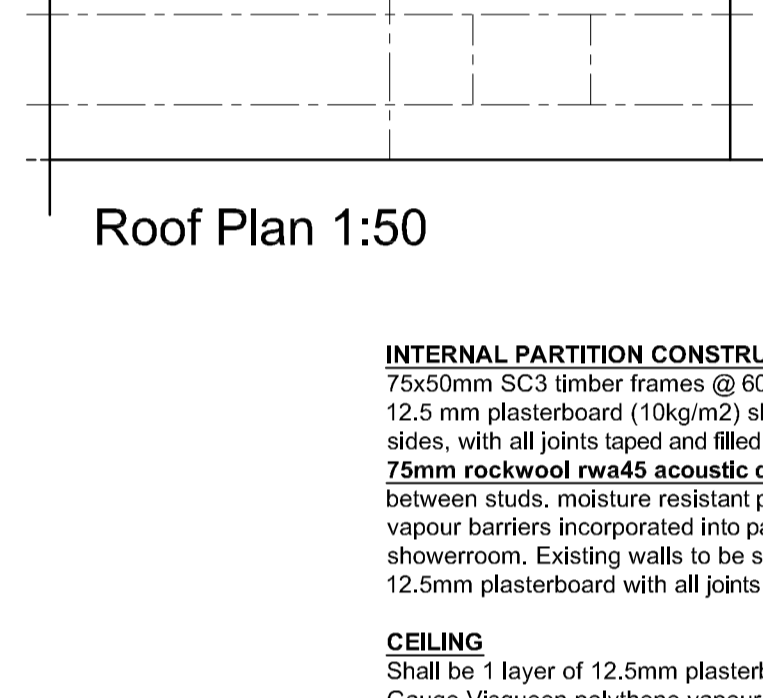
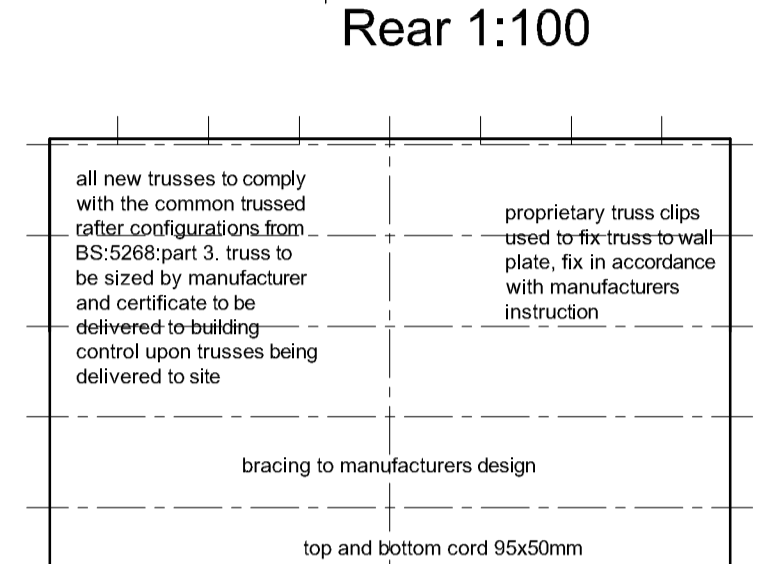
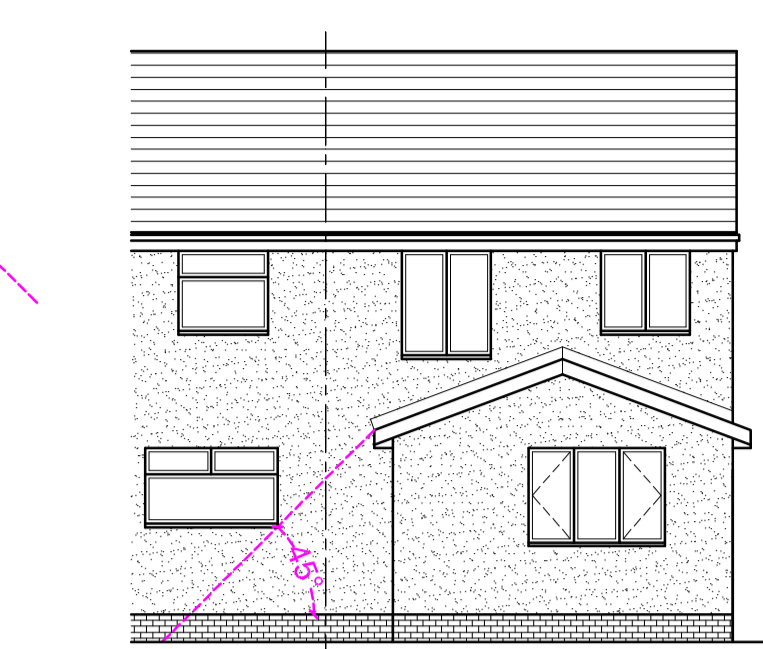


FOUNDATIONS
Contractor to excavate and inspect existing foundations to ensure they are standard strip founds, if not structural engineer to be consulted prior to commencing main work. Contractor to excavate for founds and ensure they are down to a good bearing ground, and not to be formed on any made up ground. Any concerns regarding ground conditions to be referred to structural engineers prior to continuing with works. Ensure 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 RC25 grade concrete (600mm x 200mm for cavity wall and 400mm x 200mm for central dwarf 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 around drainage pipes. Fit A393 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 and dwarf walls. Any sleeper walls to be in 100mm dense concrete block suitable for underground conditions. Fit vents into any sleeper and loadbearing walls to allow through ventilation. 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 finished 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.



INTERNAL PARTITION CONSTRUCTION
75x50mm S3C3 timber frames @ 600mm centres with 12.5 mm plasterboard (10kg/m²) sheering finish to both sides, with all joints taped and filled.
75mm rockwool rwa45 acoustic quilts to be packed between studs, moisture resistant plasterboard and vapour barriers incorporated into partitions around showerroom. Existing walls to be stripped 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 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 1000mm² to wc and 1200mm² trickle ventilation to dining. 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. Ensure that all windows which are capable of being opened on 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 'Ino 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 356 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 keyless 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. To ensure a robust installation, fixing of a doorset or window should be in accordance with the recommendations given in section 8 of BS 8213-4: 2007; or manufacturer's written instructions where these meet or exceed the recommendation within this British Standard. **The doors and windows should be designed and tested to archive compliance for security with BS PAS 24:2022 for doors or BS 7956:1997.**

GLAZING CALCULATION
Total room area = 13.26m²
25% allowance = 3.31m² + compensate existing = 5.69m²
total allowance = 9.0m²
total window area = 1.8x1.25 + 0.85x2.05 + 0.65x0.78 = 4.41m²
therefore glazing complies.

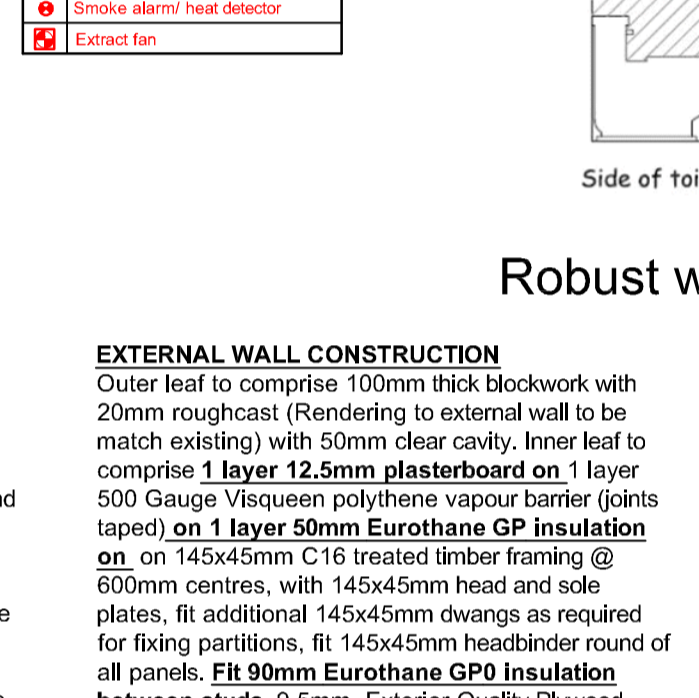
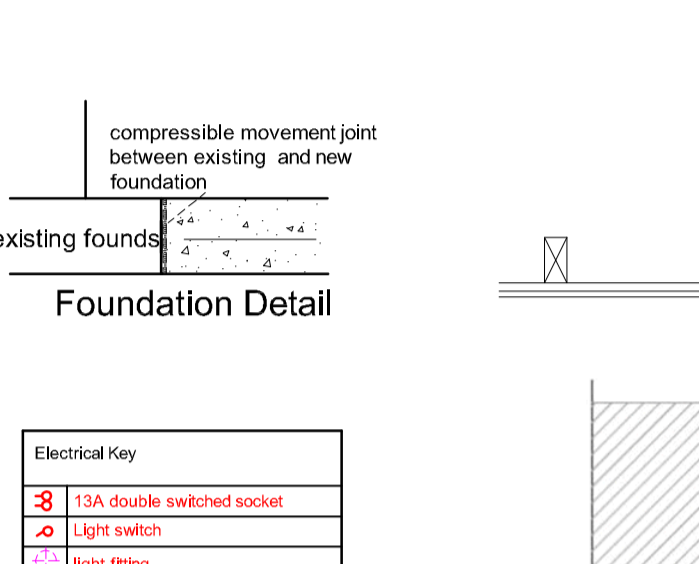
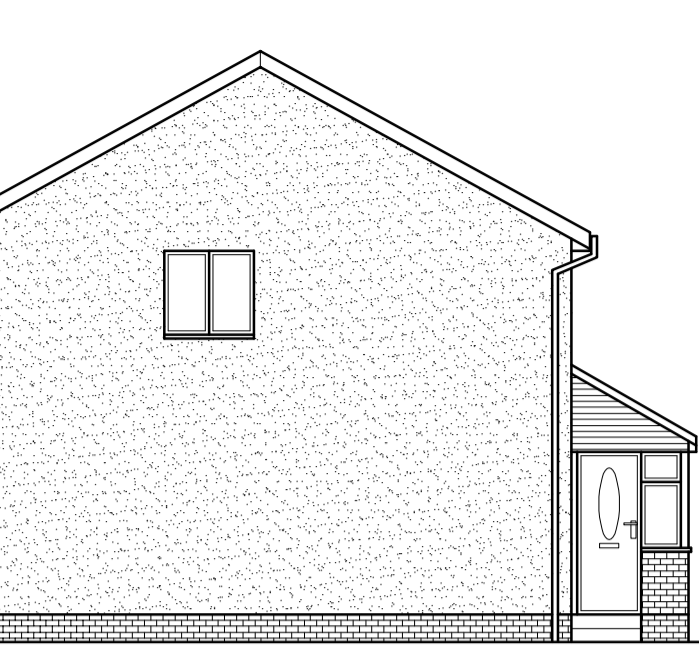
FOUNDATION DETAIL
existing founds
compressible movement joint between existing and new foundation
timber studs
18mm plywood
12.5mm plasterboard
Foundation strip to extend 300mm to external cavity walls toe 600x200mm deep (c35 grade).
Foundation strip to extend 300mm to external cavity walls toe 600x200mm deep (c35 grade).
plan to be level with adjacent ground level & a min of 150mm below underside of joists & a least of 50mm concrete topping on 1000 gauge polythene dpm.
the proposed foundations to be taken down to the same depth as existing foundations of min 600mm deep whichever is the greater.
LINE OF EXISTING FOUNDATION

VENTILATION
Kitchen to be provided with a mechanical ventilator, having an intermittent extraction rate of 60 litres/second minimum. New wc to be provided with a mechanical ventilator, having an intermittent extraction rate of 15 litres/second. Vent to be ducted to external air source and to be fitted with a vermin proof grille.

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. Grab 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.
All drainage uncovered in the process of excavation must be fully exposed, supported and encased in 150mm pea gravel. Ensure that foundations are taken below level of any drain that passes below proposed extension. All new underground drainage to be in 100mm uPVC, bedded and haunched in pea gravel and laid to falls, all to connect into existing. Where waste to be suspended below floor joists, ensure no joints are cut or notched. All drainage passing through external walls and sleeper walls to be lined over and haunched with 150mm pea gravel with rockier joint either side. All wastes to be laid to fall, gradient to be 1 in 80. Above floor drainage to be boxed in at floor level. Allow for access at all bends in drainage.
Pipework for new sinks, showers and WHB's to be 42mm diameter uPVC, from new RWP's and WC's to be 100mm uPVC. Sanitary pipe work should be constructed and installed in accordance with the recommendations in BS EN 12056-2: 2000. All pipework to be installed in accordance with manufacturer's instructions. Hot and cold water pipes are to be fully insulated to BS 5422:2009. WC is to be of the dual flush type which give users the option of a reduced flush, generally for liquid waste or a full flush for solid waste. The flush volume will generally be achieved through the valve mechanism of the WC cistern. To reduce the water flow rates at taps for wash or hand rinse basins (WHB's), options include the installation of flow restrictors, or aerators. These may be fitted in either the water supply pipes serving the sanitary facilities or incorporated within the tap components. Dual flush WC cisterns should have an average flush volume of not more than 4.5 litres. Taps serving wash or hand rinse basins should have a flow rate of not more than 6 litres per minute.

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 damped. 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 xr4000 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.

EXTERNAL STEPS
Excavate 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.



EXTERNAL WALL CONSTRUCTION
Outer leaf to comprise 100mm thick blockwork with 20mm roughcast (Renders 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 145x5mm head and side plates. Fit additional 145x45mm dwangs as required for fixing partitions. Fit 90mm Eurothane GP insulation between studs, 9.5mm, Exterior Quality Plywood sheathing to external face of studs. 1 Layer tyvec Breather Membrane stapled to face of plywood. 1 layer 15mm gypsum fireline board affixed with gypsum screws with staggered joints to be fitted to inner face of timber kit prior to insulation to inner being fitted.

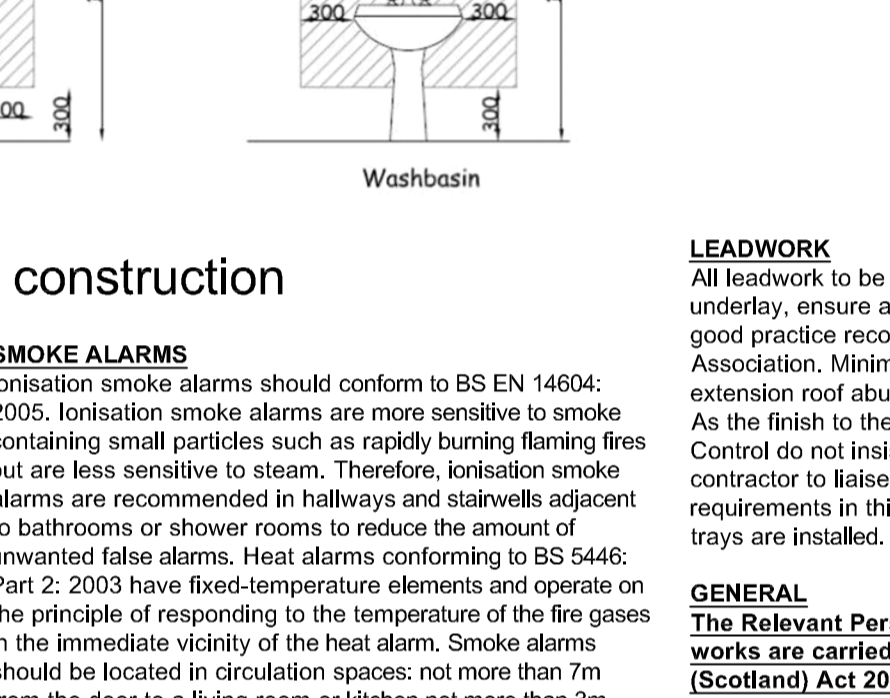
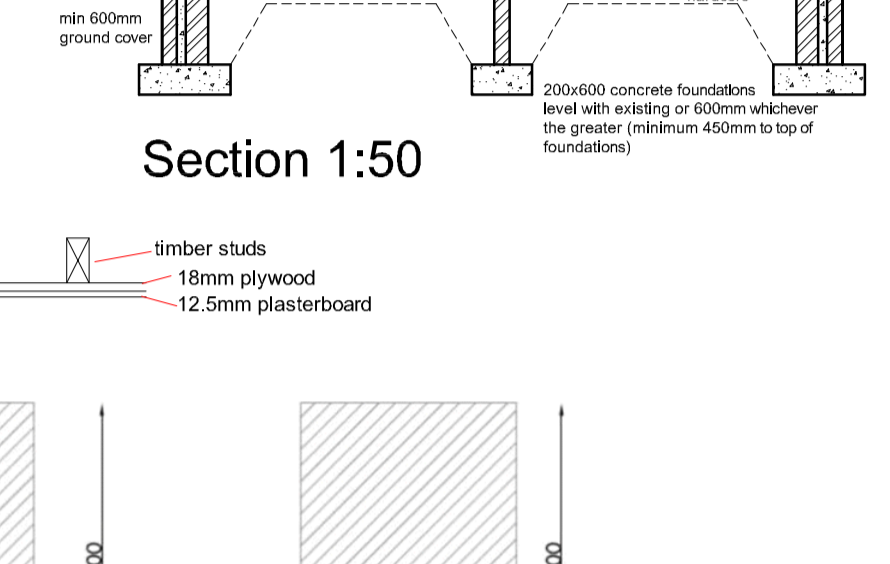
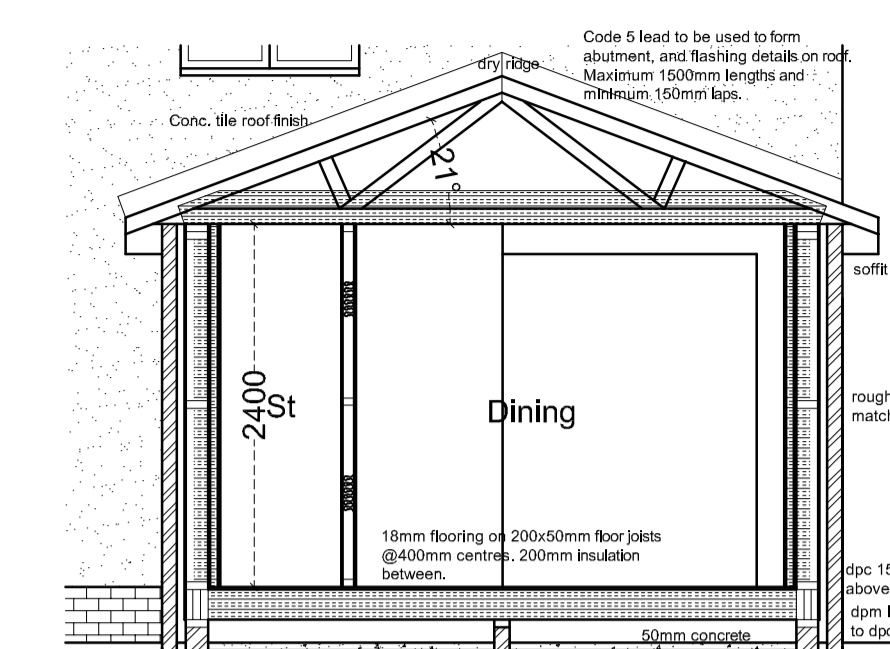
Cavity vents
Air Cavity in external wall to be vented with proprietary plastic perp vent @ 1200mm centres and firestopped. Perpend vent as follows: 1 row at base of wall, 1 row above and below each horizontal firestop at every floor and 1 row at eaves/verge, as per standard good practice. All cavities to be provided with wall ties spaced apart 600mm horizontally and 375mm vertically. Vertical spacing to be not more than 300mm within 150mm of the jambs of all new door and window openings. External wall cavity to be closed around external opening and at every junction including base and wallhead. Ensure roof trusses are directly over studs in wall panels. Fit additional cripple studs as required. All brick/blockwork to be tied into existing walls using 'Turfix' wall starters or equal. New timber frame inner leaf to be securely fixed to existing with M16 expandable bolts @ 375mm centres fit vertical DPC between new timber inner leaf and existing wall. Outer leaf to be tied to inner leaf with stainless steel wall ties @ 375mm vertical and 600mm horizontal centres. Wall ties round openings to be @ maximum 300mm vertical centres, to be within 225mm of opening. Timber frame panels to be secured with hold down straps, see hold down strap notes. Anchor straps for holding down timber frame 1100 x 30 x 5mm galv. M.S. and @ 1200mm centres.

Gable wall restraint
1200mm long tension straps at 1800mm intervals to be provided along gable wall and fixed to underside of trusses.

Expansion Joints
Where required, form expansion joints in external walls at 6m intervals max.

Firestops
Fit 50x50mm treated timber firestops at wall head and at all corners and round window and door openings between timber frame and brickwork, also to be fitted @ minimum 800mm centres, fit DPC between firestops and outerleaf. Exact size of firestops to be confirmed on site and increased in size if required to ensure they adequately close cavity.

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.

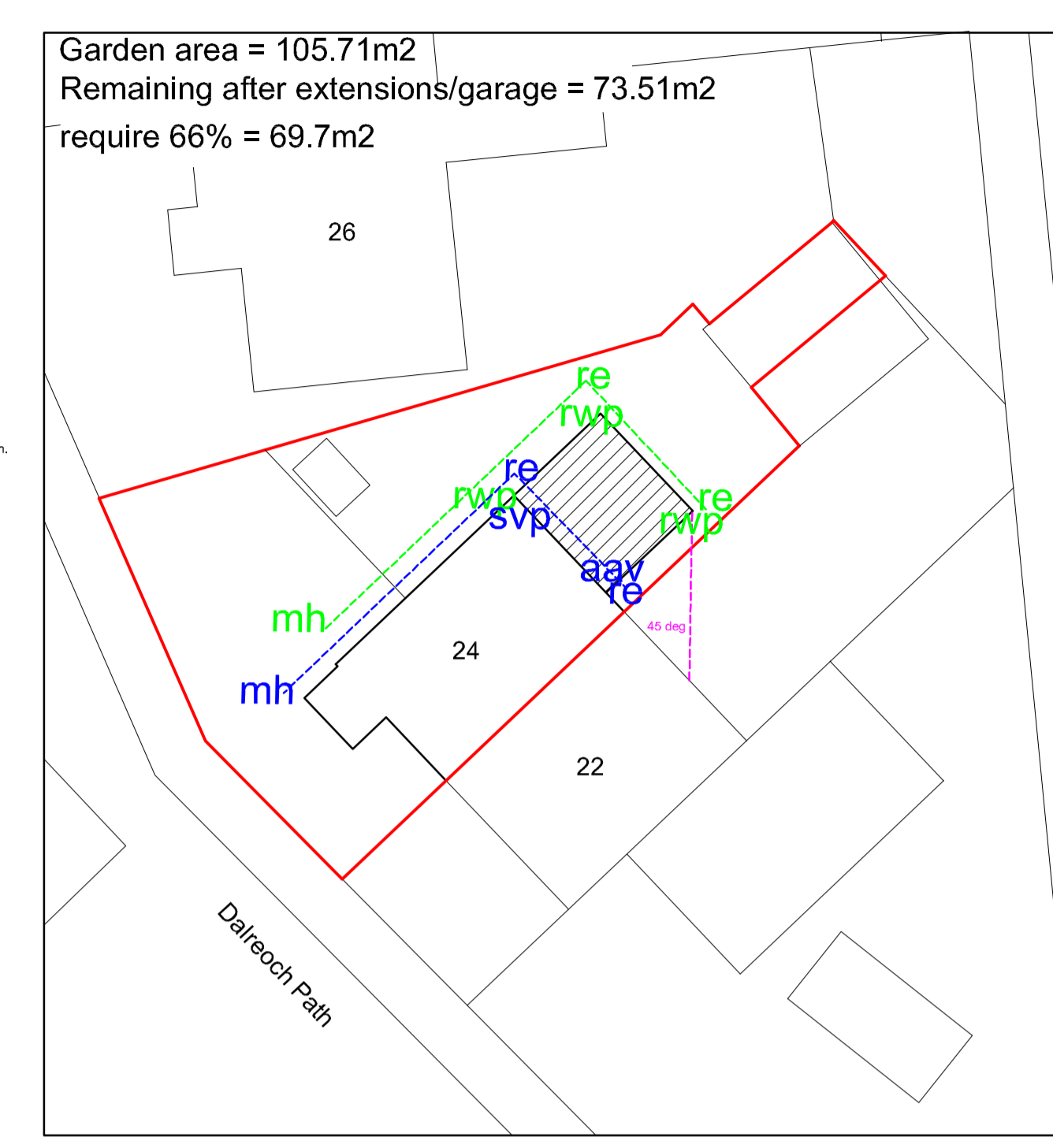


SMOKE ALARMS
Ionisation smoke alarms should conform to BS EN 14694: 2005. Ionisation smoke alarms are more sensitive to smoke containing small particles such as rapidly burning flaming fires but are less sensitive to steam. Therefore, ionisation smoke alarms are recommended in hallways and stairwells adjacent to bathrooms or shower rooms to reduce the amount of unwanted false alarms. Heat alarms conforming to BS 5446: Part 2: 2003 have fixed-temperature elements and operate on the principle of responding to the temperature of the fire gases in the immediate vicinity of the heat alarm. Smoke alarms should be located in circulation spaces; not more than 3m from the door to a living room or kitchen not more than 7m 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 and in the case of a heat alarm, no point in the kitchen should be more than 5.3m from the nearest heat detector. Therefore, smoke alarms should be ceiling mounted and positioned away from any 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 the particles into the smoke alarm. Smoke alarms and heat 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 away from any wall or light fittings, and in the case of a heat alarm, between 25mm and 150mm below the ceiling. All to be interconnected and fitted on non-maintained circuit with battery backup, all to be installed as per manufacturer's instructions to comply with BS 5839, part 6:2019. Carbon monoxide detector (to be to BS EN 50291-1:2010) to be fitted as indicated. Detector to be fitted no closer than 1m and no further than 3m from appliance.

AIR FILTRATION
The contractor is to seal all dry lining junctions between the walls, ceilings, floors, etc., and at 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 batten and wall insulation taken to head runner. Insulated plasterboard returned into jamb avoiding spots at jamb.

ROOF
Concrete tiles to new lower rear roof to be 'MARLEY MODERN' type or equal with 75mm headlap on 50x25mm battens and counterbattens on untreasable 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 trusses 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 'MARLEY DRY RIDGE VENTILATION SYSTEM' (or equal).
Fit timber or uPVC fascia and at eaves, fit deep flow uPVC gutters and deep flow uPVC RWPs.



Garden area = 105.71m²
Remaining after extensions/garage = 73.51m²
require 66% = 69.7m²

Block Plan 1:200

Robust wall construction
The robust detail support should extend out to either the edge of an adjacent wall or min 300mm past the edge of the shower enclosure.

LEADWORK
All leadwork to be in Code S 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.

GENERAL
The Relevant Person is responsible for ensuring all works are carried out in accordance with The Building (Scotland) Act 2003, as amended, and The Building (Scotland) Regulations 2004, as amended. The Contractor (Design and Management) Regulations 2007 are intended to protect people working in construction and others who may be affected by their activities. The regulations require the systematic management of projects from concept to completion and throughout the life cycle of the structure, including eventual demolition. Clients have a duty to ensure that competent people are employed to do the work, that sufficient time is allocated for the work to be undertaken and that the various members of the design and construction teams co-operate and exchange information. It is the clients duty to appoint an appropriately qualified health and safety adviser to oversee the project as required.
DO NOT SCALE FROM PLANS. ALL SIZES TO BE CHECKED ON SITE PRIOR TO THE ORDERING OR MANUFACTURING OF ANY MATERIALS.
THIS RELATES TO ROOF TRUSSES IN PARTICULAR. IT IS THE CONTRACTORS RESPONSIBILITY TO CHECK SIZES ON SITE PRIOR TO ORDERING MATERIALS.
All dimensions shown are in millimetres.
No works must begin without ensuring that the stamped approved drawing has been issued, contractor should consult with client or architect to ensure they are working from the approved plan. It is to be noted that insulation u values are carefully calculated and should the contractor change to a suitable alternative it will be their responsibility to prove by calculation that it complies.
Contractors are to liaise with clients for details of all finishes, location and no of power points lights fans etc. required, this drawing is produced solely for the purposes of obtaining planning consent and building warrant approval. Any variation from any builders quotation/contract should be discussed with contractor by client/ie no of power points, light fittings, window styles etc). No deviation to specification, structural or otherwise without confirmation from Architect/ Structural Engineer. No liability will be accepted for any omission on this drawing should the drawing be used for construction purposes. All material to be fitted as per manufacturers recommendations. Prior to any works commencing the contractor is to familiarise himself with the location of all underground or overground services within the site, i.e. gas, electricity, telephone, water, drainage, sewers etc., take full responsibility and liability for same and arrange for any alterations or relocation of services as required. Include for liaison with utility companies as required prior to commencing works.
Contractor to visit site, including all sub-contractors and to liaise with client as required to fully gauge all client requirements prior to commencing works or completing tender. The contractor shall be responsible for all the necessary temporary works to ensure the safety of the existing structure. All temporary works should take cognisance of the age and condition of the existing structure and the effects of the works to be undertaken. The client/contractor shall be responsible for contacting building control/planning to arrange site inspections and following through to completion.
No part of the works shall encroach upon any boundary. Building standards to be given the opportunity to inspect the following areas of work prior to covering up, foundation trenches, drainage connections and insulation details to external walls and ground floor.

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. Electricians 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 downlights with IP rating of 65, dwangs to be fitted around the downlighters in the ceiling to allow the insulation touching the units. All new light fittings are to be of low energy type. Ensure any showers are fitted with anti-scaled valve. Fit pullcord light switch or locate switches outside of WC.

U - VALUES
Walls - 0.17 W/m²K
Floors - 0.15 W/m²K
Roof - 0.12 W/m²K
Windows and doors - 1.4 W/m²K.
velux - 2.1 W/m²K.

1m 2m 3m 4m 5m
2m 4m 6m 8m 10m
4m 8m 12m 16m 20m

Scale 1:50
Scale 1:100
Scale 1:200

Project : Mr Biggins
24 Dalreoch Path
Swinton, G69 6EH
Scale 1:50/1:100/1:200
Date: 11/03/24
Rev
dal/02

Proposed