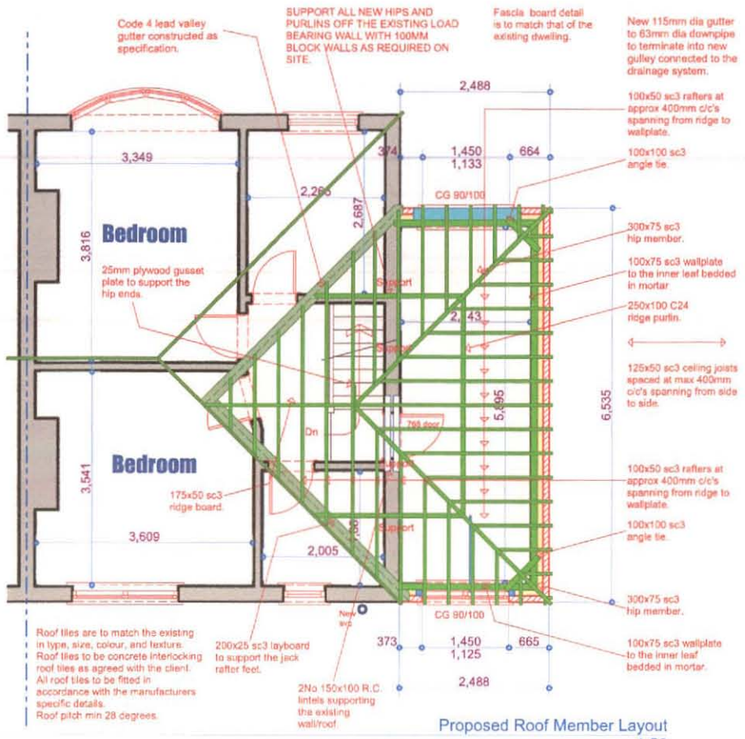

Proposed Roof Member Layout
1:50

10



3D Render View of Extension.

Notes:

(1) the builder is to familiarise himself and fully understand the plans and any appropriate structural details before any work commences on site.

(2) the plans relating to the proposed project to be read in conjunction with all appropriate structural engineers details.

(3) do not scale from plans. Use figured and on-site dimensions only. If queries arise on site contact engineer immediately.

(4) the contractor is to check all dimensions on site prior to commencement of work on site and any discrepancies be brought to the attention of the site agent.

(5) all site work to be carried out to the building regulations 1991. Current british standards and codes of practice.

(6) all statutory site inspections are to be seen and approved by the approved inspector prior to any covering up of work.

(7) any existing beams/lintels at ground floor level carrying additional load are to exposed and be checked on site for suitability and if necessary replaced.

(8) all drainage and foundation work is provisional and is subject to the conditions encountered on site.

(9) all concrete work to be carried out to b.s. 5328 : 1981, and b.s. 1282 : 1985.

(10) all brickwork to be carried out to b.s. 5328 : pt3 1985.

(11) all timber to be treated with a suitable preservative to bs.1282:1975.

(12) all building work to be carried out to the general requirements for workmanship. Workmanship should comply with the relevant sections of bs 8000 part 10: 1995.

(13) all rendering works are to be carried out in strict accordance with bs 5262: 1991 code of practice for external rendering.

(14) all lead roofs and sheet wall coverings are to be constructed in strict in accordance with the guidance a s detailed in bs 6915:1988.

(15) code 4 lead flashings/stepped flashings (min upstand 150mm & min 150mm spread on tile) and cavity trays are to be used at all roof/wall abuttments. .

(16) site to be left clean by contractor after completion of project.

(17) all structural work must be inspected at the relevant stages by the structural engineer and/or the approved inspector, and approved before commencing with further stages of work.

(18) all pipework, incorporated in the water/heating system, that is situated in an unheated space is to be surrounded in 40 mm of insulating material (min conductivity 0.045 w/mk.)

(19) there is to be positively no encroachment or trespass by any part of the proposed building work over the neighbouring boundary lines as this is considered to be trespass and is illegal.

(20) where existing ground floor is of the suspended timber type. Ventilation is to be maintained by ducting from existing vents with 100mm earthenware pipes laid in hardcore to new external telescopic vents, giving a min ventilation area equivalent to 3000sq mm per metre run.

(21) all mastic ashphalt flat roofs and floors are to be constructed and laid in accordance with the specific technical guidelines as detailed by the 'mastic asphalt council.'.

STRAPPING FOR PITCHED ROOF
Gable walls should be strapped to roofs at 2m centres. All external walls running parallel to roof rafters to be restrained at roof level using 1000mm x 30mm x 5mm galvanised mild steel horizontal straps or other approved to BSEN 845-1 built into walls at max 2000mm centres and to be taken across minimum 3 rafters and screw fixed. Provide solid noggins between rafters at strap positions. All wall plates to be 100 x 50mm fixed to inner skin of cavity wall using 30mm x 5mm x 1000mm galvanized metal straps or other approved to BSEN 845-1 at maximum 2m centres.

STRAPPING OF FLOORS
Provide lateral restraint where joists run parallel to walls, floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum of 3 joists. Straps to be built into walls. Provide 38mm wide x ¼ depth solid noggins between joists at strap positions.

SITE PREPARATION
Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc on or in the ground covered, or to be covered by the building.

EXISTING STRUCTURE
Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

BEAMS
Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc fireline board with staggered joints nailed to timber cradles or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance.

LINTELS
- For uniformly distributed loads and standard 2 storey domestic loadings only
Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS 8110, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1.
For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacture standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

INTERNAL LIGHTING
Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations.

SMOKE DETECTION
Mains operated linked smoke alarm detection system to BS 5446 - 1:2000 and BS5839-6:2004 to at least a Grade D category LD3 standard and to be mains powered with battery back up. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ storeys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

ESCAPE WINDOWS
Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed openable area of 450mm high x 450mm wide, minimum 0.33m sq. the bottom of the openable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.

1.00 GENERAL ITEMS:

1.01 Every endeavour has been taken to provide the Contractor with sufficient information to adequately price the proposed Works.
It is recommended, however, that the Contractor visits the premises prior to submitting his Tender.
It will be deemed that any Tender submitted will include for all work required, both explicit and implicit, for the successful completion of the Works.
Claims by the Contractor on the grounds of confusion or lack of knowledge will, therefore, not be entertained.

1.02 The Works are indicated upon the following drawings
330/001,2,3,4,5,6,7,8.

1.03 The Contractor shall adequately cover and protect the existing structure, fittings and fixtures to prevent damage to the Client's home and possessions.

1.04 Any damage caused by the Contractor or his Sub-Contractors shall be made good at his own cost, and to the full satisfaction of the Client.

1.05 The Contractor shall give prior notice to the Client of any interruption in the supply of normal services caused during the Contract.

1.06 No work shall be left partially completed overnight, at weekends or during holidays unless measures have been taken to complete the Works without further disturbance to the Client. Any work left partially completed shall be left in a safe condition.

1.07 All proprietary items and materials are to be installed strictly in accordance with the Manufacturer's written instructions and recommendations.

1.08 All work is to comply with relevant Codes of Practice, British Standards and the like, and be in accordance with good building practice.

1.09 The Contractor is to cart away all debris and surplus material on Completion, and shall make good to all surfaces disturbed by the Works.

1.10 The Contractor is to carry out all work in a diligent and workmanlike manner, and shall leave the site in a clean and tidy condition.

1.11 On Completion of the Works, the Contractor shall demonstrate the correct operation of all installations to the satisfaction of the Client, and shall hand over a copy of all relevant installation and operating instructions.

1.12 The Works will proceed with the Clients in occupation. The Contractor must programme and execute the Works in such a manner as to minimise any disruption to the use of the premises by the residents. In particular, temporary arrangements must be made by the Contractor to ensure that adequate and suitable washing, toilet and cooking facilities are maintained throughout the duration of the Works for use by the Client, and the Contractor must include within his Tender for any temporary works and reinstatement necessary to ensure compliance with this requirement.

1.13 Any costs incurred in satisfying these General Items, unless specifically included elsewhere, are deemed to be included within the relevant work items.

1.14 Where products are specified (eg flooring and sanitaryware), these are for pricing purposes. Prior to ordering, check with Client if the product as specified is acceptable.

SOLID FLOOR INSULATION UNDER SLAB
To meet min U value required of 0.22 W/m²K
Solid ground floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide a 1200mm gauge polythene DPM, DPM to be lapped in with DPC in walls. Floor to be insulated over DPM with 75mm thick Celotex.
25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed, provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over VCL. Finish with 65mm sand/cement finishing screed with light mesh reinforcement.
Where drain runs pass under new floor, provide A142 mesh 1.0m wide within bottom of slab min 50mm concrete cover over length of drain.
Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia UPVC pipes to terminate at new 65mm x 215mm air bricks built into new cavity wall with 100mm concrete cover laid under the extension. Ducts to be sleeved through cavity with cavity tray over.

INTERMEDIATE FLOORS
Intermediate floor to be 25mm t&g flooring grade chipboard or floorboards laid on C24 joists at 400mm cts (see engineer's calculation for sizes and details). Lay 100mm Rockwool mineral fibre quilt insulation min 10kg/m³ or equivalent between floor joists. Ceiling to be 12.5 fireline plasterboard with skim plaster set and finish. Joist spans over 2.5m to be strutted at mid span using 38 x 38 herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). In areas such as kitchens, utility rooms and bathrooms, flooring to be moisture resistant grade in accordance with BS7331:1990. Identification marking must be laid upper most to allow easy identification. Provide lateral restraint where joists run parallel to walls, floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x ¼ depth solid noggins between joists at strap positions.

NOTES
1 Refer to all relevant specifications.
2 Do not scale. Work only from figured dimensions. The Contractor will be responsible for taking all necessary measurements on site relating to the existing construction.
3 This drawing is as proposed' the Contractor must visit the site to establish the nature of the existing construction, and the extent any propping required, before tendering and carrying out works on site.
4 In order to prepare this drawing, certain assumptions have been made which have to be verified both before and during the course of the works. Should at any time existing construction be exposed which does not agree with this drawing or dimensions vary then Engineer should be informed immediately. The Contractor should ensure that there is good liaison at all times between himself and the engineer.
5 All drains and their connections are to be checked for soundness and if necessary replaced using extra strength 'Hepsleve' or 'Hepseal' , or similar in a minimum of 150mm stone bed and surround. If necessary replace gullies and set in a minimum of 150mm concrete bed and surround.
N. B. Any drain found to be defective, outside the scope of the work and not affecting the stability of the property, but which requires replacement, will be the responsibility of the Insured unless agreed by the owner.
6 **STABILITY OF EXISTING STRUCTURE.**
The Contractor is to be responsible for the stability of the existing building and earthworks on the site, and must take all necessary precautions to safeguard their stability at all times.
7 **UNDERPINNING NOTES**
Excavation below the level of the existing foundations must be carried out in stages in accordance with the Structural Engineers detailed drawings. No such excavation at any stage is to be commenced without the Structural engineers prior approval and until the previous stages has been completed.

Heating:
Suitable heating and provision of hot water to be provided to the proposed new building work/extension/conversion. 'gas safe' registered plumber to design, install, inspect and test to all appropriate 'gas safe' regulations the new/extended system and ensure full satisfactory working performance to the owners requirements. Plumber to liase completely with owner at all times and submit all required documentation to approved inspector upon completion of work.
All radiators to be fitted with thermostastic radiator valves.
All work to be carried out by a 'gas-safe' approved installer, to gas board regulations and provisions and approved document j.
Installing plumber to notify the approved inspector, not later than 30 days after completion, that the building services have been commissioned in accordance with a procedure aproved by the secretary of state.
All qualified boilers to have an 'sedbuk' value/band of of '90%, band a'.
All pipework, incorporated in the water/heating system, that is situated in an unheated space is to be surrounded in 40 mm of insulating material (min conductivity 0.045 w/mk.)
All work to be carried out by a 'gas safe' certified engineer/plumber.

First floor:

All structural timber required to be used in floor and roof construction to be in compliance with regulation a1 & a2 of schedule 1 of the building regulations and b.s. 5268 : pt2 1991.
22mm thick, 125mm wide tongue & grooved softwood floorboards nailed to joists. S floor joists to be min 200x75 @ max 400 c/c's. Provide double joist support under bath, stud partitions and around stairwell opening. Bolt double joists together at 600mm c/c's using 10mm diameter bolts with dog grip connectors. 50x200mm solid strutting to be fitted between joists at approx mid span. All joists are to have min 100mm end bearing as shown on plans or be supported off suitable joist hangers. Joists to be restrained to external walls with 30x5x1200mm mild steel straps at 2000mm c/c's screwed to 3 no joists and taken 150mm down cavity. 12.5mm 'fireline' board and 5mm skim required to underside of joists to provide 30 minutes fire resistance. Lay 100mm rockwool insulation between the floor joists.
Note: new floor level to match existing floor level.

INTERNAL STUD PARTITIONS
100/75mm x 50mm softwood treated timbers studs at 400mm cts with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

Glazing:

All safety glazing to conform with b.s. 6206 : 1981. Where glazing has been specified on plans, flat safely glass will be fitted in the following areas :-
(1) in walls, between finished floor level and 800mm vertical height.
(2) in doors, between finished floor level and 1500mm vertical height.
(3) within 300mm either side of a door, Between finished floor level and 1500mm vertical height.

Sanitary pipework:

Min branch pipe diameter sizes.
Wash basin 40 mm
Shower/bath 40 mm
Toilet 100 mm
All appliances connected into the existing svp.
All appliances to be fitted with 75mm deep seal anti-siphonic traps (except w.c). Rodding eyes to be provided at all changes of direction to waste runs. Max length of sanitary waste runs to be 3000mm (indicated on plans) unless otherwise specified. Ground floor wastes to be taken all sanitary pipework to be carried out in accordance with b.s. 5572 : 1978. 100mm dia s.v.p. To terminate min 900mm above head of openable windows within 3000mm and finished with suitable cage. No sanitary pipework connection within 200mm of waste branch connection into s.v.p.

Drainage:

Provide 115mm dia p.v.c. Half round gutter connected to 63mm dia p.v.c. Downpipes (as indicated on plans).
Downpipes to be taken below gulley grating level, (black white or brown to be fitted in all cases), this also applies to all sanitary pipework visible on elevations).
All below ground drainage runs to be 100mm dia vitrified clay type (i.e. 'Supersleve' or similar laid to manufacturers instructions). All gullies indicated to be roddable b.i.g. Types. Drains to be laid to a min falls of 1:40 on a min 150mm bed of pea gravel. Where drains pass under building they are to be surrounded in min 150mm thick concrete with a 'flexcell' joint at every collar. Where drains pass through walls they are to be bridged over with 2 course reinforced concrete lintels (min end bearing 150mm) leaving a min 50mm gap around drain which is to be packed with polystyrene. All drainage work is subject to site conditions encountered and approved inspector approval.
No saddle connections are to be used, instead use swept junctions to suit site layout and approved inspector approval.
All building drainage to be carried out to b.s. 8301 : 1985, and regulation h1 & h3 of schedule 1 of the building regulations.

Drain testing:

The whole of the drainage system shall be tested when laid and again on completion to the satisfaction of the approved inspector. Any lengths, fittings or construction found to be faulty to be taken up, relayed and reconstructed and retested until satisfactory. Testing will be by water generally as laid down in b.s. 8301 :