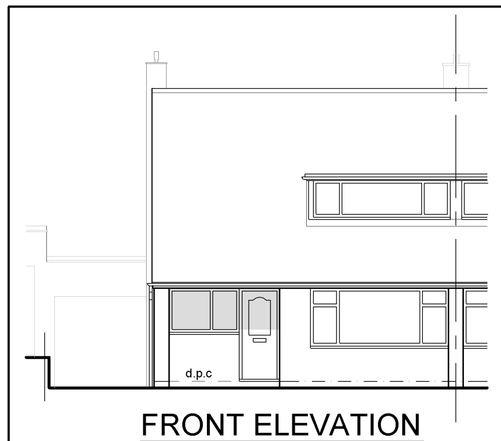
A1 DWG

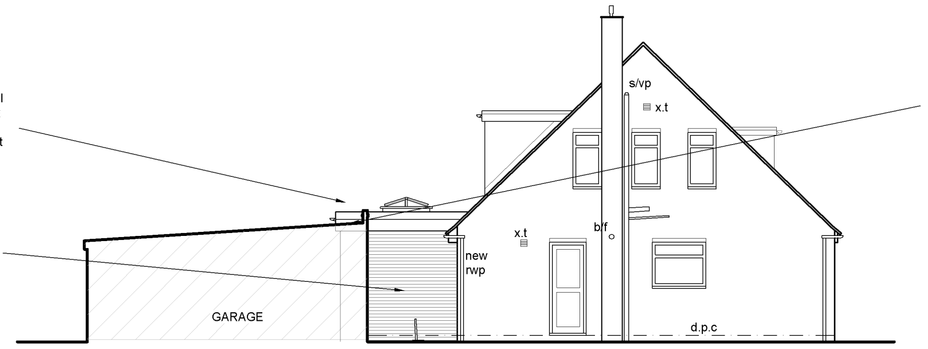


FRONT ELEVATION

Scale 1:100

Provide flat deck roof area to extension laid to fall to rear guttering with white upvc fascia and black pvc guttering to match elsewhere.
Allow for incorporating type 2 M02 Velux rooflight or pyramid style skylight of size to suit clients requirements with internal aperture setting out adjusted as necessary.

All new facing brickwork to match existing to be fully toothed and bonded into existing to ensure continuous structural levels unless otherwise agreed with client on site.



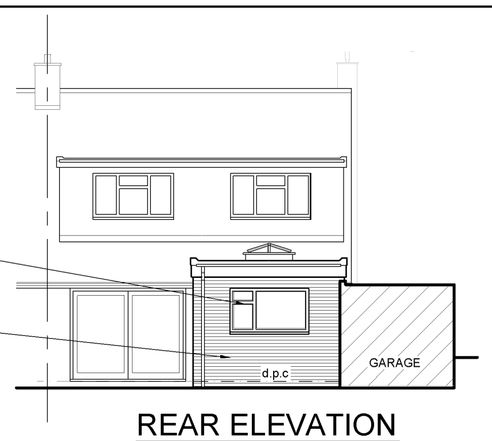
FLANK ELEVATION

Scale 1:100

Allow for cutting in new flat deck roof where abutting existing garage structure and for providing all necesary code 5 lead soakers and cover flashings. Flank wall masonry of garage to be increased in heigght where necessary.
All subject to agreement on site.

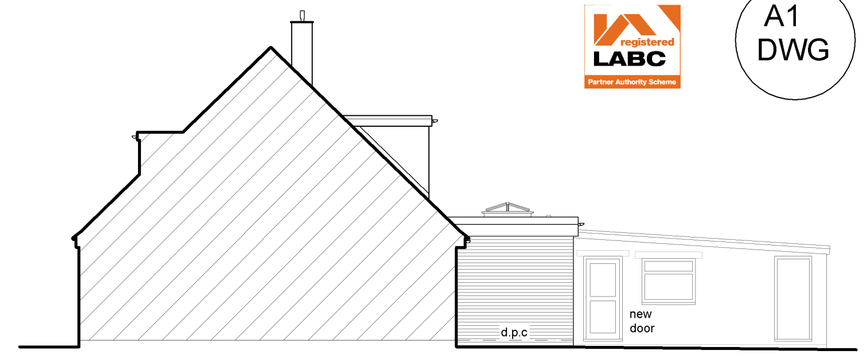
Provide 1800x1065mm high white upvc double glazed window to extension to match existing. Final style of window to suit clients choice.

All new facing brickwork to match existing to be fully toothed and bonded into existing to ensure continuous structural levels unless otherwise agreed with client on site.



REAR ELEVATION

Scale 1:100

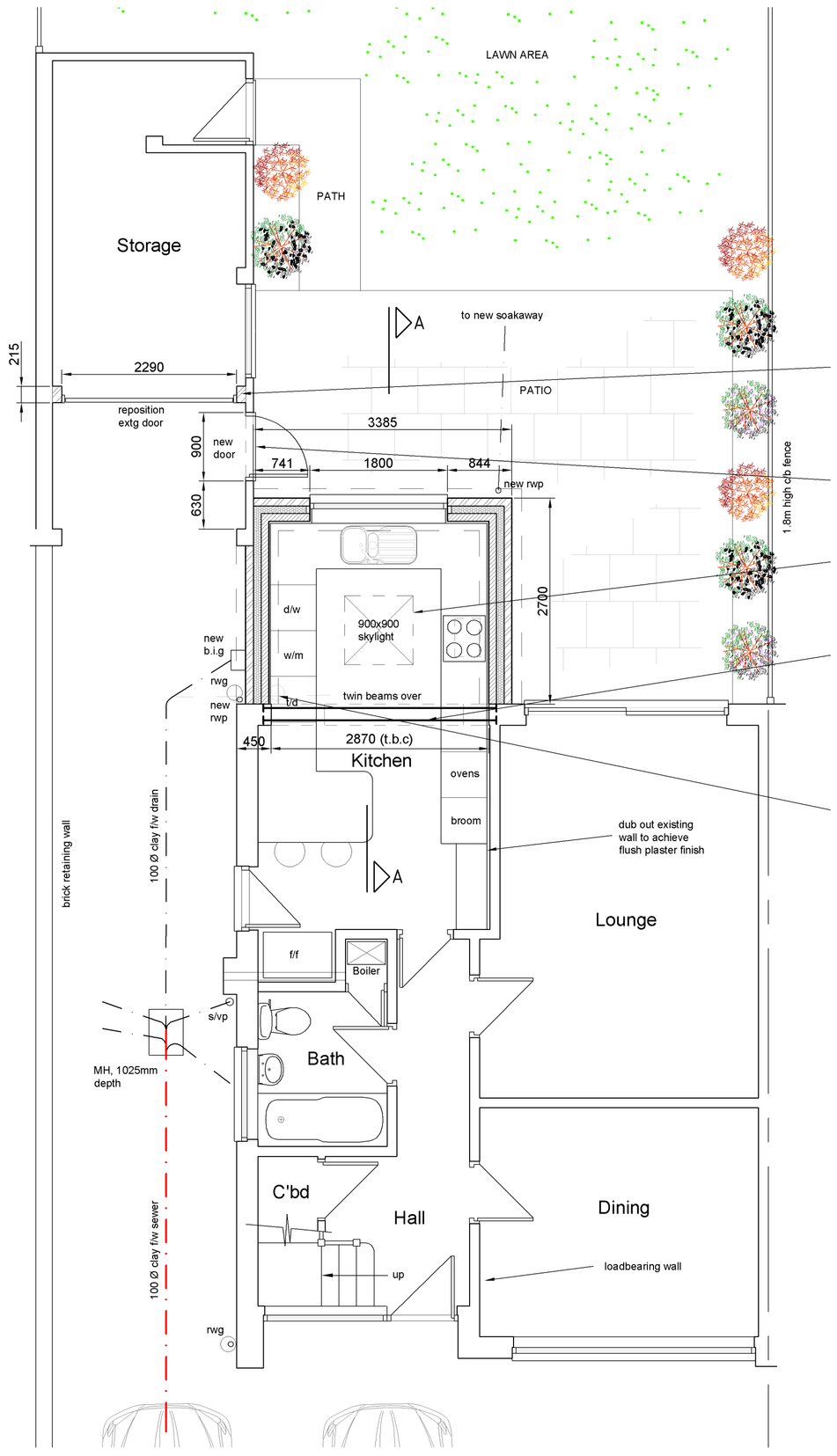


SIDE ELEVATION

Scale 1:100

Note

This drawing is to be read in strict accordance with DB Structural Engineers detailed design drawings and calculations and all references to steelwork and end bearing must be taken from the engineers package.
The structural arrangement information added to these drawings has been shown for ease of reference only and ALL beam positions must be agreed with client upon commencement of works with setting out levels checked.



GROUND FLOOR PLAN

Scale 1:50

External Cavity Walls
Provide 102mm matching facing brickwork in cement/sand mortar (1:3) with approved joints.
All brickwork to be fully bonded and coursed with existing unless otherwise agreed on site.
Provide min 100mm wide cavity insulated with min 90mm Celotex Thermoclass 21 interlocking PIR board tied to inner leaf with min 10mm residual air gap to be kept free of debris with installation to be in strict accordance manufacturers guidance and specifications.
Inner leaf to be Celcon Standard (Lambda 0.15) blockwork or similar approved, e.g. Celcon Solar or Thermalite Shield.
Finish internally with 12.5mm Gyproc Wallboard on min 10mm Gyproc adhesive dabs.
Walls to achieve minimum overall 'U' value of 0.18 W/m2'k with specified construction achieving this.
Provide stainless steel disc ties for retaining solid insulation panel at max 450c/cs vertically and 750c/cs horizontally staggered and at 225mm c/cs to all openings.
Provide vertical and horizontal dpc's to all openings.
Provide 'Furfix' or similar approved (unless stated otherwise on drawing or within any supporting structural calculations) starters at junction of new and existing masonry, with vertical dpc, where appropriate and finish joint externally with poly-sulphide sealant.
All openings in new cavity walls, unless otherwise stated, to be spanned with proprietary IG L1/S 100 lintels of length to suit window openings with minimum 150mm end bearing together with dpc's, cavity trays, weepholes and arch formers as appropriate.
All cavities to be closed with 'Thermabate' or similar approved insulating dpc's.
Provide Hyload dpc's at min 150mm above finished ground level lapped with all dpm's and existing dpc's.
All d.p.c levels and finished floor levels relative to drawings to be checked and any discrepancies reported back to designer where necessary.
Cavity to be filled with weak mix concrete to within 3 courses of dpc or finished ground level whichever is lower.
All work below ground level to be in Class B engineering brickwork or approved block work.

Foundations
New 750 x min 500mm wide mass concrete (concrete to BS 8500) trench fill foundations to be at same depth as existing dwelling or a minimum depth of 1m below ground level, whichever is the lower, to the satisfaction of the building inspector.
Assumed shrinkable clay sub-soil with conifer to rear garden, min 8m distance away, outside the zone of influence of foundations accordance with NHBC Chapter 4.2 guidelines for building near trees.
Exact location and depth of existing drains and connections to be established and confirmed prior to commencement of excavation works.
Top of all foundations to be minimum 150mm below ground level.
Where foundations not concreted on a daily basis, adjacent pours to be linked using 3 H16 900mm dowel bars at top and bottom of foundations.
All bridging to be completed using 150mmx100mm deep PCC lintels.
Overlap of foundations to be 2 x step up or thickness of foundation whichever is greater. Provide 75mm Claymaster compressible board to internal faces of foundations at a depth of 1.5m or greater.
Allow for tracing and locating all services prior to any excavation work being carried out and ensure services are adequately protected or relocated as necessary.
All foundation work to be to the satisfaction of the building inspector.

Allow for forming removing existing garage door and for setting back into garage. Form 215mm piers fully bonded and toothed into existing masonry with 140mm deep RC lintel over opening. Alternatively, form wall in 100x50 C24 loadbearing studwork reinforced with 9mm ply from top of one course of engineering bricks.
All subject to setting out and agreement on site.

Allow for forming new opening in existing garage brickwork to take 900x2025mm high glazed pedestrian door with 140mm deep RC lintel over, to match existing openings.

Allow for forming 900x900mm aperture in roof to take M02 Velux rooflight or suitable sized lantern to suit clients choice with joists doubled up and bolted together either side with M10 bolts at max 600c/cs.

Allow for removing existing section of rear wall, cutting back end returns, and for supporting existing first floor structure with twin UB's over.
Beams to be set below first floor joists as indicated on Section unless otherwise agreed with client.
Beams to be bolted together at 600c/cs with M12 bolts complete with 50mm tubular spacers.
All steelwork sizes, end bearing details and connection details etc to be in strict accordance with structural engineers details and calculations.
Allow for cladding steels in 2 layers of 12.5mm plasterboard to achieve 1/2hr FR.

Allow for forming breaking out existing rear gully and for forming new back inlet gully on line of existing pipework as indicated.
Existing rwp and rainwater gully to also be broken out and, if required, repositioned to side in order to serve existing property. Extension roof to be taken to new soakaway in rear garden.
Allow for bridging any retained drains with twin 140mm deep RC lintels with final details to be agreed with building inspector once position and depth of pipes exposed on site. See also main technical specification notes.

Allow for exposing position of masonry providing **assumed** mid span support from triple 225x47 roof support beam above.
Allow for retaining min 450mm (t.b.c) section of 100mm blockwork masonry or providing 90x90x5mm SHS post bolted to top of wall below and to underside of beam above and for making good as necessary.
All connection details etc to be in strict accordance with structural engineers details and calculations.

Allow for undertaking first floor alterations to enlarge existing en-suite as indicated with studwork partitions as per main specification notes.
All sanitaryware waste pipework to be adapted to suit.
Allow for forming new landing cupboard with double C24 studs over opening.

Final layout of Kitchen to be agreed with client on site.

Windows/Doors
Provide UPVC double glazed windows/doors to match existing of size, design and colour (to suit clients choice) as shown on drawing although to have minimum opening area equivalent to 1/20 of floor area (or 1/10th of floor area if opening angle of casement/light less than 30 degrees) of room.
All new windows and doors to incorporate trickle ventilators, with an equivalent open area of 4000mm² to kitchen and 8000mm² to all habitable rooms.
Trickle ventilators to be fitted within head of windows at minimum 1700mm above floor level.
All door and window frames to be fixed in to position so as to provide minimum 30mm coverage to cavity closers.
Provide mastic seals to front and back of frames.
All windows, doors, rooflights, skylights etc to achieve U value of 1.4 W/m²kminimum with 4mm Pilkington Optifloat to outer pane, 16mm Argon filled air space and 'K' glass A to inner pane complete with warm edge spacers.
All glass at ground floor level within 800mm of floor level within doors and/or side panels to be toughened or laminated glass to BS6206.
All new internal doors at ground floor level to be 1981 x 762/680mm wide with minimum 10mm air gap under door leaf as dimensioned on drawing.
New roof lantern/pyramid/flat skylights, size as specified but subject to final agreement with client, to be supplied by 'Express Skylights', or similar approved, and to incorporate self cleaning double glazing with 4mm Pilkington Optifloat to outer pane, 16mm Argon filled air space and 'K' glass A to inner pane complete with warm edge spacers.
Part Q Security (optional)
All doors and windows to incorporate locking mechansims compliant with Part Q of Building Regulations and 'Secured by Design'.
Doors and windows to incorporate locks to meet security requirements of BS PAS 24:2012 or satisfying standards that provide a similar or better performance.

Flat Roof/Dormers (Warm - Unventilated)
Provide 'Firestone' EDPM, or similar approved rubber roofing membrane system achieving Class AA, AB or AC surface spread of flame resistance, cold bonded (or 12.5mm thickness of limestone chippings bedded in bitumen on a 3 layer glass fibre based built up roofing felt system, incorporating type 3g felt as first layer) to 18mm external roofing grade plywood on 150mm Kingspan TR27 (or equivalent) with integral vapour barrier.
Provide 50x50m cross noggins between joists to support ends of insulation panels and bed all edges on mastic beads to ensure continuous vapour control layer.
Provide min 50mm PIR board to inner face of cavity wall up to parapet/coping stone to avoid cold bridging and finish to underside of coping stone with cavity closer.
Above construction achieves overall 'U' value of 0.15 W/M2'k.
Fix/lay insulation panel on firring pieces laid to fall 1:60 on 150x50mm C24 grade roof joists at 400 c/cs,
supported on hangars, as shown on the drawing.
Provide minimum 75x25mm chamfered fillet nailed to top of insulation panel/decking at verges of roof with roofing felt/membrane draped over and bonded to fascia.
Provide 12.5mm foil backed plasterboard to underside of roof joists internally.
Galvanised steel restraining straps to be provided to joists parallel to external walls at max 2m c/cs and built into blockwork.
New roof joists to be restrained vertically to face of new and existing masonry with galvanised steel straps at max 2m c/cs.
100x75mm wall plates fixed to external walls and held down with 5 x 30 x 1200mm galvanised metal straps at 2m c/cs maximum.
Where indicated, provide 100mm HR UPVc guttering and 68mm diameter down pipes to match existing.

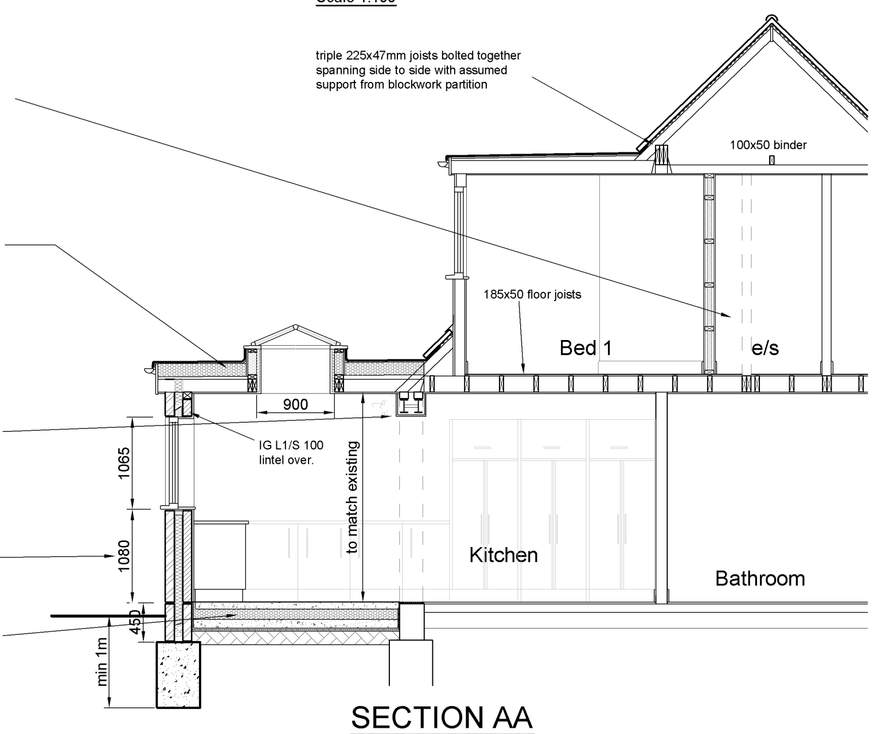
Allow for undertaking first floor alterations to enlarge existing en-suite as indicated with studwork partitions as per main specification notes.
All sanitaryware waste pipework to be adapted to suit.
Allow for forming new landing cupboard with double C24 studs over opening.

New warm unventilated flat roof to be finished as per main note with min 150x50 C24 roof joists at max 400c/cs.
Provide 900x900mm aperture to take M02 Velux rooflight or suitable sized lantern to suit clients choice with joists doubled up and bolted together either side with M10 bolts at max 600c/cs.
Insulate above joists with 150mm Celotex EL3000 to top of ply decking as per main specification notes.
Form upstands to suit as generally indicated in 100x50mm studwork with 100mm Kooltherm K7 insulation (or Celotex) between and 52.5mm K118 Kooltherm to inner face.

Allow for providing all necessary temporary support and for removing section of rear cavity wall as indicated.
Allow for supporting existing first floor structure with twin UB's to the underside of existing wallplate/joists, subject to agreement on site. site.
All steelwork sizes, end bearing details etc to be in strict accordance with structural engineers details and calculations.

All new opening heights as indicated subject to adjustment as necessary to ensure continuous brick coursing levels with existing dwelling.

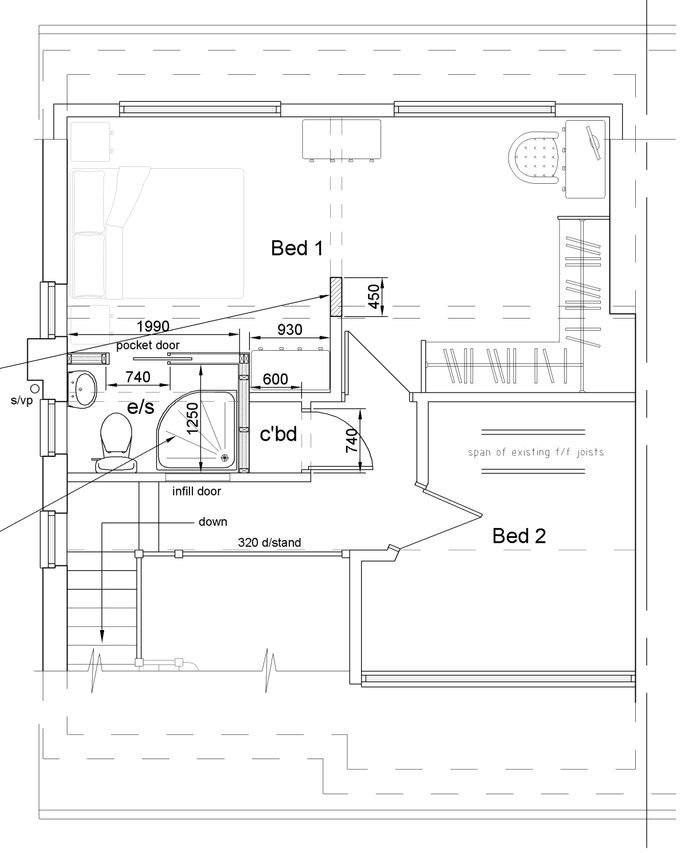
New and existing dpc's and dpm's to be lapped and made fully continuous.
Provide ground bearing slab, as indicated, in accordance with main specification note with existing house sub-floor ventilation to be made continuous.
As an option provide beam and block floor preferred by contractor.



SECTION AA

Scale 1:50

Finishes/Plasterwork
Provide 12.5mm Gyproc Wallboard to underside of ground and first floor ceilings with fixings at max 600 c/cs.
Provide min 3mm skim coat of plaster to finish with taped joints.
All new walls, unless otherwise specified, to be finished with 12.5mm Gyproc Wallboard on 10mm Gyproc adhesive dabs.
Where making good to or fully plastering existing walls, finish with sand/cement undercoat and Thistle multi finish plaster.
All new steel beams to be clad with 2 layers of standard 12.5mm plasterboard to achieve half hour fire resistance.
Provide s/v or MDf architraves and skirting boards throughout to match existing or with profile to suit clients choice.
All plastered walls to be finished with mist/sealer coat of emulsion paint prior to internal decoration works being undertaken.
All new softwood to be knotted and primed with appropriate trade paints/finishers.



FIRST FLOOR PLAN

Scale 1:50

Mechanical Ventilation
Allow for checking existing extract fans from shower room and kitchen and, where necessary upgrade.
Supply and fit wall mounted extract fan unit in en-suite to provide 15 litres/second extraction rate with 15 minute overrun.
Fan to be controlled by operation of light switch with separate manual control.
All mechanical extract terminals to be placed as high as practicable although preferably less than 400mm below ceiling levels and positioned so as to avoid draughts.
Extract vent ventilation from kitchen to be provided through Cooker Hood, complete with filters, fixed between 650-750mm above cooker hob with 30 litres/second extraction rate or through a wall mounted extract fan with 60 litres/second extraction rate where separate from hob.
Kitchen extract fan/cooker hood to be automatically controlled by humidity sensor but with separate manual control.
Where ducting lengths over 1.5m, Centrifugal fans to be used.
All extract fans (excluding cooker hood) to be Greenwood Airvac, or similar approved, low energy dMEV types to reflect extraction rates required.
Extract fan outlets (x.t) to be positioned as generally indicated on drawing although subject to agreement on site between client and contractor.

Electrical Installation
All electrical work to BS 7671 and to meet requirements of Part P (Electrical Safety) designed, installed, inspected and tested by a person competent to do so. Prior to completion the Local Authority must be satisfied that an appropriate electrical installation certificate has been issued for the work, and it has been signed by a person competent to do so.
The Local Authority should require notification from the Part P Competent Persons Scheme (CPS) that the relevant registered installer has carried out the works and had duly notified them in accordance with set procedures.
Final positioning of lights, sockets etc to be agreed with client on site.
All switches and sockets to be 450-1200mm above floor level.

Central Heating/Hot water and Lighting
Subject to existing rating and capacity of boiler, adapt/extend existing heating and hot water system and provide controls, thermostatic valves etc to match remainder of system.
All new radiators to be fitted with thermostatic control valves.
Boiler, Heating and Hot Water systems to be fully tested and commissioned by GasSafe registered contractor upon completion of works with certificates to be supplied to building owner and local authority.
Responsibility for achieving compliance with the requirements of Part L rests with the property owner.
Provide the building owner/occupier with all the relevant appliance manufacturers manuals/specifications, installation and maintenance handbook with sufficient information on the operation and maintenance of heating/hot water system complete with any appliance registration certificate and testing certificates.
Where any new or replacement fixed gas burning appliance is installed, provide a Carbon Monoxide alarm compliant with BSEN50291-1:2018 in the subject room.
Insulate pipes with minimum 40mm foam lagging.
All new internal lights to be energy efficient types to only take lamps having a luminous efficacy greater than 75 lumens per circuit watt.
External lighting to be provided with maximum 150W fittings to only take energy efficient bulbs having a luminous efficacy greater than 75 lumens per circuit watt. All lights to be controlled automatically with motion and daylight sensors.
Where replacement of existing boiler necessary due to inadequate capacity, Boiler to be Class A mains natural gas fired condensing unit with balanced flue. Efficiency to comply with Sedbuk min 92%.
Where boiler situated in loft void, provide safe working platform in front of boiler and ensure safe access for engineer.
New (or altered/adapted) boiler flue to be protected with durable wire guard if less than 2m above ground level and to be no less than 600mm from any boundary or 300mm from any window opening.
Where boiler flue required to be altered as a consequence of extension, or where replacement boiler provided, flue terminal position/outlet to be in accordance with Boiler manufacturers recommendations, Building Regulations and Gas Safety Regs. Where the flue is boxed in the flue should still be readily available and accessible for inspection.
Upgrade any existing boiler with motorised flue for extended terminal outlet as required.
Boiler to be provided with suitable air flow for combustion purposes i.e. not enclosed within cupboard unless ventilation grilles are provided.
Pvc condense pipe from boiler to connect to foul water system.
Final positioning of boiler, if replacement required, and flue to be agreed on site.

Studwork Partitions
Provide studwork partitions/walls generally with 12.5mm Gyproc Wallboard either side of 100x50mm timber studs (or 75x38mm) with minimum 50mm Rockwool Acoustic Partition Roll, or similar approved, acoustic insulation of density no less than 10kg/m³, between studs in order to achieve minimum 40db sound resistance.
Provide 12.5mm Gyproc Soundbloc board in place of Wallboard to all partitions forming sanitary accommodation.
Provide min 3mm skim coat of plaster to finish with taped joints.
Timber studs to be at max 600mm c/cs vertically and 900mm c/cs horizontally or 450c/cs & 600c/cs where loadbearing. Provide additional noggins for electrical switches, sockets etc together with all necessary sole and head plates.
All first floor studwork partitions to be supported on double floor joists bolted together at max 600c/cs or full depth noggins at 300 c/cs where supported between extg joist spans.

Foul and Surface water Drainage - Private
Provide100mm diameter vitrified clay flexi jointed foul water drain pipes to fall 1:40 to existing pipework bedded and surrounded with 150mm of 5-14mm mixed gravel to BS EN295. Same material to be used where making good any part of existing drains/sewer or redundant connections disturbed as part of works.
Back inlet gulleys are to be set on and surrounded with 150mm CP20 grade concrete with removeable external grate and if situated internally to be fitted with sealed, screwed down galvanised plates, perforated as necessary for waste pipes.
Provide RC lintels over all drains passing through foundations and walls.
Drains below hardcore internally to be covered with 300mm wide 75mm thick concrete slab to prevent damage during construction.
Allow for masking all voids around pipes passing through floor and structure generally to prevent ingress of fill and vermin and finish with compressible sealant.
Proposals are H4 compliant in accordance with Anglian Waters permitted development guidlines.
For surface water, provide 100mm diameter UPVC flexi jointed surface water drain pipes, bedded and surrounded with 100mm pea shingle, to fall 1:60 to any suitable existing soakaway, surface water drainage system or new soakaways where directed by building inspector.
Surface water disposal arrangement to be agreed at commencement of works.
Any new soakaways to be minimum 5m from any new or existing building, road or area of unstable ground.
Fill with clean broken bricks or, within clay soils, soakaway attentuation crates and top with 1200 gauge polythene and min 230mm top soil. Provide 100mm thick RC cover slab where under hardstandings.
In chalk, sand or gravel based soils, soakaway volume (below invert of pipe) to be 1m³ per 60m² of roof area served.
In clay soils, soakaway volume (below invert of pipe) to be 1m3 per 16m² of roof area served.
All soakaways sizes and positions to be agreed on site with building inspector.
(Design and installation of soakaways in accordance with BS EN 752-4 and BRE Digest 365 'Soakaway Design')

General Notes
All existing foundations, beams, lintels etc, where appropriate, to be opened up and inspected for adequacy to take additional loading and upgraded as necessary to the satisfaction of the building inspector.

Figured dimensions to be read in preference to scaled dimensions at all times.
Where dimensions indicated as t.b.c (to be checked/confirmed) these are either considered to be critical to setting out of structure or they are dependant upon existing site conditions and the contractor is to check conditions etc before work proceeds.
All dimensions (unless otherwise stated) are structural, e.g. from blockwork to timber studwork, and allowance should be made where necessary for internal finishes.
All existing loadbearing conditions to be established prior to commencement of works and any discrepancies from the drawings or details specified to be reported to designer immediately.
All external materials to match existing unless specified otherwise with samples to be sourced and approved by client and/or LPA prior to commencement of works.
All steelwork to be pre-treated with 2 coats of zinc phosphate primer.
This drawing to be read in conjunction with all other relevant information whether produced by this company or by others.

Waste Plumbing
All work to comply with BS 12056 & BS 752 and to the satisfaction of the building inspector.
Provide 40mm diameter UPVC waste to bath/shower/sink/washing machine/dishwasher.
Provide 32mm diameter UPVC waste to basins in bathroom/ensuite.
Where basin waste lengths in excess of 1.7m use 38mm diameter waste pipes.
Provide 75mm deep seal traps to all fittings.
Cleaning/rodding eyes to be provided at all changes in direction of waste pipework.
Provide isolation valves to hot and cold water supplies within 300mm of each appliance.
All baths and wash hand basins are to be fitted with a mixer/blender valve ensuring maximum water discharge temperature of 48°C, positioned close to tap to prevent colonisation of waterborne pathogens.
All stored water to not exceed 100°C.

Ground Floor Construction (Ground bearing slab)
Provide 70mm 1:3 cement/sand screed, reinforced with D49 Fabric mesh at base, on 1000 gauge polythene vapour barrier on 120mm thickness Celotex XR4000 insulation panel (or eqivalent approved, e.g Kingspan Thermafloor TF70) with 25mm edge strip to perimeter on 100mm 1:2:4 concrete slab on 1200 gauge polythene dpm lapped with all new and existing dpc's and dpm's on minimum 150mm thickness of well consolidated broken brick hardcore (or 250mm Type 1 fill) blinded with minimum 25mm thickness of sand.
Floor construction specified achieves 'U' value of 0.15W/M2'C.
Allow for masking all voids around pipes passing through floor and structure generally to prevent ingress of fill and vermin and finish with compressible sealant.
Where ducts incorporated in slab to connect to existing house air bricks, provide 2no.68mm square pvc rwp's tied together.

Building Safety Act 2022 - Client Legal Duties
The client is responsible for the appointment of a Principal Contractor/Principal Designer to undertake the works.

Our role as the Architectural Designer does not extend beyond the provision of Council Approvals for the works, i.e Planning Permission and Full Plans Building Regulations approval. We are therefore not to be considered the Principal Designer as defined under the Building Regulations 2010 (Amended), in Part 2A,11C(1) where the client is required to appoint a suitably competent Principal Designer and Principal Contractor to undertake the works which can be the same person/company.

The client is responsible for providing the LABC with the reelvant name, contact address and contact number for these persons as soon as possible. If you do not notify LABC of these appointments, they will assume that you will be acting in both capacities and will be taking on these legal duties.

The new regulations are a result of the Building Safety Act 2022 which is intended to drive up competence in the construction industry and improve quality and standards in our built environment.

Revisions	

Project:
Proposed single storey rear extension and associated alterations to 34 Harkness Way, Hitchin, SG4 0QL

Title:
Scheme Proposals drawing

Scale:	Date:	Drawn:
As stated	19/12/2024	SJC

Job No:
SC/20051204

Drawing No:	Rev:
02	

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