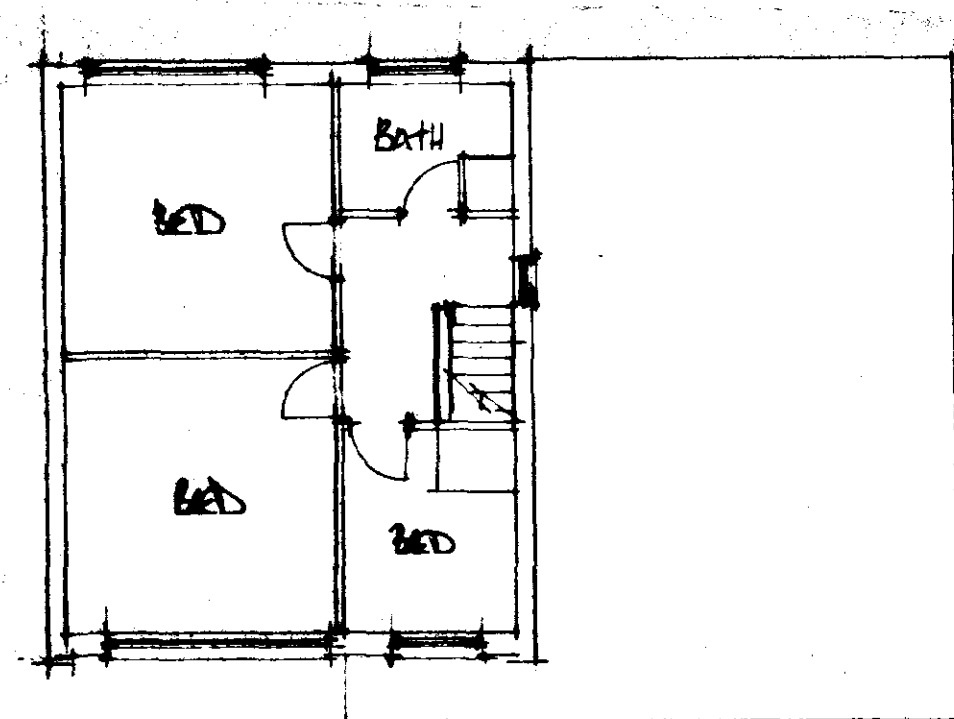
External finish to be slate hanging on 25 x 10mm horizontal tanal battens at cts to suit 25 x 12mm vertical tanalised battens at 400mm cts.  
Building paper vapour barrier  
12mm exterior grade plywood glued & screwed to 100 x 50mm SC3 grade s/w framework, studs at 400mm cts with 100 x 50mm noggins as necessary.  
100mm glassfibre insulation quilt within framework  
Building paper breather paper

#### STRUCTURAL STEEL BEAMS

Structural steel beam to have min 150mm end bearing on 2 course Eng. brick padstone. Beam to be encased with 12.7mm plasterboard secured with 1.6mm wire binding at 100mm pitch and finish with 5mm gypsum plaster to give a min. 1/2 hour fire resistance.



LILBULL DRIVE



existing

ground floor plan  
proposed

first floor plan

SOUTH HOLLAND DC  
HOUSING & PLANNING  
12 NOV 2001  
Ref: P295/01

|                                                                                                   |  |          |           |
|---------------------------------------------------------------------------------------------------|--|----------|-----------|
| A                                                                                                 |  | Date     | Revisions |
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| East Midlands Design Associates                                                                   |  |          |           |
| "Willow Lodge",<br>Horseshoe Road,<br>Spalding,<br>Lincs. PE11 3JA<br>Tel: Spalding (0775) 787988 |  |          |           |
| Client                                                                                            |  |          |           |
| MR & MRS MARRIAGE                                                                                 |  |          |           |
| Job Title                                                                                         |  |          |           |
| Extension to Detached at<br>4 LILBULL DRIVE<br>SPALDING<br>Lincs                                  |  |          |           |
| Drawing Title                                                                                     |  |          |           |
| Plans & Elevations as<br>Proposed                                                                 |  |          |           |
| Scale 1:50 - 1:100                                                                                |  |          |           |
| Date                                                                                              |  | Drawn by |           |
| June 01                                                                                           |  | AL       |           |
| Dwg. No.                                                                                          |  | Rev      |           |
| 01/28/01                                                                                          |  |          |           |