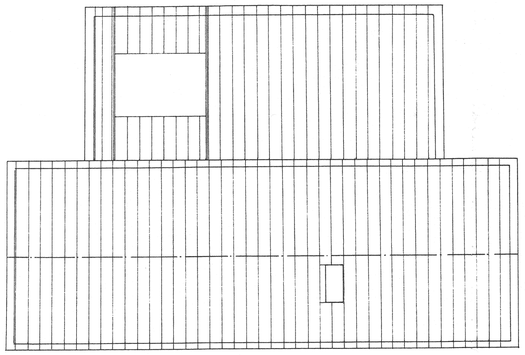
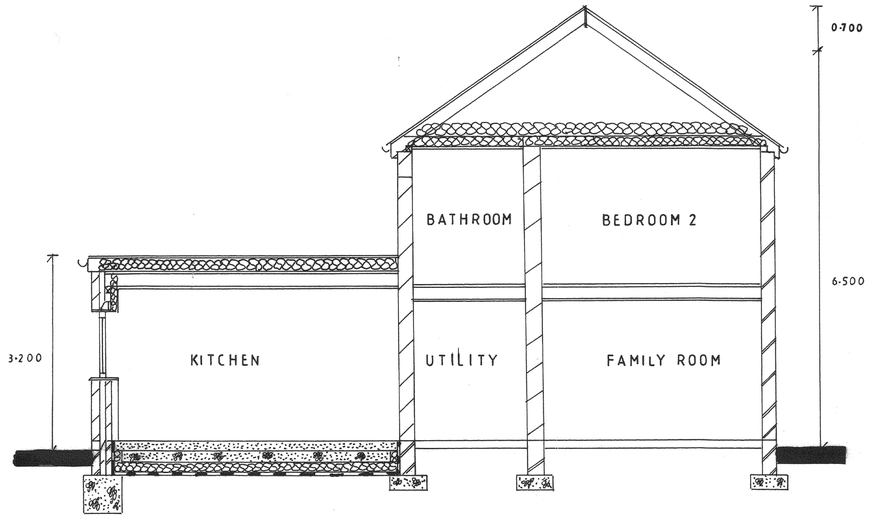


EXISTING GROUND FLOOR PLAN



PROPOSED ROOF PLAN

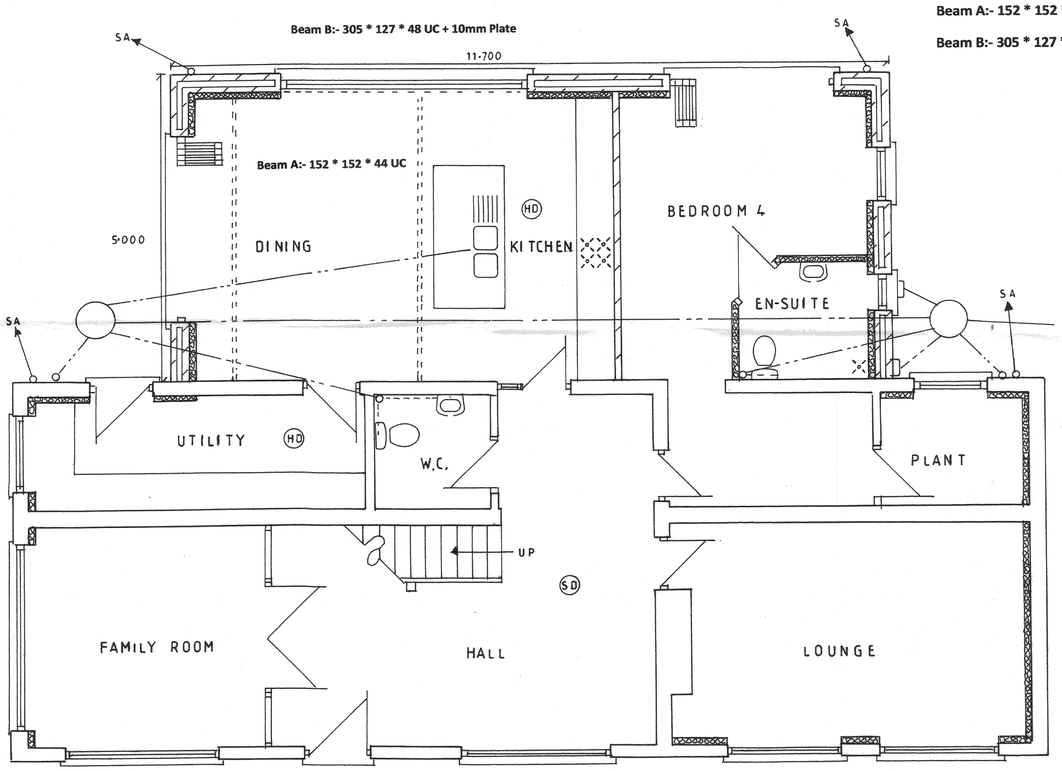


SECTION A-A

STRUCTURAL DESIGN DETAILS

Beam A:- 152 * 152 * 44 UC

Beam B:- 305 * 127 * 48 UC + 10mm Plate



PROPOSED GROUND FLOOR PLAN

GENERALLY
Reference should be made to Building Regulations and the NHBC. Handbook for compliance. All supplies and systems to carry BBA certification wherever possible. All materials and workmanship to relevant and current British Standards and Codes of practice. Specified items may be substituted where approved as an alternative.

FOUNDATIONS
All existing foundations to be fully checked and exposed to check for suitability to carry the new loads. All down min. 1M to load bearing strata and taken down below invert levels of any drains. Nom 600 * 600mm reinforced with 2 layers A193 mesh. All Building Control approval and to comply with NHBC Guidance notes building near to trees section 4.

DAMP PROOF COURSE
All external and internal walls, windows heads, jambs, cills and around external doorframes etc. Place a ruberoid hyload to BS.743 or equal. External walls to have 2 course A engineering bricks. Min.150 mm above external ground level.

GROUND FLOOR (less than 600mm infill)
50mm sand cement screed on Min.100mm concrete, 1200g polythene membrane returned up to the walls and lapped and sealed with dpc to give Radon protection, above and below 100mm celotex insulation with 25 mm celetex insulation to perimeter of concrete floor to prevent cold bridging, connected at all points to the D.P.C. Sand blinded compacted hardcore. All to give a minimum u value not exceeding 0.18w/m k. Allow ducting existing sub floor void as required with suitable ducting material to suit the existing vents.

EXTERNAL WALL CONSTRUCTION
Cement painted rendered External Blockwork to match with existing and to be approved by the Local Authority Planning Department, Cavity brickwork to be 100mm cavity Brickwork, New cavity Blockwork with a 100mm dritherm 32 filled cavity insulation batts and 100 mm 2.8N/mm thermolite turbo block inner skin internally lined with 62.5mm thermal plasterboard to give a U value not exceeding 0.18w/m k. Cavity closed at top to form smoke and fire break. Walls tied to roof at 1.8m centres with 28 * 5mm m.s. straps. All openings to have catnic type lintels or equal with min.150 mm bearing on 2 course engineering bricks insulated to 1.2w/m k. Stainless steel wall ties at max 750mm horizontal centres, 450mm vertical centres, max.300 mm centres in reveals. Allow for all new brickwork to be fully bonded to existing building by catnic profiles or similar. Allow to thermally line existing external wall with 62.5mm thermal board plus to line the wall level.

EXTERNAL DOORS AND WINDOWS
Rebated and weathered moulded sections, double-glazed to match existing with 16 mm air gap argon filled and a soft low-E coating to give a u value not exceeding 1.6 w/msqk. min.1/20th Floor area opening lights, 2 * 8000 mm trickle vents to be provided to new rooms. Laminated or toughened to BS6206.

LINTELS
All openings to have catnic type lintels or equal with min.150 mm bearing on 2 course engineering bricks insulated to 1.2w/m k.

DRAINAGE BELOW GROUND
100 mm vitrified clay pipes supersleeve by hepworth or equal flexibly jointed bedded and surrounded in 100mm pea gravel laid to falls as shown on the drawings. Generally 1 in 40 foul drains dependant on invert level of the existing foul drains or manhole. To discharge to existing foul water mains sewer located in the road. All works to be carried out by a competent person under to inspection service of Severn Trent water plc. Where drains pass beneath the building encase them in 100 mm concrete But maintain flexibility at all drains. Sleeve all openings where drains pass through foundations giving at least 50 mm clearance all round. Note actual drainage layout may differ form that shown on drawings.

MANHOLES
As appropriate. Manholes to be formed or altered with 225 mm thick walls of class B engineering bricks or precast concrete sectional rings to B.B. 3921 over 150 mm thick concrete base. If situated internally install a medium duty double sealed tray type sealed down cover. All sized to BS. 8301 1985

ABOVE GROUND DRAINAGE
100 mm dia. S.V.P. to terminate, min.900 mm above any window. Fitted with a durable cage and access plate for cleaning. Waste pipes, bath, sinks and wash hand basins 38 mm dia. All fitted with 75mm deep seals traps. No waste pipes over 4 m in length. No notches to be taken out of existing timbers without structural compensation. All internal pipe work to B.S.5572

RAINWATER GOODS AND GUTTERING
Nom.100mm half round p.v.c. Guttering and 63mm down pipes taken into trapped back inlet gullies to soak away size and capacity all designed in accordance with B.S.E.N.752-4 or BRE. Digest 365. Min. 5m away from any building, or to existing surface water connection. Full porosity test carried out and approved prior to installation.

FLAT ROOF
Flat roof joists to be 200 * 75mm C24 joists @ 400mm centres, allow to supply and fit steels as per the structural design calculations to fully support the proposed flat roof latern light with doulbe joists trimmed in the other direction with suitable firring strips to falls on 19mm chipboard deck type V313, or 18mm external quality plywood wpb or far-eastern and to BS 5669, fixed with minimum 62mm long * 10 gauge annular ring shank nails, glued at all joints (PVA), supported at all square edge sections. Lateral restraint/tension ties to be provided to BS 5628: Part 1-3 using 30mm * 5mm section galvanised mild steel straps with 150mm cranked end turned down inner blockwork fixed across 3No. joists with 8 SW6 nails 75mm long into each joist at max 2m c/cs, fully supported on noggins min. 38mm thick * ¾ depth of joist with solid packing between wall and joist. Joists to be notched on the top to receive straps. Generally allow a clearance of 25mm between the first joist and the wall face. Provide full perimeter edge support to plywood or chipboard on joists or noggins with a 10mm wide expansion gap between the plywood or chipboard edge and walls. 15mm gyproc wallboard & finish to soffit, using 38*50mm noggins over partition heads & light locations. Single ply membrane Sarnafil roofing system or Anderson Power elastomeric Flat Roofing Membrane all fitted to manufacturers recommendations on 150mm Celotex GA4000 on18mm plywood or 19mm chipboard deck, and 12.5mm plasterboard ceiling to achieve a minimum 0.15w/m2k. The boards are straight edged and can be supplied in accordance with a foil facing to suit PVC single ply membrane applications. The vapour control layer and celotex GA4000 to be fully bonded to the roof deck. All to be laid in accordance with the laying scheme supplied. The waterproof membrane should be applied in accordance with the appropriate manufacturers recommended specification. Code 4 lead flashing to be minimum finished width 150mm to upstands at wall abutments. All abutments to be flashed and lapped and tray dpc's with weep holes as required. Any soil and vent pipes or other service pipes to use proprietary service connections with flexible pipe connections. 100 * 75 mm wallplate. All insulated to 0.15w/m k. All to the clients satisfaction.

LANTERN LIGHTS
Allow to support on steel beams as per the structural design calculations and double up the flat roof joists with in the other dirction either side of the lantern lights, allow for a minimum 150 flat roof upstand around the lantern lights. Allow to supply and fit lantern light 2000 mm * 3000 mm. Minimum 150mm flashing to the new lantern lights.

VENTILATION
Kitchen To have rapid mechanical ventilation of 60 l/s. Utility room to have rapid ventilation of 30 l/s. En-Suite Bathrooms to have mechanical extract ventilation of 30 l/s. Windowless W.C to have rapid mechanical ventilation of 60l/s wired to the light with a 15 min. overrun.

SMOKE DETECTION
Mains wired with battery back-up smoke detection system installed to BS5546 part 1: within 7m (horizontally) of kitchen or living room and within 3m of bedroom doors. Located minimum 300mm from any wall or light and not over heaters. All fully interlinked. Position as floor plans.

JOINERY
All internal and external joinery to be carried out to the client's satisfaction.

STEELWORK
New beams to be as per structural engineers calculations enclosed bolted together with bolts and separators. Min.150mm bearing on concrete padstones. All steel beams to be encased in 2 layers 12.5mm plasterboard to achieve 30 Min. fire resistance.

BOUNDARY
No part of the building shall be constructed above or below ground over the boundary. All works to comply with party wall act. 1996.

HEATING CONTROLS
All new radiators to be fitted with T.R.V.s. If the existing boiler is to be fully replaced with new boiler installed in accordance with Approved Document J and Part L1 as amended (Condensing Boilers)

DEMOLTION, MATERIALS AND WORKMANSHIP.
Protecting the buildings from dust and damage. Maintain and security of building at all times. All materials, goods and workmanship to appropriate B.S. Contractor to verify all dimensions on site and agree all details to clients satisfaction before commencement of works. All finishes to be made good and all debris removed from site. Position and number power points, lighting points, wall lights and switches to be decided by client. All works to comply fully with building regulations.

SERVICE INSTALLATIONS
Electrical system all to I.E.E. Regulations. Extend existing heating system. Plumbing installation to comply with Severn Trent PLC. Water Regulations. All works associated with gas installations to be undertaken by a suitably qualified engineer, in accordance with the gas safety regulations. All exposed pipes and ducts will be fully insulated. Works to controlled services will be in accordance with the Domestic Heating Compliance Guide.

LIGHTING
100 % of lighting to have a luminous efficacy greater than 40 lumens per circuit-watt. (Not gls tungsten lamps with Bayonet cap or Edison screw base.)

ELECTRICAL WORK
All electrical work required meeting the requirements of part P (Electrical Safety) must be designed, installed, inspected and tested by a competent person. Then either prior to completion the council must be satisfied that an electrical installation certificate issued under a competent person scheme will be issued or an appropriate electrical installation certificate has been issued for the work and been signed by a person competent to do so.

EXTRA WORKS
The client and contractor must determine the total extent of the works prior to works commencing.

PROPOSED SINGLE STOREY REAR EXTENSION AND NEW MAIN PITCHED ROOF OVE EXISTING FLAT ROOF

BECKLAND HOUSE
126 LINKMEL ROAD
EASTWOOD
DERBYSHIRE
NG16 3RZ

SCALE; 1:100, 1:50

FLOOR PLAN & SECTION