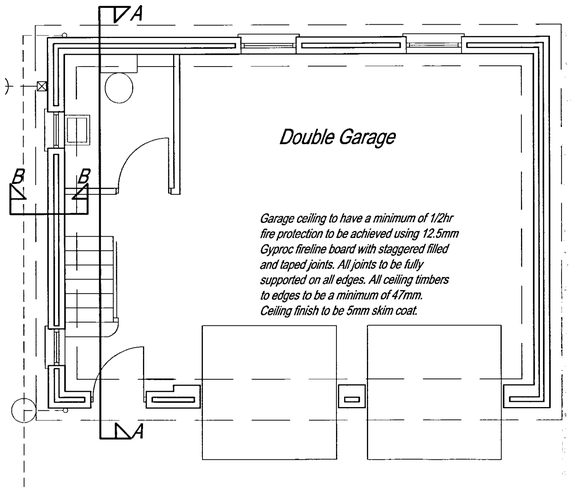
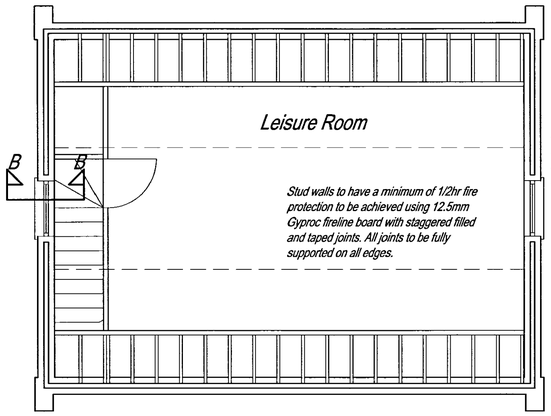
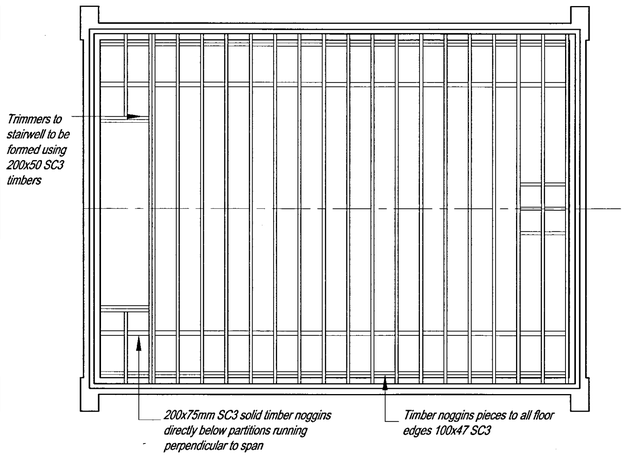


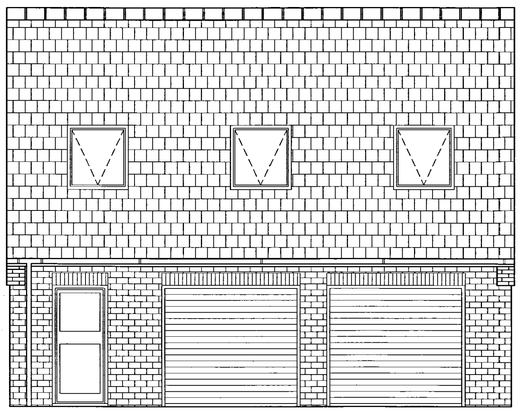
Foundation and Ground Floor Plan



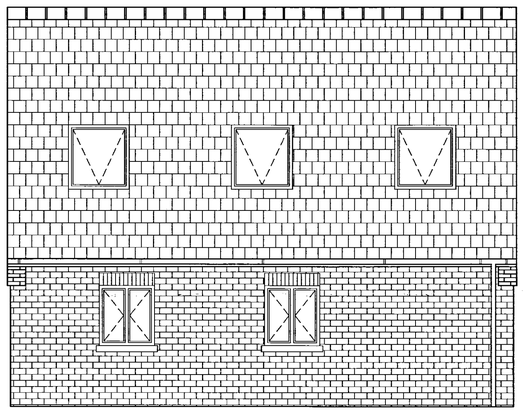
First Floor Plan



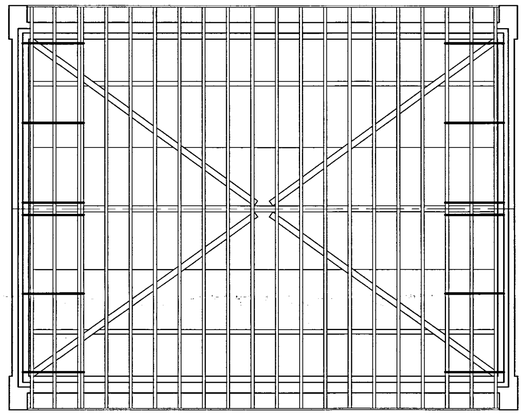
Floor Joist Layout



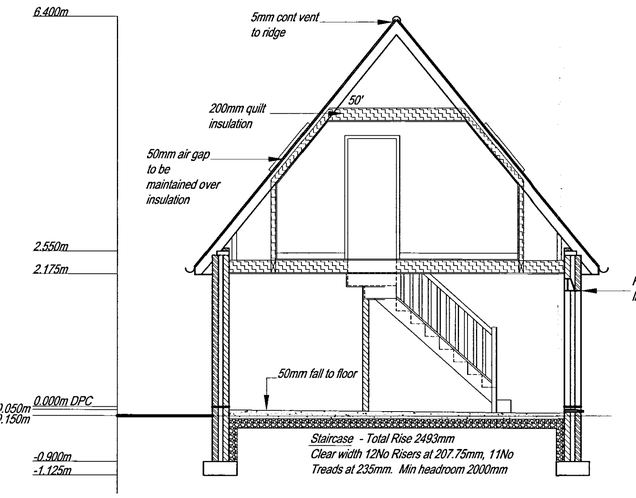
South East Elevation



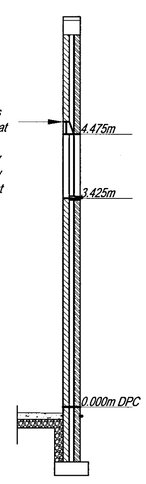
North West Elevation



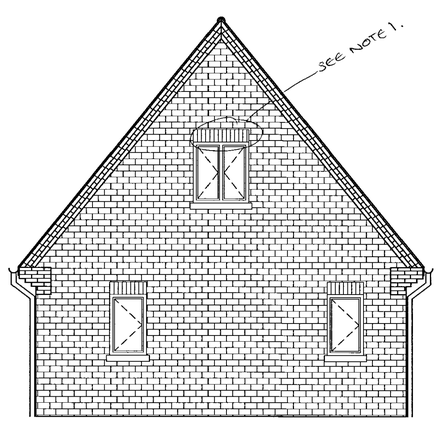
Roof Truss Layout



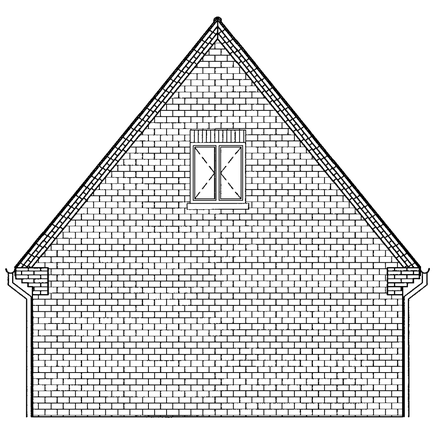
Typical Section A-A



Section B-B



South West Gable Elevation



North East Gable Elevation

SPECIFICATION FOR CONSTRUCTION

GROUND PREPARATION
Strip all topsoil from area occupied by building plus 2m all round, provisionally allow 150mm depth, and store in stockpile for later use.

FOUNDATIONS
Concrete strip foundation to be 700mm wide x 225mm deep minimum at 750mm below ground level onto suitable loadbearing sub strata. Concrete to be ST3/GEN3 or equivalent grade. All to be in accordance with BS5328 and BS8110, excavation to be agreed with Building Control Officer.

GROUND FLOOR
To consist of 1200 guage polythene sheet D.P.M to lap to D.P.C of walls. Laid with joints sealed and lapped on sand blinding on 150mm well compacted water soluble sulphate free hardcore. Finish to consist of 125mm concrete slab BS 5328 with 75mm sand cement screed finish. Laid on 105mm Rockwool Rock Floor acoustic thermal ground floor insulation. To achieve 0.28W/MK with 50mm edge strip to all exposed edges.

DAMP PROOF COURSE
To be 2000 guage black polythene to BS6515 or Bitumen based to BS 6398 laid to both leafs of external walls and internal walls. To external walls D.P.C to inner leaf linked to D.P.M. All D.P.C's to be bedded on mortar. All vertical and horizontal cavity closures to incorporate a D.P.C. At roof to wall abutments, flexible cavity trays are to be used and are to rise 225mm up the cavity.

FIRST FLOOR CONSTRUCTION
All joists 200x50mm (for multiples thereof) carcassing quality (equivalent or better than SC3 plain softwood or whitewood) spaced at 400mm crs unless otherwise stated. All composite joints to be bolted together at 900mm crs with 12mm dia coach bolts c/w plate washers. All joists to be built either in cavity wall supported on galvanised m/s joist hangers to BS6178. All timber to timber connections to be 1mm thick galvanised mild steel hangers to BS6178 fixed with 3.75 x 30mm square twist sheradised nails to every hole. All timber to masonry connections to be 2.5mm thick galvanised mild steel hangers to BS6178 top flange fully embedded and all holes nailed.
Provide 38 x 38mm SW herringbone strutting where shown (at 2m max crs).
Provide 2 No 200x50mm solid blocking where first floor stud partition is perpendicular to joists or where sole plate does not end above a joist.
Provide 30x5mm once bent (900x100) galvanised M.S internal restraint straps to external walls where shown (at 2m max crs) fixed with 4 No 50mm E guage ask screws or 5No 3.5x50mm galvanised round wire nails to 3 joists minimum c/w solid blocking support and edge packing between last joist and wall. All structural timber to be kept 40mm minimum clear of chimneys/flue blocks etc.
Floor decking shall be from C4 moisture resistant chipboard to be tongue and grooved and to be 18mm thick and all joints to be glued together with moisture resistant adhesive. An expansion gap of 10mm shall be left at the junction with the walls.
Underside of floor joists shall be finished in 12.5mm square edged plasterboard with taped and filled joints to receive plaster skim finish plus 2 coats of emulsion paint. All unrestrained plasterboard edges to be supported by noggins. 100mm mineral wool insulation to be laid between the floor joists to resist the passage of sound.

WALL CONSTRUCTION
(Sub-structure) - To be constructed from 375mm Thermalite Trench blocks. Wall to consist of a 100mm inner skin, 75mm cavity, and 100mm outer skin. Cavity to be filled within 150mm of ground level, lean mix concrete cavity filled to outward splay finish. All to comply with BS8073, mortar type to be used in accordance with BS 5628 Part 3
(Walls above ground level) - External walls to consist of 100mm facing brickwork on med/light 3.5N block work. 75mm cavity filled with Rockwool Firesafe Cavity Insulation to achieve a U-Value of 0.390 in accordance with manufacturer's recommendations. Cavity wall ties to be stainless steel butterflies BS1234-2001 and be fixed at 450mm maximum vertical c/c's, 225mm at reveals and 900mm horizontal c/c's. Internal finish to blockwork to be 13mm Gyproc dri-wall installed to manufacturer's specification with 5mm skim finish with steel trowel finish. All to give overall value of 0.45w/m °C

INTERNAL WALL
Timber stud partition - To be constructed from 75 x 50mm studs at 400mm maximum c/c's with continuous head and sole plate and intermediate noggins, studwork to be lined with 12.5 mm plaster board fixed with galvanised nails at 400mm maximum c/c's and to have 5mm skim finish. All double up joists to be bolted together using 12mm diameter bolts and tooth plate connectors.

LINTELS
Generally to be Catnic Lintels CG70/100 incorporating insulation fillet with minimum 150mm end bearing including a cavity tray with No 2 weep holes and installed in accordance with manufacturing details and instructions a minimum of 3 courses of brickwork shall be bonded to PC lintels where used, to the underside of floor joists. Internal faces of metal lintels should be covered with at least 15mm of lightweight plaster or dry lining.

WALL, CEILING AND FLOOR FINISHES
BLOCKWORK - 12.5mm Gyproc dri-wall system installed to manufacturer's specifications with plaster skim.
STUDWORK - 12.5mm sq edged plasterboard with plaster skim.
CEILINGS - 12.5mm sq edged plasterboard with plaster skim.

WINDOWS/DOOR OPENINGS
New windows and doors to be Bolton & Paul or similar. Double glazed with low E coating and 16mm air gap. Windows to be of hinged pivot type with opening greater than 30 degrees and 1/20 of the total floor area.

ROOF CONSTRUCTION
Wall plates generally 100 x 50 treated SW with half lapped joints and fully bedded, strapped down to supporting wall with 30 x 5 mm GMS straps at 1.8m c/c's. Cut and pitched rafters to be birdmouthed over and twice nailed to all supports. Designed and manufactured by approved manufacturer and fixed together with 100 x 25 mm sawn SW binders and bracing. In strict accordance with BS 5268 Part 3:1985 (and any subsequent amendment) at 600mm maximum centres. Diagonal roof bracing should be fixed at approximately 45° on plan. Where water tanks are supported on roof trusses their load shall be transferred to the node points as specified in BS 5268 Part 3. Provide 30 x 5 mm once bent 900 x 100 galvanized mild steel lateral restraint straps to external walls at ceiling and rafter level where shown (at 2m maximum c/c's) fixed with 4 No 50mm 8 gauge esk screws or 5 No 3.5 x 50mm galvanised round wire nails to 2 trusses/ceiling joist minimum c/w solid blocking support and edge packing. All structured timbers to be kept 40mm clear of chimneys/flue block etc. Underside of roof timbers to be clad with 12.5mm plasterboard with plaster skim finish. Unrestrained edges to be supported by timber noggins.

ROOF COVERINGS
Traditional slates with ridges/verge/special fittings all as site specification and in accordance with BS 5534 Part 1:1990 38 x 25 treated SW battens gauges to suit tiling on BS 747 type IF untearable roofing felt or similar on cut/trussed rafters as applicable. Contractor is to determine tile fixing specification from manufacturers published literature with due consideration for each site location, anticipated wind velocities and individual roof pitches. Roofing contractor to fix mineral fibre quilt tie stopping above and below roofing felt to head off party walls and fire stop eaves boxes in strict accordance with manufacturer's instructions.

ROOFSPACE INSULATION AND VENTILATION
Provide eave to eave ventilation equivalent to 10,000 sq mm/metre run where eave is dropped, 25,000 sq mm/metre run together with high level vents giving 5000 sq mm/metre run (use tile manufacturer's dry ridge ventilation system). Use ventilating split boards continuous over fascia ventilation strips. Insulation to roof space comprises 270mm mineral fibre quilt to level areas. First level of 100mm quilt laid between joist, the second layer of 170mm cross laid over joist giving a 'U' value of 0.16w/m² and 100mm of Rockwool RWA45 Flexible slabs (R value 3.03m² K/W) or similar to all sloping ceilings checks etc giving a 'U' value of 0.20 W/m²C. Maintain 50mm minimum air gap over insulation at sloping ceilings and provide 500 gauge Visqueen vapour barrier between insulation and plasterboard.

SMOKE DETECTORS
To be mains operated, self-contained to conform to BS 5446 Part 1 (with battery power back-up). Smoke alarms should be interconnected so they are triggered simultaneously in the event of a fire being detected. Alarms should be permanently wired to a separately fused circuit in the distribution board. Wiring to conform to IEE wiring regulations. Smoke detectors to be sited minimum 300mm from any light fitting central positions preferred, reachable for maintenance purposes. Away also from extreme temperatures and any condensated area or cooking area. Alarms should be within 7m of doors which open out into rooms which have the potential for fires to start (kitchen, living room etc) and within 3m of bedroom doors measured horizontally. Corridors which exceed 15m in length should be no more than one self-contained alarm. Electrics to be in accordance with the current IEE regulations and provisions are to be carried out by an NICEIC approved contractor.

DRAINAGE
Foul and storm Water Drainage (below ground)
Foul drainage to connect to sewage treatment unit similar to klargester biodisc type and rainwater to discharge to rainwater harvesting system and soakaways. Refer to drainage layout plans for full details. All to comply with BS8301:1985. Pipes to be 110mm diameter. Hepworth supersleeve UPVC bedded and surrounding by 100mm granular material, single size aggregate to BS 583. Pipes to be laid to a maximum gradient of 1:40 and a minimum gradient of 1:60. Pipes passing through walls are to be spanned with a concrete lintel over and a 50mm gap all round the pipe with the opening being marked each side with a rigid sheet material. A flexible joint is to be provided within 100mm of the building's external face. Inspection points up to 600mm deep from 320mm UPVC Inspection Chambers. Manholes over this depth 450mm diameter up to 1.2m deep. All manholes are to be fitted with Grade C cast iron covers in foot traffic and Grade B in all other areas.
Storm Water Drainage (above ground)
115mm half round or 100mm square line UPVC guttering. Fixed level using standard fascia brackets at 1000mm c/c's and 68mm dia/65mm down rights sealed to drain at ground level. Colour/profile to match. All to connect to rainwater harvesting system or soakaways which are to be a minimum of 5m from any building and to be 1500mm deep and 1200mm diameter to be filled to within 450mm of the ground level with selected seconds or rubble. Rodding eyes are to be provided at the head of the drainage runs and to rainwater pipes which not discharging direct to manholes.

STANDARD NOTES
*Glazing within 1500mm of floor level to doors & within 800mm of floor levels for windows. Both are to be glazed in accordance with BS 6262 and BS 1206 with either toughened or laminated safety glass.
*Any rooms containing a solid fuel open fire or stove is to have a means of permanent ventilation to the external air of 550 sq mm or for each kw of output above 5kw of 50% of the appliance throat opening (whichever is greater).
*All windows to be double glazed and draught proof with opening lockable sashes are to provide a minimum of 1/20 of the floor area of each room as opening vents.
*New boiler to produce a Sedbuk rating of 86%. Space Heating controls, hot water controls, insulation of pipes information to be provided upon commissioning of the systems.
*All habitable rooms are to have a minimum of 1800 sq mm trickle vents provided to the windows.
*Low energy lights are to be provided throughout.
*All electrical works required to meet the requirements of Part P (Electrical Safety). Must be designed, installed and inspected by a person competent to do so.
*Minimum intermittent extract rates should be as below:
- Kitchen 30l/s (adjacent to hob) or 60l/s (elsewhere)
- Utility Room 30l/s
- Bathroom/ensuite 15l/s
- Sanitary accommodation 6l/s

Note 1
All headers to match existing building e.g. timber

SUPERSEDED

SHDC
PLANNING & DEVELOPMENT
12 JUL 2007
Ref. 0941/07

REVISIONS

GREEN PROPERTY SOLUTIONS
Paul Green
Green Gables
Wykes Lane
Donington
Spalding
PE11 4SD

PROJECT
Workshop Conversion
Green Gables
Donington

DRAWING TITLE
General Arrangement
Double Garage and Leisure room

SCALES 1:50

DRAWN	FILE	CHECKED
PAG	A1 proposed double garage GA 03	

DATE	DRAWING No.	REV.
May 2007	GARAGE/GA/03	-