

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

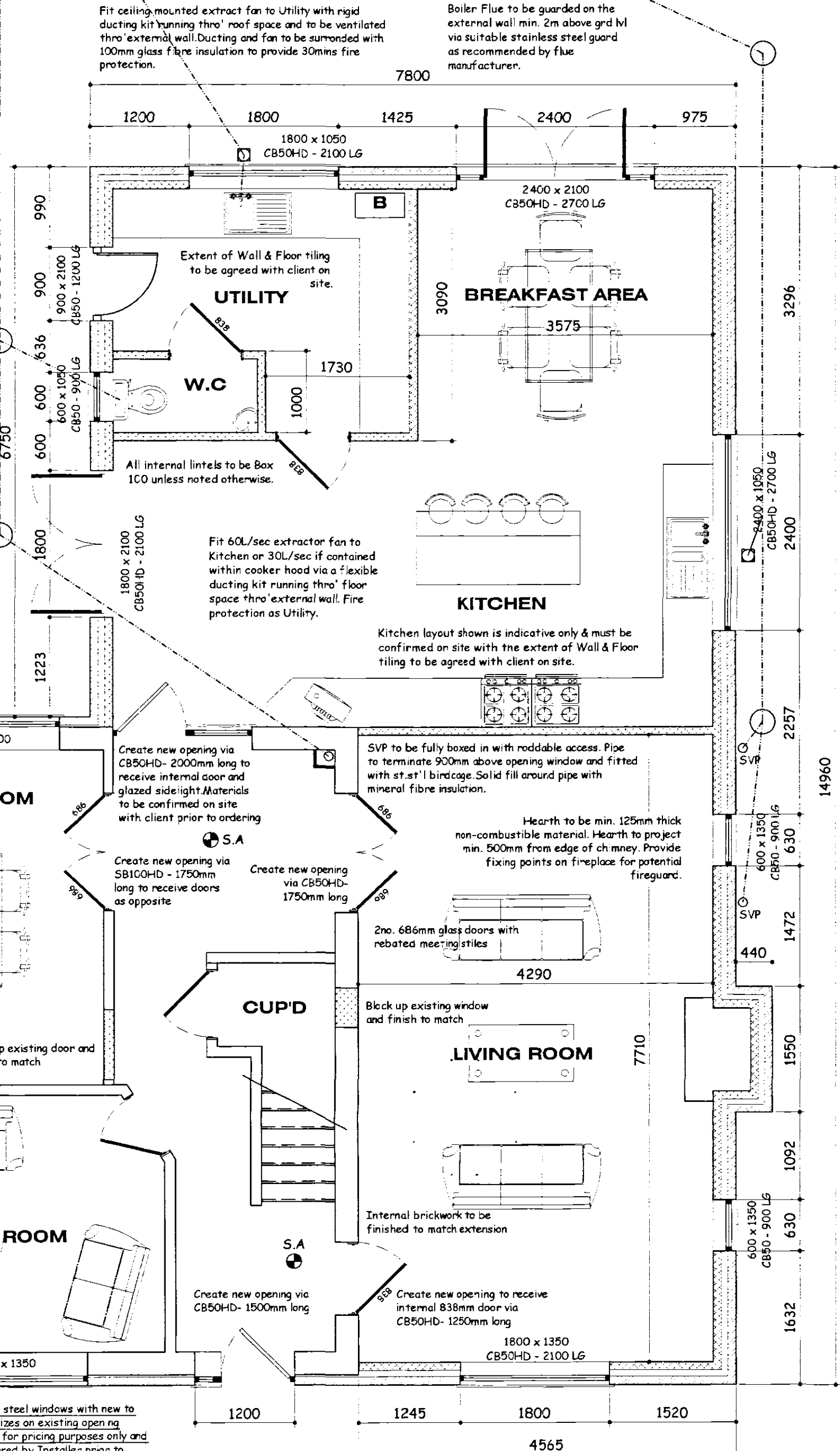
Underground drains to be as rainwater drainage but with min 1:80 and max 1:40 falls. Fall of drains from gullies to be 1:40. All drains passing thro' walls to have concrete lintel over with 50mm space around filled with compressible material and opening masked with suitable rigid sheet to prevent ingress of vermin or back fill. Drain runs must not be any lower than foundation depth unless min 1m from any building. Provide roddable access to all change in bends and junctions. Contractor to ensure no live drains run beneath proposed works.

All external lights except garage to have a sensor which will extinguish the light when there is enough daylight and when not required at night.

All internal doors to extension to be 838mm wide unless to Cup'd which will allow a min clear opening of 800mm and a structural opening of 940mm.

Note: Provide energy efficient lights and bulbs to Kitchen, Living Room and Hallway. The light fittings to be only receive a bulb that has a luminous efficacy greater than 40 lumens per circuit-watt.

The new blockwork to existing with Strong Tie Connectors on similar approved.



PROPOSED GROUND FLOOR PLAN

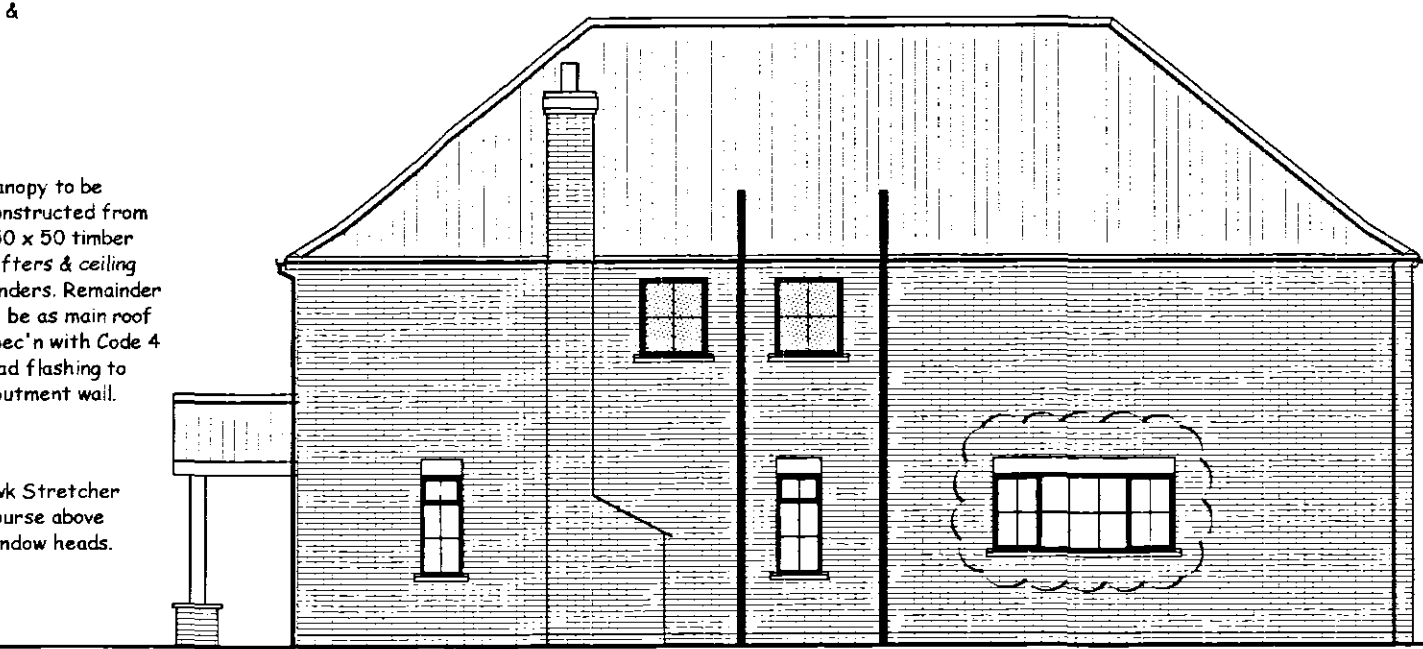
**ROOF FINISH**  
Sandoft or similar approved Concrete Interlocking Double Pantile with min. 75mm headlap & max. gauge 345mm (9.7 tiles / m<sup>2</sup>) fixed in accordance with manufacturers instructions and in accordance with BS 5534: Parts 1 and 2. Set out to give true lines and regular appearance, fitting neatly at all edges, junctions and features. Fix roof covering to make the building sound and weather-tight 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 12mm 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 at perimeter of roof to be clipped and nailed. Use Code 4 Lead flashing to any 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 to achieve a U value of 0.16w/m<sup>2</sup>K. 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 pushed 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 & BS4 certifficate 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 certifficate 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. Step 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.



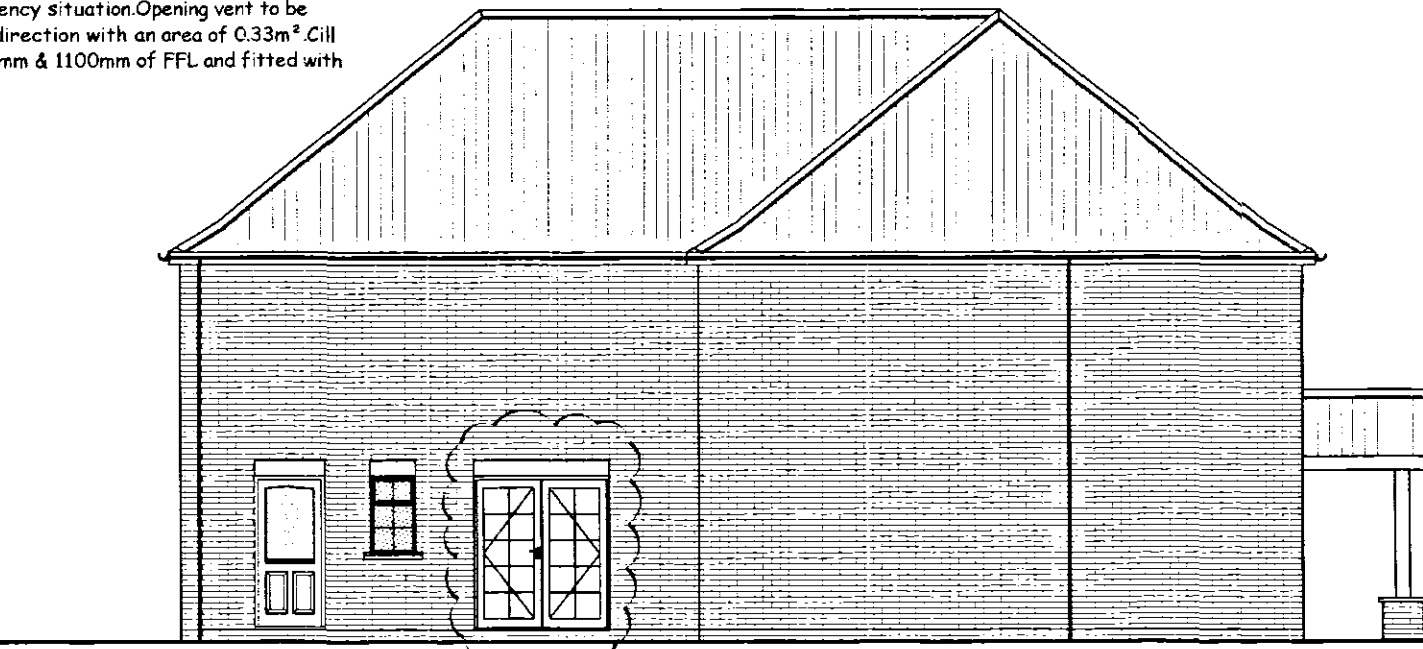
PROPOSED FRONT ELEVATION



PROPOSED SIDE ELEVATION



PROPOSED REAR ELEVATION



PROPOSED SIDE ELEVATION

Pipes to discharge to new "Klargester" or similar approved Sewage Treatment plant min. 7m from any building with sub surface irrigation system which should be a min. 7m from any building. The Contractor must assess the condition of the ground and the nature of the soil to determine linear metres of pipework. This is to be done by carrying out a Percolation Test. Procedure strictly as set out in manufacturers instructions. Percolation Test results to be forwarded to the L.A. Building Control officer dealing with this site prior to any drainage field work being carried out. Once trench length is established the pipework is to be laid as per manufacturers instructions.

Contractor to provide an "Operating and Maintenance" Instructions for Heating and Hot Water Systems" notice inside kitchen door which explains operating system and routine maintenance which is advisable for the conservation of fuel and power.

Construct new studwork walls from 75mm x 50mm softwood battens at max. 400mm centres with noggings at max. 1200mm centres. Fix room sides 12.7mm plasterboard and skim finish. Solid pack with 75mm insulation.

Note: Provide energy efficient lights and bulbs to Bedroom 1 & landing. The light fitting is to only receive a bulb that has a luminous efficacy greater than 40 lumens per circuit-watt.

Permanent air supply req'd to open fire achieved via permanently open air vents with a total free area of at least 50% of the throat opening area. Exact fireplaces & surround to be finalised on site with client.

**CEILING**  
All ceilings to be 15mm plasterboard to BS232. Ceilings to be have Coving and skim / arca finish to clients requirements. Position of light fittings to be advised by client on site, staggered and must be lapped perpendicular to all joist runs. Fix boards at a min. 150mm centres.

**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 outside 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.: 32mm x uPVC with 75mm Deep sealed trap  
SINK: 40mm x uPVC with 75mm Deep sealed trap  
SHOW: 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 runs exceed 1.8m.

**NOSSINGS**  
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, staggered and must be lapped perpendicular to all joist runs. Fix boards at a min. 150mm centres.

**INTERNAL JOINERY, SKIRTINGS & ARCHITRAVES**  
All internal finished timber to be free from all defects and to clients approval prior to ordering any materials.

**ELECTRICAL INSTALLATION**  
To be in strict accordance with the latest I.E.E. Regulations and Engineer 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.

**ACCESSIBLE SWITCHES & SOCKETS**  
In order to use the dwelling more easily by all persons then wall mounted switches, sockets, TV sockets, telephone jack points and door bells, etc. should be positioned between 450mm and 1200mm from finished floor level. Door bells & light switches to be fitted 1200mm from FFL and the remainder 450mm from FFL.

All new window opening vents to first floor to allow means of escape in an emergency situation. Opening vent to be min. 450 wide in each direction with an area of 0.33m<sup>2</sup>. Cill level to be within 800mm & 1100mm of FFL and fitted with egress hinges.

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

**CHIMNEY CONSTRUCTION**  
To be constructed in accordance with BS1181:1989. Clay flue liners to have sockets laid upmost and jointed / sealed with fire cement with the gap between liner and brickwork filled as work progresses by the contractor with lean mix concrete. Flue liners to be a min. 200mm internal diameter. If a bend is necessary within the flue run, then it should not be more than 30° measured from the vertical plane.

**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 bricks or block 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 insertion of a vertical opac.

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

**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.

**DAMP PROOF COURSE (D.P.C.)**  
Horizontal heavy duty polythene DPC "Hyload" or similar approved to all walls in accordance with BS 5261 and set min. 150mm above all external ground levels. DPC in walls must be linked / 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 Brickwork to match existing  
- 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 Thermatite 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/m<sup>2</sup>K.  
**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, 25mm thick x 75mm wide (to equal cavity width) at jambs and cills 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 cill.

**WALL TIES**  
Stainless steel cavity wall ties to BS1243:1978. To be built into cavity wall as works proceed 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 Supergol range unless noted otherwise or equal approved. All lintels must have a min. 150mm end bearing 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 400mm" trickle ventilators to Kitchen, Utility, Bathroom & En-Suite windows and 800mm" elsewhere. All in accordance with manufacturer's recommendations. Patio doors to be fitted with 1000mm" ventilation to all rooms. All glazing to be 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 15mm Air gap with a soft Low 'E' coating on glass inner pane to achieve a min 'U' value of 2.0 w/m<sup>2</sup>K. 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. 10mm to avoid cold bridging.

**TIMBER WALL PLATES**  
All timber wall plates 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.

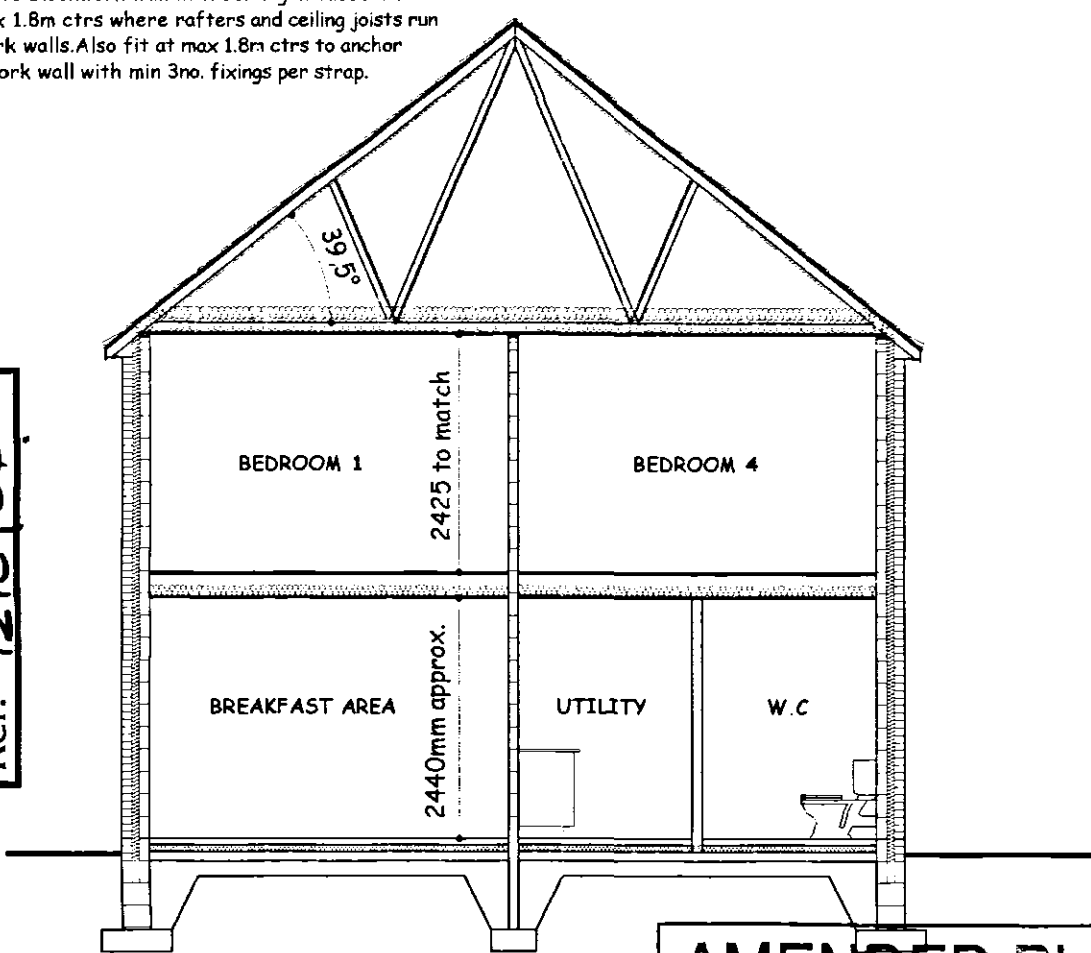
**LATERAL RESTRAINT STRAPS**  
The roof structure to blockwork wall with 30X5 galvanised mild steel straps at max 1.8m ctrs where rafters and ceiling joists run parallel to blockwork walls. Also fit at max 1.8m ctrs to anchor wallplate to blockwork wall with min 3m fixings per strap.

**FOUNDATIONS**  
Existing building area to be stripped of all vegetable matter and rubble to a min. depth of 150mm below excavation 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 sh-suitable nature). Exact depth to suit conditions on site and to the strict approval of the L.A. Building Inspector. Any irregularities in subsol 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/m<sup>2</sup> concrete blockwork on full width trench blocks. Both to be within 225mm of DPC level. Cavity to be filled to within 225mm min. of below DPC with lean concrete mix.

**GROUND FLOOR**  
65mm mortar screed with a light gauge reinforcing chicken wire on 500 gauge polythene separating layer on a 60mm Celotex Double R GA30002 rigid insulation board on 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 DPC 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 and screed thickness.  
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 bedding on a rough humped slab to ensure that boards are continuously supported. Cut strips of board at 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 skirting.  
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 GA30002 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 HMSO.

**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. 1000 g polythene) laid directly over insulation.



SECTION Scale 1:75  
AMENDED PLAN  
Ref: #2

Client: Mr J McKeown  
c/o Mr B Warner  
38 Pilgrims Way  
Spalding  
PE11 1LU

Site: Proposed Two Storey Side & Rear Extensions @ High Road House, High Road, Whaploade, PE12 6JT

remway design Ltd  
3 Rembrandt Way  
Spalding  
Lincs  
PE11 3HX  
Tel: 07815 112 058  
Fax: 01775 768 921  
e-mail: jason@remwaydesign.co.uk

Date: aug04 Scale: 1:50 / 1:100

Drawing No: rem 928 - 02 "B"