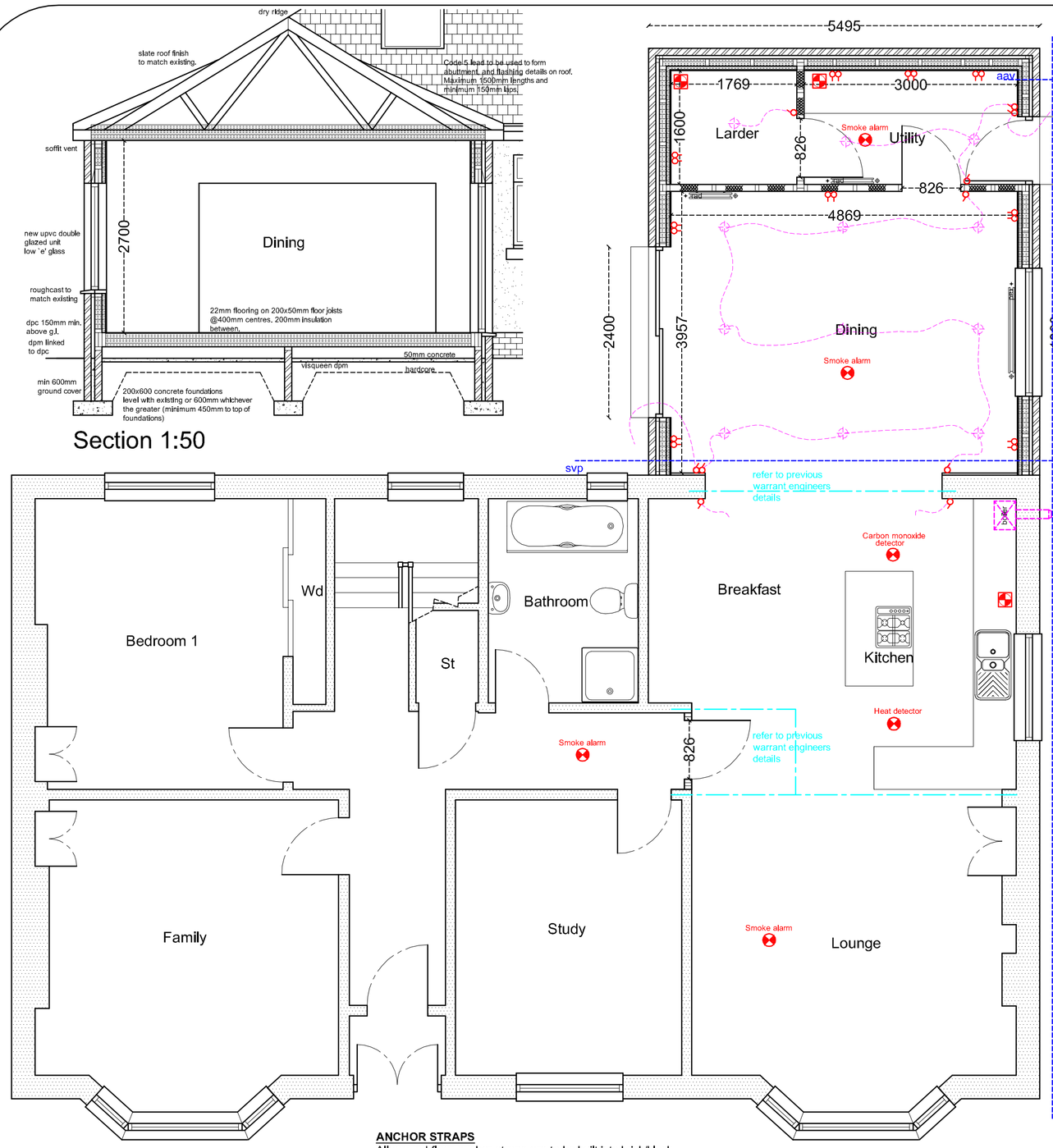
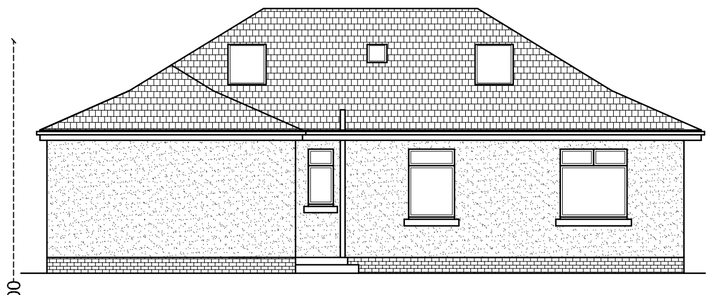
Section 1:50

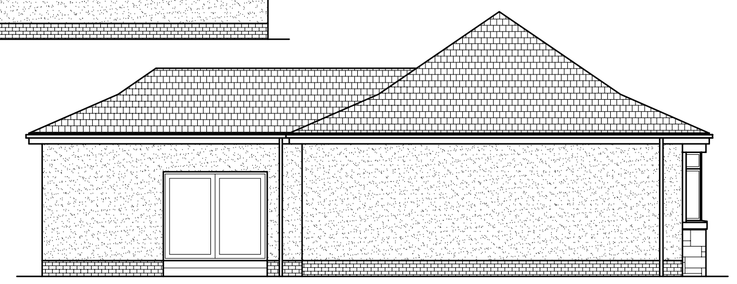


Ground Floor 1:50

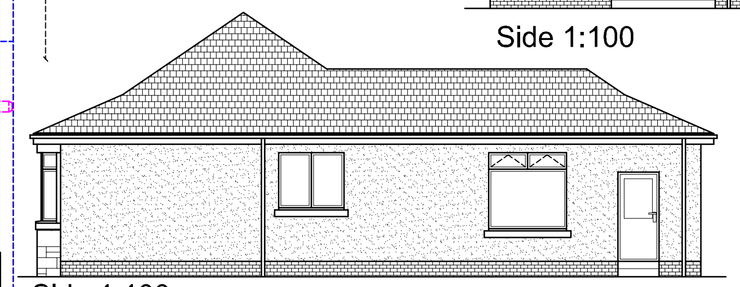


Rear 1:100

Electrical Key	
	13A double switched socket
	Light switch
	light fitting
	Smoke alarm/ heat detector
	Extract fan



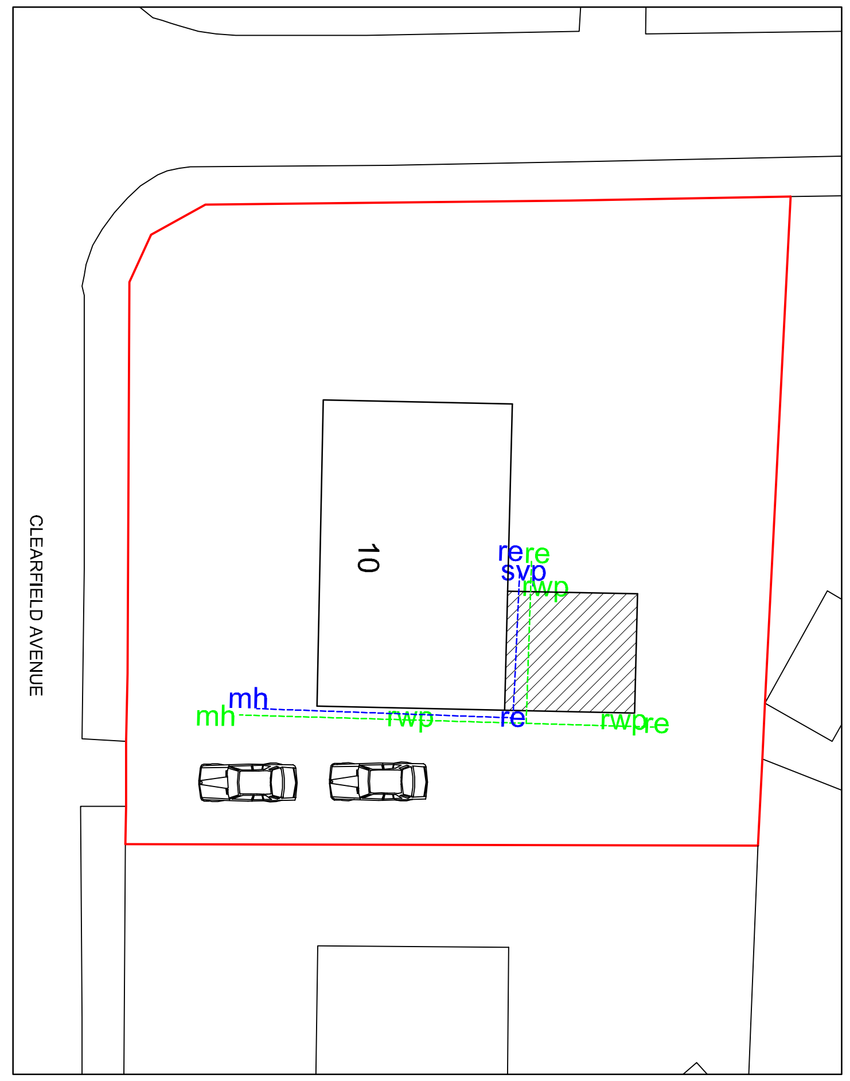
Side 1:100



Side 1:100

Glazing Calculation

Total room area = 27.54m2
25% allowance = 6.88m2 + compensate existing = 3.34m2
total allowance = **10.22m2**
total window area= 2.4x2.05 + 1.8x1.75 + 0.85x2.05 =
10.22m2
therefore glazing complies.



Block Plan 1:200

INTERNAL PARTITION CONSTRUCTION
75x50mm SC3 timber frames @ 600mm centres with 12.5 mm plasterboard (10kg/m2) sheeting finish to both sides, with all joints taped and filled. **75mm rockwool rwa45 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 overlaid with **1 layer of 100mm celotex ga4000 insulation between trusses and 1 layer of 120mm celotex xr4000 insulation cross laid over trusses.**

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 Polythene VCL, 1000 gauge** (joints taped)**on 1 layer 25mm recticel Eurothane GP over timber studs on** 100x50mm C16 treated timber framing @ 600mm centres, with 100x50mm head and sole plates, fit additional 100x50mm dwangs as required for fixing partitions, fit 100x50mm headbinder round of all panels. **Fit 90mm recticel Eurothane GP between timber studs.** 9mm, Exterior Quality OSB (BS10456) to external face of studs. 1 Layer tyvec Breather Membrane (BS5250) stapled to face of osb.

Cavity vents
Air Cavity in external wall to be vented with proprietary plastic perpend vent @ 1200mm centres and firestopped. Perpend vent as follows: 1 row at base of wall, 1 row above and below each horizontal firestops 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 "*Furfix*" 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.

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 8000mm 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.

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. **Electrics 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 firerated downlighters with Ip rating of 65. dwangs to be fitted around the downlighters in the ceiling to avoid the insulation touching the units. All new light fittings are to be of low energy type.

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
Install new smoke alarms as indicated.
Smoke alarms to be ceiling mounted, fitted minimum 300mm from all light fitments, 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, Install heat detector in kitchen **(to be to BS 5446:part2:2003)**. Smoke alarms to be installed within 3000mm of all bedroom doors and within 7000mm of all other apartment doors. Carbon monoxide detector **(to be to BS EN 50291-1:2010)** to be fitted as indicated.

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 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 binder and wall insulation taken to head runner. Insulated plasterboard returned into jamb avoiding spots at jamb.

ROOF
Slates to match existing house fixed in accordance with bs 5534: part 1:1990 and bs 8000:part 6:1990, each slate to be fixed to softwood battens to bs4978: part1:1998 size 25x50mm with 2 copper clout nails at a min headlap of 75mm. Roof trusses pre-manufactured by specialist designed in accordance with BS 5268 (design certificate to be forwarded before this part commences). Wind bracing to BS5268 Appendix A. Roof ventilation provided by continuous soffits vent fitted with anti-insect gauze. plasterboard ceiling. Fit timber or upvc fascia and at eaves, fit deep flow uPVC gutters and deep flow uPVC RWP's.

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.

FLOOR CONSTRUCTION
Floor to be 22mm moisture resistant tongue and groove chipboard flooring (moisture resistant flooring is required to kitchen and bathroom areas) or alternative floor covering as agreed by clients on 200x50mm C16 or better grade timber joists @ 400mm centres on 100x50mm treated timber wallplate on DPC, ensure floor is fully dwanged, 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 netlon between joists.** 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 - 0.11 W/m2K
Windows and doors - 1.4 W/m2K.

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 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 joists are cut or notched. All drainage passing through external walls and sleeper walls to be lintled over and haunched with 150mm pea gravel with rocker 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 from new sinks to be 42mm diameter uPVC, from new RWP'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 manufacturers instructions.
Hot and cold water pipes are to be fully insulated to BS 5422:2009.

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. 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 liasing 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.**

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 blinding 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. Sleeper walls to be fitted with vents to allow through ventilation. Fit fireclay liners to FAIs. 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 at inner 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. All steelwork to be lined with 2 layers 12.5mm gypsum board with staggered joints.

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

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 12000mm2 trickle vents. 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 : 2005. 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. 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 windows 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 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. 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 24:2007 for doors or BS 7950:1997.**

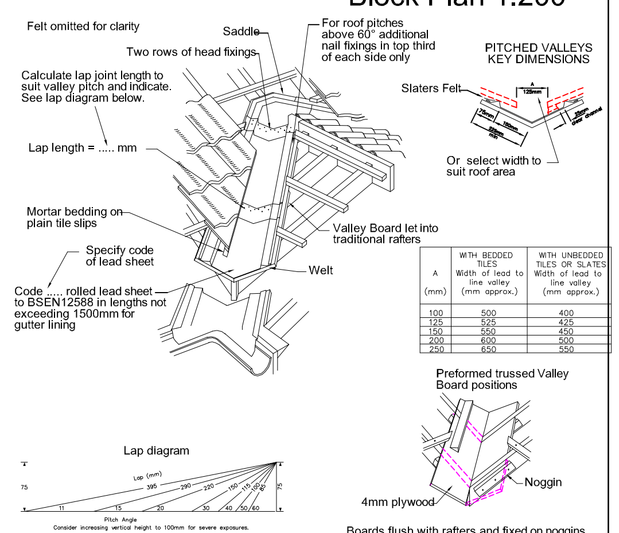
VENTILATION
New kitchen to be provided with a mechanical ventilator, having an intermittent extraction rate of 60 litres/second minimum. New larder/ utility room to be provided with a mechanical ventilator, having an intermittent extraction rate of 30 litres/second minimum. Vent to be ducted to external air source and to be fitted with a vermin proof grille.

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 RC35 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 round 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 two leaves of 100mm thick brickwork with 50mm cavity between. 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 100x50mm 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.

SPECIFICATION AND DESIGN CONSIDERATIONS

- Ensure tilt fillet height is at least equal to top of the batten
- Width of lining pieces will vary depending oncatchment area, see Publication Reference Update 1.
- Gutter linings minimum code 4 in lengths not exceeding 1500mm
- Historic or Listed Buildings minimum of code 5. Where there is a risk that moss and lichen may be present on slates or tiles heavier codes of lead should be specified, ie. code 6 or 7.
- Slaters felt should terminate over the top of the lining pieces at the tilt fillet area.
- Patination oil. Consider use to reduce risks of staining where water from gutter may discharge over surrounding roof materials.



A (mm)	WITH BEDDED TILES Width of lead to line valley (mm approx.)	WITH UNBEDDED TILES OR SLATES Width of lead to line valley (mm approx.)
100	500	400
125	525	420
150	550	450
200	600	500
250	650	550

Valley Detail

1m 2m 3m 4m 5m
Scale 1:50

2m 4m 6m 8m 10m
Scale 1:100

4m 8m 12m 16m 20m
Scale 1:200

Project : Mr & Mrs Wardrope 10 Clearfield Avenue Hamilton, ML3 9BU	Proposed
Scale 1:50/1:100/1:200	
Date: 06/01/21 Rev	cle/02ext