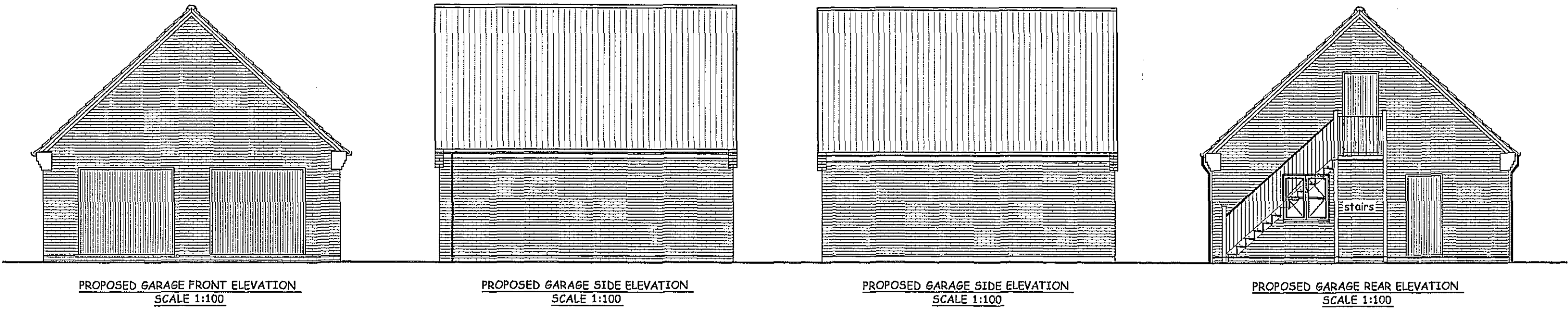


Contractor to check all Dimensions on site prior to ordering materials / commencing work.Do Not Scale from this Drawing - If in doubt then please ask

BLOCK COMPARISON TABLE (to achieve a 'U' value of 0.35W/m ² K)			
Manufacturer	100mm thick Block Type	Full Fill Cavity insulation thickness	
Thermalite	Shield	65mm	
Pleaser	Pleolite	65mm	
	Agilis	85mm	
	Stranlite	85mm	
	Plascon	100mm	
Termac Topblock	Hemelite	85mm	
	Lignadite	85mm	
	Togorate	100mm	
	Duraw Slipblock	65mm	



FOUNDATIONS

Existing building area to be stripped of all vegetable matter and rubbish to a min.depth of 150mm before excavation commences.Concrete mix for foundations to be GEN5 in accordance with BS5328:1993.Foundations to external wall to be min.700mm wide x 225mm deep.Excavate down to solid firm strata i.e 750mm deep (min.1000mm if soil is of a shrinkable nature).Exact depth to suit conditions on site and to the strict approval of the L.A Building Inspector.Any irregularities in subsoil during excavation to be brought to the immediate attention of the Building Inspector & advice to be sought from a Chartered Structural Engineer.

WALLS BELOW D.P.C

1no.Course of Class B brickwork & 2no. courses of Red Engineering brickwork below D.P.C on outer face and 1no.course of 7N/mm2 on inner skin of cavity face.Elsewhere to be either 7N/mm2 concrete blockwork or full width trench blocks.Both to be within 225mm of D.P.C level.Cavity to be filled to within 225mm min. of below D.P.C with lean concrete mix.

GARAGE FLOOR

Min.100mm thick S74 concrete with a light gauge reinforcing chicken wire laid to 1:100 fall towards entrance drive on a 1200 gauge DPM lapped onto D.P.C within walls on min.150mm clean and well compacted hardcore.Depth of hardcore must not exceed 600mm and must be compacted in 150mm thick layers.All service entries to be sealed with pressure sensitive tape.

DAMP PROOF COURSE (D.P.C)

Horizontal heavy duty polythene D.P.C "Hyload" or similar approved to all walls in accordance with BS 6815 and set min.150mm above all external ground levels.D.P.C in walls must be limited & lapped with DPM in ground floor.Provide performed cavity wall trays above windows & doors with weep vents at a max.of 2m centres with a min.of 2no.per opening.

EXTERNAL WALLS

All external walls to be 275mm overall thickness comprising of:
-100mm Facing Brickwork to be advised
-75mm cavity filled with Crown Dritherm (or equal approved) built in as work progresses.Insulation batts should be kept clean and free from mortar droppings, all joints should be closely butted. Any cutting and fitting should be neatly done and not distort the layers of glass wool which comprise the material. All D.P.C's should be installed to ensure that penetrating water is directed only to the outer leaf.
-100mm Thermalite Shield insulating blockwork
Continue wall insulation at least 150mm below top of perimeter floor insulation and support off wall ties.
External wall to achieve a min 'U' value of 0.35W/m²K.

CAVITIES

Close all cavity walls at jambs with Thermabate or similar approved Insulated cavity closers fitted strictly in accordance with manufacturers instructions. Roof insulation to be continuous with wall cavity insulation.Install Insulated Cavity Closers by Thermabate or equal approved, 20mm thick x 75mm wide (to equal cavity width) at jambs and eills of all openings in masonry cavity walls. Secure with the proprietary clips provided at maximum 500mm centres. Ensure that closers fit tightly to each other and to the lintel. The closer at the jamb must completely lap the closer at the eill.

WALL TIES

Stainless steel cavity wall ties to BS1243:1978.To be built into cavity wall as works proceeds and spaced at 750mm centres horizontally,450mm centres vertically and 300mm staggered around all openings.Ensure wall ties are level or at least sloping to the outside leaf.Bed ties a minimum of 50mm into each leaf and ensure wall ties are completely free from mortar droppings.

LINTELS

All lintels to cavity wall to be factory insulated Birtley Supergalv range unless noted otherwise or equalled approved.All lintels must have a min.150mm endearing and installed in accordance with manufacturer's instructions.Do not allow masonry to overhang lintel by more than 25mm. Note: lintels are not to have a continuous baseplate.

WINDOWS & DOORS

All windows to be White uPVC to clients requirements based on styles shown on elevations.Fit with 4000mm² trickle ventilators to Kitchen, Utility,Bathroom & En-Suite windows and 8000mm² elsewhere all in accordance with manufacturer's recommendations.Patio doors to be fitted with 10000mm² ventilators.Opening vents to give 1/20 th of floor area rapid ventilation to all rooms.All glazing within 800mm of floor level and within 300mm of a door to a height of 1500mm of ground level to have toughened glass in accordance with Section N of the Building Regulations and BS6206 class B.All double glazed units to be installed in accordance with BS 6262 and to have a 16mm Air gap with a soft Low 'E' coating on glass inner pane to achieve a min 'U' value of 2.0 W/m²K.Note all windows to have a perimeter weatherised both internally and externally and to be fully draught sealed.Provide frosted glass to all Bathroom, W.C.'s and En-suite windows.Ensure windows & doors are fitted within masonry reveal to overlap cavity closer by min. 40mm to avoid cold bridging.

TIMBER WALL PLATES

All timber wallplates supporting roof trusses to be 100mm x 50mm bedded on top of wall.Timber to be SC3 grade and use a min. length of 3m and half-lap plates at joints and corners.Provide anchor straps as described in notes elsewhere.

ROOF FINISH

Concrete Interlocking Double Pantile fixed in accordance with manufacturers instructions and in accordance with BS 5534:Part 1 and 2.Set out to give true lines and regular appearance, fitting neatly at all edges, junctions and features.Fix roof covering to make the building sound and watertight at the earliest opportunity.Repair any defects as quickly as practicable to minimise damage and nuisance & keep gutters and pipes free of debris and clean out at completion.Provide 50x25 preservative treated timber batten.Tiling battens should be not less than 1.2m long and continuous over at least 3 trusses.They should be fixed to every rafter member which they cross, or on which they are joined, with nails in accordance with BS5534: Part 1. The ends of the battens should be sawn square and butt jointed centrally on a rafter member so that adequate bearing and nailing can be provided for each end of each batten.Butt joints in battens should be arranged so that not more than one batten in four is joined on any one rafter.Generally all tiles at perimeter of roof to be clipped and nailed. Use Code 4 Lead flashing to any abutments with min.75mm upstand.

RAINWATER DRAINAGE

uPVC guttering and downpipes to clients approval.Falls for guttering to be 1:600 and brackets fixed at max. 2m ctrs.Downpipes to be connected into underground drains via reducing adapter.Underground drains to be 110mm Ø Osma uPVC or similar approved with flexible joints laid on 100mm pea-gravel and min 150mm surrounds laid to 1:100 falls to new soakaway.Soakaway specification detailed elsewhere.

ROOF VENTILATION

Install Tyvek® or similar approved Breathable Membrane in accordance with manufacturers instructions which are briefly described below & BSA certificate 99/3635 (fourth issue) breather membranes in non-ventilated pitched roofs of any plan, any shape or any size under all types of roof coverings including tight jointed and fully interlocking tiles and synthetic slates. Installing Tyvek® underlay in accordance with the above certificate will enable a roof to meet all the requirements of the Building Regulations.

Installation Guidelines

Tyvek® SUPRO should be installed with min. 150mm overlaps as a standard bituminous felt underlay and secured with stainless steel staples or large headed galvanised clout nails.

Eaves:

There is no need to provide any vents into the loft at eaves, because a Tyvek® non-ventilated roof system does not rely upon air movement beneath the membrane to avoid damage by condensation.To avoid water ponding behind the fascia of closed eaves and to prevent prolonged exposure of the membrane to ultra-violet radiation, use a Tyvek® Eaves Carrier. Stop the membrane short of the Fascia and lap it onto the Eaves Carrier.Pack closed eaves with Fibrous insulation to reduce thermal bridging.

Verge detail:

Lap the Tyvek® underlay 50mm onto the gable or flying rafter.

Ridge/hip detail:

Extend the Tyvek® underlay 150mm from each slope and overlap it at the ridge/ hip line.

There is no need to provide vents at the ridge.

Valley detail:

Extend the Tyvek® underlay from each slope by 150mm beyond the valley centre line and seal the lap using Tyvek® Butyl Tape to form a watertight seal.

Abutments:

Turn up the Tyvek® underlay beneath flashings not less than 50mm.

Penetrations:

Seal around all penetrations using Tyvek® Butyl Tape.

ROOF INSULATION - SLOPED CEILING (UNDER RAFTER)

The whole area of the ceiling to be insulated with 25mm thick Multi Layer Tri Iso Super 9 Insulation to achieve a 'U' value of 0.19W/m²K fitted strictly in accordance with manufacturers instructions:

1. Unroll the insulation preferably vertical, starting from the top of the roof.
2. Staple the insulation product at 800mm ctrs on the u/side of the rafters
3. Overlap the widths by min. 50mm and max. 100mm and tape joints with approved tape.
- 4.At the bottom of the roof slope, staple the insulation directly to the wallplate.
- 5.Nail 25mm thick cross battens to the rafters to create 25mm cavity / ventilation gap through the insulation and then attach p'board.

Roof Insulation 'U' Value Calculation sheet available on request

LATERAL RESTRAINT STRAPS

The roof structure to blockwork wall with 30X5 galvanised mild steel straps at max 1.8m ctrs where rafters and ceiling joists run parallel to blockwork walls.Also fit at max 1.8m ctrs to anchor wallplate to blockwork wall with min 3no. fixings per strap.Horizontal lateral restraint straps should be spaced not more than 2m centres and attached to at least 3 timber members through the use of nogging and packing. Attach to timber members with four steel screws or four 4 mm x 75 mm round nails for roofs and two into each joist for floors. The turn down and should be 100 mm at the centre of an uncut block or brick.Vertical restraint strapping should be at least 1m long. Where straps are fixed to masonry, hardened nails 65W6 x 75 mm long or wood screws into plugs No 12 x 50 mm long should be used. The number of fixings should be in accordance with the design plans and the lowest fixing should be located within 150 mm of the bottom of the vertical strap.

CEILING

All ceilings to be 15mm plasterboard to BS1230.

Ceilings to be have Coveing and skin finish to clients requirements.Plasterboard sheets to be fixed with joints staggered and must be layed perpendicular to all joist runs.Fix boards at a min.150mm centres.

ROOF / LOFT ACCESS

Provide insulated roof access trap door with a fully weathered sealed frame and a 38mm brass bolt or to clients requirements.

NOGGINGS

Fix min. 38x38mm timber noggings to all potential loose plasterboard ceiling edges and light fittings.Position of light fittings to be advised by client on site.

INTERNAL JOINERY SKIRTING & ARCHITRAVES

All internal finished timber to be free from all defects and to clients approval prior to ordering any materials.

SOAKAWAYS

All rainwater to discharge into soakaways and to be min.of 5m from any building & a min.of 1m filled with rubble to within 450mm of external ground level.Overlay rubble with polythene sheet and backfill with clean topsoil.Note the soakaway inlay pipe must discharge to the centre of the soakaway in all directions.The contractor should carry out percolation tests to determine the feasibility prior to constructing the soakaways. Detailed below is brief guidance on how to carry out the tests:

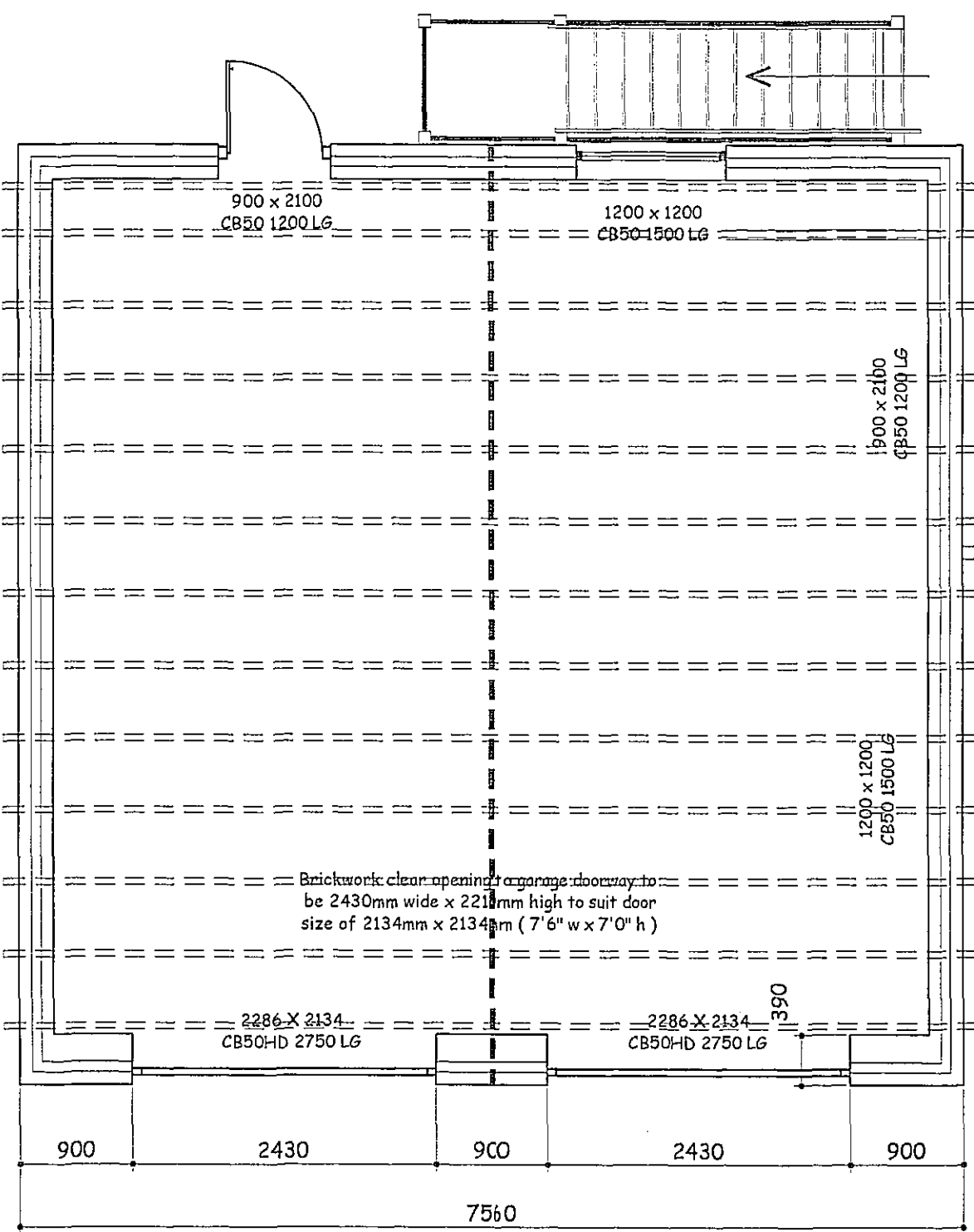
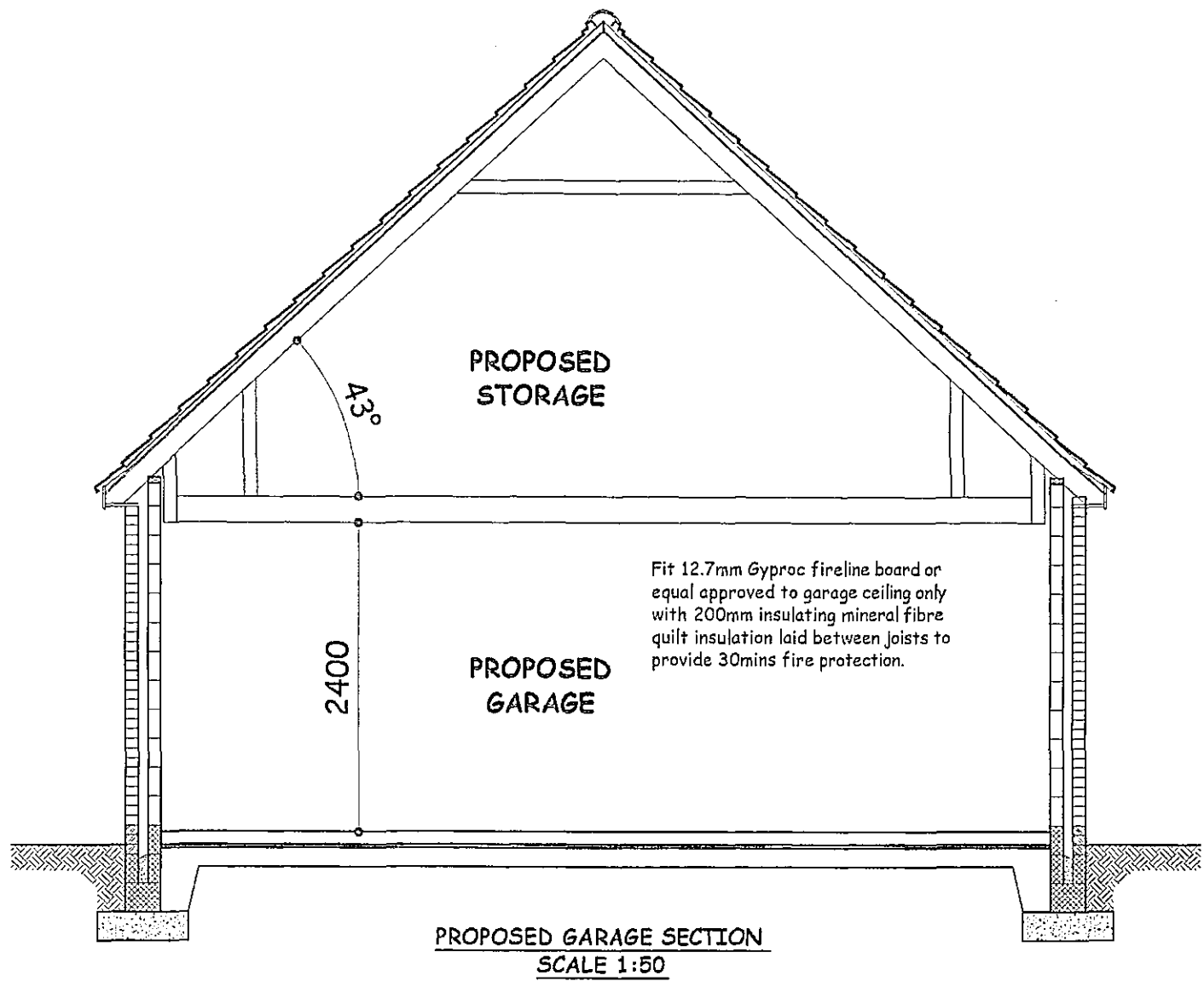
1. Excavate a trial pit to the same depth as the anticipated soakaway below the invert of the drain.
2. The trial pit should be 300mm - 1000mm wide and 1000 - 3000mm long.
- 3.It should have vertical sides trimmed square and, if necessary for stability filled with granular material.
- 4.When no granular material is used, it is advisable to place pegs into the trial pit at the 75% & 25% levels. This allows the water level readings to be taken accurately.
- 5.The trial pit should then be filled and allowed to drain three times to near empty, with readings taken for:
 - The time taken for the water level to lower to the 75% level
 - The time taken for the water level to lower to the 25% level
- 6.When granular material is used, a full height, perforated, vertical observation tube should be positioned in the pit so that the water levels can be monitored with a dip tape.
- 7.The trial pit should be filled on three separate occasions to give a true reading on the ground conditions

Available at this office is a Soil Infiltration check sheet to be completed on site and a copy issued to the L.A Building Control Officer upon completion.

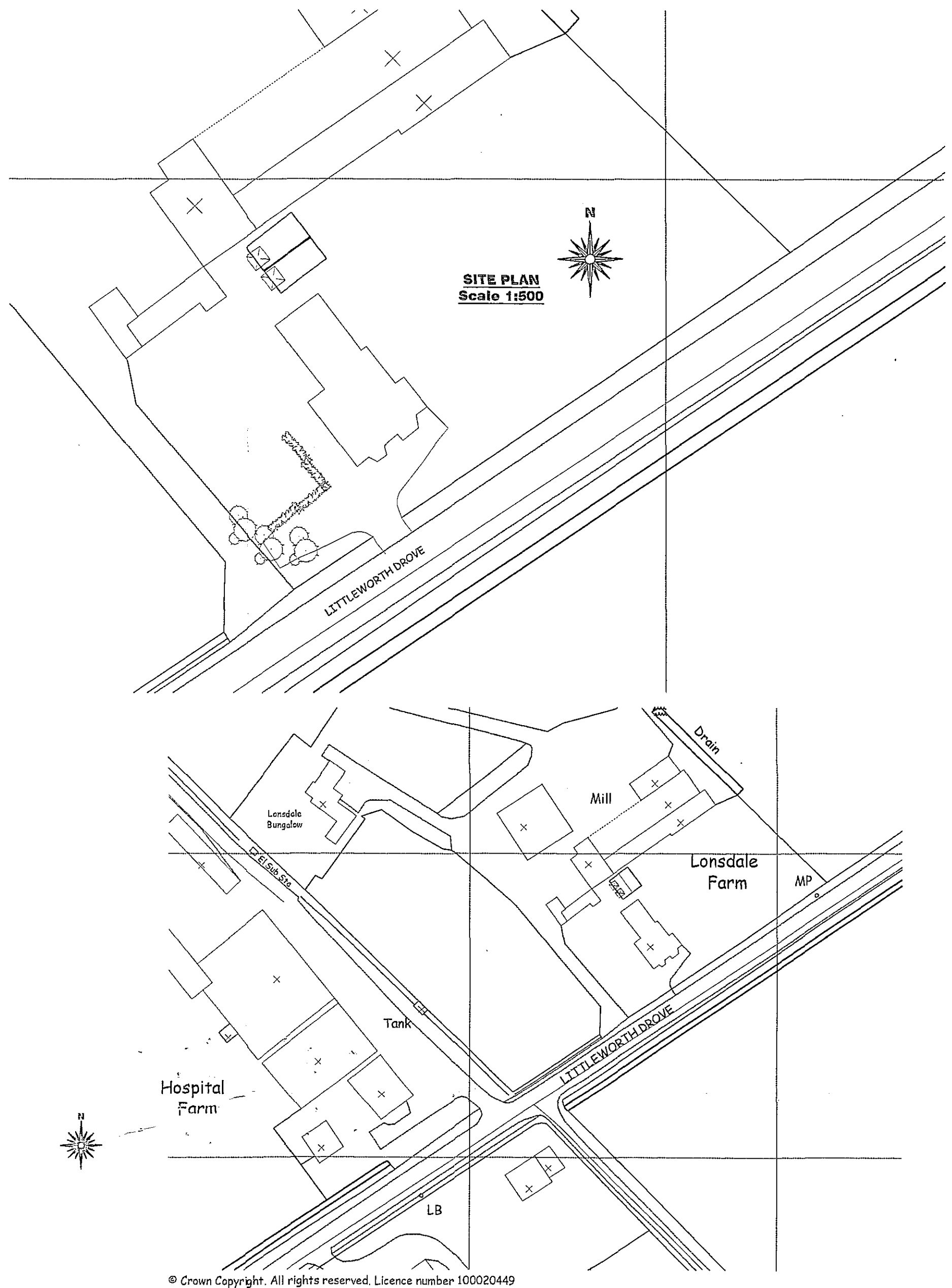
ELECTRICAL INSTALLATION

All electrical work required to meet the requirements of Part P must be designed, installed, inspected and tested by a person competent to do so.Prior to completion of the works the council Building Control Officers must be satisfied that either:

1. An electrical installation certificate issued under a competent persons scheme has been issued or
2. An appropriate electrical installation certificate has been issued for the work, and that it has been signed by a person competent to do so.The Engineer is to advise if any appliance or position of appliance does not conform to regulations. Contractor to seek advice from Client with regard to lighting requirements.



PROPOSED GARAGE PLAN
SCALE 1:50



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LOCATION PLAN
Scale 1:1250

SHDC
Planning & Development
26 OCT 2005
Ref: 0766 OS

AMENDED PLAN
Ref. A1

GENERAL CONDITIONS
Contractors are responsible for checking all dimensions on site when work commences and before ordering any materials. Any discrepancies should be brought to the attention of the Client for remedial action before commencing further.

All details shown are based on typical site conditions for that area, any abnormal conditions should be brought to the attention of the Client and Local Authority.

The notes shown are mainly to cover the requirements of Building Regulations and should not be treated as full specification. No allowance has been made for any Structural Calculations a "SAP" calculation, Soil Investigation or Flood Risk Assessment. If deemed necessary then these will be a chargeable extra. All steel beam sizes shown on drawing are all subject to confirmation from Structural Engineer.

All materials not specified to be of a standard suitable for the work proposed and be fit for purpose. All work to be in accordance with good building practice and all necessary BS codes for Workmanship on Building Sites.

rev 'B' - Roof Style turned thro' 90° to suit site electricity cables

rev 'A' - 03.06.05 - Office Block omitted and Garage Re-located to suit Client

Client :
Mr & Mrs Smith
Lonsdale House
Main Road
Deeping St Nicholas
PE11 3DG

Site :
Proposed Detached Garage

Remway design
3, Rembrandt Way
Spalding
Lincs
PE11 3HX
Tel: 017815 112 058
Fax: 01775 766 921
e-mail: jason@remwaydesign.co.uk

Date: feb05 Scale: as noted

Drawing No:
rem 987 - 01 "B"