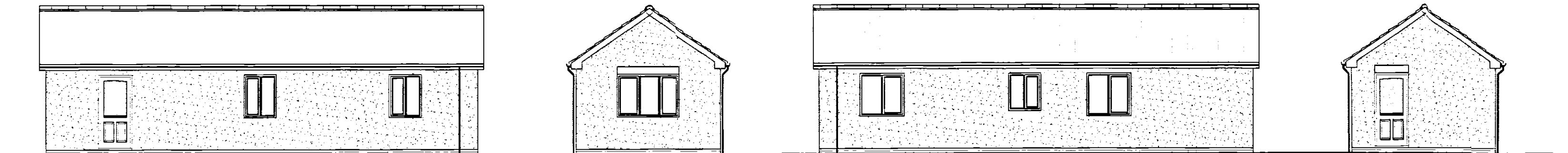


Contractor to check all Dimensions on site prior to ordering materials / commencing work. Do Not Scale from this Drawing - If in doubt then please ask



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.

HEATING SYSTEM

Provide a Low Pressure Hot water Central system via Gas Fired Boiler and cylinder complete with fan assisted flue and combustion air vent. Area of vent is to be in strict accordance with manufacturer's recommendations. Boiler to have a SEDBUK rating of 85%. Electrical operated boiler control interlocks are to control the operating periods of the boiler which in turn is controlled by a room thermostat positioned in proposed living room. The boiler should only fire when the space heating or the Cylinder thermostat calls for heat. All radiators are to be fitted with thermostatic radiator valves. The hot water cylinder is to be insulated with a factory applied PU foam coating at least 35mm thick having a min. density of 35kg/m³. All space heating pipework located outside the building fabric insulation layers to be wrapped with insulation material having a thermal conductivity of 40% not exceeding 0.035 W/mK and a thickness equal to the outside diameter of pipe up to 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 Edin Oil storage tank should have a hard surface beneath such as concrete or paving slabs of at least 42mm thick extending out at least 300mm beyond the perimeter of the tank (or external skin if it is of the integrally banded type). Depending on location of oil storage tank fire protection may be required see site plan.

COMMISSIONING OF HEATING AND HOT WATER SYSTEM

Contractor to submit a certificate to show that commissioning has been successfully carried out. The certificate should be made available to the Client and SHDC building inspectors. A suitable certificate should be one published as part of the Benchmark Code of Practice for Installation, Commissioning and Servicing of Central Heating Systems, a blank copy may be included within the boiler manufacturers installation instructions or from C.H.I. Information Council on Tel no 01926 423 284.

SOAKAWAYS

All rainwater to discharge into soakaways and to be min of 5m from any building & a min of 1m³ 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. 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 x 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 level 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.

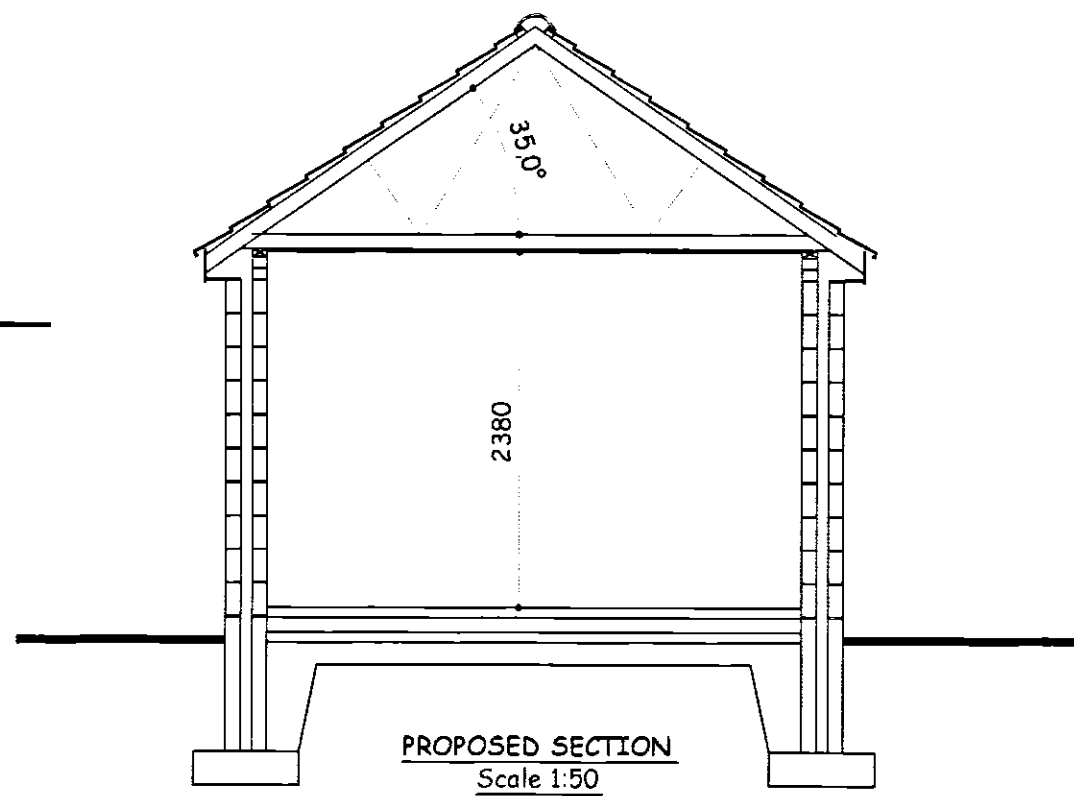
Available at this office is a Soil Infiltration check sheet to be completed on site and a copy issued to the L.A. Building Control Officer upon completion.

RAINWATER DRAINAGE

UPVC guttering and downpipes to clients approval. Falls for guttering to be 1:60 and brackets fixed at max. 2m ctrs. Downpipes to be connected into underground drains via reducing adapter. Underground drains to be 110mm Ø Omega UPVC or similar approved with flexible joints laid on 100mm peg gravel and min 150mm surrounds laid to 1:100 falls to new soakaway. Specification detailed elsewhere.

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 Building Control Officer 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.



DAMP PROOF COURSE (D.P.C.)

Horizontal heavy duty polythene DPC 'Hyloclad' or similar approved to all walls in accordance with BS 6841 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:
- 150mm Thermolite Shield insulating blockwork with 20mm Two Coat Sand / Cement render.
- 75mm cavity filled with Crown Britherm (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 should be installed to ensure that penetrating water is directed only to the outer leaf.
- 100mm Thermolite 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 jamba 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 on equal approved, 25mm thick x 75mm wide (to equal cavity width) at jamba and eaves and at 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 eave.

WALL TIES

Stainless steel cavity wall ties to BS1243:1978. To be built into cavity wall as works progress and spaced at 750mm centres horizontally, 450mm centres vertically and 300mm staggered around all openings. External wall ties are level on 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 Bentley Supergal range unless noted otherwise or equal 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 4000mm³ trickle ventilators to Kitchen, Utility, Bathroom & En-Suite windows and 8000mm³ elsewhere. All in accordance with manufacturer's recommendations. Patio doors to be fitted with 10000mm³ ventilators. Opening vents to give 1/20 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 BS6506 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 have a perimeter weatherseal both internally and externally and to be fully draught sealed. Provide frosted glass to all Bathrooms, 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 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 corner straps as described in notes elsewhere.



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LOCATION PLAN

Scale 1:1250

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 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 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.

ROOF INSULATION - FLAT CEILING

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. Worth 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 joints to a thickness equal to the thickness of the fascia and lapped it onto the Eaves Carrier-Pack closed eaves with fibrous insulation to reduce thermal bridging.

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 nail 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. Strip the membrane short of the fascia and lap it onto the Eaves Carrier-Pack closed eaves with fibrous insulation to reduce thermal bridging.

Valley 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.

LATERAL RESTRAINT STRAPS

The roof structure to blockwork wall with 30x25 galvanised mild steel straps of 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 noggins 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. Vertical restraint strapping should be at least 1m long. Where straps are fixed to masonry, hardened nails BS561 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.

CEILING

All ceilings to be 18mm plasterboard to BS1230. Ceilings to be have Gypsum and skim finish to clients requirement. Plasterboard sheets to be fixed with joints staggered and must be lapped 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.

WASTE SIZES FOR NEW BUILDINGS

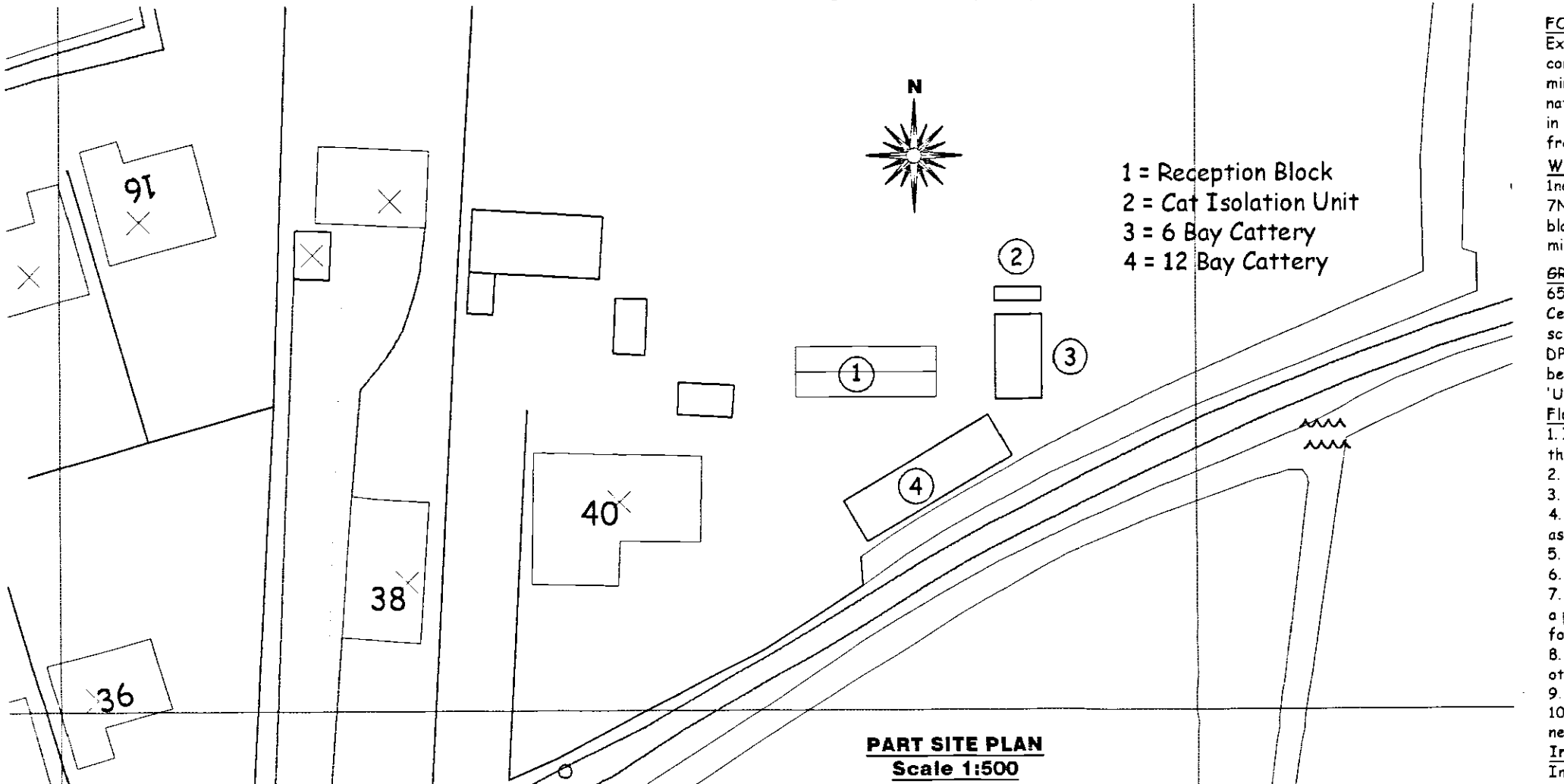
All new plumbing to have the following waste sizes:
W.C.s 100mm Ø Multiwik or similar approved
W.H.B.s 32mm Ø UPVC with 75mm Deep sealed trap
SINKS 40mm Ø UPVC with 75mm Deep sealed trap
SHOWER 40mm Ø UPVC with 75mm Deep sealed trap
Provide access points to all changes in direction. Provide anti-siphon traps where pipe runs exceed 3m and W.H.B. pipe runs exceeds 1.8m.

NOGGINGS

Fix min. 38x38mm timber noggins 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

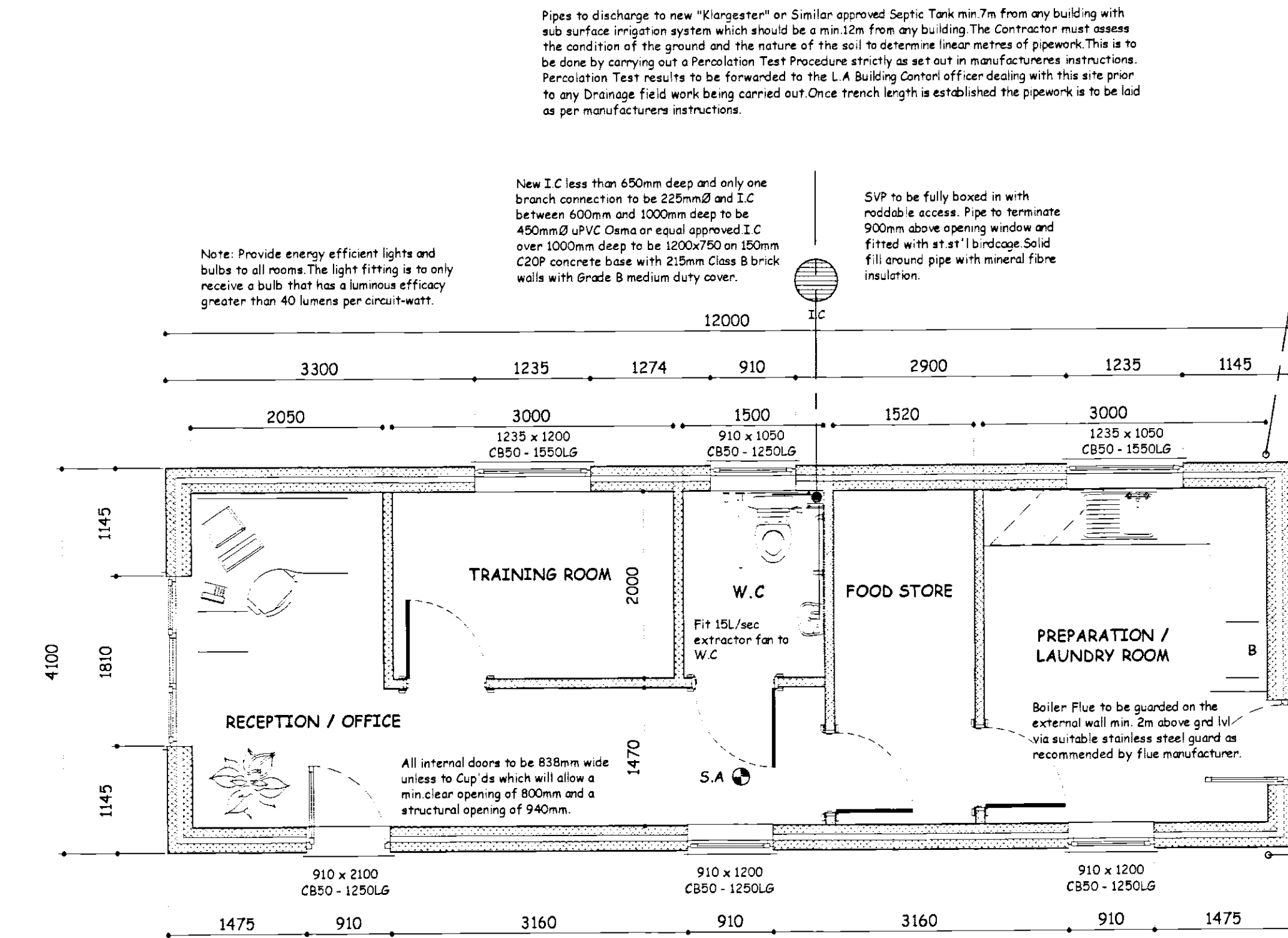
All internal finished timber to be free from all defects and to clients approval prior to ordering any materials.



Pipes to discharge to new 'Klangester' or similar approved Septic Tank min 7m from any building with sub surface irrigation system which should be a min 1.2m 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.

New I.C. less than 650mm deep and only one branch connection to be 225mm Ø and I.C. between 600mm and 1000mm deep to be 450mm Ø UPVC Omega or equal approved I.C. over 1000mm deep to be 1200x750 or 150mm C20P concrete base with 215mm Class B brick walls with Grade B medium duty cover.

SVP to be fully boxed in with roadable access. Pipe to terminate 900mm above opening window and fitted with at 1" b indirect fibre fill around pipe with mineral fibre insulation.



PROPOSED GROUND FLOOR PLAN - RECEPTION BLOCK

Scale 1:50

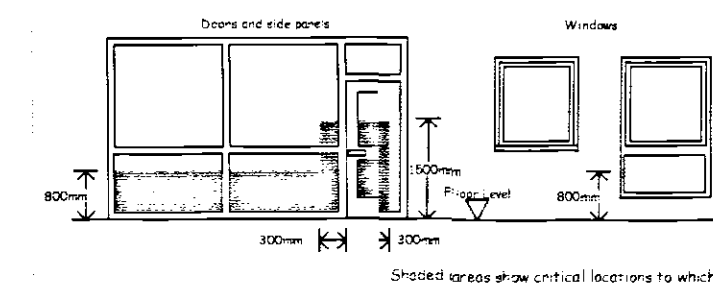
Building to have a Fire Alarm System installed strictly in accordance with BS 5839 and manufacturers recommendations.

RWP's to discharge to soakaways min. 5m from any building.

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 thru' walls to have concrete lintel over with 50mm space around filled with compressible material and opening masked with durable 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 roadable access to all change in bends and junctions. Contractor to ensure no live drains run beneath proposed works.

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.

The contractor shall provide a Notice / Marking within the proposed kitchen stating that 'The routine maintenance system from the property discharges to a Sewage Treatment Plant and drainage field (specify location). The task requires monthly inspection of the outlet chamber or distribution box to observe that the effluent is free flowing and clear. The owner is legally responsible to ensure that the system does not cause pollution, a health hazard or a nuisance.'



BLOCK COMPARISON TABLE (to achieve a 'U' value of 0.25W/m²K)

Manufacturer	150mm Thick Block Type	Full Fill Cavity (min. 25mm thickness)
Thermalite	Shield	85mm
Plascon	Fibolite	85mm
	Agilite	85mm
	Synalite	85mm
	Plascon	100mm
Tarmac Topblock	Hemelite	85mm
	Lignacite	85mm
	Topconcrete	100mm (min. 25mm)
Dunex Supablock		85mm