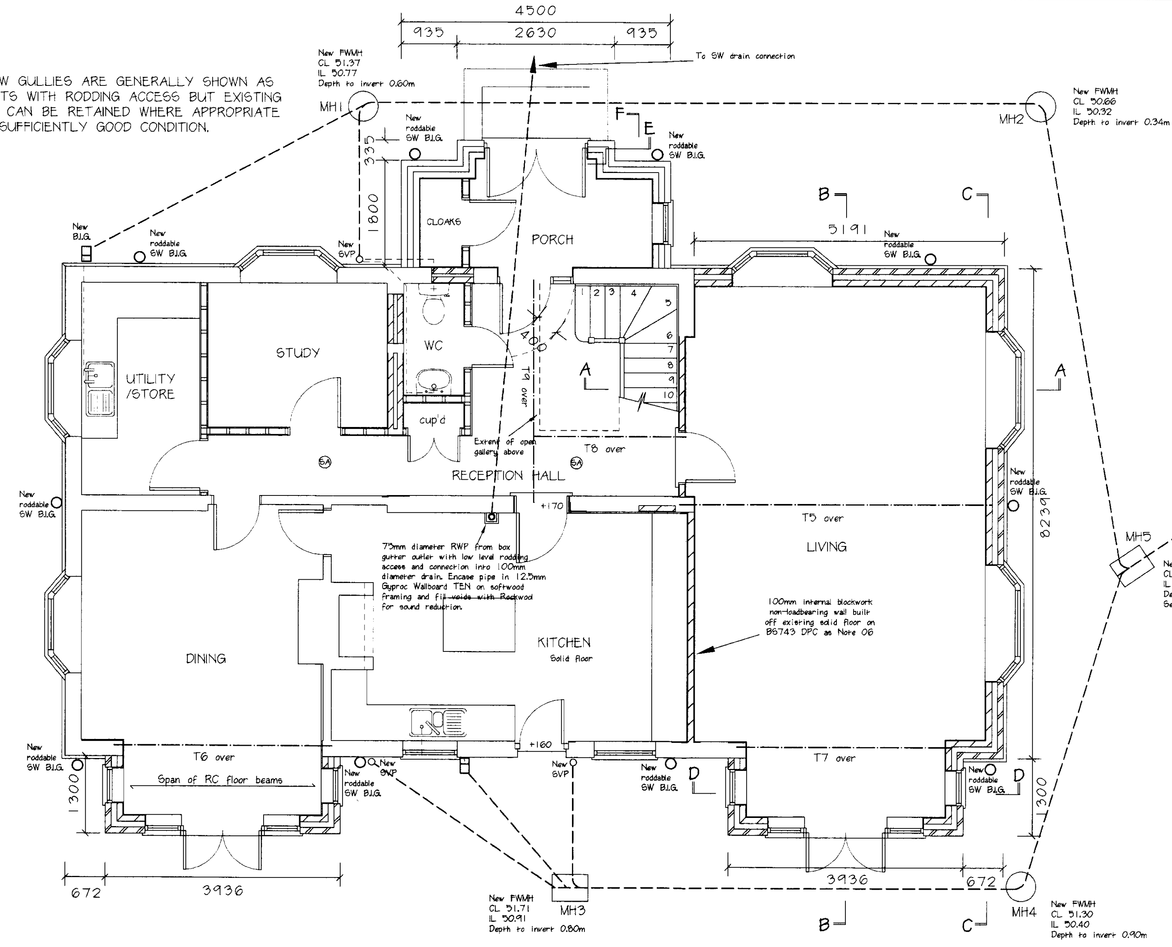
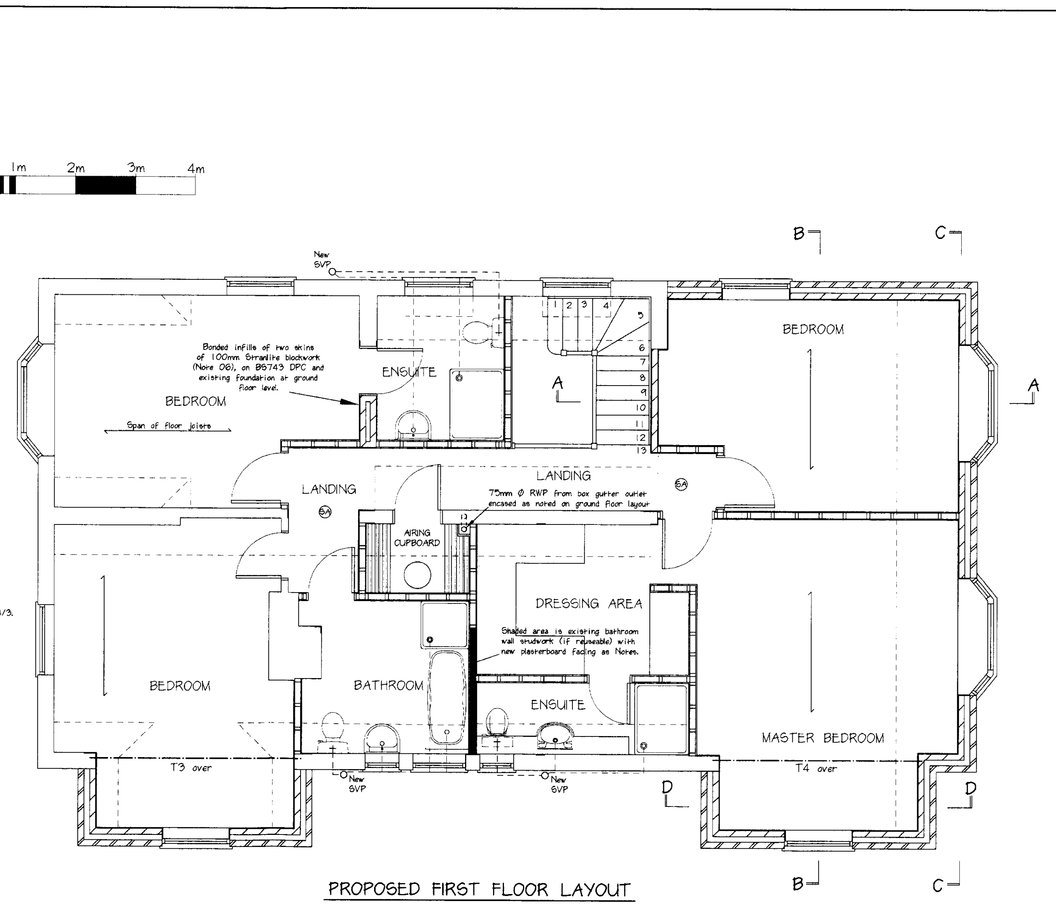
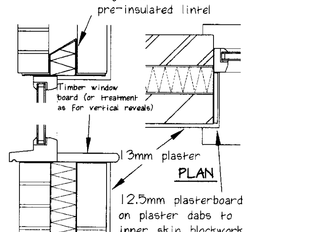
NOTE: GW GULLIES ARE GENERALLY SHOWN AS NEW UNITS WITH RODDING ACCESS BUT EXISTING GULLIES CAN BE RETAINED WHERE APPROPRIATE AND IN SUFFICIENTLY GOOD CONDITION.



PROPOSED GROUND FLOOR LAYOUT



PROPOSED FIRST FLOOR LAYOUT



Cavity fully insulated with Dritherm cavity batts as general notes. Insulation to be taken to frame opening.

CAVITY CLOSURE DETAILS - 1:10

GENERAL SPECIFICATION / NOTES

01. All works to be carried out in compliance with any byelaws and regulations of the local authority.

02. All works to comply with relevant Codes of Practice and British Standards Specifications.

03. Contractor to check all measurements on site and set out accordingly.

04. FOUNDATIONS: To be 1:2:4 mix concrete with Sulphate Resisting cement. Minimum trench depth to be 1000mm (subject to Local Authority Surveyor approval) and width 600mm, loaded concentrically. Foundations to be below invert level of adjacent drains and not to be to NHBC requirements for foundations in relation to trees if ground is shrinkable clay. The required trench minimum depths in medium shrinkage soil are Front Porch extension 1.05m (influenced by tree number T8) Rear extension 1.05m (influenced by tree number T5) Side and rear extension towards eastern end of house 1.40m (influenced by tree number G) An foundation depths are greater than 1.50m leave precautions and suspended floors will be specified. See drawing number 09044/3 (as amended) for site plan and tree schedule.

The detached garage (see drawing number 09044/1) will be on a RC raft foundation as detailed thereon.

05. DRAINAGE: New drains to be 100mm diameter uPVC to BS8301, flexibly jointed and surrounded in 150mm pea shingle. New manholes to be constructed of cast iron frames and covers to 225mm Class B semi-engineering brickwork on 150mm thick concrete base or precast concrete sections surrounded in 150mm concrete and on 150mm thick concrete base. Inspection chambers to be constructed of uPVC manhole units surrounded in 150mm concrete and on 150mm thick concrete base. Cover and frame to be to dimensions in BS8301. Single stack plumbing to comply with BS5572. Cast iron drainage pipes to first floor level. 50mm diameter to be used for 40mm diameter waste pipes and 100mm diameter for 75mm and 100mm diameter soil and vent pipes. Rodding access to be provided at all changes of direction. Waste runs of 32mm and 40mm diameter pipe to be kept as short as possible with a maximum length of 3.0m. Provide 75mm deep seal anti-vac traps. Provide 150 x 150 nominal size cast iron grid guard size 450x450mm. Higher key opening within 2.40m. Rainwater gutters of 112mm PVC and downpipes of 68mm diameter PVC. Hopper heads to discharge onto shoe or taper pitched mats where appropriate via shoes.

Contractor to determine position, direction and condition of GW drain(s) by excavation and testing/CCTV survey at commencement of works. The surface water may discharge via soakaways or the drainage ditch at the site boundary. Form connection(s) to existing drain(s) if available or suitable or determine whether it is practical to discharge into a drainage ditch (EA Licence to Discharge will be required).

If no surface water sewer is available provide, subject to percolation test and in accordance with BRE Digest 365, soakaways of hollow construction located min. 5.0m from any building and of min. 1.0m3 volume below invert level of drains at entry. Walls of 102mm honeycomb brickwork on 150mm thick concrete base. Cover slab to be 150mm thick RC slab of thickness as plan to be not greater than 1200 x 1200mm. Provide slab over 225mm thick concrete cover jointly with two layers of BS. A142 reinforcing mesh; min. 40mm top, bottom and edge cover. Cover to be 600mm below finished ground level to allow reinstatement of surface finishes over.

A CCTV survey of the retained foul water drainage system is recommended, with repair or replacement works as necessary.

Access to teh surface water drains, including manhole/rodding access positions, to be agreed on site with the LA Surveyor.

06. WALLS: Cavity walls of 102.5mm brickwork outer skin, 95mm cavity and 100mm Plasmor Fibrelite lightweight aggregate blockwork inner skin with Ancon Gripfix RSS ties at 750mm horizontal centres and 450mm vertical centres. Raise cavities carry lintels as details. Provide 225mm wide cavity trays over openings as unbonded reveals. Cavity to be filled with 80mm Crown Dritherm Cavity Slab 32 wall batts (insulation value 0.035W/mK) or equivalent approved. Provide 150mm wide cavity barriers at eaves, floor and ceiling levels and around openings. Provide 100mm reveals to openings and render/dubbed plaster (to plaster finish required to garage). Brickwork only below DPC. Build new walls to tie into existing walls where required. Provide movement joints in accordance with manufacturer's recommendations. Provide DPC where new walls meet existing walls where no rendering required. DPC to be New BS743, minimum 150mm above finished ground level. Internal walls to be 100mm thick Thermalite Turbo blockwork on 215 x 65mm Celcon GA 3000 insulation on 50 x 200mm Wallboard TEN and 9mm plaster skim both sides with 12.5mm Gyproc Wallboard TEN and 9mm plaster skim both sides with 12.5mm Gyproc Wallboard TEN and 9mm plaster skim both sides between studs with 100mm Rockwool. New stud partitions running with floor joist spar, to be on double thickness of 100mm Plasmor Fibrelite (175kg/m3) blockwork. Provide 100mm Plasmor Fibrelite (175kg/m3) blockwork on BS 743 DPC on existing solid floor. Internal loadbearing wall of 100mm Plasmor Fibrelite blockwork on BS 743 DPC on existing solid floor. Provide 100mm Plasmor Fibrelite blockwork on section A-A. Where notes to be for stronger than Class (ii) to blockwork and Class (iii) to lightweight aggregate blockwork.

Type of mortar (proportion by volume)

Mortar designation	Compressive strength class	Cement:Lime:Sand	Cement:Sand with plasticiser	Compressive strength at 28 days	Increasing ability to accommodate movement
Class (ii)	M8	1:0.25 to 0.5	1:3 to 4	8 N/mm²	
Class (iii)	M4	1:1:5 to 6	1:3 to 6	4 N/mm²	
Increasing resistance to frost attack during construction					
Improvement in bond and consequent resistance to rain penetration					
Masonry cement is not to be used in mortar mixes for brickwork or blockwork					

07. LINTELS: Provide Keystone P/K-90 lintels over new openings in external cavity walls with cavity tray formed from 450mm wide flyproof pitch polymer DPC over. Provide 100 x 150mm deep precast RC lintel over door openings in 215mm or 327mm thick blockwork/wall. Provide 100 x 100mm deep RC lintels over openings in 215mm or cavity internal walls. Provide minimum 150mm end bearings to all lintels.

08. GLAZING: New windows and doors to be double glazed units with low-E glass providing U value of 1.8W/m²K or better and fully draught-stripped. Safety glass to doors, low level glazing below 1500mm and windows within 300mm of adjacent door openings to be BS6262. No new windows to have cills more than 800mm above floor level unless provided with suitable guarding with elements not more than 75mm apart.

09. BOX GUTTER: Code 4 lead lining on 18mm plywood deck and lagboards, dressed min. 150mm measured vertically up roof slopes under slatework. Bond 18mm plywood deck onto 100mm thick Celcon GA 3000 insulation on 50 x 200mm support joists twice baked to supporting rafters at each end. Provide minimum 180 fall to box gutter.

10. PITCHED ROOF: Natural slates on 25mm thick ventilated battenwork on 25mm thick battens running vertically and fixed on to BS747 bituminous reinforced sisarkraft felt on 60mm Celcon GA3000 insulation on 50 x 200mm softwood rafters at 400mm centres. New ceiling joists of 50 x 150mm SC3 at 400mm centres and 100mm thick Celcon GA3000 insulation on 100 x 50mm ventilated tanalised battens on 100mm centres and 100mm thick Celcon GA3000 insulation on 100 x 50mm tanalised battens to walls via. 50 x 25mm L brace at max. 1800mm horizontal centres for lateral restraint. Roof to be vented at eaves and ridge in accordance with specialist's details to provide 25mm continuous ventilation gap. Provide 100mm thick Celcon GA3000 insulation over ridge. Insulation to be compressed with 50mm thick Celcon GA3000 insulation to underside of above-rafter insulation; retained in place with battens. Ceiling and sloping soffits to be lined with 12.5mm plasterboard and 9mm plaster skim over 500 gauge polythene vapour barrier.

GARAGE ROOF of natural slates on 25mm thick ventilated battens on BS747 bituminous reinforced sisarkraft felt pulled across trussed rafters manufactured and installed in accordance with manufacturer's details and recommendations.

11. NEW FRONT DORMER: To match existing, with U value of 1.0W/m²K or better (increased as opening). Construction as per specialist's details, with structure supported on double rafters and strimming via 2No. 50 x 100 SC3, with Jiffy hanger connections.

12. FLASHINGS & UPSTANDS: Use code 4 milled lead sheet to BS1178 to junctions of dormer faces and pitched roofs. At junction of dormer cheek with pitched roof weather with code 3 lead soakers. Valleys to be constructed of 225 x 25mm softwood lagboard with code 5 lead valley gutter. Maintenance any chimney gutter/flashing disturbed in code 4 lead. Bed and joint ridge tiles in cement mortar. Upstand flashings to be Code 4 lead, wrapped as appropriate, dressed into wall bed joint, welged with lead wedges and pointed in cements mortar over Code 3 lead soakers.
Lowdown generally to be in accordance with BS8515.

13. VENTILATION: Habitable rooms no have 5% of floor area in ventilation openings for rapid ventilation and background trickle ventilation of area not less than 6000mm² (Living room and Bedrooms) or mechanical extract ventilation providing extraction to external air at min. 60 litres per second or intermittently in cooker hood in this position, and background trickle ventilation via. 10mm air gap under door and background trickle ventilation min. 4000mm² (Utility) and 8000mm² (Kitchen). Bathroom and ensuites to have mechanical extract ventilation providing extraction to external air at the rate of 15 litres per second or intermittently 15 litres per second and background trickle ventilation via. 10mm air gap under door. Provide mechanical extract ventilation providing extraction to external air at the rate of 8 litres per second with 15 minute overrun via light switch and set for 5 minute overrun and background trickle ventilator via. 10mm air gap under room door.

14. SPACE & HOT WATER STORAGE HEATING: To meet the requirements of Part L of the Building Regulations 2006 and SAP 2005 the following shall be provided: Hot water storage vessel to be indirect cylinder, rising centre and zone controls via room thermostats and programmer. Insulation to 45mm thick. Heating and hot water pipework insulation to have a thermal conductivity not exceeding 0.045 W/mK, and a thickness not less than the outside diameter of the pipe up to max. 35mm (e.g. formaflex). Any balanced flue to a new gas fired boiler to be situated minimum 300mm away from any opening and 600mm from any opening if above. Where a programmer is provided with room thermostat, a timer provided with a manual override to enable the user to turn on the heating for a short period of time, and a timer provided as part of the central heating system or as a local device which enables the supply of heater to be shut off for the periods when heater is not required. Any new boiler to have a min. SEDBUK rating of 86%.

15. New electrical works should be installed, inspected and tested by an electrician competent to do so. A competent electrician is one who holds a City and Guilds 2360 or 2381 (17th Edition) certificate and a City and Guilds 2391 (Inspection, Testing and Certification) certificate and has experience of the electrical installation work. The electrician may or may not be employed by a recognised trade body such as NICEIC, ECA or NAPIT. A copy of the appropriate BS7671 electrical installation and test certificate must be provided on Building Control completion before a completion certificate can be issued. If the electrician is not employed to carry out the electrical installation, a full design must be submitted and approved by the Council prior to any commencement of site work. (Part P)

16. INTERNAL LIGHTING: Fixed light fittings shall only take lamps with a luminous efficacy greater than 40 lumens per circuit watt. At least one light fitting must be provided in the room of not less than one per 25m² of dwelling floor area (excluding garages, cupboards etc.) OR one per four new fixed light fittings, whichever is the greater provision.

17. EXTERNAL LIGHTING: Fixed external lighting should incorporate reasonable provision to enable effective control, such as time switches, daylight sensors, movement sensors, or a combination of these, with the fitting and the lighting automatically switches off when there is enough daylight and when not required at night; or the fittings installed can only take lamps with an efficacy greater than 40 lumens per circuit-Watt (i.e. compact fluorescent lamps types).

18. NEW GROUND FLOORS: Of 65mm thick slab-sand and cement screed reinforced at mid depth with BS 049 mesh on 80mm thick Jablite Jablock (Supplier 01795 422444) insulation on 1200 gauge polythene on 100mm thick compacted hardcore bed. Provide 100mm thick Jablite upstand at edges of floors abutting external walls. Provide 225mm wide cavity trays over openings in external walls with perforated perpends to form weep holes at 450mm centres and 150mm above finished ground level.

19. TIMBER FIRST FLOOR: Of 22mm T & G chipboard flooring on 63 x 175mm (50 x 175mm on short spans) softwood SC3 joists at 400mm centres with solid timber herringbone strutting at mid-spans. Provide 100mm thick Rockwool insulation laid between joists for sound insulation and line ceilings with 12.5mm Gyproc Wallboard TEN and 9mm plaster skim. Provide lateral restraints to gable walls max. 1.80m horizontal centres via. 30 x 5mm galvanised mild steel L straps fixed to side of joist where perpendicular to wall or to joists where parallel to wall and connecting at bottom of joists to noggins centrally between joists around face of inside skin blockwork.

20. TIMBER GROUND FLOOR TO PORCH EXTENSION: Of 18mm T & G flooring on 50 x 125mm softwood joists at 400mm centres bearing onto joist hangers in new and existing external walls over 50mm thick 250 over concrete blinding 1200 gauge polythene. Provide minimum 150mm clear space below joists. Insulate floor with 120mm thick Ringspan Thermafloor insulation laid between joists and retained by chicken wire. Ventilate suspended floor via. 2No. 65 x 215mm air bricks with liners in external walls.

21. STRUCTURAL TIMBER: Double/triple/connected joists to be bolted together (at max. 800mm centres in the case of multiple members acting together) with M10 bolts and 50 x 50mm steel plate washers both sides of connections. Joist to joist/trimmer connections to be via Jiffy hangers. All timber to be treated with Cuprinol or equivalent approved preservative from the list of BWPA products prescribed by specialisers. Any notching of floor joists for general heating pipes, etc. to be no deeper than 0.125 of depth of joist and to be no nearer than 0.25 of span from supports. Holes drilled in floor joists to be of a diameter no greater than 0.25 of joist depth and to be in the neutral axis; not less than 3 diameters (centres no centres) apart and located between 0.25 and 0.4 times the span of the joist. (Approved Document A-1 1B5).

22. STRUCTURAL STEELWORK: To be protected by 2 layers of 12.5mm plasterboard with staggered joints; wrapped and with 9mm plaster skim to provide half hour fire resistance. A welding certificate is to be provided in the event of any site welding being carried out. Bolts to be M16 bolts and tubular steel spacers of max. 60Ø centres with M16 bolts and tubular steel spacers.

23. ALL BEAM BEARINGS and foundations under are subject to exposure for local authority Surveyor inspection if required. Any defects to be remedied.

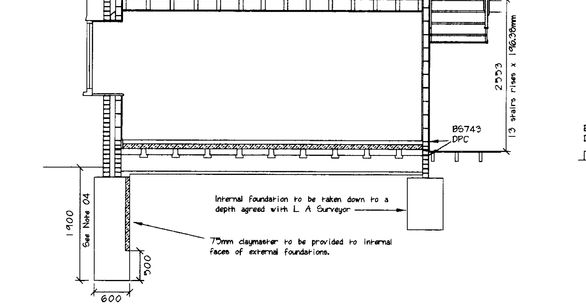
24. CHIMNEY BREASTS & STACKS to be removed as shown. First floor concrete hearths to be totally removed and floor, ceiling and roof framing and finishes made good. Make good to newly exposed brickwork and brush clean before plastering with multi finish plaster over sand and cement render backing.

25. ESCAPE WINDOWS to be provided in all new first floor habitable rooms. Minimum clear opening size 0.33m² and minimum dimension in either height or width to be 450mm, with bottom of opening located between 800mm and 1100mm above floor level.

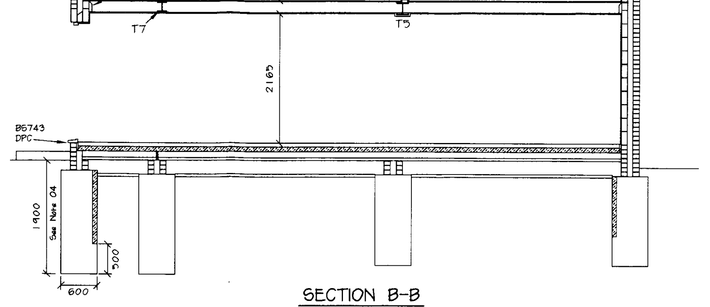
26. SMOKE DETECTION: Mains powered smoke detectors to BS5839Part 6: 2004 to be installed in positions marked (S) (4No. in total). Units to have lithium batteries on constant trickle charge as back-up and to be wired to dedicated circuit as linked system so that the operation of any unit triggers the operation of all the units, providing at least a grade D, category LD3 system.

27. NEW STAIRCASE: New timber staircase; rural rise 2553mm; 12 treads and 13 risers, each 196.8mm. Goings 250mm (minimum 223mm). Pitch not to exceed 42°. Tapered treads to have uniform goings; minimum 50mm and min. in centre of tread 223mm. Handrail to be 900mm above pitch line and 900mm above landing or floor, with vertical balustrading not exceeding 100mm apart. Landing at top of stairs to be at least width of staircase. Minimum headroom over stairs to be 2.0m. No gaps in risers no exceed 100mm.

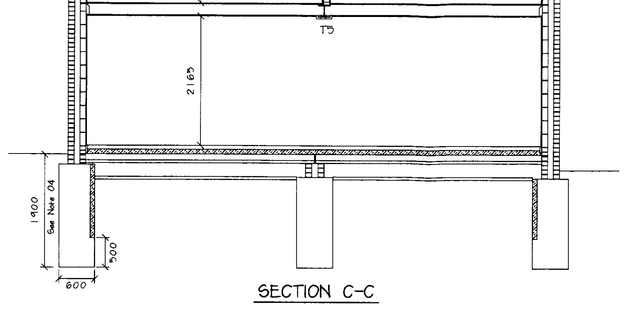
28. EXISTING STAIRCASE: To be removed, infill opening in First floor as Note 19.



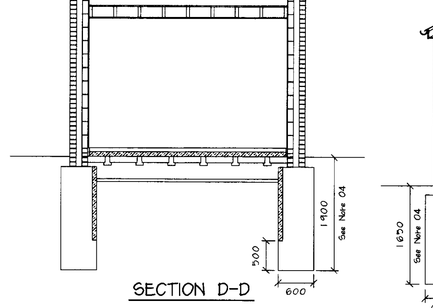
SECTION A-A



SECTION B-B

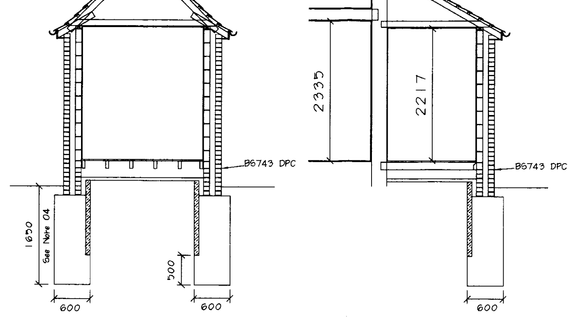


SECTION C-C



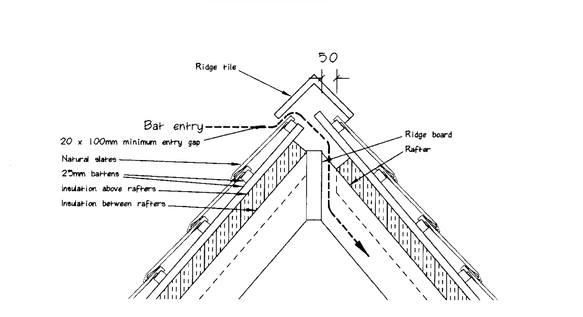
SECTION D-D

Porch roof of 50 x 100mm SC3 rafters and ceiling joists at 400mm centres. Roof insulation via. 100mm Rockwool between ceiling joists and a second layer of 170mm Rockwool laid across ceiling joists. Ceilings of 12.5mm foil backed plasterboard and 3mm plaster skim.

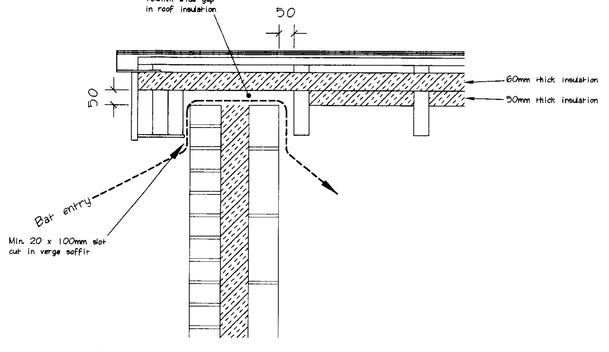


SECTION E-E

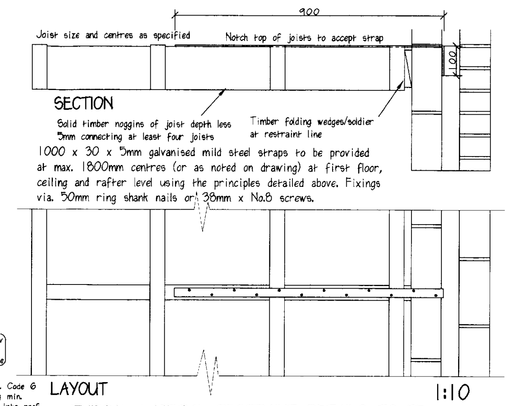
SECTION F-F



RIDGE ENTRY FOR BROWN LONG-EARED BATS - 1:10



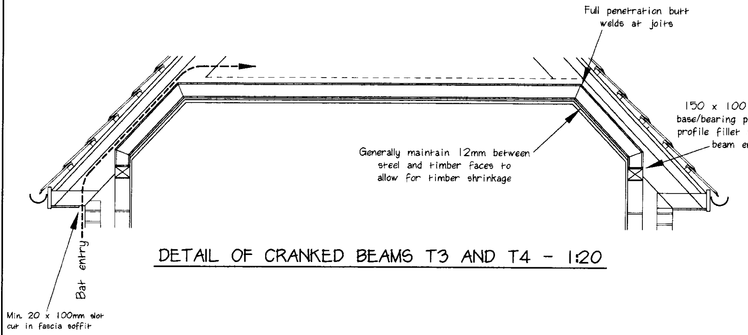
VERGE ENTRY FOR PIPISTRELLE BATS - 1:10



LAYOUT 1:10

TYPICAL LATERAL RESTRAINT DETAILS TO BE INCORPORATED AT FLOOR, CEILING & RAFTER LEVEL

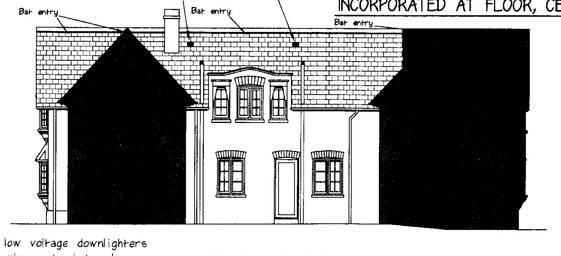
BEAM & POST SCHEDULE None R1-R2 are taken from left to right or top to bottom of sheet.	
REF.	DESCRIPTION / DETAILS OF MINIMUM BEARING REQUIREMENTS
T1	203 x 203 x 46 UC. 150mm bearing onto brickwork each end and full bearing onto centre 450mm plar (garage).
T2	254 x 178 x 102 x 19 UB 100mm onto stepped 12mm thick mild steel bearing plates as detailed.
T3	102 x 102 x 23 RSJ Cranked beam as detail bearing onto masonry via. 150 x 100 x 6mm mild steel bearing plates.
T4	102 x 102 x 23 RSJ Cranked beam as detail bearing onto masonry via. 150 x 100 x 6mm mild steel bearing plates.
T5	203 x 203 x 46 UC 300mm onto existing wall on 225 x 150 x 100mm min. plate and 100mm onto 600 x 100 x 150mm deep precast RC lintel as patterns.
T6	152 x 152 x 23 UC 150mm onto masonry each end.
T7	152 x 152 x 23 UC 150mm onto existing masonry and 100mm onto new blockwork inner skin.
T8	254 50 x 175 SC3 Jiffy hanger connection to T4 and 100mm onto LB wall above door lintel.
T9	47& 50 x 175 SC3 100mm each end onto masonry above door lintels.
T10	100 x 100 SC3 Fully onto 100 x 100 post and 100mm onto first wall.
NOTE: All beam bearings and foundations under are subject to exposure for local authority Surveyor inspection if required. Any defects to be remedied.	



DETAIL OF CRANKED BEAMS T3 AND T4 - 1:20

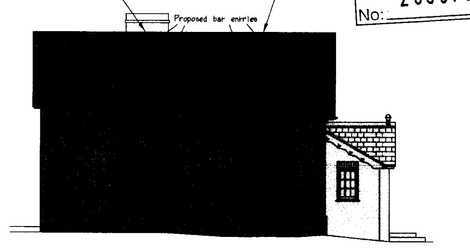
FRONT (NORTH)

External lighting generallly to be low voltage downlighters in eaves soffits to prevent disturbance no bat colony.



REAR (SOUTH)

SIDE (WEST)



SIDE (EAST)

PROPOSED ELEVATIONS - 1:100

WEST HERTFORDSHIRE DISTRICT COUNCIL
PLANNING & BUILDING CONTROL
23 OCT 2009
No: 2009/2273

SEE DRAWING NUMBER 09044/1 (AS AMENDED) FOR DETACHED GARAGE DETAILS

COPYRIGHT: The contents of this drawing may not be reproduced in part or in whole without the written consent of Building Design Consultants

PROJECT: Proposed extension & alterations — DRAWING NUMBER: 09044/2E

DRAWING: Working drawing for Building Regulations application - SHEET 2 of 3

CLIENT: Mr and Mrs P Vicary

SITE: Vine Cottage, The Ridgeway, Northaw, Potters Bar EN6 4BL

DATE: August 2009

SCALES: 1:50; 1:100 @ A0

Building Design Consultants
ARCHITECTURAL DESIGNERS
STRUCTURAL ENGINEERS
BUILDING SURVEYORS
PLANNING CONSULTANTS
BUILDING CONSULTANTS
Rear of 1, Hereward Close, Waltham Abbey, Essex EN9 1QP
Tel: 01992 768866 Fax: 01992 768877

Amendments: A: Front porch structure removed and specific bar provisions added 14/10/09 PVN
B: Additional provision for bat entry recommended by specialist 23/10/09 PVN
C: Dims last 1/10/09 PVN
D: Scale bars and sheet size added for LPA 21/10/09 PVN

THIS WORK MAY BE AFFECTED BY THE PROVISIONS OF THE PARTY WALL etc. ACT 1996

THE CONTRACTOR MAY BE RESPONSIBLE FOR NOTIFYING HSE UNDER CDM REGULATIONS 1994 IF THE PROJECT IS COMMERCIAL OR INDUSTRIAL, A PLANNING SUPERVISOR SHOULD BE APPOINTED.

PDF created with pdfFactory trial version www.pdffactory.com