

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

PLEASE NOTE:
Due to areas of the structure being covered, unexposed or otherwise inaccessible the notes / specifications of existing materials are subject to confirmation of site when it is feasible to expose the relevant areas of construction.

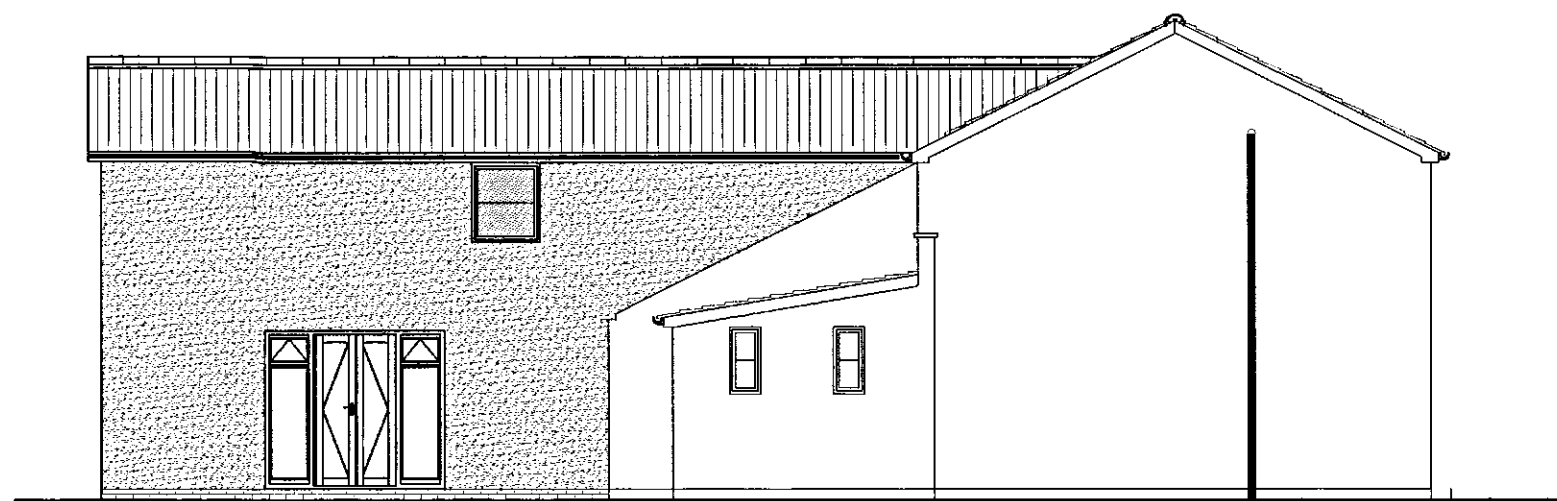
Black Painted Mild Steel Balconette to be formed as clients requirements and fitted strictly in accordance with manufacturers instructions 100mm balustrade height is to be capable of withstanding an horizontal impact force of 0.3kN/m. Balustrade are to be spaced at ctrs which will prevent a 100mm Ø sphere passing through.



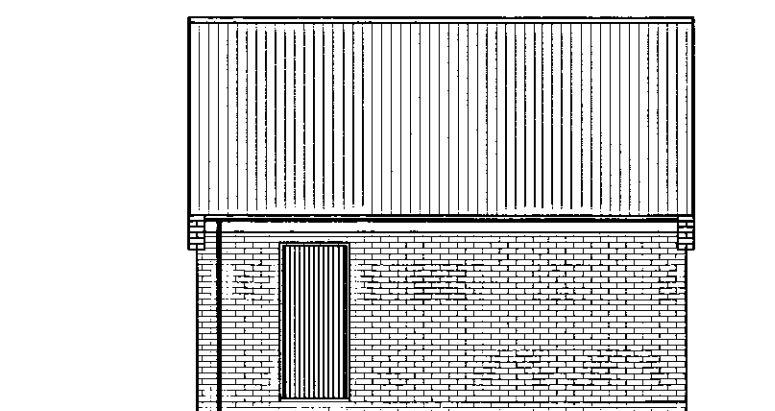
PROPOSED SIDE ELEVATION
Scale 1:100



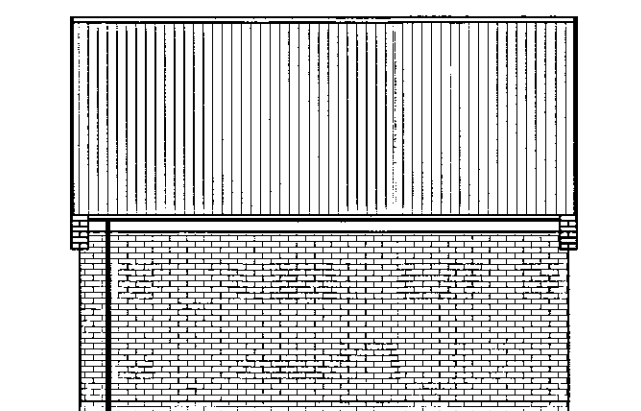
PROPOSED REAR ELEVATION
Scale 1:100



PROPOSED SIDE ELEVATION
Scale 1:100



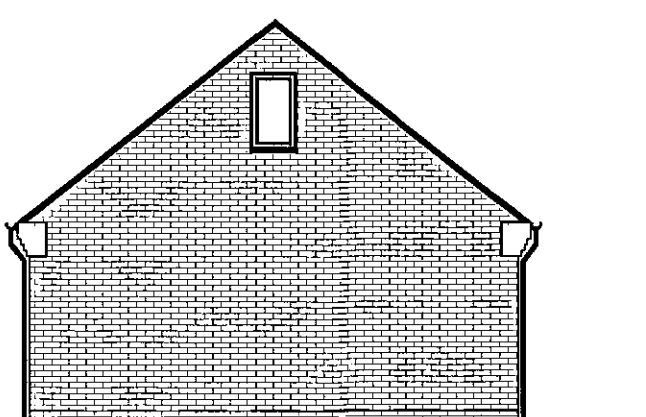
PROPOSED GARAGE SIDE ELEVATION
Scale 1:100



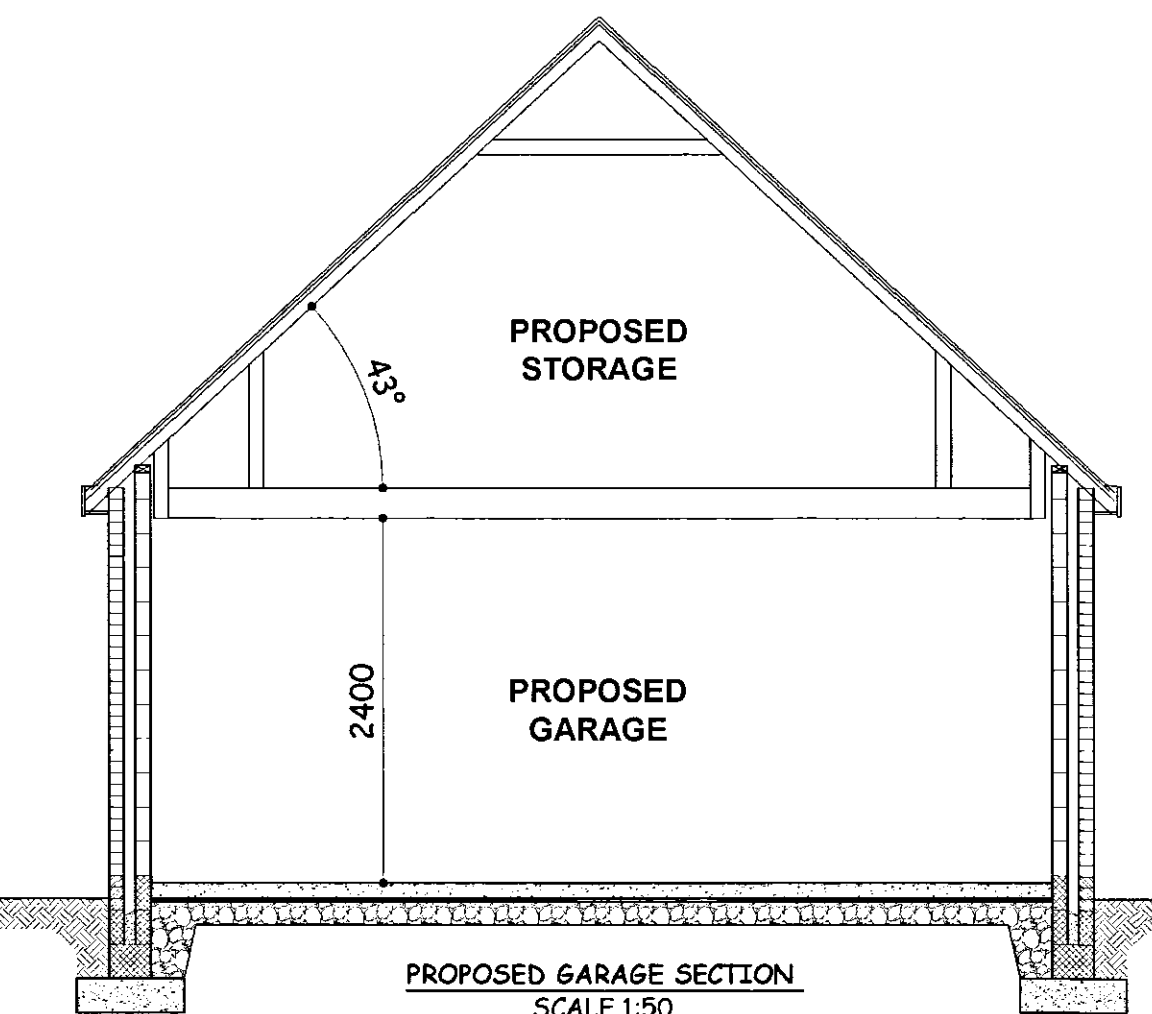
PROPOSED GARAGE SIDE ELEVATION
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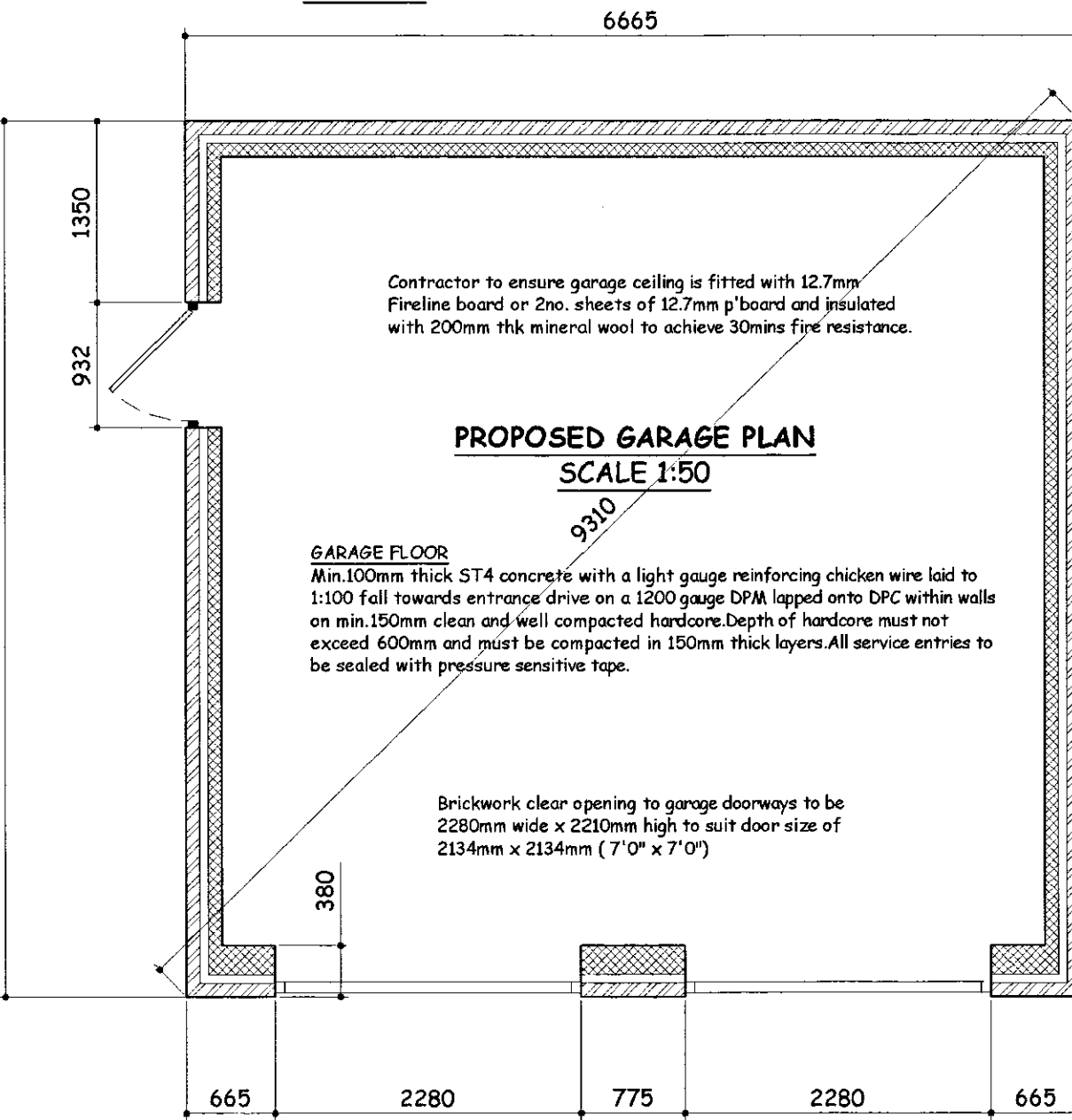
PROPOSED GARAGE FRONT ELEVATION
Scale 1:100



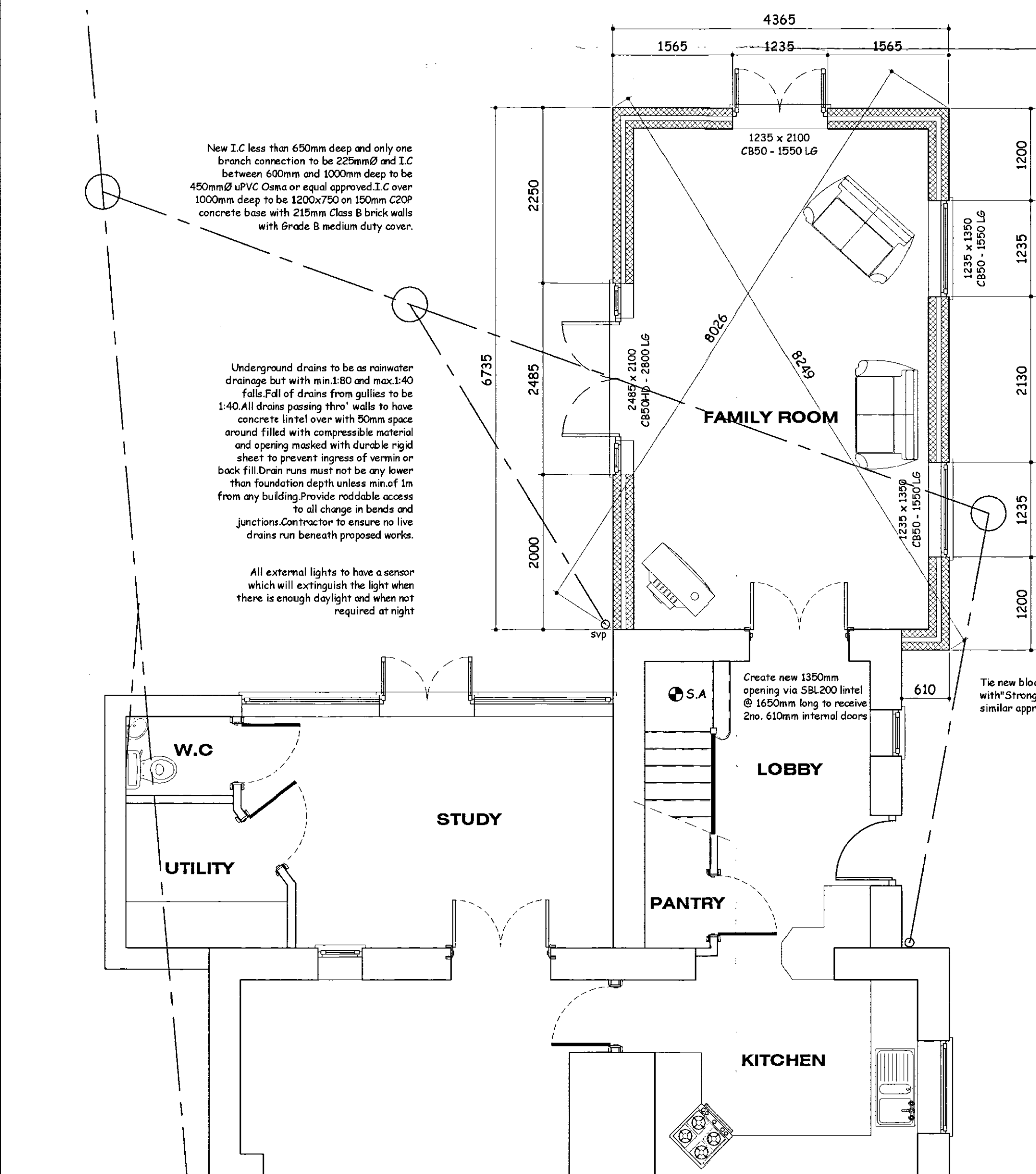
PROPOSED GARAGE REAR ELEVATION
Scale 1:100



PROPOSED GARAGE SECTION
SCALE 1:50



PROPOSED GARAGE PLAN
SCALE 1:50



SOAKAWAYS
All rainwater to discharge into soakaways and to be min of 5m from any building & a min of 1m² filled with rubble to within 450mm of external ground level. Overlay rubble with polythene sheet and backfill with clean topsoil. Note the soakaway inlet pipe must discharge to the centre of the soakaway in all directions.

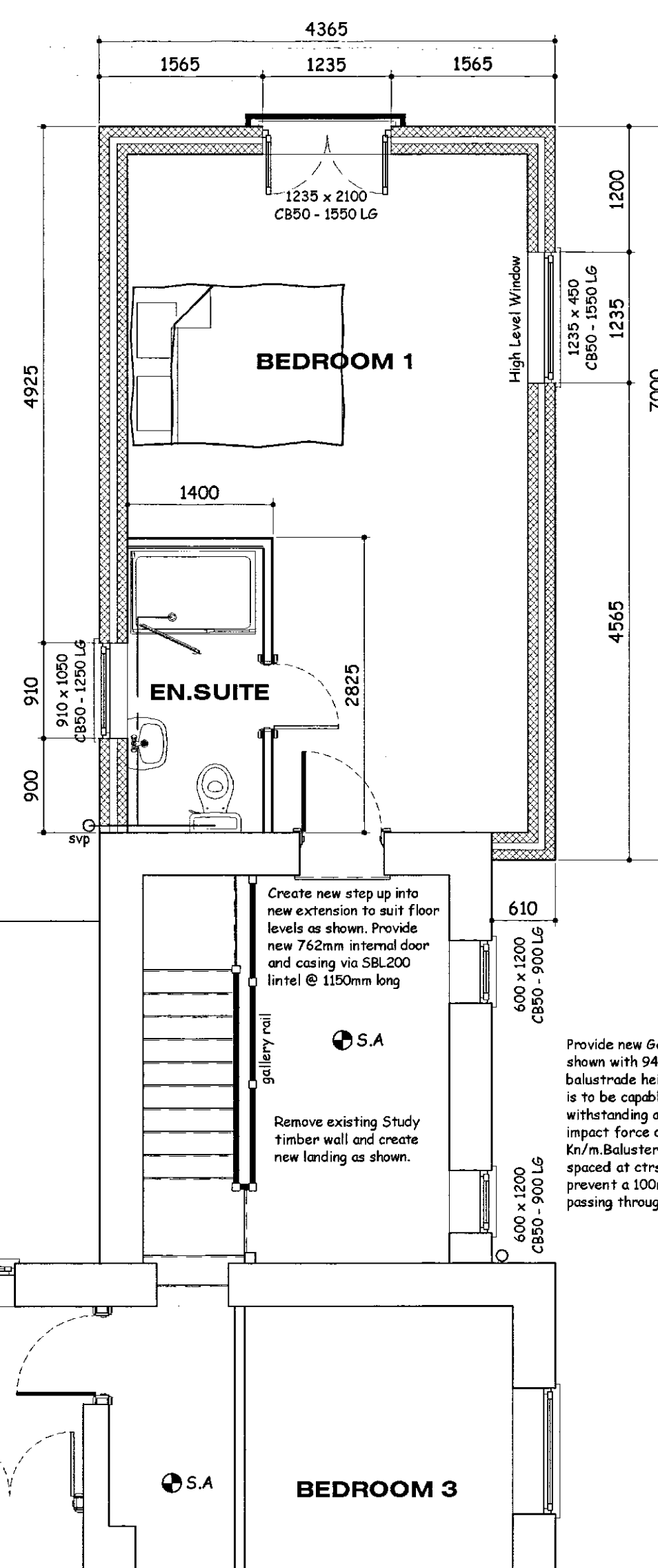
RAINWATER DRAINAGE
uPVC guttering and downpipes to clients approval. Falls for guttering to be 1:600 and brackets fixed at max. 2m ctrs. Downpipes to be connected into underground drains via reducing adaptor. Underground drains to be 110mm Ø Omega uPVC or similar approved with flexible joints laid on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

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
Plascon	Fibrolite	65mm
	Aglyte	65mm
	Stranlite	85mm
	Plascon	100mm
Tarmac Topblock	Hemelite	85mm
	Lignacrite	85mm
	Topcrete	100mm
	Durox Supabloc	65mm

Fit ceiling mounted extract fan to En. Suite with rigid ducting kit running thro' roof space and to be ventilated thro' external wall or Soffit board. Ducting and fan to be surrounded with 100mm glass fibre insulation to provide 30mins fire protection.

Construct new studwork walls from 89 x 38mm C.L.S of treated battens at max. 600mm centres with noggings at max. 1200mm centres. Fix room sides 12.7mm plasterboard, scum tape all joints and skim finish. Pack with 75mm mineral fibre insulation.

Note: Provide energy efficient lights and bulbs to Family Room. The light fitting is to only receive a bulb that has a luminous efficacy greater than 40 lumens per circuit-watt.



FOUNDATIONS
Existing building area to be stripped of all vegetable matter and rubbish to a min depth of 150mm before excavation with concrete foundations commences. Concrete mix for foundations to be GEN3 in accordance with BS5328:1981. 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). Excav 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.
3no. Courses of Class B 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.

DAMP PROOF COURSE (D.P.C.)
Horizontal heavy duty polythene DPC "Hyload" or similar approved to all walls in accordance with BS 6515 and set min. 150mm above all external ground levels. D.P.C. in walls must be linked / lapped with 300mm 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.

GROUND FLOOR
65mm mortar screed with a light gauge reinforcing chicken wire on 500 gauge polythene separating layer on a 60mm Celotex Double R 6A3000Z rigid insulation board or similar approved. Provide 30mm thick perimeter insulation between screed and floor insulation upto d.p.c. level on 100mm thick GEN3 concrete sub-floor 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. Floor to achieve a min 'U' Value of 0.25w/m²K.

Floor Insulation Installation guidelines (under screed)
1. Install a Damp Proof Membrane (DPM) below the slab OR apply a liquid waterproofing material to the top surface of the slab.
2. The DPM must provide continuity with DPCs installed within the surrounding walls.
3. Level the surface of the slab; it should be smooth and free of projections.
4. Use a thin sand blinding on a rough top slab to ensure that boards are continuously supported. Cut strips of board as upstands to fit around floor perimeters to eliminate heat bridging at screed edges.
5. Upstand depth should equal the sum of the slab insulation and screed thickness.
6. The upstand thickness should not exceed the combined thickness of wall plaster and skirtings.

7. Lay boards directly onto the prepared slab, cutting infill boards as required. Joints must be tightly butted. The use of a polythene vapour control layer over the insulation is recommended by the BRE to minimise the risk of condensation forming at the insulation/slab interface.
8. Apply a sand/cement screed over the 6A3000Z boards to a minimum thickness of 65 mm. Use scaffold boards or other protection to prevent wheelbarrows and other traffic damaging boards.
9. Allow screed to dry thoroughly before an impermeable surface, such as a vinyl floor finish, is applied.
10. These recommendations are suitable for normal domestic floor loadings. If higher loadings are required it may be necessary to increase screed thickness and provide reinforcement within the screed. See "Limiting Thermal Bridging and Air Leakage: Robust construction details for dwellings and similar buildings" ISBN 0 11 753 6318, published by HMS.

Installation guidelines (under slab)
Insulation under the slab must have: Level and well blinded hardcore. DPM (Damp Proof Membrane) placed under insulation. Insulated upstand = thickness of slab + screed. DPM contiguous with the DPCs. Vapour control layer (e.g. 1000g polythene) laid directly over insulation.
1. Lay boards directly onto the prepared slab, cutting infill boards as required. Joints must be tightly butted. The use of a polythene vapour control layer over the insulation is recommended by the BRE to minimise the risk of condensation forming at the insulation/slab interface.
2. The DPM must provide continuity with DPCs installed within the surrounding walls.
3. Level the surface of the slab; it should be smooth and free of projections.
4. Use a thin sand blinding on a rough top slab to ensure that boards are continuously supported. Cut strips of board as upstands to fit around floor perimeters to eliminate heat bridging at screed edges.
5. Upstand depth should equal the sum of the slab insulation and screed thickness.
6. The upstand thickness should not exceed the combined thickness of wall plaster and skirtings.
7. Lay boards directly onto the prepared slab, cutting infill boards as required. Joints must be tightly butted. The use of a polythene vapour control layer over the insulation is recommended by the BRE to minimise the risk of condensation forming at the insulation/slab interface.
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EXTERNAL WALLS
All external walls to be 275mm overall thickness comprising of:
-100mm Thermalite Shield insulating blockwork.
-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 DPC'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 joints 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, 25mm thick x ...mm wide (to equal cavity width) at joints and ends 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 joint must completely lap the closer at the lintel.

WALL TIES
Stainless steel cavity wall ties to BS1243:1978 to be built into cavity wall as work 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.

WINDOWS & DOORS
All windows to be 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 weatherseal 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. 30mm to avoid cold bridging.

TIMBER WALLPLATES
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.

CEILING
All ceilings to be 15mm plasterboard to BS1230. Ceilings to be have Coving and a skim finish to clients requirements. Plasterboard sheets to be fixed with joints staggered and must be lapped perpendicular to all joint runs. Fix boards at a min. 150mm centres.

LATERAL RESTRAINT STRAPS
The roof structure to blockwork wall with 30X3 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 noggings and packing. Attach to timber members with four steel screws or four 4mm x 75mm round nails for roofs and two into each joist for floors. The turn down end should be 100mm at the centre of an uncut block or brick. Lateral restraint strapping should be at least 1m long. Where straps are fixed to masonry, hardened nails BS562 x 75mm long or wood screws into plugs No 12 x 50mm long should be used. The number of fixings should be in accordance with the design plans and the lowest fixing should be located within 150mm of the bottom of the vertical strap.

SMOKE ALARMS
To be self contained, interconnected and wired to a separately fused circuit with a battery back up. Smoke alarms to be fitted to u/side of plasterboard ceiling to the ground floor max 7m from the kitchen / lounge and to be max. 3m from any bedroom door. All alarms to be strictly in accordance with BS 5446 and to be wired so that when one alarm is triggered all alarms are activated.

WASTE SIZES FOR NEW PLUMBING
All new plumbing to have the following waste sizes:
W.C.: 100mm x Multikwik or similar approved
W.H.B.: 52mm x uPVC with 75mm Deep sealed trap
SINK: 40mm x uPVC with 75mm Deep sealed trap
SHOWER: 40mm x uPVC with 75mm Deep sealed trap
Provide access points to all changes in direction. Provide anti-siphon traps where pipe runs exceed 3m and W.H.B. pipe run exceeds 1.8m.

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

ROOF FINISH
Roof Tiles to be Concrete Interlocking Portiles with min. 75mm headlap and 345mm max. gauge to clients requirements / approval fixed in accordance with manufacturers instructions and in accordance with BS 9534: Parts 1 and 2. Set out to give true lines and regular appearance, fitting neatly at all edges, junctions and features. Fix tile roofing to make the building sound and weathertight 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 battens. Tiling battens should be not less than 12m 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 sown 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 of perimeter of roof to be clipped and nailed. Use Code 4 Lead flashing to all abutments with min. 75mm upstand.

ROOF INSULATION
The whole area of the ceiling to be insulated with two layers of Crown Wool Mineral Fibre Insulation or equal approved of a total thickness 300mm to achieve a 'U' value of 0.16w/m²K. Width of first layer of insulation to be appropriate to the joint spacings and of a thickness equal to joint depth (100mm). The insulation to be laid between the joists to finish over the wall plate on external walls and pulled up tight to roofing membrane. The second layer (200mm) of Crown Wool to be laid at right angles to the first layer. All joints between the rolls of insulation to be close butted.

ROOF VENTILATION
Install Tyvek® or similar approved Breathable Membrane in accordance with manufacturers instructions which are briefly described below & BBA 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 left 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 into 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 provide a watertight seal.
Abutments:
Turn up the Tyvek® underlay beneath flashings not less than 50mm.

INTERNAL JOINERY, SKIRTING & ARCHITRAVES
Seal around all penetrations using Tyvek® Butyl Tape.
All internal finished timber to be free from all defects and to clients approval prior to ordering any materials.

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.

HEATING SYSTEM
Provided from existing but all radiators are to be fitted with thermostatic radiator valves. All space heating pipework located outside the building fabric insulation layers to be wrapped with insulation material having a thermal conductivity at 40°C not exceeding 0.035 W/m²K and a thickness equal to the outside diameter of pipe upto max. of 40mm. It should be noted that central heating and hot water pipework in unheated areas may need increased insulation thicknesses for the purpose of protection against frost, refer to BRE Report No. 262 2002 Edition.

MASONRY WALL CONNECTORS
Provide Simpson Strong - Tie or similar approved wall connectors to connect new & existing brick / blockwork. Use all specified fasteners. Fasteners must be spaced evenly unless otherwise specified, and installed into the existing brickwork blocks and not into mortar joints. Insert wall ties provided at maximum 300mm centres, bedding the ties into the mortar joints. Detailed site work instructions are provided with each wall connector system and must be adhered to at all times. In exposed locations it may be necessary to incorporate additional protection, for example the installation of a vertical dpc.

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.

Client: Mrs A Bycroft
129 Broadgate
Whapload Drive
PE12 0TW

Site: Proposed Two Storey Rear Extension & Detached Garage

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Tel: 07815 112 058
Fax: 01775 768 921
e-mail: jason@remwaydesign.co.uk

DETERMINED PLAN

Date: mar05 Scale: as noted

Drawing No: rem 1005 - 02