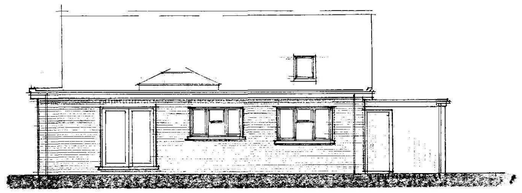
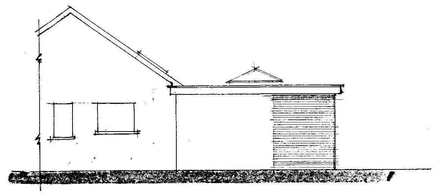


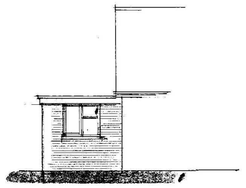
n n east



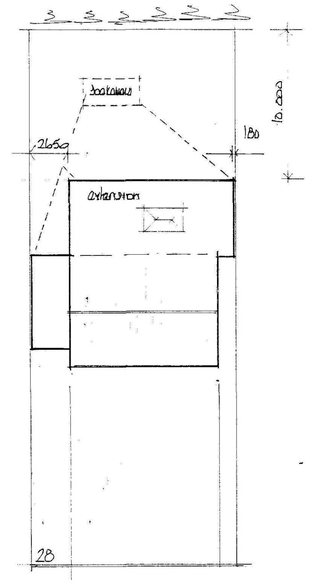
e s east



s s west



w n west



block plan

FOUNDATIONS

Foundations to be ST4 grade concrete

For 300mm walls foundations to be 700 x 230mm
For 215mm " " 700 x 230mm
For 100mm " " 450 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

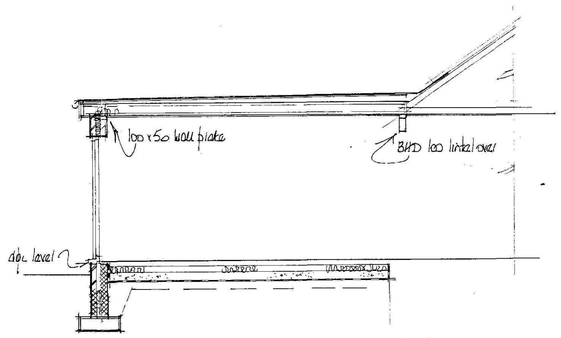
Ground
65mm min sand/cement screed reinforced with chicken wire mesh
1200g polythene separating membrane
90mm Celotex fast-R FF3000 floor insulation
100mm oversite concrete
1200g polythene damp proof membrane lapped with dpc in walls
25mm sand blinding
100mm min compacted hardcore, where a greater depth is required, up to a maximum of 600mm, it is to be laid and compacted in layers not exceeding 150mm

LINTELS

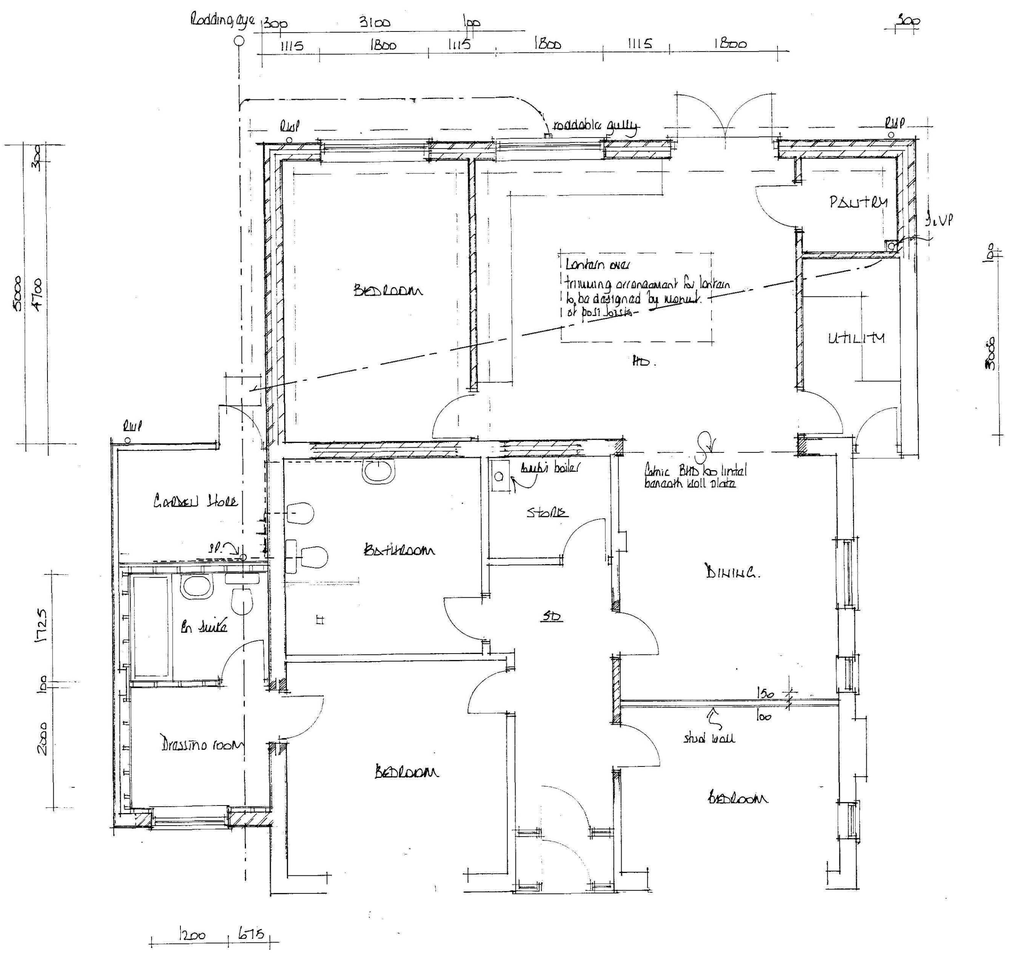
Lintels to be Catnic, or similar and equivalent, to have a min. 150mm end bearing and be installed in strict accordance with manufacturer's instructions with a dpc cavity tray over where applicable.

Lintels over internal openings to be Catnic CN100 lintels unless specified otherwise

Lintels to be protected with min. 15mm gypsum plaster skim finish to give a min. half hour fire protection.



section



WALL CONSTRUCTION

Below Ground
To be 100mm Class A concrete/trench 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
100mm Xtratherm cavity wall 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 15mm render with gypsum plaster skim finish to give a 'U' value of 0.19W/mK

Internal Walls
To be 100mm Tarmac Hemelite Standard blockwork constructed off a dpc off a foundation/floor

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 (min density of 10kg/m³)
face both sides with 15mm plasterboard, tape joint and skim finish

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.

WINDOWS & DOORS

Windows and doors to be upvc construction or similar and approved, 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.
'U' value of double glazing to be **1.6W/m²°K**

Double glazing manufacturers 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.

WINDOW/DOOR & LINTEL SCHEDULE

Location & length	window/door ref. Width x height		lintel ref. &	
1	1200	1050		
2	1800	1200	CG90/100	2100
3	1800	1050	CLH0/100	2100
4	1800	2100	"	2100

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 that 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.

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

All bath and shower rooms are to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 15 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.

BACKGROUND VENTILATION

Background ventilation is to be provided either by trickle vents set within the construction of the windows or by airbricks through the walls with a controllable hit/miss vent on the inside. The area of the trickle vents to habitable rooms is to be a minimum of **5000mm²** and to wet rooms i.e. kitchen, utility, bath, shower rooms etc is to be a minimum of **2500mm²**.

SMOKE DETECTION

Self contained smoke/heat detector 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.

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

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 shall have a luminous efficiency greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens

100% of the new light fittings shall be energy efficient

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

A gas fired condensing combi boiler is to be installed where indicated, size to be determined by heating engineer, having a min 93% efficiency rating complete with fan assisted flue and combustion air vent. The boiler is to incorporate all necessary safety devices of materials, sizes etc as specified by boiler manufacturer incorporating discharge pipe (discharging via tundish) to 100mm above footpath level and protected with a wire cage or similar guard preventing contact whilst maintaining visibility.

Separate timing controls (space heating and hot water) are to be provided to control the operating periods of the boiler, and should only fire the boiler when space heating or the hot water calls for heat.

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.

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

Heated wholesome water is to be provided to wash basins, and 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 harvesting system.

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 pea gravel bed in strict accordance with manufacturers instructions. Inspection chambers to conform to the following sizes : -

Depth	Internal diam	Cover diam
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 and the void filled with compressible material to prevent entry of gas.

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 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. *(NOTE : shower trays to be constructed on a suitable plinth to maintain access to trap and waste)*, 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 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 BS8301 : 1985

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

GARAGE CONVERSION

Floor
Apply layer of Synthapruf or similar over extg concrete floor and raise to match internal floor level of dwelling with sand/cement screed.

Ceiling
Provide 100mm Celotex insulation between and flush with the underside of the joist with an additional 25mm beneath joist.
15mm foil backed plasterboard, tape joins and skim finish

Walls
Existing half brick wall
50mm air space
Stud framework as spec'd elsewhere incorporating 75 mm Celotex XR4000 insulation between studs with an additional 25mm insulation internally
Finish with 15mm foil backed plasterboard, tape joins and skim finish.

EAST MIDLANDS DESIGN ASSOC.

Architectural Consultants

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PE11 3JA

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Email :- willowlodge@talktalk.net
Mobile phone :- 07710815044

Client
Mr & Mrs Peart

Project
Extension to Dwelling & Conversion of Garage at 28 Sherwood Drive Spalding. Lincs.

Drawing
Plan & Elevations, Sections & Proposed.

Scale
1:50, 1:100 & 1:200

Date
April 2015.

Drawn
AL

Dwg No.
1094/02

Rev