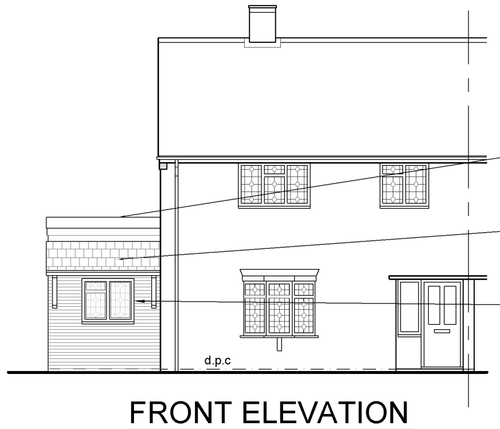
A1 DWG



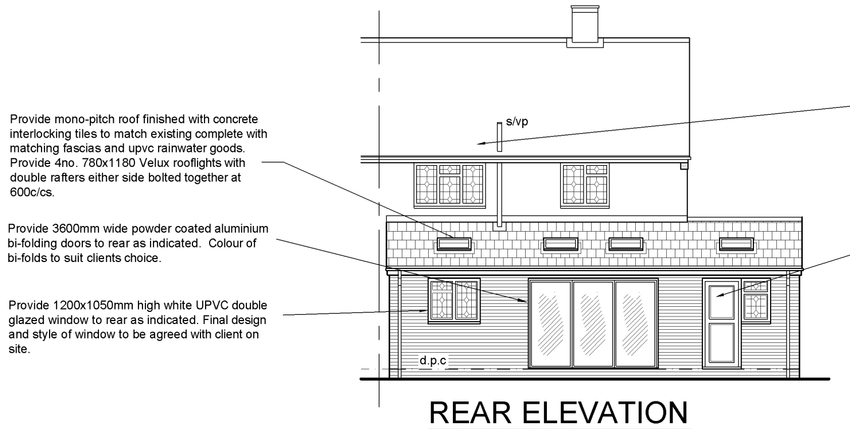
FRONT ELEVATION

Scale 1:100



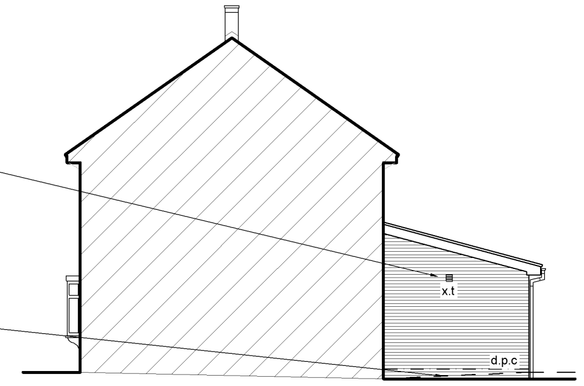
FLANK ELEVATION

Scale 1:100



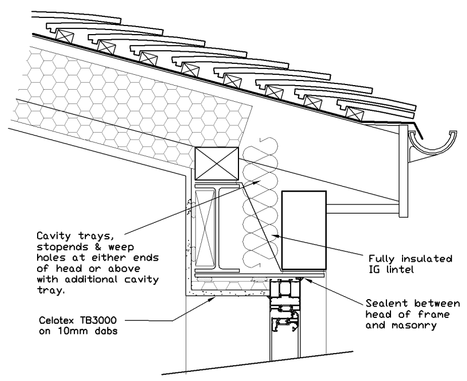
REAR ELEVATION

Scale 1:100



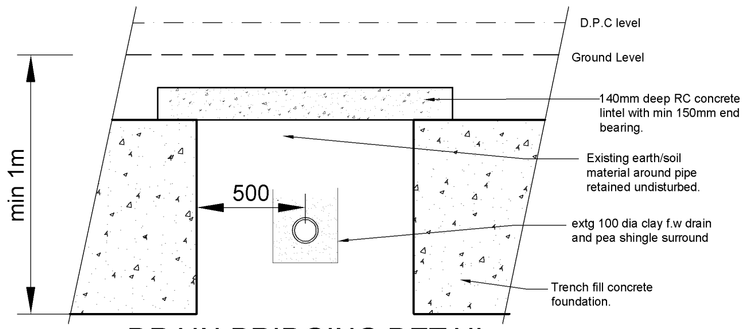
SIDE ELEVATION

Scale 1:100



BI FOLD HEAD DETAIL

Scale 1:50



DRAIN BRIDGING DETAIL

Scale 1:20

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.

Foundations

New 750 x 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. to ensure sufficient depth from top of foundation for suspended floor construction.
Assumed chalk based non-shrinkable sub-soil but where shrinkable clay sub-soils encountered, final depth to be compliant with NHBC Chapter 4.2 guidelines for building near trees albeit no relevant trees within zone of influence of foundations recorded at time of survey.
Exact location and depth of existing drains to be established prior to commencement of excavation works.
Foundations to be minimum 600mm wide where excavated in pure sand based soils or where eccentrically loaded at boundary line to avoid overhanging.
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.

External Cavity Walls

Provide 102.5mm matching facing brickwork in cement/sand mortar (1:3) with approved joints. Feature brick detailing to be maintained (e.g soldier courses, eaves corbelling) as indicated or noted on drawings.
All brickwork to be fully bonded and coursed with existing.
Provide 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. Wall 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.

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 (including bi-folding type doors unless alternative background ventilation provision agreed with building inspector) to incorporate trickle ventilators, with an equivalent open area of 4000mm² to Boot Room, bathroom 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/m²minimum 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.
New 780x1180mm Velux standard range rooflights to be double glazed with 4mm Pilkington Optifloat to outer pane, 16mm Argon filled air space and 'K' glass A to inner pane complete with warm edge spacers. Allow for incorporating raising kit (or timber noggins) as necessary to ensure minimum pitch of 15 degrees to glazing.
Where specified, supply and fit (RAL colour to be agreed with client) powder coated aluminium bi-fold doors by 'Express Bi-folds' or similar approved. Final cill and head details and opening configuration to be subject to agreement with manufacturer with specification of doors to be in strict accordance with manufacturers specification with thermally broken frame and profiles, 4mm Pilkington Optifloat to outer pane, 16mm Argon filled air space and 'K' glass A to inner pane complete with warm edge spacers and face drainage and suitable security locking.
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.

Finishes/Plasterwork

Provide 12.5mm Gyproc Wallboard to underside of ground floor ceilings with fixings at max 600 c/cs. Provide 100mm Gyproc coving or cornice to perimeter of ceilings suit clients requirements.
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/w 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.

Site Preparation

Existing structures to be demolished as necessary and all debris removed from site.
Existing ground levels to be adapted to suit setting out and proposed slab level of extension.
All d.p.c levels and finished floor levels relative to drawings to be checked and any discrepancies reported back to designer where necessary.

Mono-Pitched Roof - Warm Unventilated

Provide Forticrete 'Centurion' or Redland Regent concrete interlocking tiles, or similar approved (e.g Sandtoft 20/20 concrete plain tiles for use down to 15 degree pitch), laid with minimum 100mm headlap. All tiles, including verges, to be clipped into place in accordance with manufacturers specific guidelines. Provide 38x25mm tanalised battens at gauge to suit on Tyvek Supro (or similar approved) breather membrane, with minimum laps of 229mm, complete with eaves carriers draped over 150x50mm C24 Grade rafters at 400mm centres as specified on the drawing. Rafters to be doubled up either side of rooflights and bolted together at max 600mm c/cs.
All rafters to be notched over (maximum 25mm 'birdsmouth') and spiked through wall plates 4no. long 4.00mm nails per connection.
Allow for providing additional cross noggins to underside of ceiling where client wishes to install recessed downlights to sloping sections of roof so as to avoid any contact with insulation layer. Any recessed down lighters to be fire rated.
100 x 75mm wall plate to external cavity wall held down with 5 x 30 x 1200 galvanised metal straps at 2.00m centres maximum.
Provide 175x50mm wall plate to top of mono-pitch resin anchored to face of existing masonry using M.12 Remfix at max 400 c/cs.
Allow for 3no.end rafters to be tied to new cavity walls with 5 x 30 x 1200 galvanised metal straps at 1.20m centres maximum with 50 x 75mm noggins and packing pieces.
Provide minimum 125mm thickness of Kingspan Thermopitch TP10 panel (or 125mm Celotex XR4000) fixed in position with counter battens between rafters and 50mm Thermopitch TP20 (or 50mm Celotex GA4000) to underside of rafters to all roof slopes with joints of all panels and rafters finished with a mastic bead as per manufacturer's specific guidelines.
Roof construction specified achieves overall 'U' value of 0.15 W/m2'k.
Ensure minimum 25mm air gap between underside of breather membrane and top of insulation panel where no integral vapour barrier.
Line underside of rafters where Celotex used with 12.5mm foil backed plasterboard where thermal board not used.
Provide Code 5 lead soakers at abutment with walls and code 5 lead cover flashings.
Provide cavity trays, IG or similar approved, at roof wall/abutments, over openings and where cutting new lead flashings into new or existing cavity masonry, and where specified by the building inspector.
All leadwork to be in accordance with BS EN 12588 and installed in a competent and professional manner in accordance with Lead Development Association guidelines.
Provide UPVc fascias and soffitt boards with 100mm HR UPVC gutters and 68mm diameter rainwater pipes to match existing.

Mechanical Ventilation

Supply and fit wall mounted extract fan unit in bathroom to provide 15 litres/second extraction rate with 15 minute overrun.
Fans in above areas 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 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.
Extract fan to Utility Room to provide 30 litres/second extraction rate, linked to operation of light switch 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.

Waste Plumbing

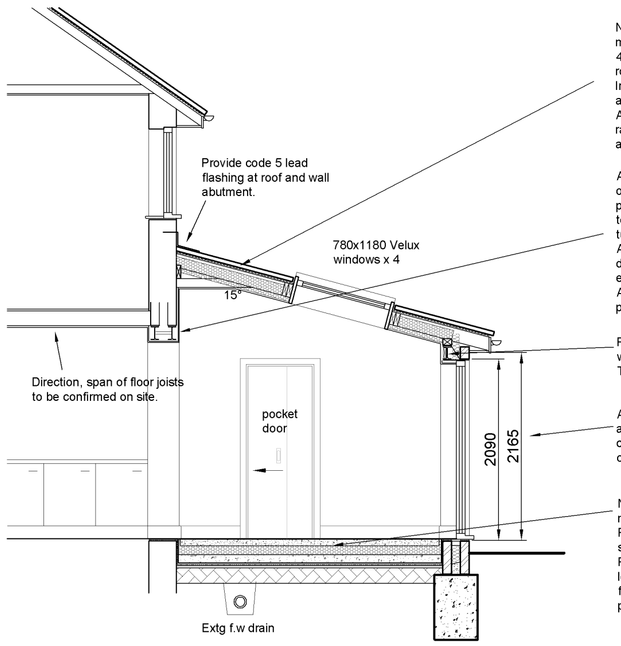
All work to comply with BS 12056 & BS 752 and to the satisfaction of the building inspector.
Provide 40mm diameter UPVC waste to bath/shower/sink/washing machine/dishwasher/wc basin.
Provide 32mm diameter UPVC waste to basins in bathroom/ensuite.
Where basin waste lengths in excess of 1.7m use 38mm diameter waste pipes.
Provide 75mm deep seal traps to all fittings.
Replacement 100mm diameter UPVc soil and vent pipe to discharge 900mm above nearest window either via external 'bird cage' terminal or proprietary roof vent tile connected with flexible ducting through roof void.
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.

Foul and Surface water Drainage - Private

Allow for making good any part of existing drains 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.
Any foul or surface water drainage pipes running under driveway with less than 900mm cover to be bedded and surrounded with minimum 100mm concrete. Concrete stopped short of joints and flexcell board fitted.
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 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')

Smoke Alarm System

Provide interlinked mains wired smoke alarm system installed (as minimum) to ground and first floor circulation areas and lounge with interlinked heat detector within kitchen area to BS 5839 Part 6 2004 with battery back up.
Note: It is r ecommended that all habitable rooms at ground floor exiting into the hallway be fitted with a smoke detector.
Smoke detectors (SD) and Heat detector (HD) to be positioned generally as indicated on plan.



SECTION AA

Scale 1:50

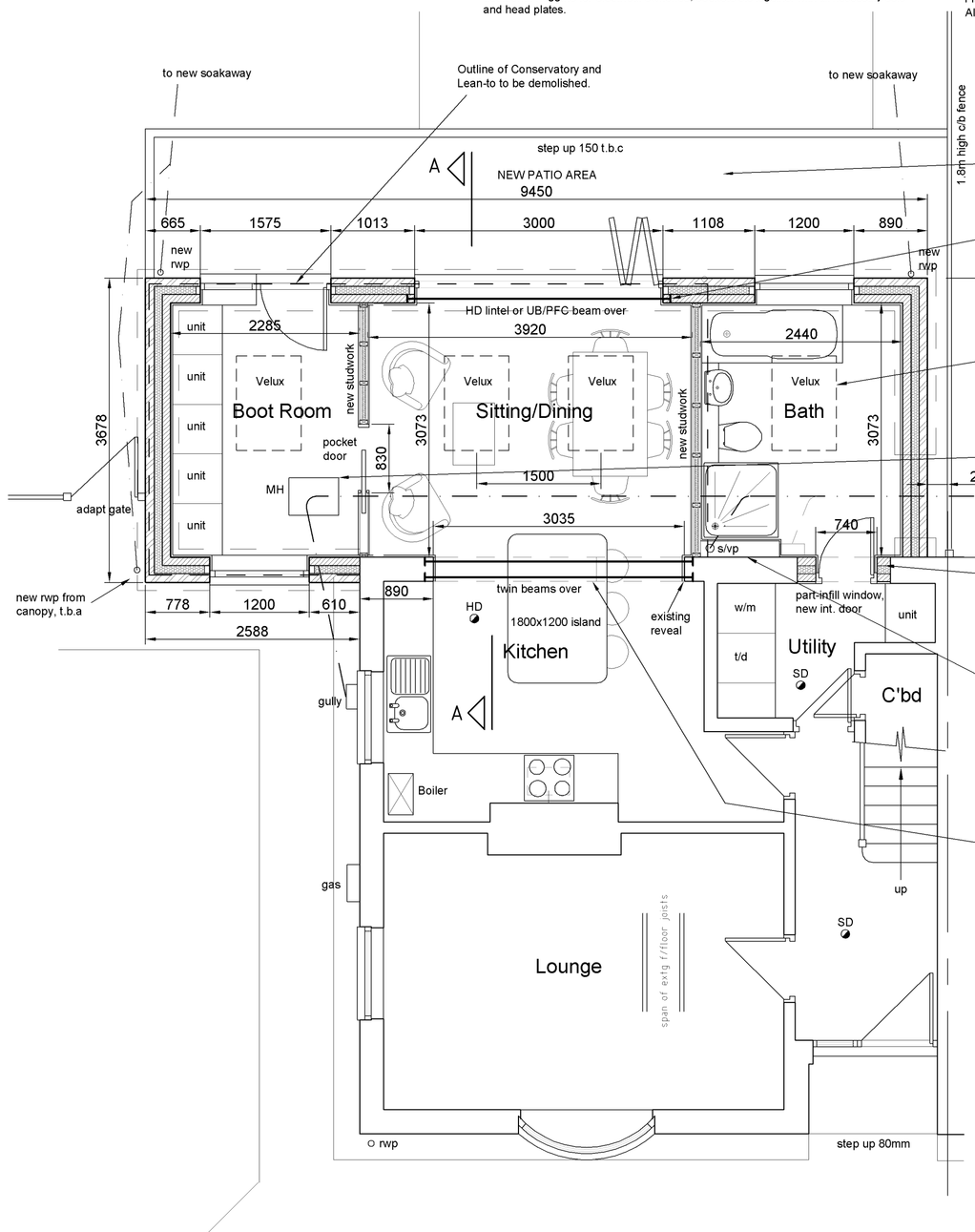
New mono-pitch roof to be constructed generally as main notes with 150x50 C24 grade rafters at max 400c/cs doubled up and bolted together around rooflights.
Insulate with 120mm Celotex PL5000 between rafters and further 50mm to underside.
Allow for providing 50x50mm counter battens under rafters to take recessed LED fittings, see also main note and all subject to agreement on site with client.

Allow for supporting first floor masonry with twin UB's over positioned flush or to underside first floor joists all as per structural engineers details. Beams to be bolted together with M12 bolts at 600c/cs 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.

Provide PFC/UB with 290x8mm welded bottom plate, weepholes etc over bi-fold doors with Celotex TB3000 to underside

All new opening heights as indicated subject to adjustment as necessary to ensure continuous brick coursing levels with existing dwelling, or unless otherwise agreed with client.

New and existing dpc's and dpm's to be lapped and made fully continuous.
Provide ground bearing slab in accordance with main specification note.
Proposed foundations to be min 1m below ground level with depth of existing f.w drain unknown. New foundations taken below depth of existing drain with pipe bridged as per detail.



Final design of new patio area and additional landscaping, including construction of retaining wall, to be agreed with client on site.

Provide HD lintel or PFC/UB over bi-fold doors complete with 280x8mm welded bottom plate, web stiffeners at 600c/cs, cavity tray and weepholes at 900c/cs as per structural engineers details and calculations.
Provide Celotex TB3000 to underside of bottom plate as detailed on Section and details.

Provide 4no. 780x1180mm Velux windows as indicated with double rafters either side bolted together at max 600c/cs.
Final setting out points to be as generally indicated but all subject to final agreement with client on site.

Existing MH to be raised to finished floor level in engineering brickwork with dpm made continuous and fitted with a double seal screw down recessed cover and frame.
Existing gully connection from Kitchen sink to be protected as part of works.
Foundations to be taken below invert of pipe.
See also main foul water drainage note.

Allow for removing existing rear window and adapting opening to take new internal door as indicated. Existing Bathroom units to be stripped out and area to be repurposed as new Utility room as indicated.
Provide new section of studwork within extension to create Bathroom area as indicated with final layout to be agreed with client on site.

Existing rear gully to be broken out and connection sealed as indicated.
Provide new boxing to conceal existing s/vp and connections as indicated.
Allow for adapting existing s/vp to take new connections from Utility and Bathroom areas as indicated.
Provide rodding plate to face of stack with access panel internally.
All to suit site conditions and final plumbing layout.

Allow for providing all necessary temporary support and for removing section of rear cavity wall as indicated.
Allow for supporting first floor masonry with twin UB's over positioned flush with or to underside first floor joists all as per structural engineers details. Beams to be bolted together with M12 bolts at 600c/cs 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.

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

GROUND FLOOR PLAN

Scale 1:50

1:50 0 1 2 3m

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 and where situated below dpc/ground level to have 2 coats of bitumen based paint to be applied on site.
This drawing to be read in conjunction with all other relevant information whether produced by this company or by others.

Party Wall Act 1996

The relevant local authority approval(s) for the proposed works alone does not constitute authority to proceed with building works where the Party Wall (etc) Act 1996 applies or is deemed likely to apply.
The property owner is responsible for seeking the appropriate specialist advice in order to ensure compliance with this act prior to commencement of any works and no liability is accepted by this company for the failure of the property owner to meet the requirements or provisions contained therein.
We would recommend contacting Mr J Mitchell of Miramar Design on 01296 663888 to seek advice and administer all necessary client Party Wall Activities.

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.

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 50mm 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.

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 16 Elmtree Avenue, Cockernhoe, LU2 8QA

Title:

Scheme Proposals Drawing

Scale:	Date:	Drawn:
As stated	25/06/2024	SJC

Job No:

SC/20051174

Drawing No:	Rev:
02	

S & S Coates Surveying & Design

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