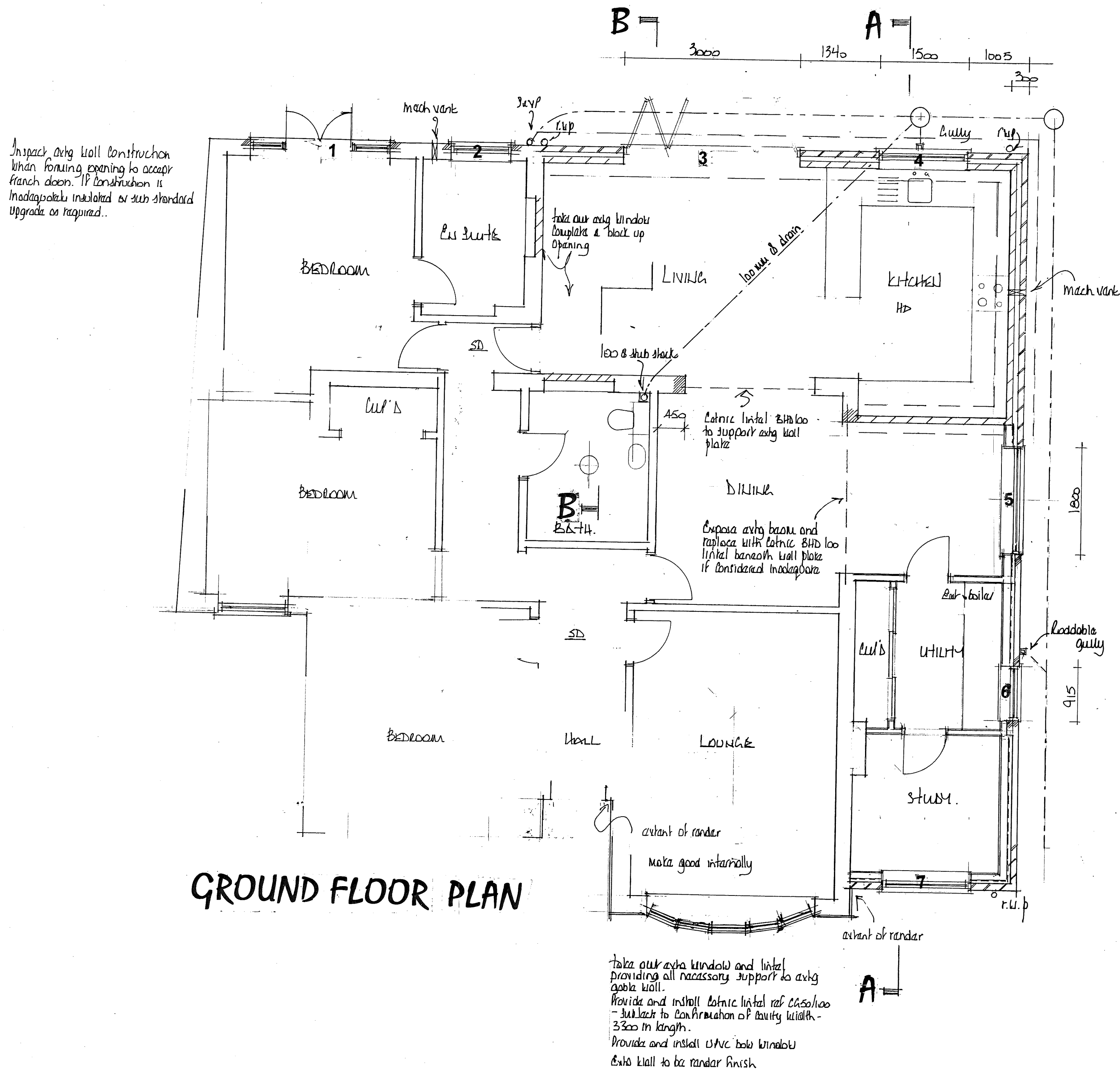
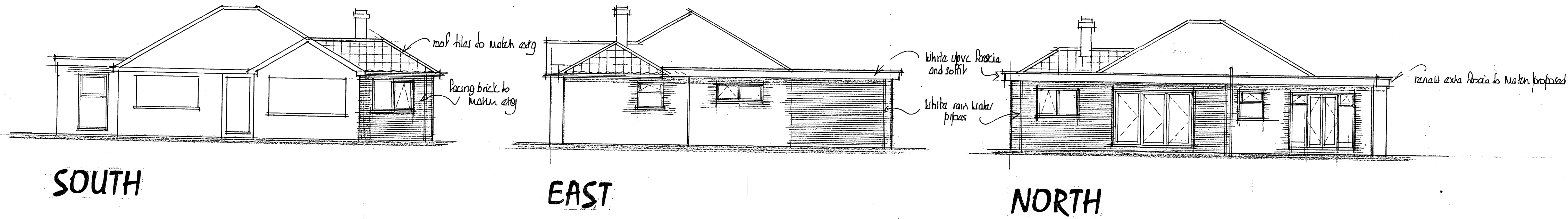




GROUND FLOOR PLAN

FOUNDATIONS

Foundations to be ST4 grade concrete

For 300mm walls foundations to be 700 x 230mm
For 100mm walls " " 500 x 230mm

Foundations to be taken down to a firm load-bearing 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.

FLOOR CONSTRUCTION

Ground floor

75mm screed
1200g polythene separating membrane
Ground floor insulation to achieve a U-value of 0.18W/m².K (150mm PIR insulation board, lambda = 0.022W/m.K).
100mm oversite concrete
1200g polythene damp proof membrane lapped with dpc in walls
25mm sand blinding
100mm min compacted hardcore, where a greater depth is required, up to a maximum of 600mm, it is to be laid and compacted in layers not exceeding 150mm

Ground floor - extg garage

50mm min fibre reinforced screed separating membrane

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 300mm o/a constructed as follows :-

100mm facing brick FFL quality below ground level
90mm Celotex Thermacore Cavity Wall 21 insulation
100mm load bearing insulation blocks i.e. Tarmac Topblock Supablock, k = 0.11

All to be tied together using stainless steel wall ties positioned at distance not exceeding 750mm horizontally, 450mm vertically and staggered. To be at every block course vertically at all returns and reveals.

Internal finish to be 12.5mm plasterboard "dot and dab" to walls with gypsum plaster skim finish to give a U value of 0.18W/mK

Internal lining to extg 102mm brick walls

Extg wall
50mm cavity
Breather membrane
100 x 50mm studs at 400mm ctrs
100mm Celotex GA4000 insulation between studs
50mm Celotex GA4000 insulation
12.5mm Gyproc plasterboard, taped joints and skim finish
To achieve a max U value of 0.18W/mK

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.

Internal Stud Partitions

to be 100 x 50mm studs at 400mm ctrs with 100 x 50mm head and sole plates and noggins and insulated using 50mm Rockwall RW3 within framework
15mm British Gypsum Gyproc Soundbloc taper edged plasterboard, taped joints and skim finish

LINTELS

Lintels to be Catnic, or similar and equivalent, to have a min. 150mm end bearing and be installed in strict accordance with manufacturer's 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.

WINDOW/DOOR & LINTEL SCHEDULE

Location	Window/door ref.	Lintel ref.	Length
	width x height		
1	2400 x 2100	CTF5	2700
2	915 x 1050		1200
3	3000 x 2100	CG90/100	3300
4	1500 x 1800		2100
5	1800 x 600	CTF5	2100
6	915 x 1050		1200
7	1500 x 1350		1800

Window to opening no.7 to contain at least one opening that has min dimensions of 450mm and a min area of 0.33m² and the bottom of that opening is to be no higher than 1100mm above finished floor level.

WINDOWS & DOORS

Windows and doors to be purpose made upvc, (bi-fold doors to white powder coated aluminium) double glazed using glass having a soft low E coating with an emissivity value of 0.05 with min. 16mm air gap to sealed units and weather stripped.

Bi-fold doors to be white powder coated aluminium with thermal break
Windows and external glazed doors to achieve a U-value of 1.30W/m².K or less.

Double glazing manufacturer's certificate to be provided to prove compliance of the glazing to that specified.

Glazing to windows less than 800mm and doors (include sidelights to doors) less than 1500mm above floor level is to be laminated or toughened glass in accord with BS6206 : 1981.

Ground floor and other easily accessible windows (including easily accessible rooflights) should be secure windows in accordance with Approved Document Q paragraphs 2.2 and 2.3, windows should be made to a design that has been shown by test to meet the security requirement of the British Standards publication PAS 24:2012

All easily accessible door sets that provide access into a dwelling or into a building containing a dwelling should be secure door sets to the following:

- Manufactured to a design that has been shown by test to meet the security requirement of British Standard publication PAS 24:2012 or
- Designed and manufactured in accordance with Approved Document Q Appendix B.

VENTILATION

All habitable rooms are to have windows containing hinged or pivoted opening vents (which open greater than 30°) or sashes, the combined total of which is equal to not less than 1/20th of the floor area of the room
If the vents open at an angle of less than 30° then the combined total is to be not less than 1/10th of the floor area.

The kitchen is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 60 litres/sec or 30 litres/sec if in a cooker hood.

Both bathrooms to be mechanically ventilated direct to the external air. The capacity of the extractor to each is to be 15 litres/sec and to have a 15minute over-run period provided

The utility is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 30 litres/sec.

The doors to wet rooms/sanitary accommodation are to have gaps at the bottom of 10mm above floor finish or 20mm above the floor boards.

All mechanical extractor fans are to be tested and their flow rates confirmed as specified above. The test results are to be forwarded to the Local Authority Building Control dept within five working days after the last test.

BACKGROUND VENTILATION

Background ventilation is to be provided either by trickle vents set within the construction of the windows. The area of the trickle vents to habitable rooms is to be a minimum of 8000mm² and to wet rooms i.e. kitchen, utility, bath, shower rooms etc is to be a minimum of 4000mm².

SMOKE DETECTION

Self contained smoke/heat alarms complying with BS5446 : Pt 1 : 1990 are to be installed where indicated SD/HD 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.

ELECTRICAL INSTALLATION

The electrical installation is to be carried out by an electrician registered with NICEIC, ECA or NAPIT. The electrician is to issue a design, installation and test certificate under BS7671 upon completion of the works.

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

The lighting is to be installed in compliance with the Domestic Building Services Compliance Guide
The lighting shall have a luminous efficiency greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens

All fixed light fittings should be fitted with low energy lamps.

External light fittings i.e. porch etc. are to be controlled by the fitting of passive infra red's with bulkhead fittings having sockets that can only be used with lamps having an efficacy greater than 40 lumens per circuit-watt.

HOT WATER/CENTRAL HEATING/WATER PROVISION & FLOW RATES

Space heating and domestic hot water is to be provided by extending the existing system with TRV's to all radiators

All pipes not contributing to useful heat requirements are to be insulated using an insulation material with a thermal conductivity not exceeding 0.045W/mk and a thickness equal to the external diameter of the pipe up to a max. of 40mm.

Wholesome water is to be provided to all wash basins, baths and showers

Heated wholesome water is to be provided to wash basins, baths, showers and to sinks in areas where food is prepared.

The wholesome hot water supplied to all baths is to be designed and installed with measures in place to prevent that water exceeding 48°C

DRAINAGE

Surface

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

Foul

Supply and install proprietary upvc inspection chambers on 100mm pvc gravel bed in strict accordance with manufacturer's instructions. Inspection chambers to conform to the following sizes :-

Depth	Internal diam	Cover diam
6m or less	190mm	190mm
1.0m or less	450 mm	450mm

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 lincol over. Both sides the wall to be masked with rigid sheet material with 50mm clearance of the pipe and the void filled with compressible material to prevent entry of gas.

Install where indicated a 100mm diam. soil and vent pipe with rodding access at base jointed to 100mm diam. upturned bend at base. Finish at top, a min. 900mm above window head height, with a durable cage.

Install where indicated trapped (roddable) gullies - waste pipes to discharge below grating level and above water level.

Install 40mm diam. pvc waste to sinks and showers, 32mm diam. pvc waste to hand basins all with 75mm deep traps. 40mm diam. pvc waste to bath with combined trapped waste and overflow. Unless specified otherwise 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 BS8301 : 1985

All drainage items are to be installed in strict accordance with the manufacturer's instructions.

EAST MIDLANDS
DESIGN ASSOC.

Architectural Consultants

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Client
Mr P & Mrs J Bettys

Project
Extension and alterations
at
40 Roman Road
Moulton Chapel
Spalding
PE12 0XQ

Drawing

Plan and elevations
Proposed

Scale
1 : 50, 1:100

Date
July 2024

Dwg No.

REV

1228/02