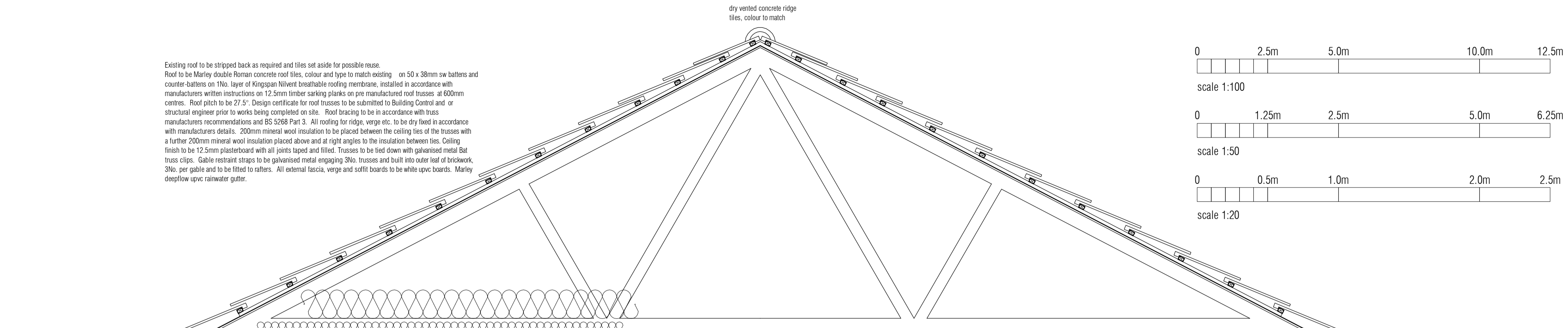
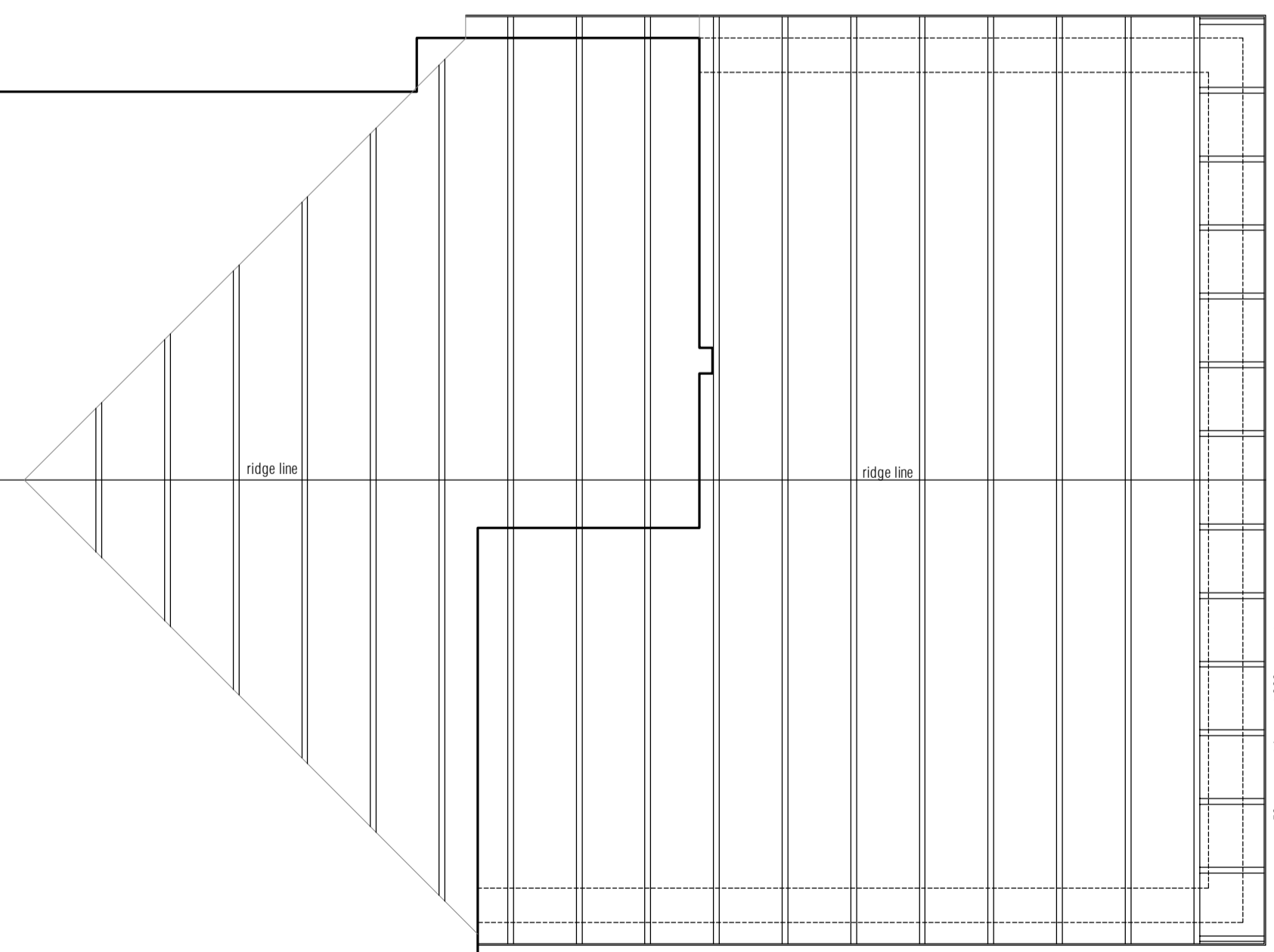
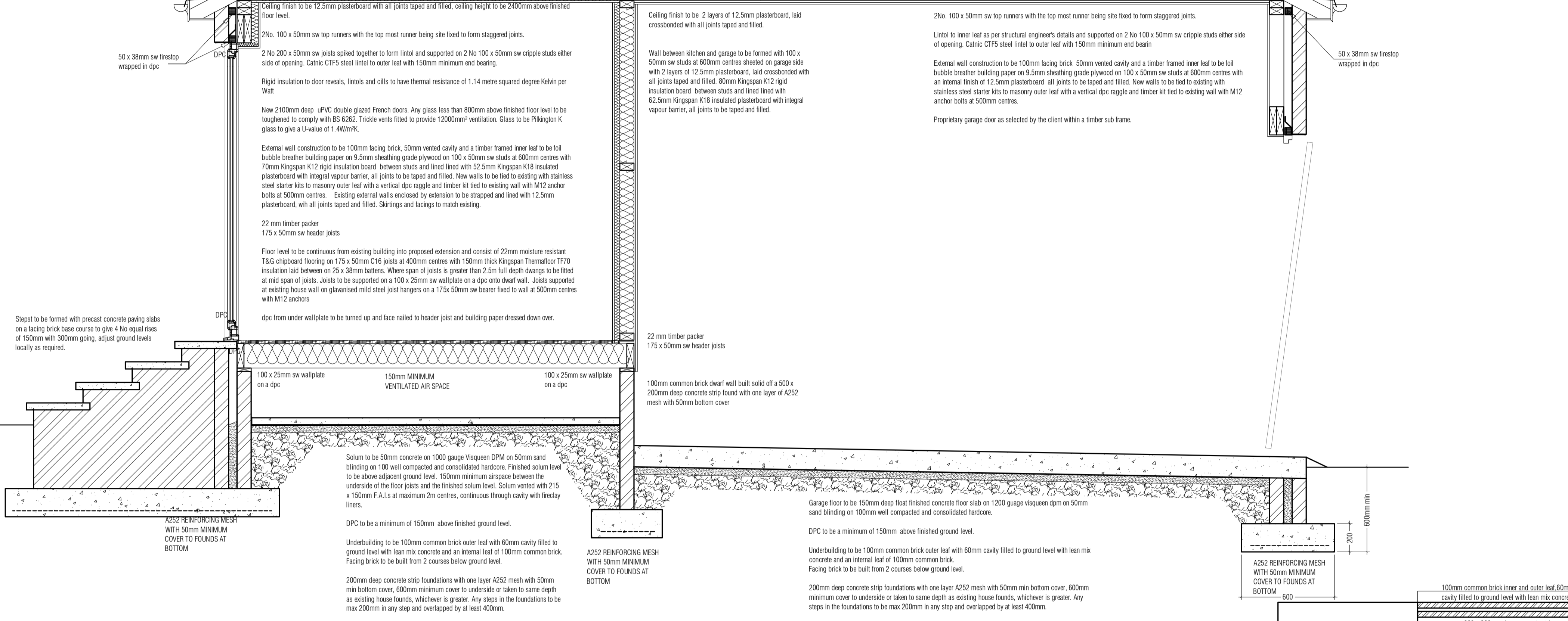


Existing roof to be stripped back as required and tiles set aside for possible reuse. Roof to be Marley double Roman concrete roof tiles, colour and type to match existing on 50 x 38mm sw battens and counter-battens on 1No. layer of Kingspan Nilvent breathable roofing membrane, installed in accordance with manufacturers written instructions on 12.5mm timber sarking planks on pre-manufactured roof trusses at 600mm centres. Roof pitch to be 27.5°. Design certificate for roof trusses to be submitted to Building Control and or structural engineer prior to works being completed on site. Roof bracing to be in accordance with truss manufacturers recommendations and BS 5268 Part 3. All roofing for ridge, verge etc. to be dry fixed in accordance with manufacturers details. 200mm mineral wool insulation to be placed between the ceiling ties of the trusses with a further 200mm mineral wool insulation placed above and at right angles to the insulation between ties. Ceiling finish to be 12.5mm plasterboard with all joints taped and filled. Trusses to be tied down with galvanised metal Bat truss clips. Cable restraint straps to be galvanised metal engaging 3No. trusses and built into outer leaf of brickwork, 3No. per gable and to be fitted to rafters. All external fascia, verge and soffits boards to be white upvc boards. Marley deepflow upvc rainwater gutter.



ROOF CARCASSING PLAN 1:50

PROPOSED SECTION A-A 1:20



FOUNDATION, DRAINAGE AND UNDERBUILDING PLAN 1:50

MAIN SPECIFICATION

**FOUNDATIONS**  
Ground make up and depth of existing foundations to be checked prior to the commencement of any works. All foundations to be on a sub soil with a bearing capacity of 100kN/m<sup>2</sup> with 600mm minimum cover to underside or to same depth as existing house foundations, whichever is greater. Foundations to be 200mm deep concrete strip foundations with one layer A252 mesh with 50mm bottom cover. Concrete to be BS 5250 and to BS 5328. Cement to be Ordinary Portland to BS 12. Aggregates both coarse and fine to be BS 882. Nominal maximum size of aggregate to be 20mm. No concrete to be placed against frozen or frost covered surfaces.

**UNDERBUILDING**  
To be 100mm common brick outer leaf with a 60mm cavity filled to ground level with lean mix concrete and an inner leaf of 100mm thick common brick. All underbuilding to be in good quality common brick. A DPC to be inserted 150mm minimum above finished ground level. New walls tied to existing with stainless steel starter kits. Facing brick to be built from two courses below ground level.

**SOLIM**  
To be 50mm concrete on 1000 gauge Visqueen on 50mm sand blinding on 100mm well compacted and consolidated hardcore. Finished solum level to be above adjacent ground level. 150mm minimum airspace between the underside of the floor joists and the finished solum level. Solum vented with 215 x 150mm F.A.I.s at maximum 2000mm centres, continuous throughout cavity with freclay liners.

**DRAINAGE**  
To cavity walls, cavity courses, firestops, steps and cills to be bituminous felt or PVC to BS 743. All leadwork for flashings, valley gutters etc to be in accordance with BS6915: 2001 FLOOR  
Floor level to be continuous from existing building into proposed extension and consist of 22mm moisture resistant T&G chipboard flooring on 175 x 50mm C16 joists at 400mm centres with 150mm thick Kingspan Thermafloor TF70 insulation laid between on 25 x 38mm battens. Where span of joists is greater than 2.5m full depth dwags to be fitted at mid span of joists.

**GARAGE FLOOR**  
Garage floor to be 150mm deep float finished concrete floor slab on 1200 gauge visqueen dpm on 50mm sand blinding on 100mm well compacted and consolidated hardcore.

**SUPERSTRUCTURE**  
External wall construction to be 100mm facing brick, 50mm vented cavity and a timber framed inner leaf to be foil bubble breather building paper on 9.5mm sheathing grade plywood on 100 x 50mm sw studs at 600mm centres with 70mm Kingspan K12 rigid insulation board between studs and lined lined with 52.5mm Kingspan K18 insulated plasterboard with integral vapour barrier, all joints to be taped and filled. Stainless steel chevron wall ties fixed to slope away from sheathing and nailed with 2No. 50 x 3mm stainless steel ring shank nails. Wall ties fixed at 600mm centres horizontally and 450mm centres vertically, increased locally around door and window openings. Timber frame to have 2No. 100 x 50mm sw top runners with the uppermost top runner to be site fixed and 2No. 100 x 50mm sw bottom runners. Holding down straps to be 1100 x 50 x 3mm galvanised metal straps to every second stud and at every corner. Straps fixed to studs using 5No. 90 x 4mm wide nails. Straps to be built into external leaf of common brick. Firestops to be 50 x 38mm sw timbers wrapped in DPC and positioned around window openings, at every corner, at eaves level and at ceiling and floor levels. Cavity ventilation to be provided at 1200mm centres by perpendicular cavity vents, situated in the brick course below DPC level, at eaves and above and below horizontal cavity barriers. Cavity weep vents at 900mm centres at ground level. New walls to be tied to existing with stainless steel starter kits to masonry outer leaf with a vertical dpc raggle and timber tie inner leaf to existing wall with M12 anchor bolts at 500mm centres. Skirtings and facings to match existing. Wall closest to boundary to be sheathed with 12.5mm plasterboard on inside side of insulated plasterboard, laid crossbanded with all joints taped and filled. No services to be fixed to or contained within cavity wall unless surface mounted.

**INTERNAL PARTITIONS**  
Internal partitions to be formed with 75 x 50mm sw studs at 600mm centres with a minimum 25mm thick mineral wool insulation (minimum density of 10kg/m<sup>3</sup>) laid between studs and lined both sides with 12.5mm plasterboard (minimum mass per unit area 10kg/m<sup>2</sup>), all joints taped and filled. Internal partitions to provide a minimum airborne sound insulation level of 45Rn. Interior quality timber doors to be installed with the requisite ironmongery and to have a minimum clear opening width of 775mm.

**WINDOWS & DOORS**  
Install new uPVC windows / doors with a U-value of 1.4W/m<sup>2</sup>K. A trickle vent to be fitted to the head, capable of providing 1200mm<sup>3</sup> ventilation. Any glass less than 800mm above FFL to be toughened in accordance with BS 6262. New doors and window units to meet the recommendations for physical security as set out in Section 2 of 'Secured by Design' (ACPO, 2008), or to be in accordance with BS PAS 24: 2007 for doors and BS 7950: 1997 for windows. uPVC units to be designed and constructed in accordance with BS 7412: 2007. All external doors to be fitted with laminated glass or a similarly robust glazing material.

**MANUAL CONTROLS - WINDOWS**  
An operable window, ventilator or other ventilator, that provides natural ventilation to meet Standard 3.14, should have controls for unobstructed, positioned at least 350mm from any internal corner, projecting wall or similar obstruction and at a height of: not more than 1.7m above floor level, where access to controls is unobstructed or not more than 1.5m above floor level, where access to controls is limited by a fixed obstruction, not more than 900mm high which projects not more than 600mm in front of the position of the controls, such as a kitchen base unit. Where obstruction is greater, a remote means of opening, in an unobstructed location, should be provided or not more than 1.2m above floor level, in an unobstructed location, within an enhanced apartment (see clause 3.11.2) or within accessible sanitary accommodation (see clause 3.12.3) not provided with mechanical ventilation.

**ROOF**  
Existing roof to be stripped back as required and tiles set aside for possible reuse. Form code S laid valley gutter between new and existing roofs. Roof to be Marley double Roman concrete roof tiles, colour and type to match existing on 50 x 38mm sw battens and counter-battens on 1No. layer of Kingspan Nilvent breathable roofing membrane, installed in accordance with manufacturers written instructions on 12.5mm timber sarking planks on pre-manufactured roof trusses, at 600mm centres. Roof pitch to be 27.5°. Design certificate for roof trusses to be submitted to Building Control and or structural engineer prior to works being completed on site. Roof bracing to be in accordance with truss manufacturers recommendations and BS 5268 Part 3. All roofing for ridge, verge etc. to be dry fixed in accordance with manufacturers details. 200mm mineral wool insulation to be placed between the ceiling ties of the trusses with a further 200mm mineral wool insulation placed above and at right angles to the insulation between ties. Ceiling finish to be 12.5mm plasterboard with all joints taped and filled. Trusses to be tied down with galvanised metal Bat truss clips. Cable restraint straps to be galvanised metal engaging 3No. trusses and built into outer leaf of brickwork, 3No. per gable and to be fitted to rafters. All external fascia, verge and soffits boards to be white upvc boards. Marley deepflow upvc rainwater gutter.

**KITCHEN**  
Kitchen to have a sink with the necessary piped supply of hot and cold water, with the cold water supply being taken direct from the rising main. Final kitchen layout to be to client's specifications. A minimum of one cubic metre of storage to be provided within kitchen area. A mechanical extract fan to be installed in kitchen capable of an extraction rate of 60 litres per second and one air change per hour and ducted to a suitable terminal at external air. Kitchen layout to include an unobstructed manoeuvring space of 1.5m x 1.5m square or an ellipse of 1.4m x 1.8m in front of oven. Kitchen to have 6 x 13amp socket outlets, at least three of which should be located above worktop level in addition to any socket outlets providing for stand alone white goods or built in appliances. A heat alarm to be installed within the kitchen in accordance with BS 5446: Part 2: 2003 and ceiling mounted between 25 mm and 150mm below the ceiling.

**BATHROOM**  
Bathroom to be fitted with the appropriate sanitaryware, and to have the necessary piped supply of hot and cold water. A mechanical extract fan to be installed in bathroom capable of an extraction rate of 15 litres per second and one air change per hour and ducted to a suitable terminal at external air. An activity space of 800 x 1100mm to WC, 700 x 800mm to wash hand basin (wall hung) and 800 x 800mm to shower, clear of door swings to be provided within shower room. 38 and 50mmØ uPVC waste pipe outlets with 75mm deep seal traps to all appliances and 100mmØ uPVC waste pipe from wc connected to air admittance valve with hand hole access and discharged into existing drain via 100mmØ waste pipe. Waste pipe to be laid with a minimum fall of 1 in 40. Shower to be fitted with a TMV capable of restricting the water temperature at point of discharge to 48°C. Walls around shower to be lined with ceramic wall tiles. WC and bath to be fitted with water efficient fittings and average flush volume not more than 4.5 litres for WC and wash hand basin to save flow rate not more than 6 litres per minute. Walls adjacent to shower, wc and bath to be of robust construction. Awaiting accessible bath / shower room to be lined with vinyl with 18mm plywood and lined internally with 12.5mm plasterboard with all joints taped and filled. Sanitary pipework to comply with BS EN 12056-2:2000.

**ELECTRICAL FITTINGS**  
Outlets and controls of electrical fixtures and fittings should be positioned at least 350mm from any internal corner, projecting wall or similar obstruction. Light switches should be positioned between 900 and 1100mm above floor level. Standard switched or unswitched sockets should be positioned at least 400mm above floor level and 150mm above the projecting surface such as a worktop obstruction. Where sockets are concealed, separate switching to be provided in an accessible position to allow appliances to be isolated. New light fittings to be of low energy type.

**GENERAL**  
Sanitary pipework to comply with BS EN 12056-2:2000. External waste water drainage to comply with BS EN 12056-1:2000, BS EN 752:2008 and BS EN 1610: 1998. Surface water drainage to comply with BS EN 12056-3: 2000. Radiators to be fitted with a thermostatic radiator control valve. At door jambs proprietary insulated cavity closure and a vertical DPC inserted. All finishes to be made good on completion of works.

**U-VALUES (pre-1983 dwelling)**  

Roof	0.11 W/m <sup>2</sup> K
Glazing	1.4 W/m <sup>2</sup> K
Floor	0.15 W/m <sup>2</sup> K
Walls	0.17 W/m <sup>2</sup> K

U-VALUES (pre-1983 dwelling)

Roof	0.11 W/m <sup>2</sup> K
Glazing	1.4 W/m <sup>2</sup> K
Floor	0.15 W/m <sup>2</sup> K
Walls	0.17 W/m <sup>2</sup> K

FAI

215 x 150mm fresh air inlet with freclay cavity liner.

FOUNDATIONS

Minimum front cover to underside of foundations to be 600mm. Foundations to be 200mm deep concrete strip foundations with one layer A252 mesh with 50mm bottom cover and taken to the same depth as existing house foundations. Any steps in the foundations to be max 200mm in any step and overlapped by at least 400mm.

UNDERBUILDING

To be 100mm common brick outer leaf with a 60mm cavity filled to ground level with lean mix concrete and an inner leaf of 215mm thick common brick. All underbuilding to be in good quality common brickwork. A DPC to be inserted 150mm minimum above finished ground level. Dwarf walls to be built solid.

SOLIM

To be 50mm concrete on 1000 gauge Visqueen on 50mm sand blinding on 100mm well compacted and consolidated hardcore. Finished solum level to be above adjacent ground level. 150mm minimum airspace between the underside of the floor joists and the finished solum level. Solum vented with 215 x 150mm F.A.I.s at maximum 2000mm centres, continuous throughout cavity with freclay liners.

DRAINAGE

75mmØ uPVC rainwater downpipes to be trapped at base and connected to existing drainage as shown. Undergound drainage to be 100mmØ uPVC drains laid to a fall of 1 in 40 and bedded in pea gravel. Any drainage passing through the underbuilding to have 100 x 65mm deep pre-stressed concrete linings installed in brickwork directly over run of drains. Manholes and inspection chambers to comply with BS 6001. If any drainage is found on site to be running under extensions, pipe to be exposed, inspected and protected to satisfaction of Building Standards. 100 x 65mm deep pre-stressed concrete linings inserted in underbuilding above lines of drainage. Should it be discovered that the drainage on site is sewer then the works to be stopped until such time as the appropriate consent from Scottish Water has been granted.

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THOSE PREPARED BY THE STRUCTURAL ENGINEER WITH THEIR DRAWINGS TAKING PRECEDENCE IN ALL STRUCTURAL MATTERS.

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**PROJECT DETAILS:**  
Proposed single storey extension at 12 Whyte Avenue, Irvine for Mr & Mrs Julius

**PROJECT REFERENCE:**  
Julius 2123

DATE:	SCALE:	PAPER SIZE:	DRAWN BY:	DRG No:
Feb 2022	as shown	A1	AMC	02

**REVISIONS:**

ALL DIMENSIONS IN MILLIMETRES.  
ALL MATERIALS AND WORKMANSHIP TO BE THE BEST OF THEIR RELEVANT KIND AND COMPLY WITH ALL BRITISH STANDARDS AND CODES OF PRACTICE.  
ALL ELECTRICAL WORK TO COMPLY WITH B.S. 7671: 2008 AND TO BE CARRIED OUT BY A SELECT OR NICEIC APPROVED ELECTRICIAN.  
ALL WORK TO COMPLY WITH THE BUILDING STANDARDS (SCOTLAND) REGULATIONS 2004 AS AMENDED.  
ALL DRAINAGE TO BE TO THE SATISFACTION OF THE BUILDING CONTROL DEPARTMENT.  
BUILDING CONTROL TO BE NOTIFIED 24 HOURS BEFORE WORK COMMENCES AND WITHIN 2 WEEKS OF COMPLETION OF THE WORKS.  
DO NOT SCALE FROM DRAWINGS. IF IN DOUBT ASK.  
ALL DIMENSIONS, LEVELS AND PITCHES TO BE CHECKED ON SITE PRIOR TO THE ORDERING OF ANY MATERIALS, FABRICATION OF ANY UNITS AND COMMENCEMENT OF ANY WORKS.  
CONTRACTOR IS DEEMED TO HAVE VISITED THE SITE TO ASCERTAIN THE FULL EXTENT OF THE WORKS.  
ALL DRAWINGS AND DESIGNS REMAIN THE PROPERTY OF AYRSHIRE ARCHITECTURE AND MAY NOT BE STORED OR REPRODUCED IN ANY FORM WITHOUT THE PRIOR WRITTEN CONSENT OF AYRSHIRE ARCHITECTURE.  
ANY DISCREPANCIES AND MISSING INFORMATION MUST BE IMMEDIATELY NOTIFIED WRITING TO AYRSHIRE ARCHITECTURE.  
ALL DRAWINGS MUST BE READ IN ACCORDANCE WITH ALL THE OTHER DRAWINGS PREPARED FOR THIS PROJECT