

Ground Floor 1:50

**FOUNDATIONS**  
Contractor to excavate and inspect existing foundations to ensure they are standard strip foundations, if not structural engineer to be consulted prior to commencing main work. Contractor to excavate for foundations and ensure they are down to a good bearing ground, and not to be formed on any made up ground. Any concerns regarding ground conditions to be referred to structural engineers prior to continuing with works. Ensure the remains of any previous underbuilding or foundations are removed from site. Foundations of new structure to be taken down below level of any foundations which have been grubbed out. Ensure all vegetable matter and topsoil is removed from site prior to digging foundations and laying hardcore. Building Control to inspect excavations prior to pouring concrete. Foundations to be in concrete strip foundations designated mix RC35 grade concrete (600mm x 200mm for cavity wall taken down to a minimum 600mm below finished ground level or down to level of existing foundation or down to good bearing ground (whichever is the greater). Foundations are to be stepped below any drains which pass below proposed extension (unless drainage is to be re-routed, see drainage notes) to allow minimum 150mm pea gravel haunching all round drainage pipes. Fit A353 mesh fabric reinforcement (with 50mm bottom cover) in all foundations. Ensure mesh fabric has an overlap of two pitches between adjacent sheets. Ensure a minimum overlap on mesh fabric of 300mm at each step.

**UNDERBUILDING**  
All underbuilding to be built in dense 7kn concrete block suitable for underground conditions. To be 1 leaf of 100mm thick blockwork with 50mm cavity and 1 leaf 150mm blockwork. Cavity to be filled up to ground level with lean mix concrete. Any visible external leaf to be of facing brick (to match existing). Sub floor solum vents and liners @ 1500mm maximum centres built into cavity walls. Build in anchor straps for timber frame kit to underbuilding, see anchor strap notes for specification. Fit DPC to all walls 150mm minimum above finished ground level. Fit 145x45mm treated timber wallplates on DPC for seat to new timber frame kit. Any drains passing through underbuilding to be lintelled over and haunched in 150mm pea gravel all round. Underbuilding to be securely tied to existing with suitable wall starters (Expamet, catnic or similar). Wall ties: Outer leaf to be tied to inner leaf with stainless steel all ties @ 450mm vertical and 600mm horizontal centres.

**ANCHOR STRAPS**  
All ground floor anchor straps are to be built into brick/block underbuilding and taken minimum 600mm up timber frame wall panels, all to be @ 1200mm centres, all to be minimum 1200mm long, 30mm wide x 5mm thick, also to be fitted at each corner and adjacent to each door and window. All anchor straps to be in stainless steel.

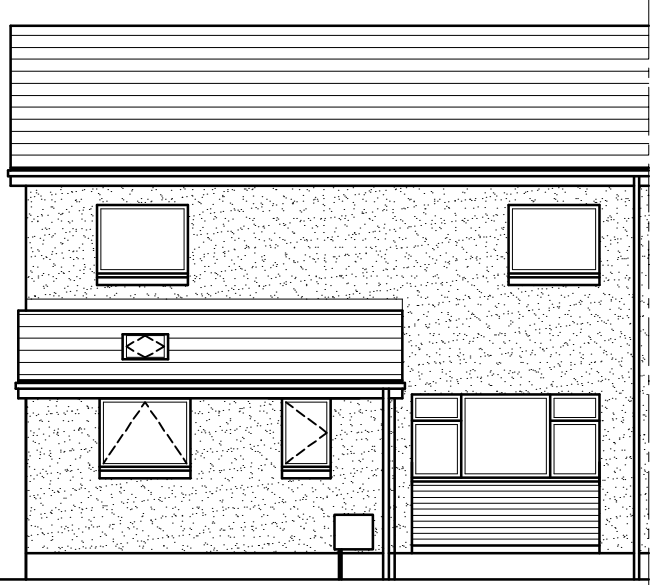
**SOLUM**  
Ensure all vegetable matter and topsoil is removed from site prior to digging foundations and laying hardcore. Solum to be 50mm sand/cement screed on visqueen DPM (1200 gauge) on sand bedding on 150mm well consolidated and compacted hardcore. Ensure DPM is dressed up wall at edges. Solum level to run through with finished ground level. Ensure there is minimum 150mm vented airspace from the top of the solum to the underside of the floor joists. Underfloor ventilation: Fit fresh air inlets to vent solum in location shown, ensure fresh air inlets are fitted with insect barriers. Fit fireday liners to FALS. Form vents through to existing solum. Sub-floor ventilators 220 x 65 mm must be installed in the perimeter wall at not more than 1500mm centres.

**DPCs**  
A dpc membrane shall be provided in the foundation walls, at a height of not less than 150mm above highest ground level. The new dpc to be tied into the level of dpc on existing house. DPM from below solum to be dressed up wall taken under DPC in rear leaf. Ensure wallplates to take kit are fitted on DPC. Fit DPC between firestops and outer leaf. A dpc shall also be provided at all window jambs, external doors and sills.

**LINTELS**  
New lintels to be as per structural engineers design. Existing wall below to be carefully demolished and debris removed from site. All finishes to be made good on completion.

**Any steelwork to be lined with 1 layer 15mm gypsum Glasroc F Firecase board. This is to be affixed using Glasroc F FireCase Screws and gypsum Gyprframe metal profiles proprietary fixing system.**

**INTERNAL FINISHES**  
Internal finishes, fitments etc - Type of skirting's, facings, doors, ironmongery, no of light fittings/power points etc, to be agreed with the client prior to ordering or completing tender.



Front 1:100

**INTERNAL PARTITION CONSTRUCTION**  
75x50mm SC3 timber frames @ 600mm centres with 12.5mm plasterboard (10kg/m2) sheeting finish to both sides, with all joints taped and filled. **75mm rockwool rw45 acoustic quilts** to be packed between studs. Existing walls to be strapped and lined with 12.5mm plasterboard with all joints taped and filled.

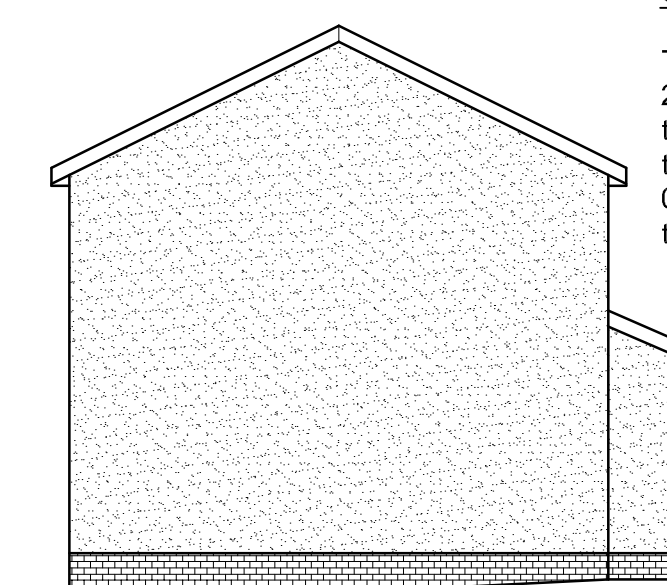
**CEILING**  
Shall be 1 layer of 12.5mm plasterboard on 1 layer 1000 Gauge Visqueen polythene vapour barrier (joints taped) overlaid with 1 layer of 100mm Eurothane GP insulation between trusses and 1 layer of 120mm Eurothane GP insulation cross laid over trusses. Ensure 50mm min air gap is maintained at eaves.

**Velux Shaft**  
Velux shaft insulated with 1 layer 90mm celotex qa4000 insulation between 100x50mm timber framing and 1 layer 70mm celotex qa4000 insulation with vapour barrier and 1 layer 12.5mm plasterboard to inner face.

**WINDOWS & DOORS**  
All new windows and doors to be Double Glazed uPVC with 20mm air gap and integral sill. Sizes as indicated on drawings. Style to be agreed with client. Ventilation by means of an openable area not less than 1/30th of the room floor area and TITON SF Xtra Vents providing a min 1200mm2 trickle ventilation to apartments. Top opening part of all windows to be 1750mm minimum above finished floor level.

**Draught Stripping**: Ensure doors and windows are fitted with draught strips all round. All full height glazing (including glazing in all external and internal doors) is to be either safety glass or toughened glass that complies with Clause 7.5 of B.S. 6262: Part 4 : 2018. Where existing windows and doors are to be re-used contractor to ensure double glazing units meet the above standard or include for replacing double glazed units to ensure 'U' value does not exceed 1.4 W/m2K. Ensure that all windows which are capable of being opened over external paths, ramps, etc, are fitted with suitable restraining catches to prevent any danger of collision with the windows when open. Windows finished to jambs and soffits in low modulus silicone sealant, all to match existing. Installation of two 'Velux' type roof windows, or similar as indicated. All works to be carried as per manufacturer's installation instructions. New glazing to be capable of achieving a 'U' value that does not exceed 1.4 W/m2K. Windows are to be designed in a way as to deter forced entry, this would mean all glazing is internally beaded, locks on windows except where it is an escape window where the glass should be laminated. Windows must be securely fixed in accordance with the manufacturer's specifications. Laminated safety glazing (6.4mm minimum) in glass below 800mm (from floor level) or 1500mm if within 300mm of a doorframe. With effect from January 1st 2011 all laminated glass must be certificated to BS EN 358 2000 rating P2A. Windows should be to BS 7412: 2007, for PVCu units; A doorset should include a single-point locking device to BS 3621: 2007 (for keyed egress) or to BS 8621: 2007 (for keyless egress) or a multipoint locking system. A deadlocking facility should be provided. Any lock cylinder should be in accordance with BS EN 1303: 2005, grade 5 key security and grade 2 attack resistance as a minimum.

**Electrical Installation**  
All electrical installations to be carried out in full accordance with B.S. 7671 : 2018 and 18th edition of the IEE and building regulations, electrical installation will be designed, constructed, installed and tested such that it is in accordance with the recommendations of BS 7671:2018, as amended. **Electric to be installed and/or tested by a SELECT or NICEIC approved electrician. An electrical certificate will be required before completion is approved.** Allow for all earth bonding and for altering consumer unit and fitting MCBs as required. Light switches should be positioned at a height of between 900 mm and 1.1 m above floor level. Standard switched or unswitched socket outlets and outlets for other services such as telephone or television should be positioned at least 400 mm above floor level and 350mm away from corners. Light fittings and sockets to be provided to clients requirements. Light fittings to be fitted downlighters in the ceiling to avoid the insulation touching the units. All new light fittings are to be of low energy type. Above an obstruction, such as a worktop, fixtures should be at least 150mm above the projecting surface. Also, where sockets are concealed, such as to the rear of white goods in a kitchen, separate switching should be provided in an accessible position, to allow appliances to be isolated.



Side 1:100

**DRAINAGE**  
Prior to works commencing plumber to investigate on site to confirm existing drainage layout, any alterations to proposed drainage layout to Building Control and client approval. Grub out any redundant underground drainage. Ensure that all underground drainage complies with B.S. EN 752 and be agreed with the responsible Building Control Officer prior to the commencement of any works, and laid and tested to the Council's entire satisfaction. Fit new 100mm deepflow uPVC gutters with deepflow uPVC downpipes and connect into existing surface water drainage, fit rodding eyes at change of direction. Fit vented traps at base of rainwater pipes only if drainage system is combined system. All drainage uncovered in the process of excavation must be fully exposed, supported and enclosed in 150mm pea gravel. Ensure that foundations are taken below level of any drain that passes below proposed extension.

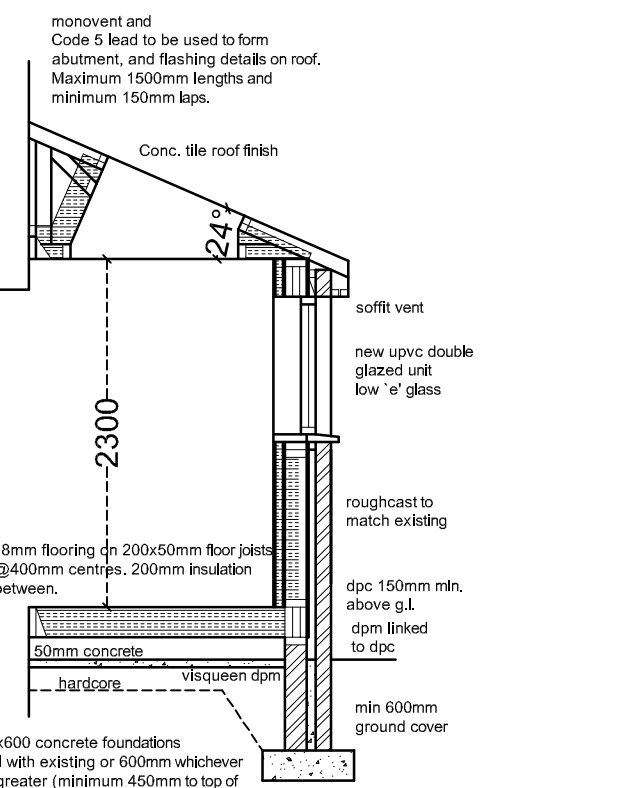
**FLOOR CONSTRUCTION**  
Floor to be 22mm tongue and groove moisture resistant flooring chipboard flooring on 200x50mm C16 or better grade timber joists @ 400mm centres on 100x50mm treated timber wallplate on DPC, ensure floor is fully changed, fit perimeter joists as per standard good practice. Fit twin dwangs below any partitions. Fit dwangs at midspan of all joists and below partitions @ 600mm centres. **200mm celotex x4000 insulation on supported with battens or celotex insulation clip.** Fit timber joist runners to existing building using m12 bolts with resin anchors at 300mm centres and joist hangers to support joists as required. Ensure proposed finished floor level in new extension runs through with existing finished floor level in existing house.

**U - VALUES**  
Walls - 0.17 W/m2K  
Floors - 0.15 W/m2K  
Roof - 0.12 W/m2K  
Windows and doors - 1.4 W/m2K

**Glazing Calculation**

Total room area = 6.65m<sup>2</sup>  
25% allowance = 1.61m<sup>2</sup> + compensate existing = 6.68m<sup>2</sup>  
total allowance = **8.29m<sup>2</sup>**  
total window area= 1.2x0.91 + 0.65x0.91 + 1.5x2.05 + 0.55x0.78 = **5.17m<sup>2</sup>**  
therefore glazing complies.

Side 1:100



Section 1:50

**EXTERNAL WALL CONSTRUCTION**  
Outer leaf to comprise 100mm thick blockwork with 20mm roughcast (Rendering to external wall to be match existing) with 50mm clear cavity. Inner leaf to comprise 1 layer 12.5mm plasterboard on 1 layer 500 Gauge Visqueen polythene vapour barrier (joints taped) on 1 layer 50mm Eurothane GP insulation on 145x45mm C16 treated timber framing @ 600mm centres, with 145x45mm head and sole plates. Fit additional 145x45mm dwangs as required for fixing partitions, fit 145x45mm headbinder round of all panels. **Fit 90mm Eurothane GP0 insulation between studs.** 9.5mm, Exterior Quality Plywood sheathing to external face of studs. 1 Layer tyvec Breather Membrane stapled to face of plywood.

**EXTERNAL STEPS**  
Exact total rise of steps to be checked and confirmed on site, see proposed floor plan and elevations. Ensure no steps have a rise greater than 170mm and going of 250mm min.

**SMOKE ALARMS**  
Optical smoke alarms should conform to BS EN 14604: 2005. Smoke alarms should be located in circulation spaces: not more than 7m from the door to a living room or kitchen not more than 3m from every bedroom door, and in circulation spaces more than 7.5m long, no point within the circulation space should be more than 7.5m from the nearest smoke alarm. A smoke alarm located in an access room (which could include a stair and landing), serving an inner room should be not more than 3m from the door of the inner room, a smoke alarm in the principal habitable room should be sited such that no point in the room is more than 7.5m from the nearest smoke alarm. Therefore, smoke alarms should be ceiling mounted and positioned away from any wall or light fitting. In order to reduce unwanted false alarms, smoke alarms should not be sited directly above heaters, air conditioning ventilators or other ventilators that might draw dust and fine particles into the smoke alarm. Smoke alarms should be ceiling mounted and located such that their sensitive elements are, in the case of a smoke alarm, between 25mm and 600mm below the ceiling, and at least 300mm from any wall or light fittings. All to be interconnected and fitted on non-maintained circuit with battery backup, all to be installed as per manufacturers instructions to comply with BS 5839: part 6:2019.

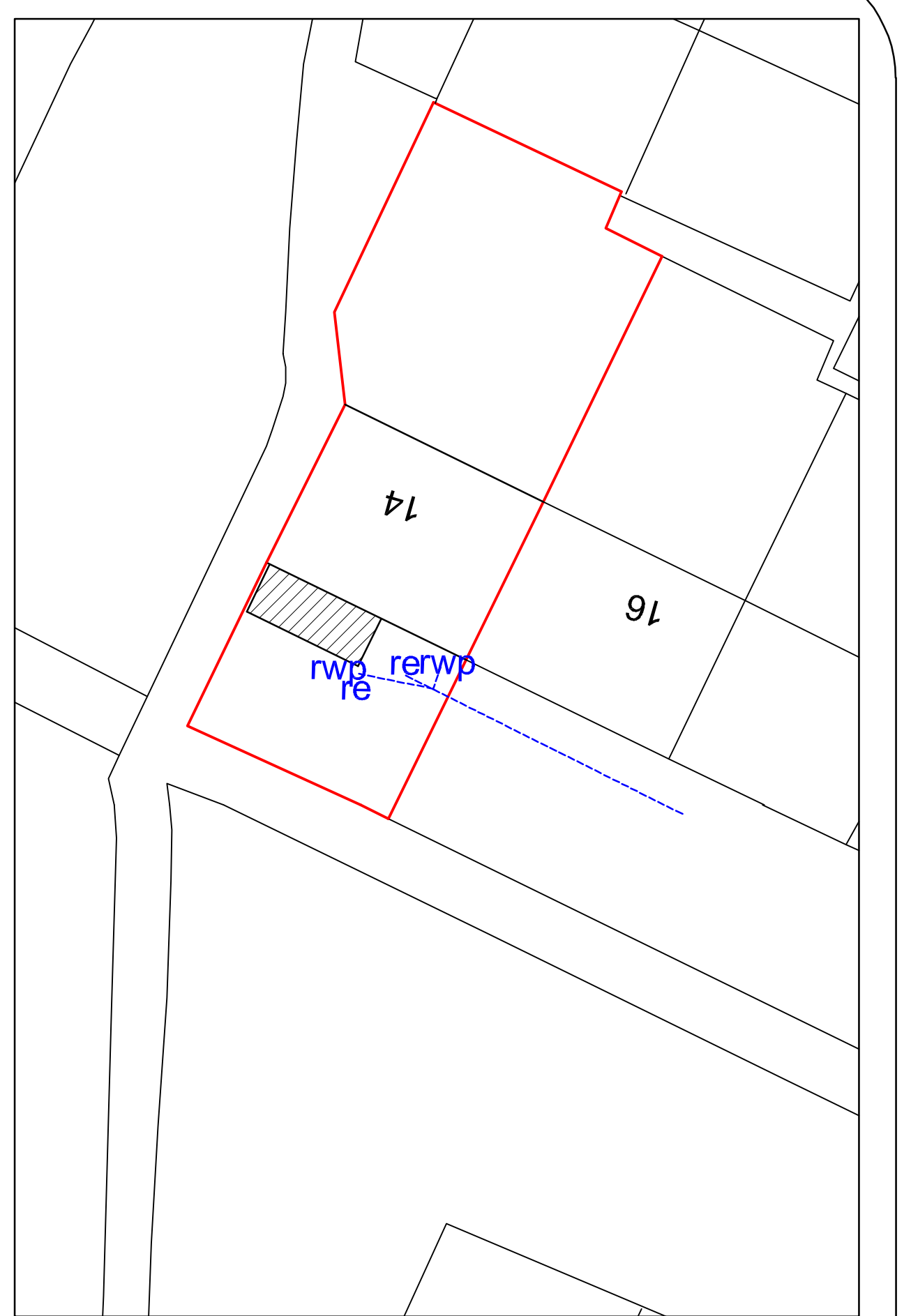
**HEATING SYSTEM**  
Existing boiler to be checked to be suitable to allow for expansion of the system. Central Heating to Gas Safe Regs, designed in accordance with CIBSE Guide. Radiators fitted with thermostatic control valves. Hot and cold water pipes are to be fully insulated to BS 5422:2009.

**AIR INFILTRATION**  
The contractor is to seal all dry lining junctions between the walls, ceilings, floors, etc., and all window, door and roofspace openings, vapour control membranes also to be sealed and all the service penetrations into the fabric of the building also to be sealed. Provide draught stripping at all doors, windows and rooflights. Ensure that the infiltration of any air into the building is limited in full accordance with the provisions of the B.R.E. Report B.R. 262: 2002.

**COLD BRIDGING:**  
Ensure cold bridging is eliminated i.e. Floor insulation is taken to perimeter walls aligning with wall insulation taken down to floor level. Ensure loft insulation is draped over head binder and wall insulation taken to head runner. Insulated plasterboard returned into jamb avoiding spots at jamb.

**ROOF**  
**Marley roman concrete tiles (to match existing)** on 50x25mm battens and counterbattens on untearable felt on 15mm plywood on prefabricate roof trusses 95x45mm @ 600mm centres (Design Certificate for trusses to be submitted to Building Control prior to works commencing on site), proprietary truss clips used to fix truss to wall plate, fix in accordance with manufacturers instruction. Roofspace to be ventilated via a continuous 25mm air gap at eaves protected by a vermin proof grille and at ridge via 'GLIDEVALE' AIRSO MONORIDGE VENTILATION SYSTEM. Fit timber or uPVC fascia and at eaves, fit deep flow uPVC gutters and deep flow uPVC RWPs.

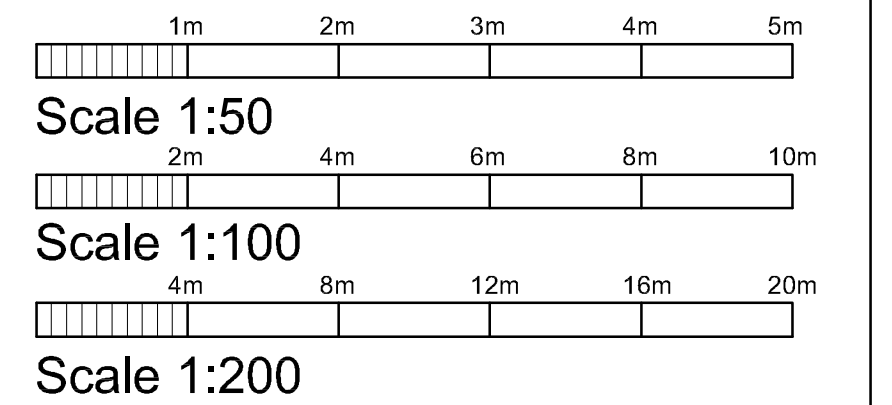
**LEADWORK**  
All leadwork to be in Code 5 lead, laid on a suitable underlay, ensure all leadwork is installed as per standard good practice recommended by The Lead Sheet Association. Minimum upstand of lead flashing where extension roof abuts existing wall to be 150mm. As the finish to the existing wall is drydash render Building Control do not insist that cavity trays are fitted, however contractor to liaise with client to determine client's requirements in this respect as it is recommended that cavity trays are installed.



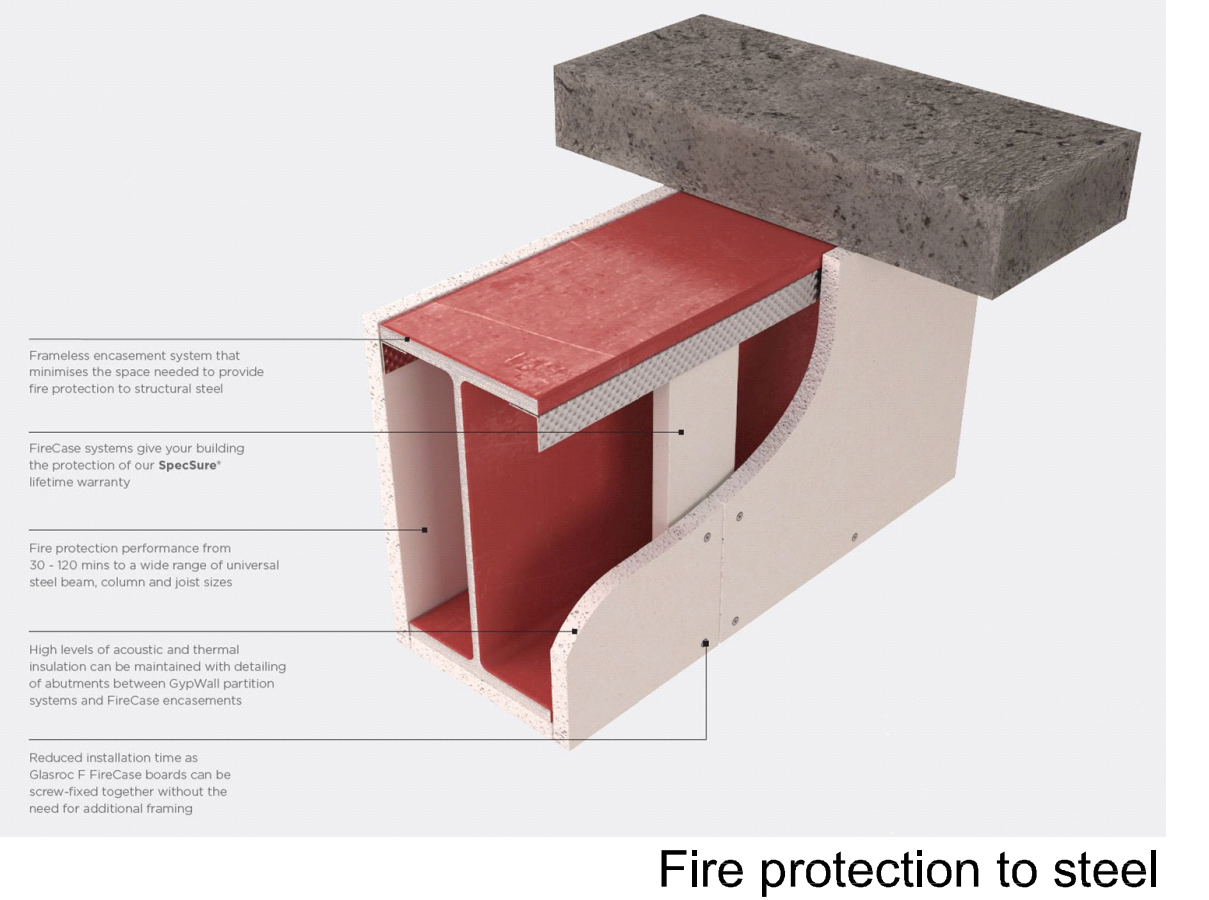
Block Plan 1:200

Electrical Key	
⊛	13A double switched socket
⊙	Light switch
⊕	Light fitting
⊙	Smoke alarm/heat detector
⊞	Extract fan

note any electrics on boundary wall are to be surface mounted or framed out to accommodate metal back boxes and cables.



Project: Mr & Mrs McLarnon 14 Glen Carron East Kilbride, G74 2AH	<b>Proposed</b>
Scale 1:50/1:100/1:200	
Date: 16/04/24 Rev gle/02	



Fire protection to steel