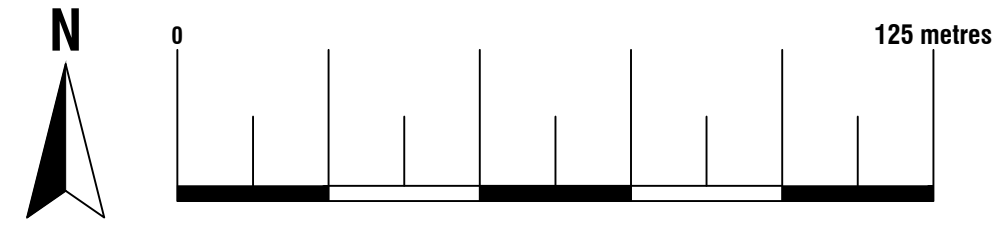
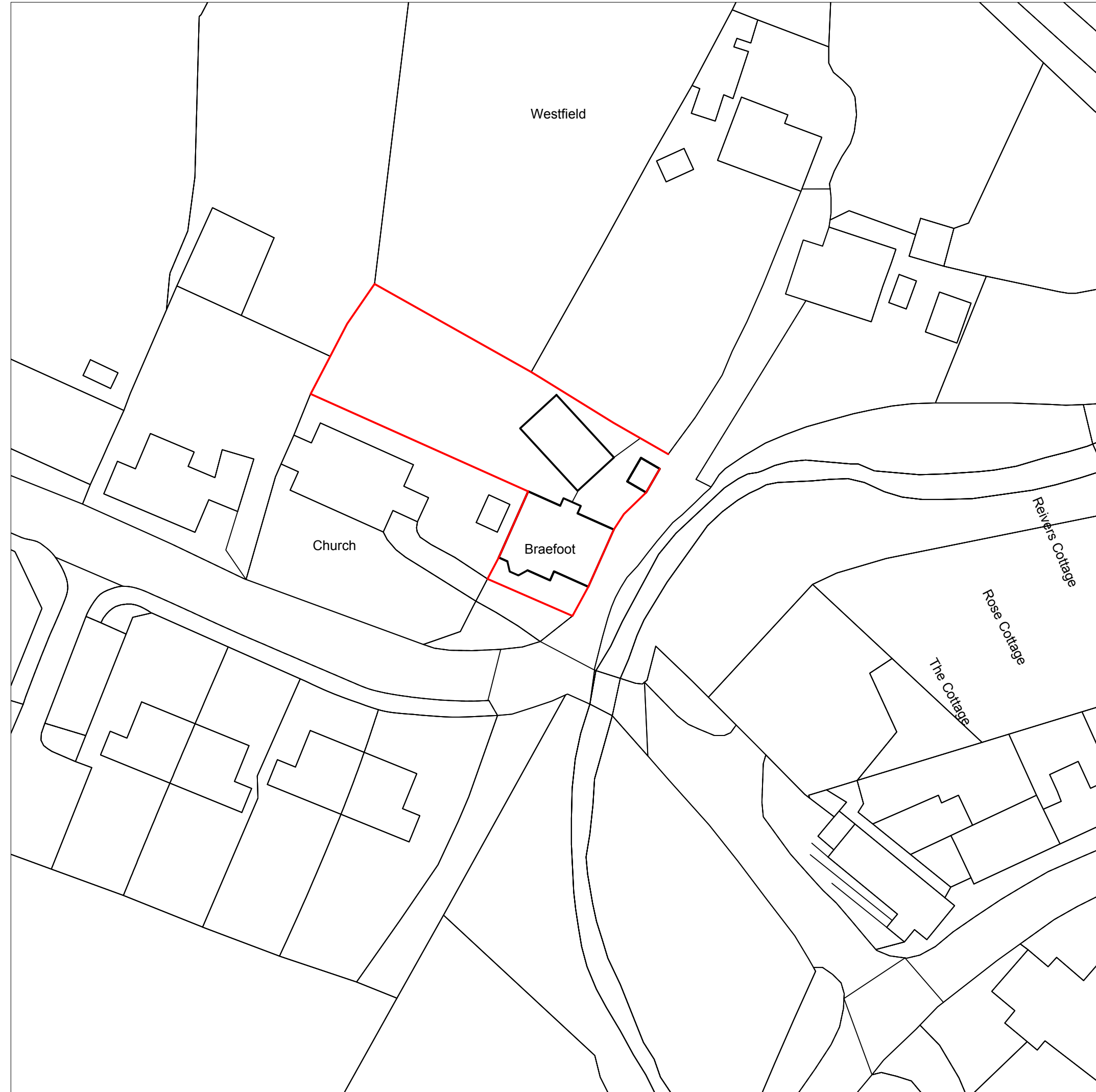


**Location Plan**

Scale 1:1250



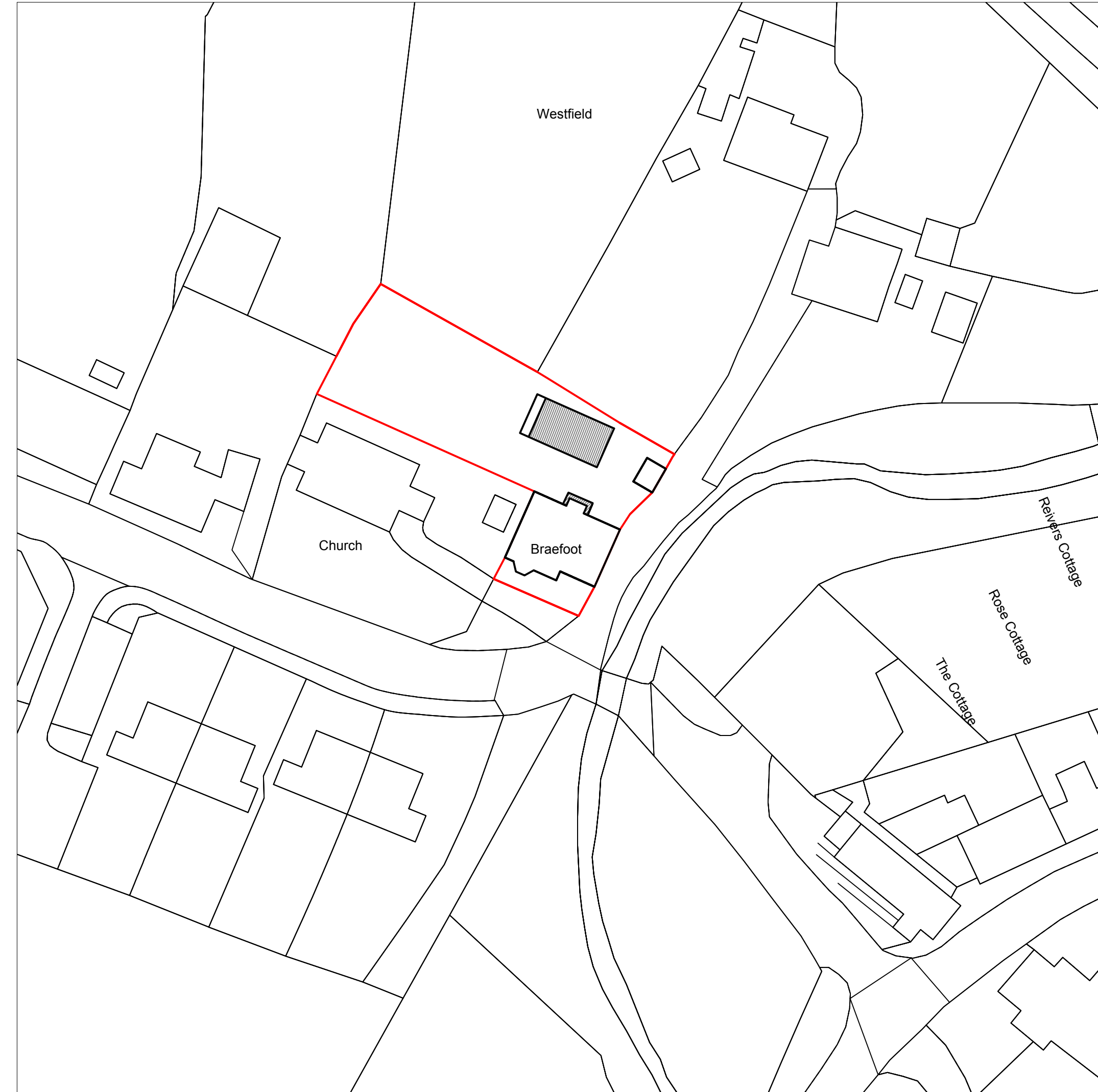
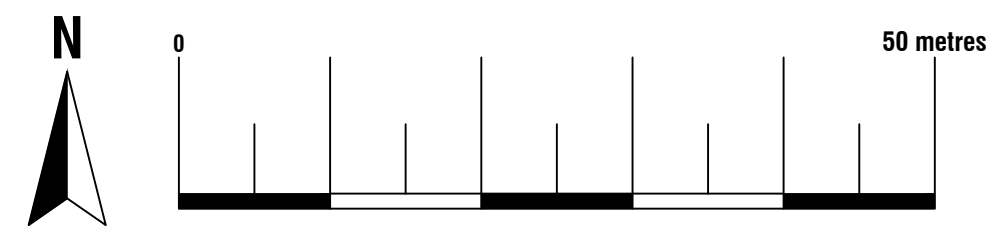
Licence No: 100047474



**Existing Block Plan**

Scale 1:500

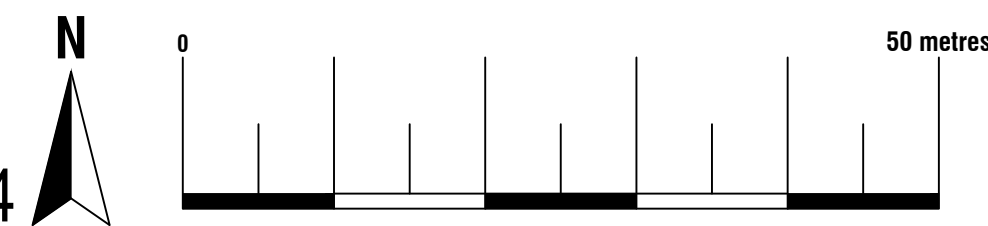
Licence No: 100047474



**Proposed Block Plan**

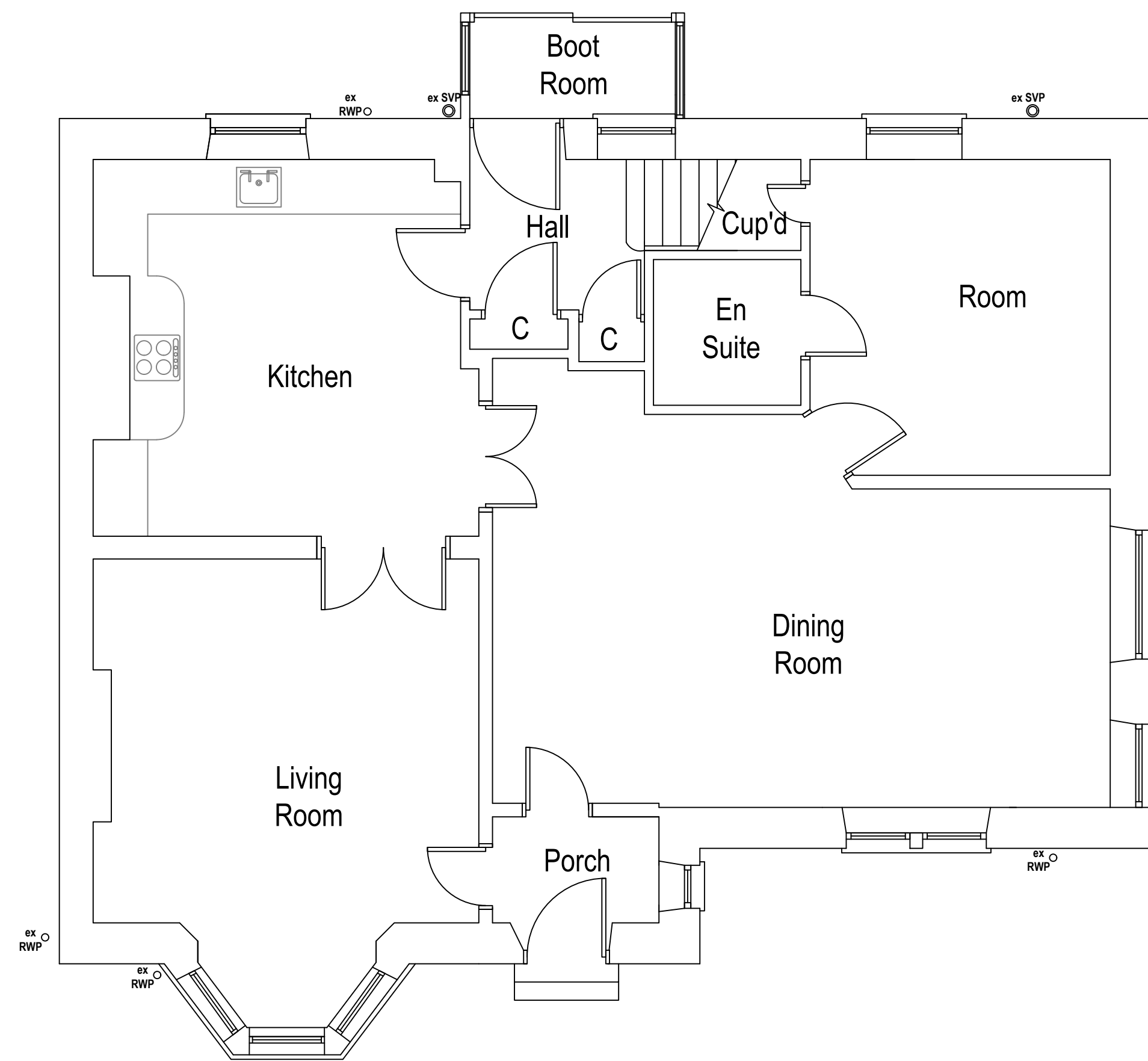
Scale 1:500

Licence No: 100047474

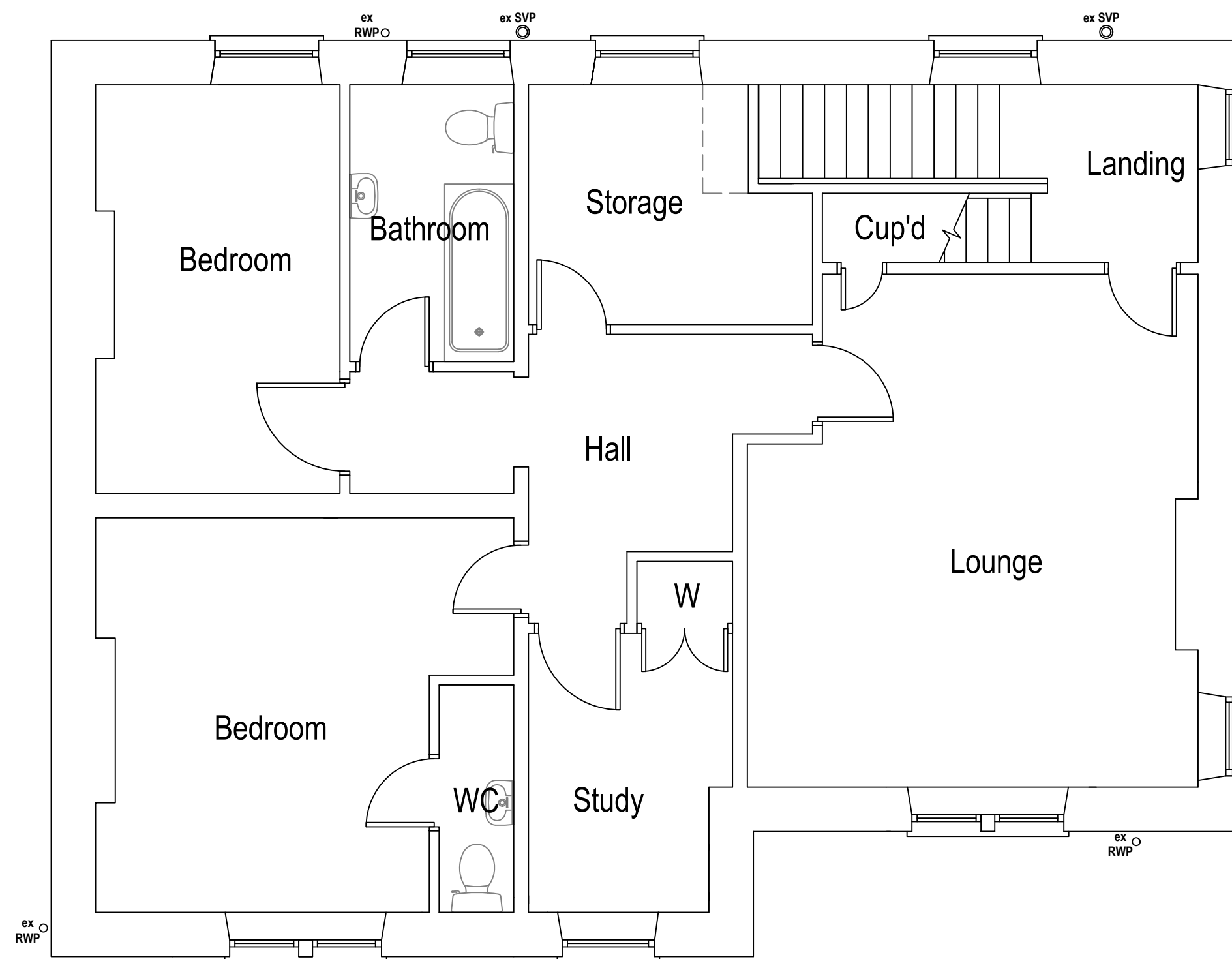


74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

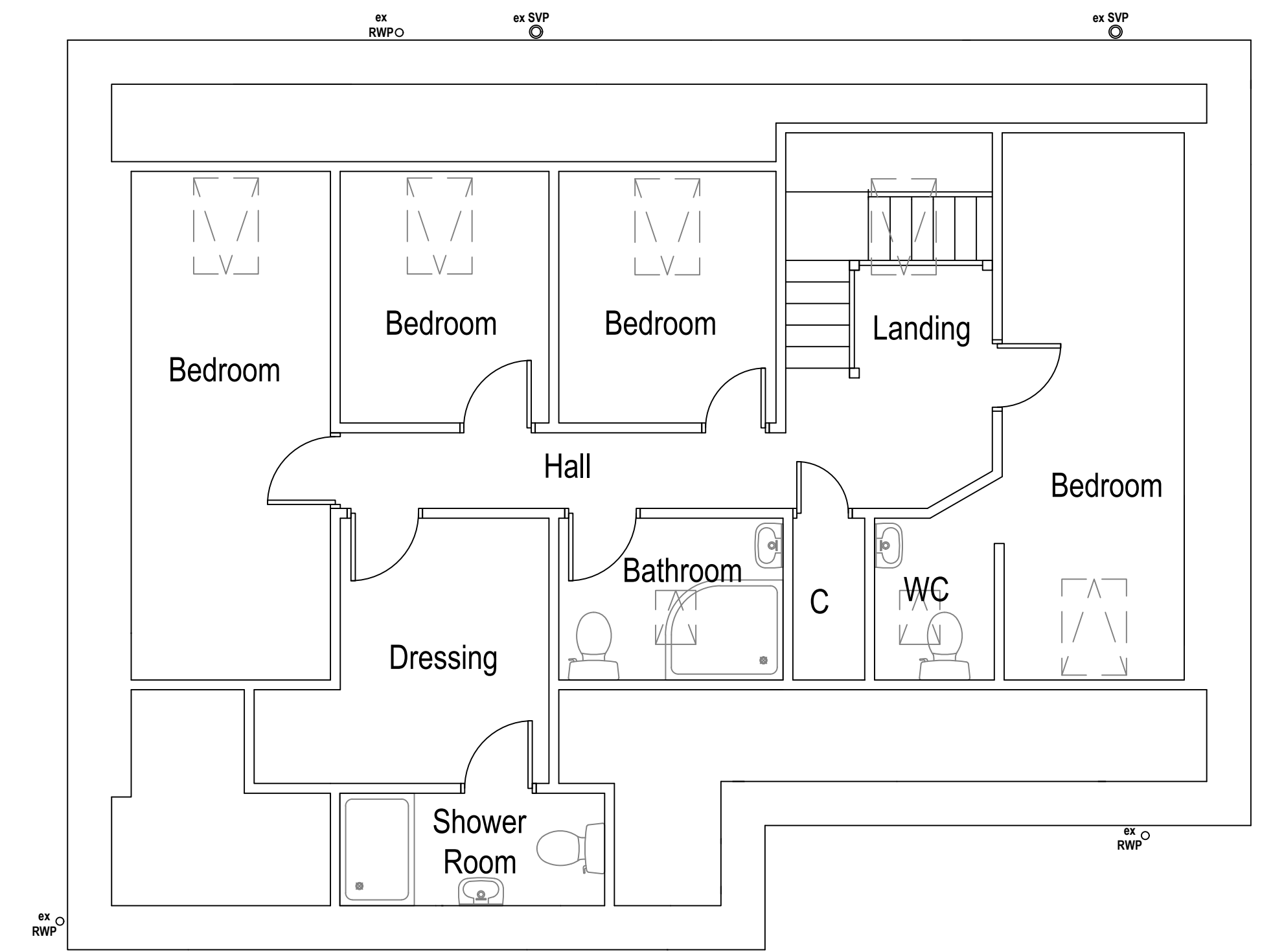
<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D01 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown



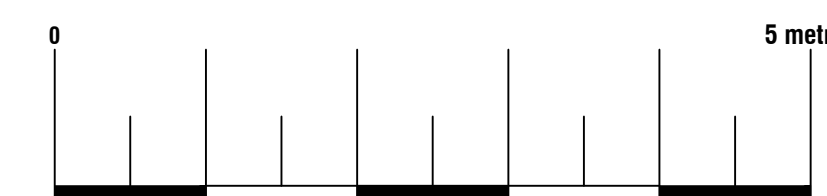
**Existing Ground Floor Plan**  
Scale 1:50



**Existing First Floor Plan**  
Scale 1:50



**Existing Second Floor Plan**  
Scale 1:50



**Arkiplan**  
74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D02 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown



**Existing South Elevation**  
Scale 1:50



**Existing East Elevation**  
Scale 1:50



**Arkiplan**

74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D03 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown

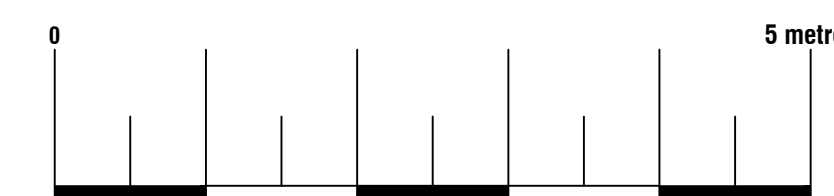




**Existing North Elevation**  
Scale 1:50



**Existing West Elevation**  
Scale 1:50

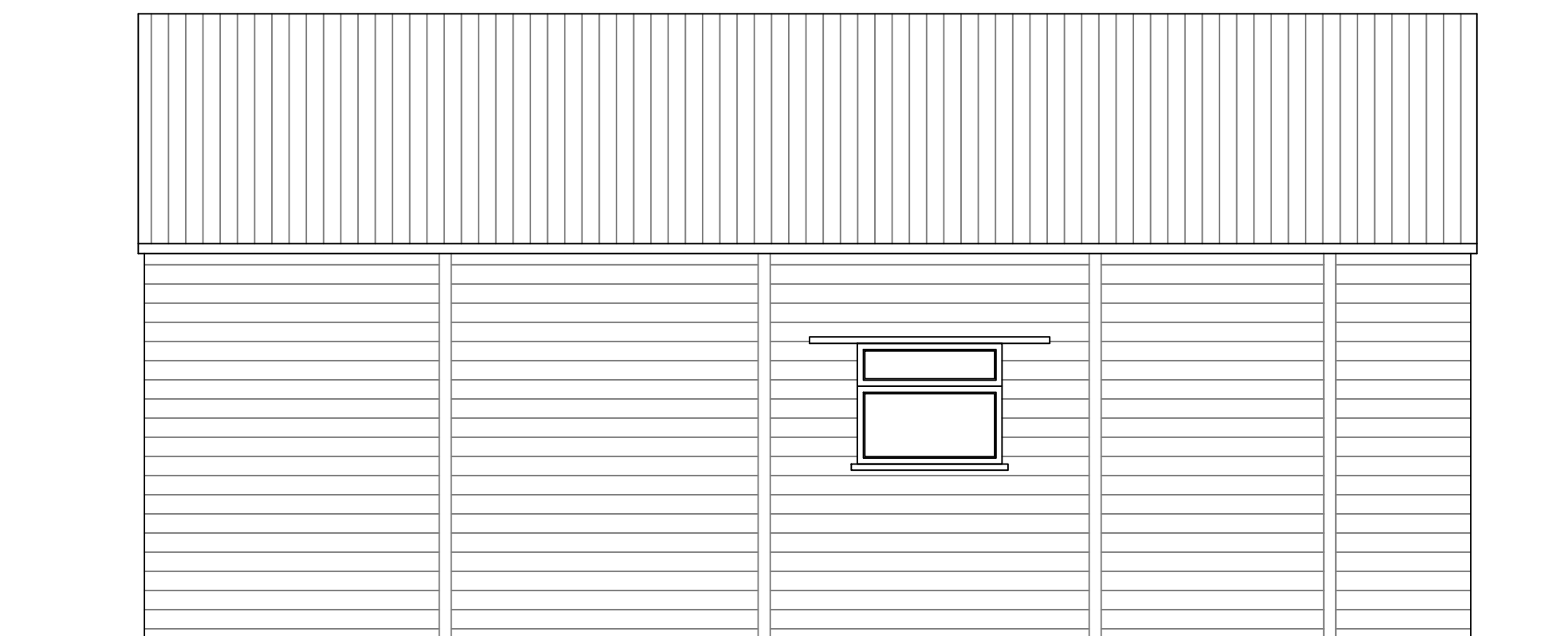


**Arkiplan**  
74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

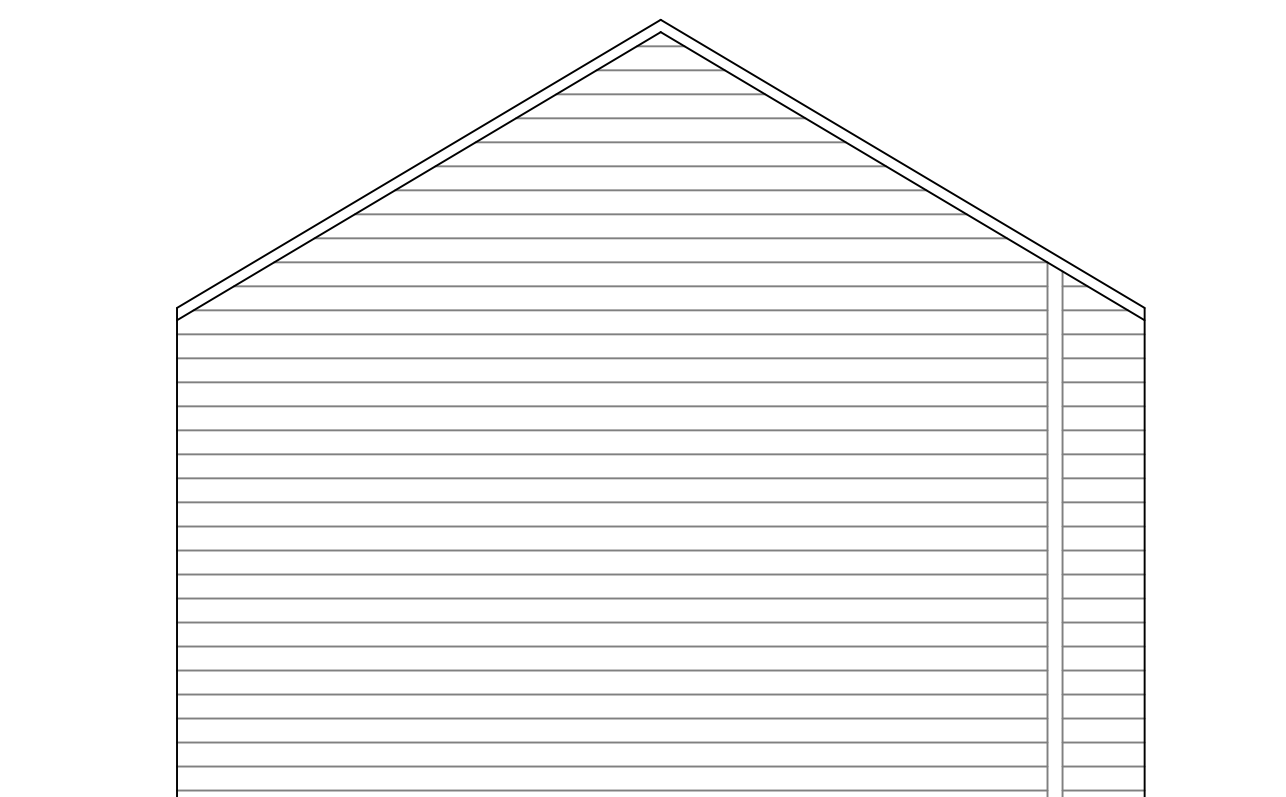
<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D04 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown



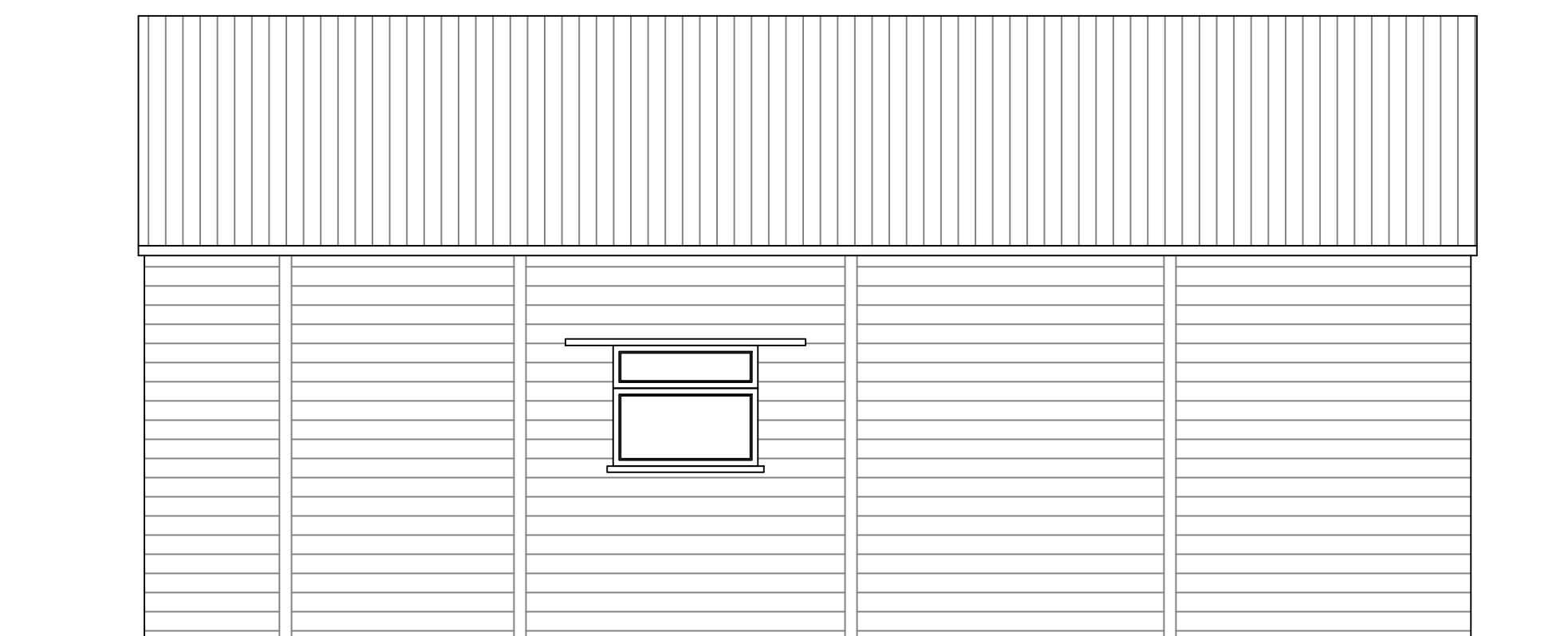
**Existing Outbuilding Southeast Elevation**  
Scale 1:50



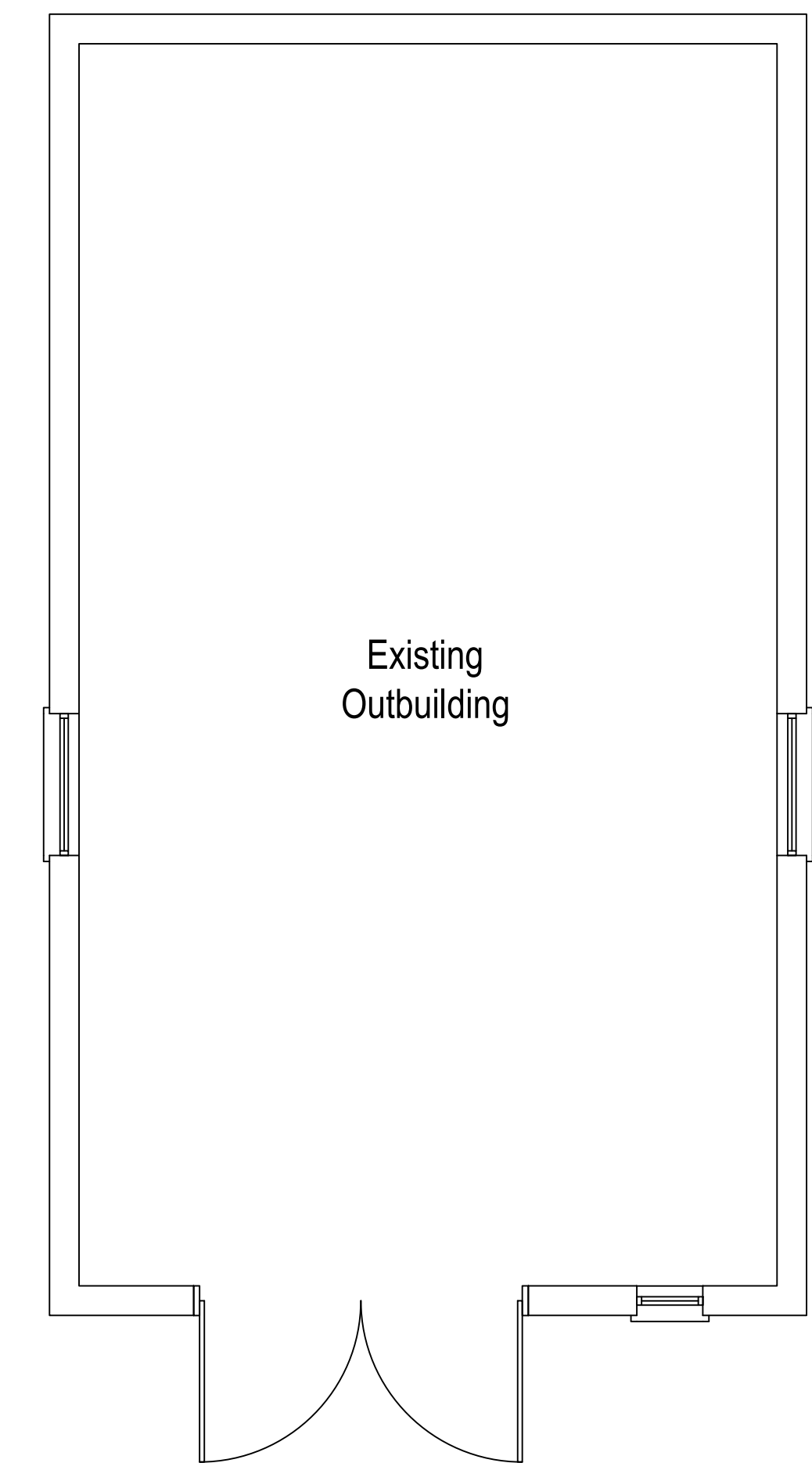
**Existing Outbuilding Southwest Elevation**  
Scale 1:50



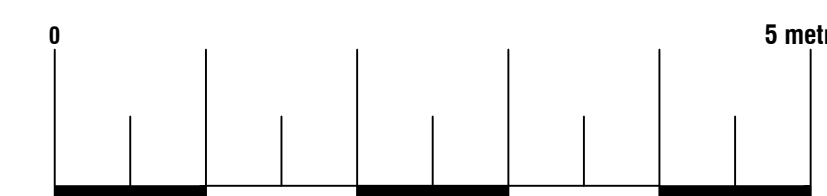
**Existing Outbuilding Northwest Elevation**  
Scale 1:50



**Existing Outbuilding Northeast Elevation**  
Scale 1:50



**Existing Outbuilding Ground Floor Plan**  
Scale 1:50



**Arkiplan**  
74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D05 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown



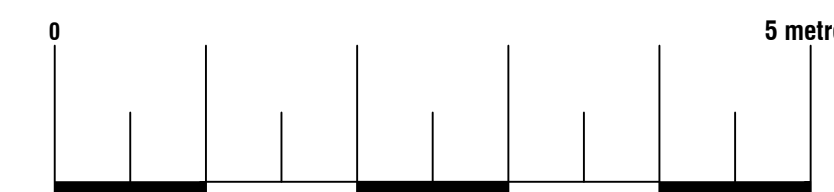




**Proposed South Elevation**  
Scale 1:50



**Proposed East Elevation**  
Scale 1:50

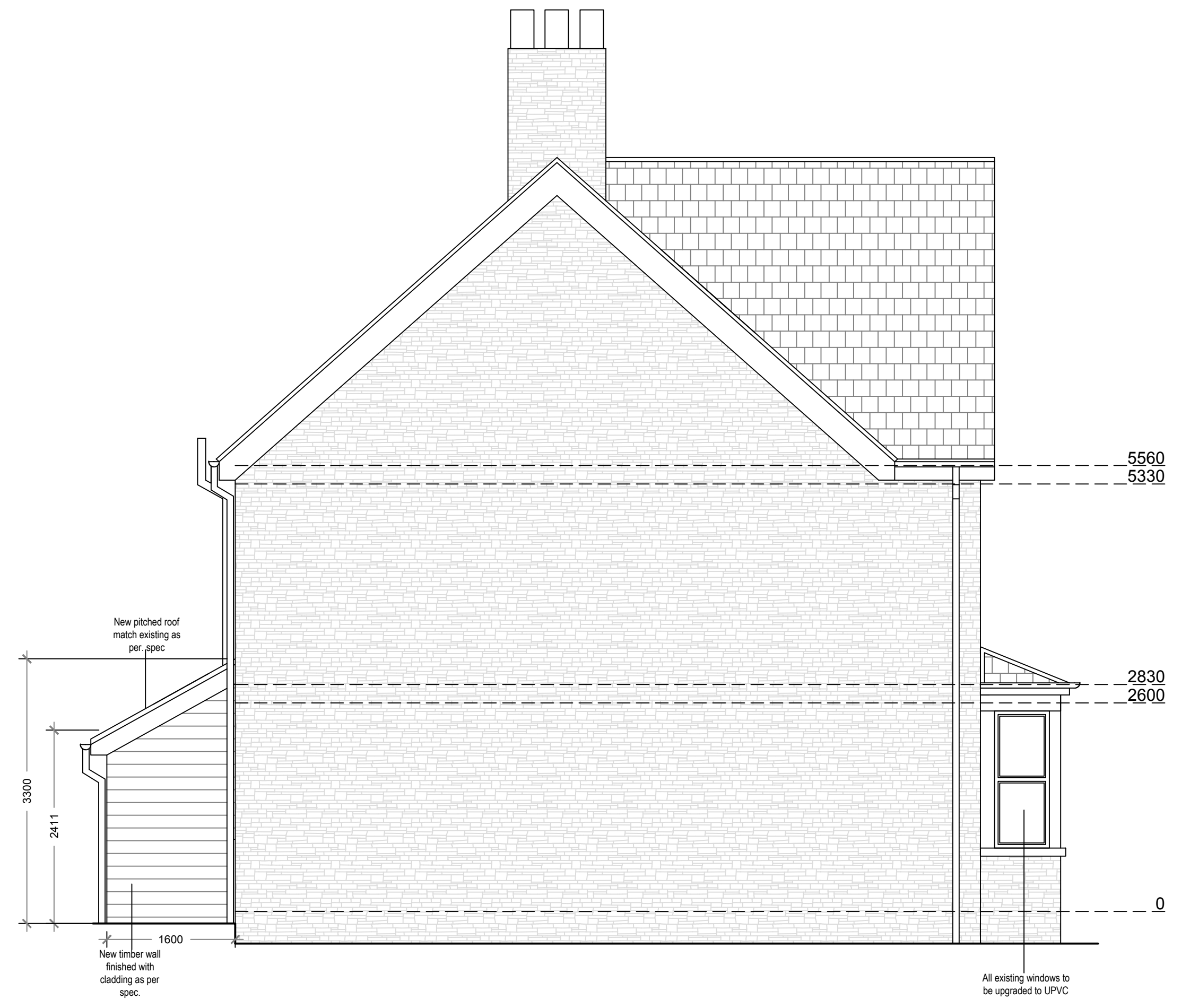


**Arkiplan**  
74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

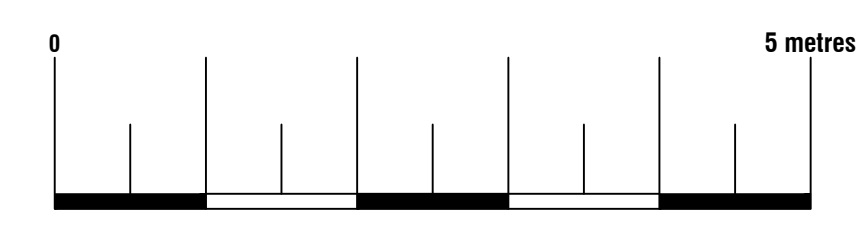
<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D07 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown



**Proposed North Elevation**  
Scale 1:50



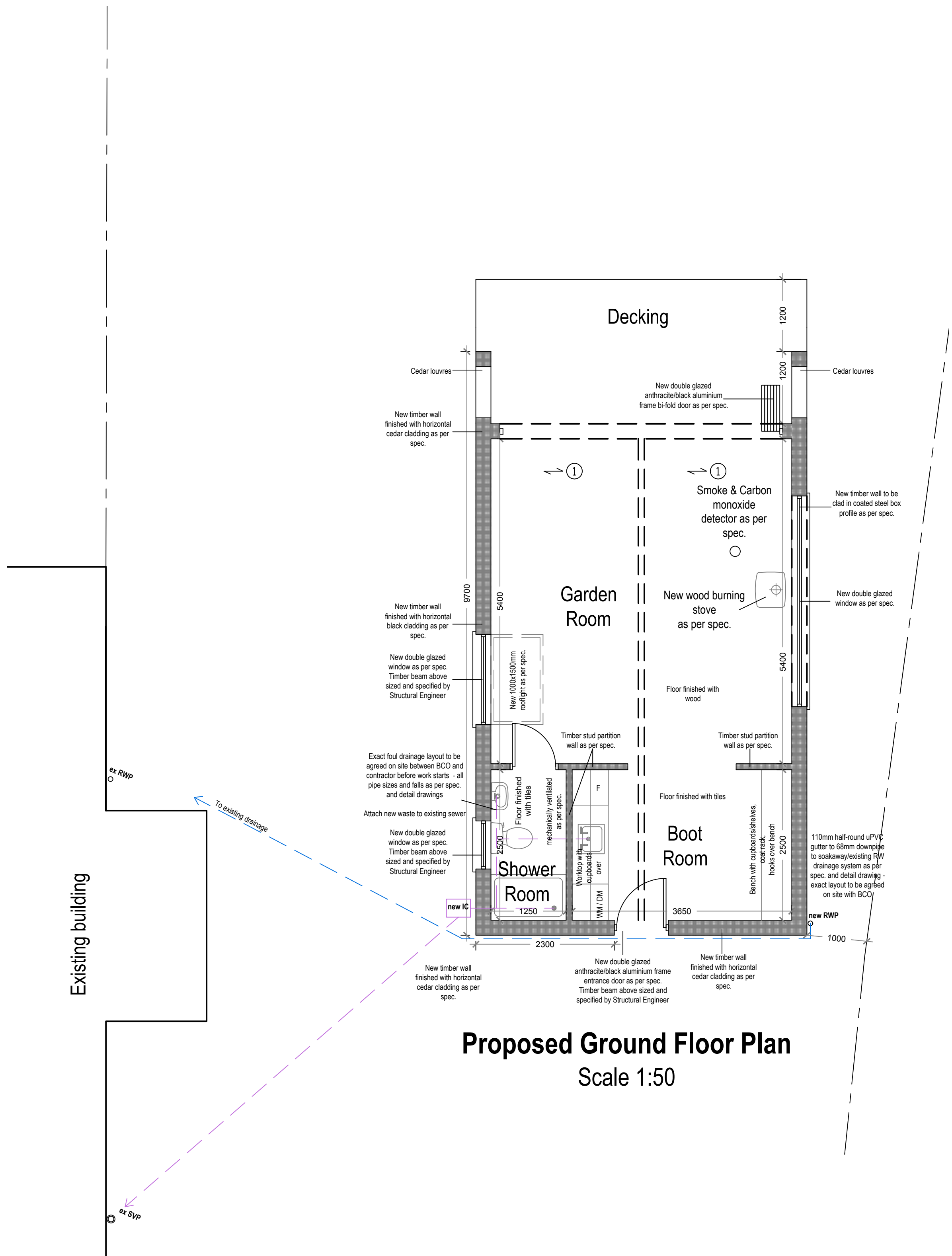
**Proposed West Elevation**  
Scale 1:50



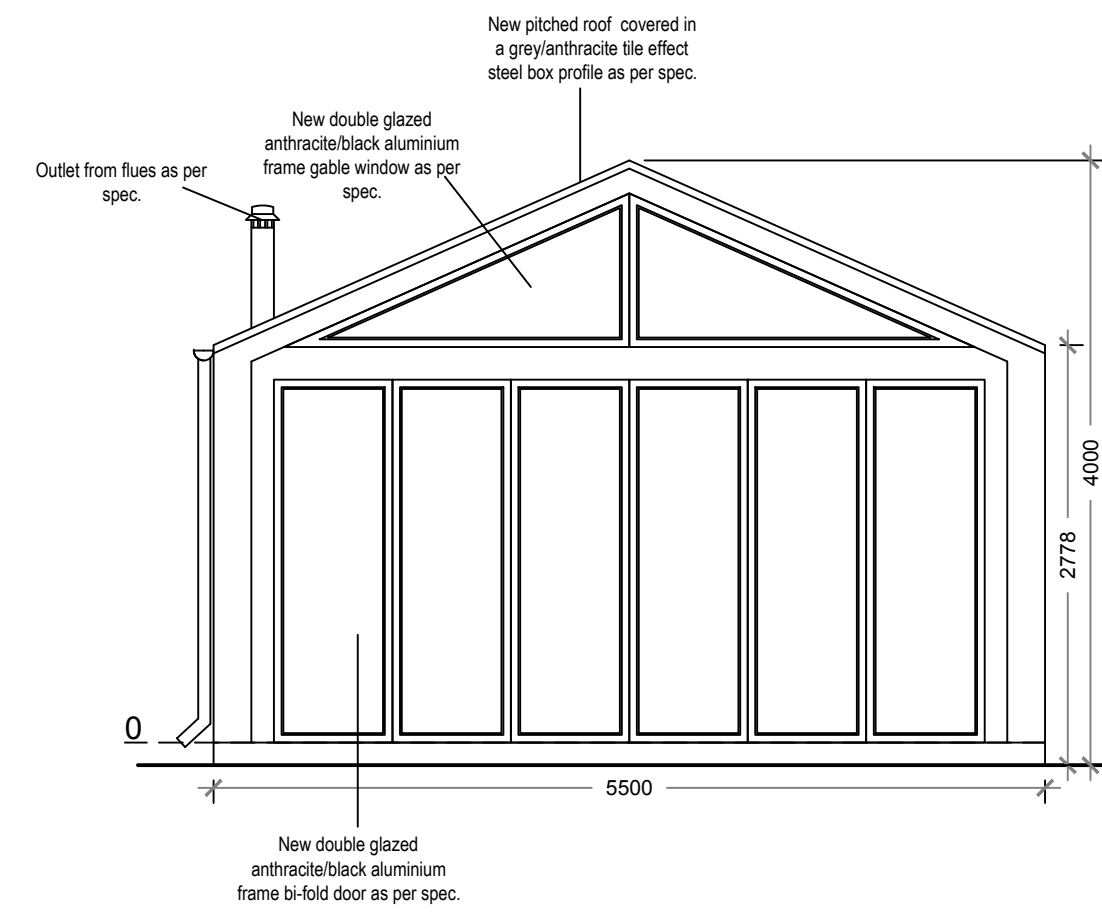
**Arkiplan**  
74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D08 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown

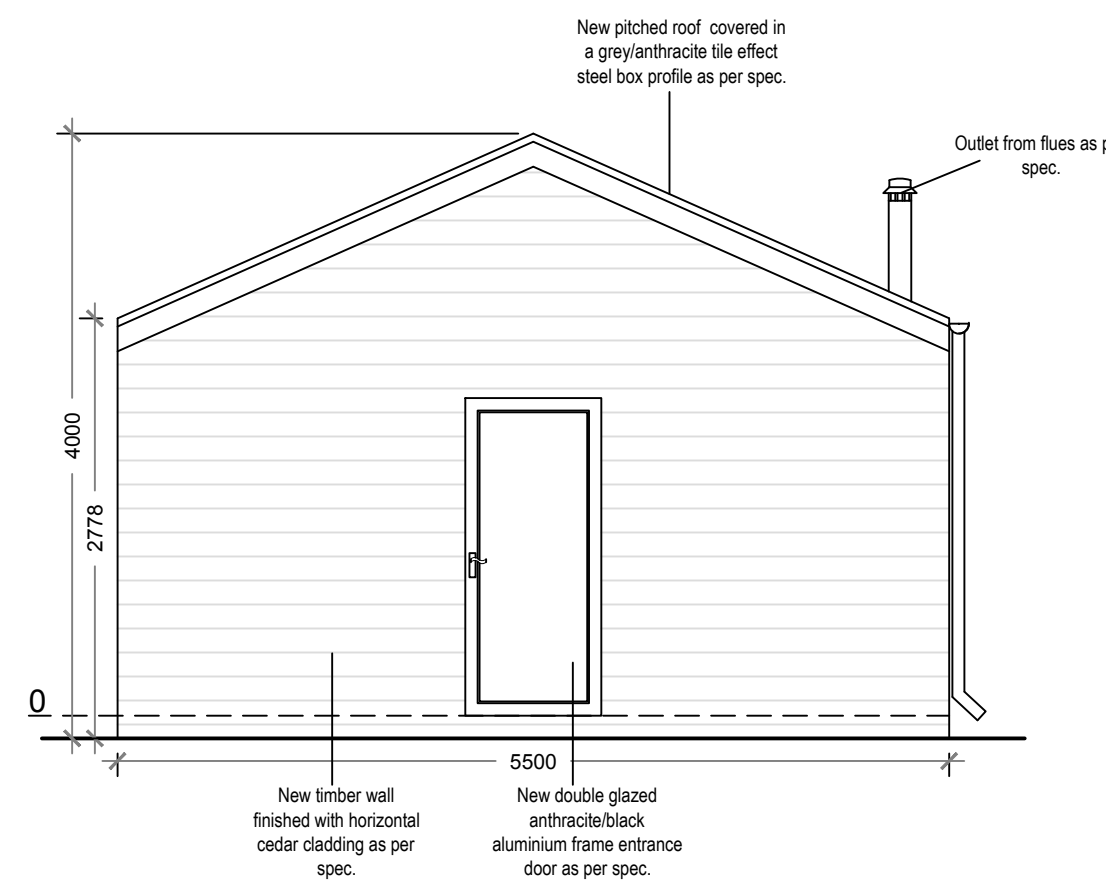




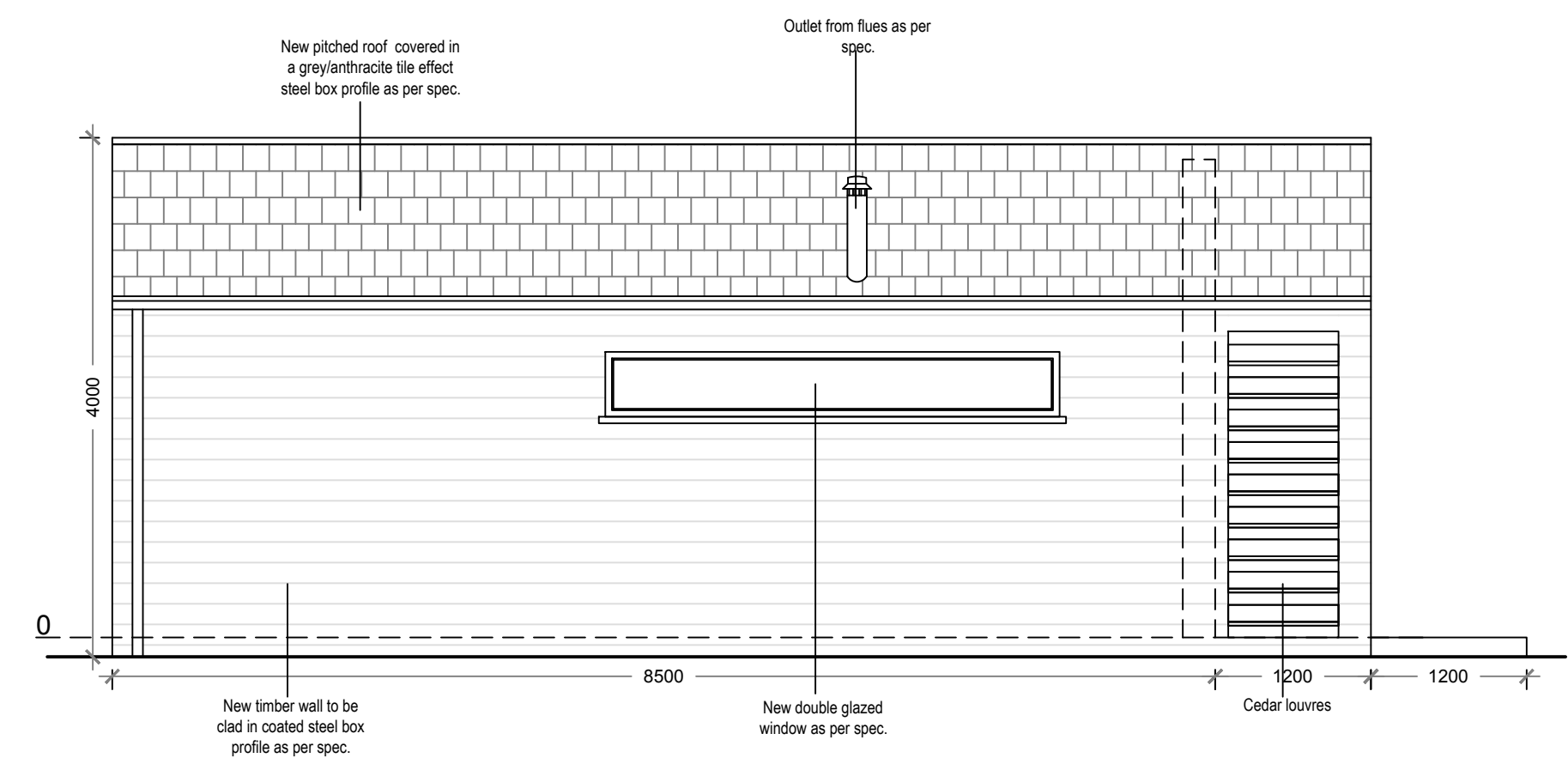
**Proposed Ground Floor Plan**  
Scale 1:50



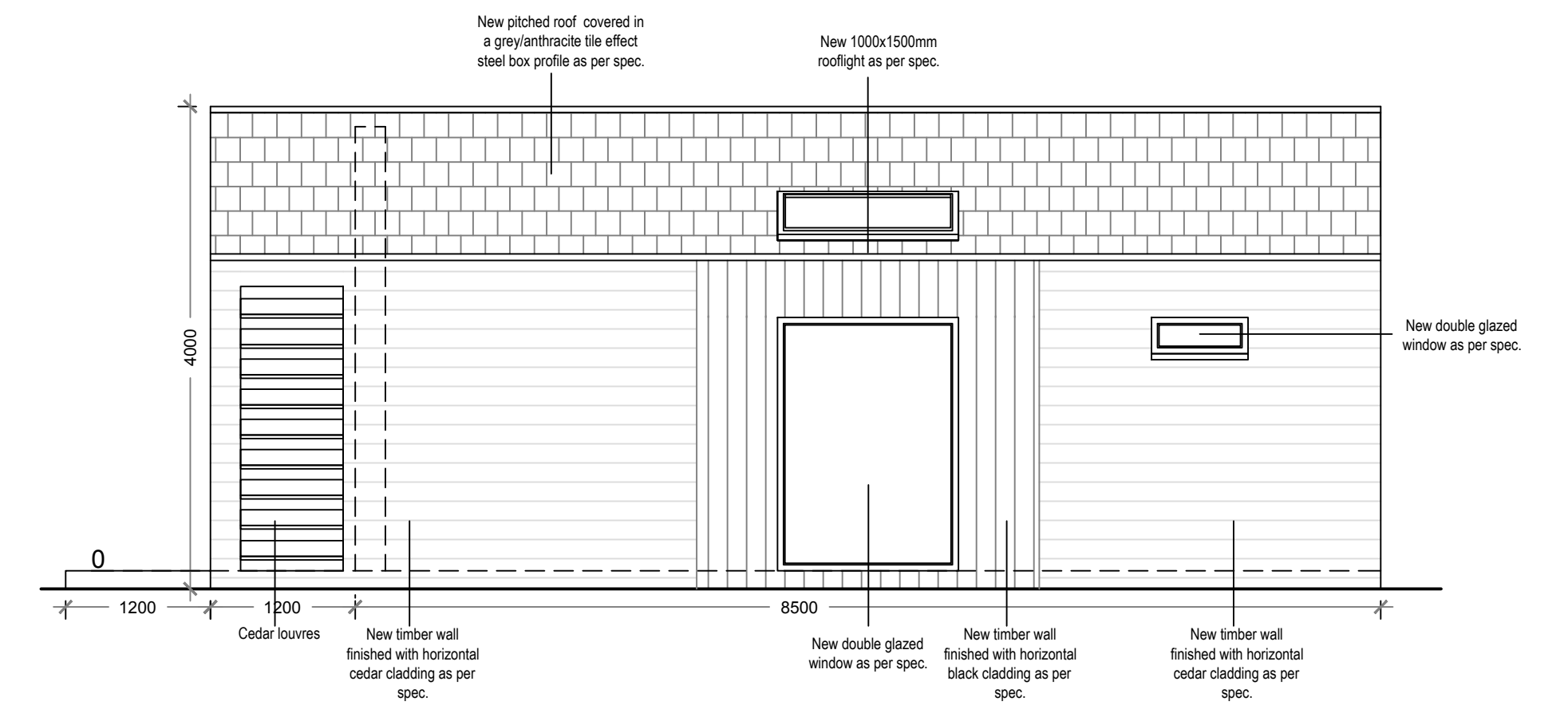
**Proposed Northwest Elevation**  
Scale 1:50



**Proposed Southeast Elevation**  
Scale 1:50



**Proposed Northeast Elevation**  
Scale 1:50

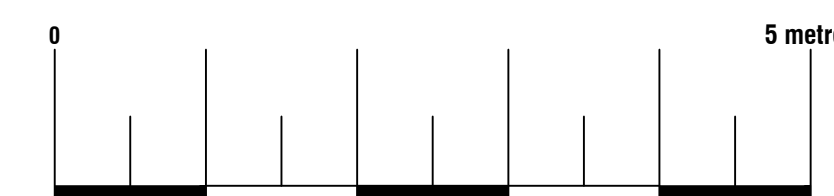


**Proposed Southwest Elevation**  
Scale 1:50

**Symbol Key:**

- Boundary line
  - Rainwater drainage layout
  - Waste drainage layout
  - Details above
  - timber/steel beam above sized and specified by Structural Engineer - fire proofed as per spec. and detail drawing
- ① 47 x 150mm C24 rafters above as per spec. and detail drawing @ 400mm crs

Parts of this project require new structural steelwork. Client to engage a Structural Engineer to provide the necessary calculations and beam sizes/connections to satisfy Building Control Officer requirements.



**Arkiplan**  
74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D09 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	As Shown



**EXTENSION BUILDING REGULATIONS NOTES**

**SITE PREPARATION**

Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc. on or in the ground covered, or to be covered by the building.

**THERMAL BRIDGING**

Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

**MATERIALS AND WORKMANSHIP**

All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification Schemes (Kitemark) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

**EXISTING STRUCTURE**

Existing structure including foundations, beams, walls and linings carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

**ELECTRICAL**

All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BS1, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.

**INTERNAL LIGHTING**

Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lumens. Not less than three energy efficient light fittings per room for all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide.

**HEATING**

Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.

**OPENINGS AND RETURNS**

An opening or recess greater than 0.1m<sup>2</sup> shall be at least 550mm from the supported wall (measured internally) construction for peat less than 550mm to be specified by engineer.

**ESCAPE WINDOWS**

Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed operable area of 450mm high x 450mm wide, minimum 0.3m sq. The bottom of the operable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.

**SAFETY GLAZING**

All glazing in critical locations is to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

**NEW AND REPLACEMENT WINDOWS**

New and replacement windows to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better and to achieve a U-value of 1.6 W/m<sup>2</sup>K. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension.

**NEW AND REPLACEMENT DOORS**

New and replacement doors to achieve a U-Value of 1.80W/m<sup>2</sup>K. Glazed areas to be double glazed with 16mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations.

**BACKGROUND AND PURGE VENTILATION**

Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided to new habitable rooms at a rate of min 5000mm<sup>2</sup>, and to kitchens, bathrooms, WCs and utility rooms at a rate of 2500mm<sup>2</sup>.  
Purge ventilation - New Windows/rooftlights to have operable area in excess of 100th of their floor area, if the window opens more than 30° or 110th of their floor area if the window opens less than 30°. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide.

**NEW EXTERNAL DOORS**

New external doors to achieve a U-Value of 1.80W/m<sup>2</sup>K. Glazed areas to be double glazed with 16mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations.

**INTERNAL STUD PARTITIONS**

100mm x 50mm softwood treated timbers studs at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/2 height or 450mm. Provide min 10kg/m<sup>2</sup> density acoustic soundproof suitably packed (eg. 100mm Rockwool or tapered mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

**UPGRADE OF EXISTING CEILINGS**

Intermediate floor to be upgraded by the provision of 100mm Rockwool mineral fibre quilt insulation min 10kg/m<sup>2</sup> or equivalent between floors joists. Ceiling to be 12.5mm plasterboard with a minimum mass of 10 kg/m<sup>2</sup> with skim plaster set and finish. Ensure the existing timber flooring of the room above has a minimum mass of 15 kg/m<sup>2</sup>.

**SMOKE DETECTION**

Main or inlined smoke alarm detection system to BS EN 14604 and BS5839-6:2004 to at least a Grade D category LD3 standard and to be mains powered with battery back up. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ stores and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

**EXTRACT FOR SHOWER ROOM**

Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 litres per second. Vent to be connected to light switch and to have 15 minute over run if no window in the room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

**EXTRACT TO BATHROOM**

Bathroom to have mechanical vent ducted to external air to provide min 15 litres / sec extraction. Vent to be connected to light switch and to have 15 minute over run if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

**STRAPPING FOR FITCHED ROOF**

Gable walls should be strapped to roofs at 2m centres. All external walls running parallel to roof rafters to be restrained at roof level using 1000mm x 30mm x 5mm galvanized mild steel horizontal straps or other approved to BS EN 845-1 built into walls at max 2000mm centres and to be taken across minimum 3 rafters and screw level. Provide solid noggin between rafters at strap positions. All wall plates to be 100 x 50mm fixed to inner skin of cavity wall using 30mm x 5mm x 1000mm galvanized metal straps or other approved to BS EN 845-1 at maximum 2m centres.

**LEAD WORK AND FLASHINGS**

All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all joints and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

**RAINWATER DRAINAGE**

New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill and with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.

**UNDERGROUND FOUL DRAINAGE**

Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1: 2005.

**INSPECTION CHAMBERS**

Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all changes of level, direction, connections and every 45m in straight runs. Inspection chambers to have both down double sealed covers in buildings and be adequate for vehicle loads in driveways.

**FLUES FOR WOOD BURNING STOVES**

All installations must include compliance to the following:  
- Flue to be a minimum diameter 150mm or as manufacturer's details  
- Flue to have the same diameter as that of the appliance and no smaller than recommended by the manufacturer and at least the size shown in table 2 Approved Document J  
- Flue to be continuous and adequately supported throughout its length.  
- Number of joints in the flue to be kept to a minimum.  
- Flue to have no more than two offsets and those offsets to be no greater than 45°. Ensure only proprietary manufacturers offset components are used.  
- single skin flue pipes must be at distance minimum three times their diameter away from combustible materials or appropriately heat shielded with cement based fire board  
- Combustible material should be at least 200mm from the inner surface of the flue  
- A suitable register plate must be fitted  
- A suitable guard to be provided where a twin wall flue passes through a roof space or cupboard not closer than 50mm to the flue  
- Any flue within a void should be provided with appropriate means of access for inspection (min 300 x300mm access panels).  
- Flue should be smoke tested. Also test for spillage on completion.  
- Flue to be checked on completion to show that it is free from obstructions.

**Factory-made flue block chimneys**

are to be constructed in compliance with paragraphs 1.29 - 1.30 of Approved Document J and appliance to manufacturer's details.

**Factory-made metal chimneys**

are to be concealed in the building and constructed in compliance with paragraphs 1.42 - 1.47 and diagrams 13 & 14 of Approved Document J, BS EN 1856 and appliance to manufacturer's details.

The space between the liners and surrounding masonry to be filled with a suitable insulating concrete backfill.

Clay and concrete flue liners must be jointed with frogmortar.  
Installer to provide a commissioning checklist to Building Control on completion of the works.

**OUTLETS FROM FLUES (Non easily ignited roof coverings only)**

The top of the flue pipe should terminate:  
- 2300mm horizontally away from any openings (i.e. windows) or 1000mm above openings.  
- 600mm above any adjoining or adjacent building that is within 2300mm measured horizontally.  
- At least 1000mm above flat roofs.  
- At least 2300mm (horizontally) from the roof surface

Or  
Where the flue is within 600mm (horizontally) away the ridge the flue should extend at least 600mm above the ridge.

**MEANS OF ESCAPE**

Form a protected escape stairway by providing half hour fire resistance to all partitions as well as floors and ceilings above and below rooms. Stairway to be protected at all levels - from the loft rooms then leading directly to an external door at ground level (no inner rooms allowed). All doors on to the stairway must be FD20 rated fire doors to BS 476-2:1987 or the European equivalent BS EN 1634 (fitted with intumescent strips related around sides & top of door or frame if required by BCO). Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance and be at least 1.1m above the floor level or stair pitch line.

**COM REGULATIONS 2015**

The client must abide by the Construction Design and Management Regulations 2015. The client must appoint a contractor. If more than one contractor is to be involved, the client will need to appoint (in writing) a principal designer (to plan, manage and coordinate the planning and design work) and a principal contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project).

**Domestic clients**

The domestic client is to appoint a principal designer and a principal contractor when there is more than one contractor, if not your duties will automatically transferred to the contractor or principal contractor.

The designer can take on the duties, provided there is a written agreement between you and the designer to do so.

The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works:

- (a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project.
- Or:
- (b) Exceeds 500 person days.

**SITE INVESTIGATION**

A survey of the site is to be carried out by a suitably qualified person including an initial ground investigation, a desk study and a walk over survey. A copy of all reports and surveys to be sent to building control for approval before works commence on site.  
Any asbestos, contaminated soil or lead paint found on the site is to be removed by a specialist. Asbestos is to be dealt with in accordance with the Control of Asbestos Regulations 2006.

**BEAMS**

Supply and install all structural elements such as beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be enclosed in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nulfire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

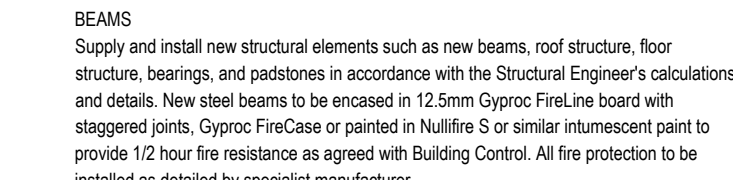
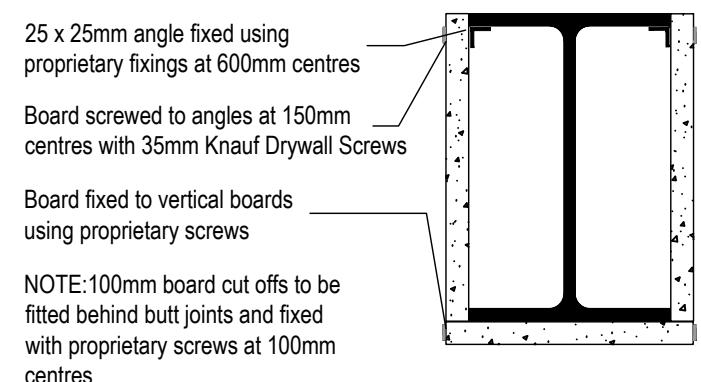
**BEAMS**

Supply and install all structural elements such as beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be enclosed in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nulfire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

**CARBON MONOXIDE ALARM**

Carbon Monoxide alarm should comply with BS EN 50291:2001. It should be fitted when any new or replacement solid fuel appliance is installed. Examples of solid fuel burning appliances are wood burners, open fires etc. The Carbon Monoxide alarms should be fitted in the room with the appliance. Alarms can be mains or battery powered. If the alarm is battery powered then the battery should last for the life of the alarm. The alarm should incorporate a warning device to alert users when the working life of the alarm is due to type. A carbon monoxide alarm with fixed wiring (not plug-in type) may be used as alternative applications provided they are fitted with a sensor failure warning device.

**FIRE PROTECTION OF STEEL BEAM (Knauf fire board - as section 6 :2012 of manufacturer's details)**

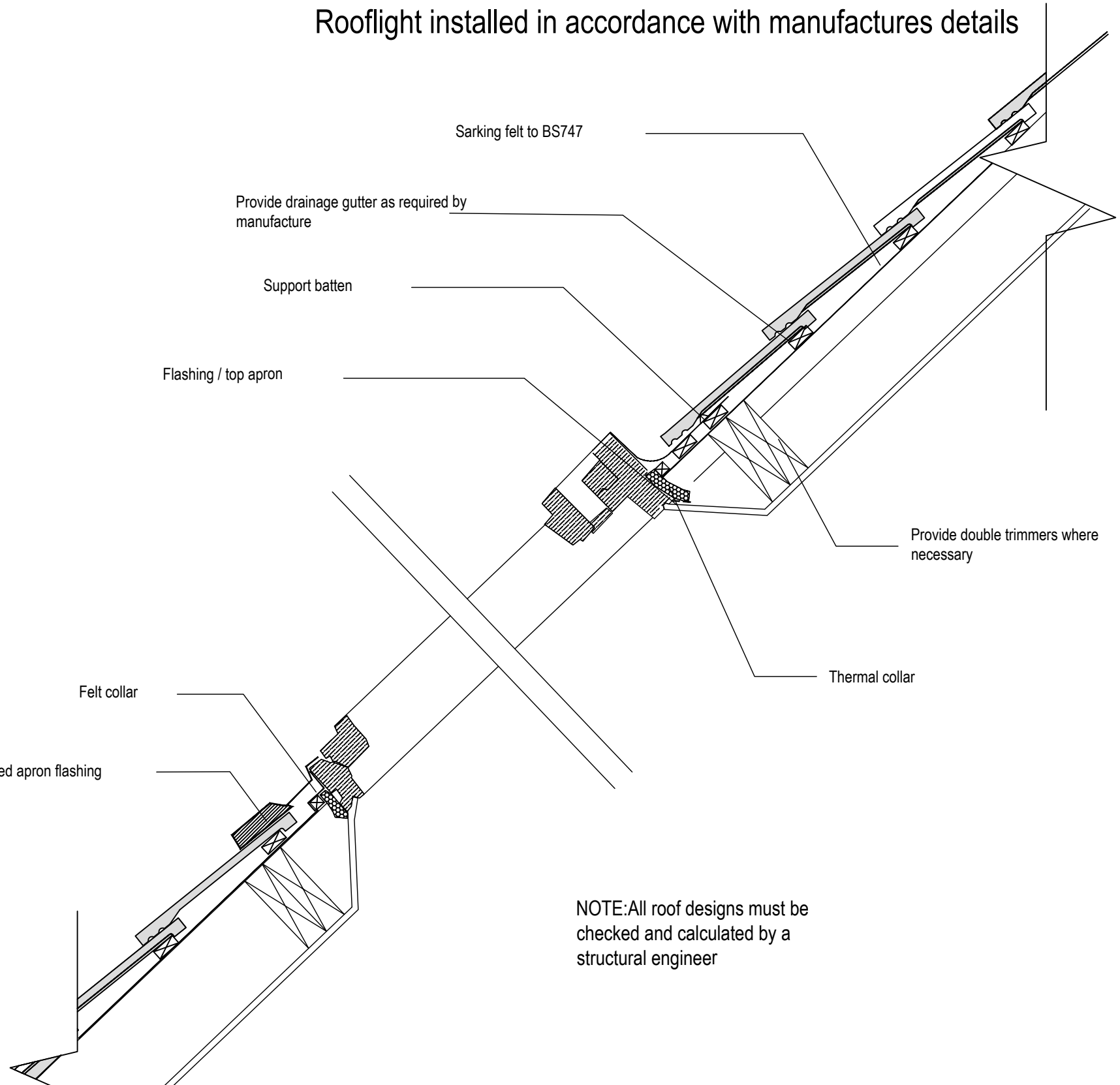


**TIMBER FRAME WALL**

To achieve minimum U Value of 0.28W/m<sup>2</sup>K  
Horizontal cedar / black wood cladding on 25 x 38mm preservative-treated battens fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick WBP external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm ctrs or s/engineer's details & calculations. Insulation to be 60mm Celotex GA4000 between studs plus 37.5mm Celotex PL4000 insulated plasterboard with VCL over. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

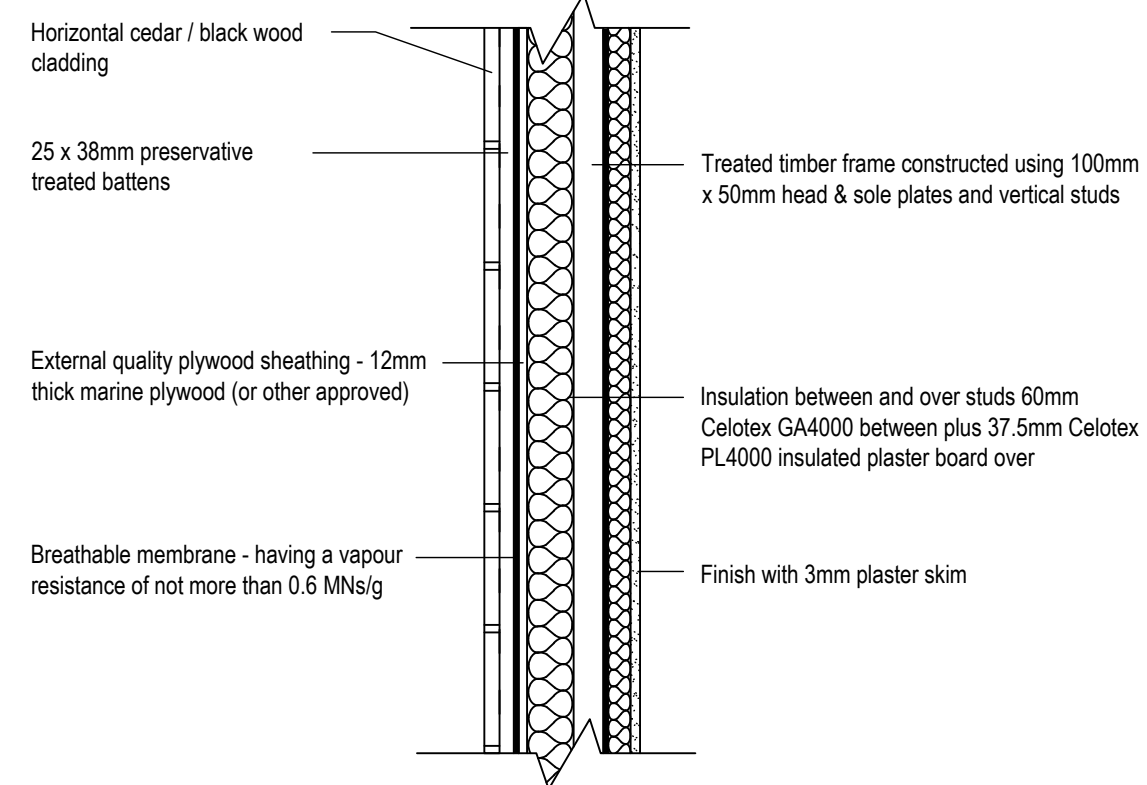
**ROOFLIGHTS (SECTION)**

Rooflight installed in accordance with manufactures details



**ROOF LIGHTS**  
Min U-value of 1.6 W/m<sup>2</sup>K.  
Roof-lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufactures instructions with rafters doubled up to sides and suitable flashings etc.

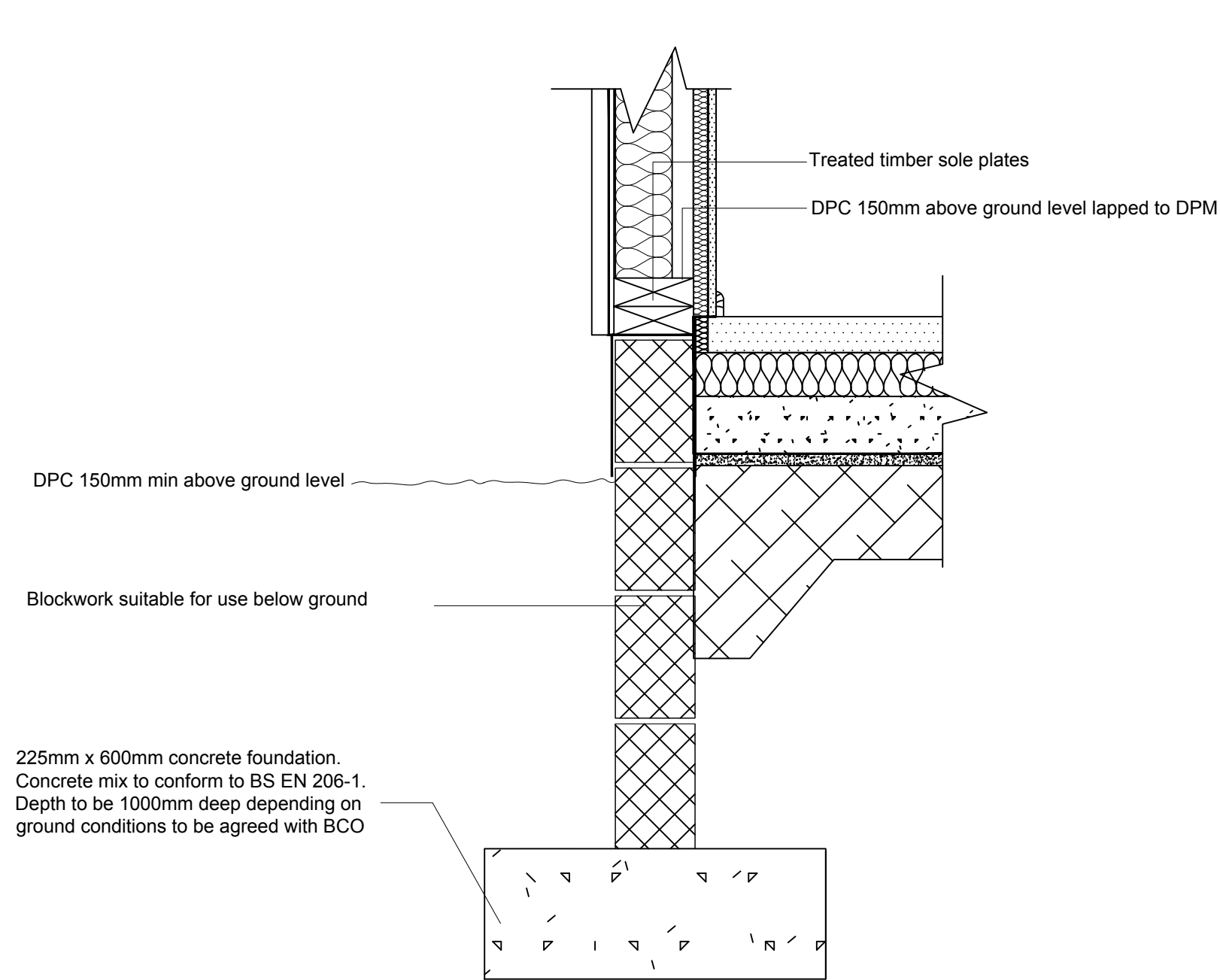
**CLAD FINISH TIMBER FRAMED WALL**



**TIMBER FRAME WALL**

To achieve minimum U Value of 0.28W/m<sup>2</sup>K  
Horizontal cedar / black wood cladding on 25 x 38mm preservative-treated battens fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick WBP external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm ctrs or s/engineer's details & calculations. Insulation to be 60mm Celotex GA4000 between studs plus 37.5mm Celotex PL4000 insulated plasterboard with VCL over. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

**FOUNDATION**



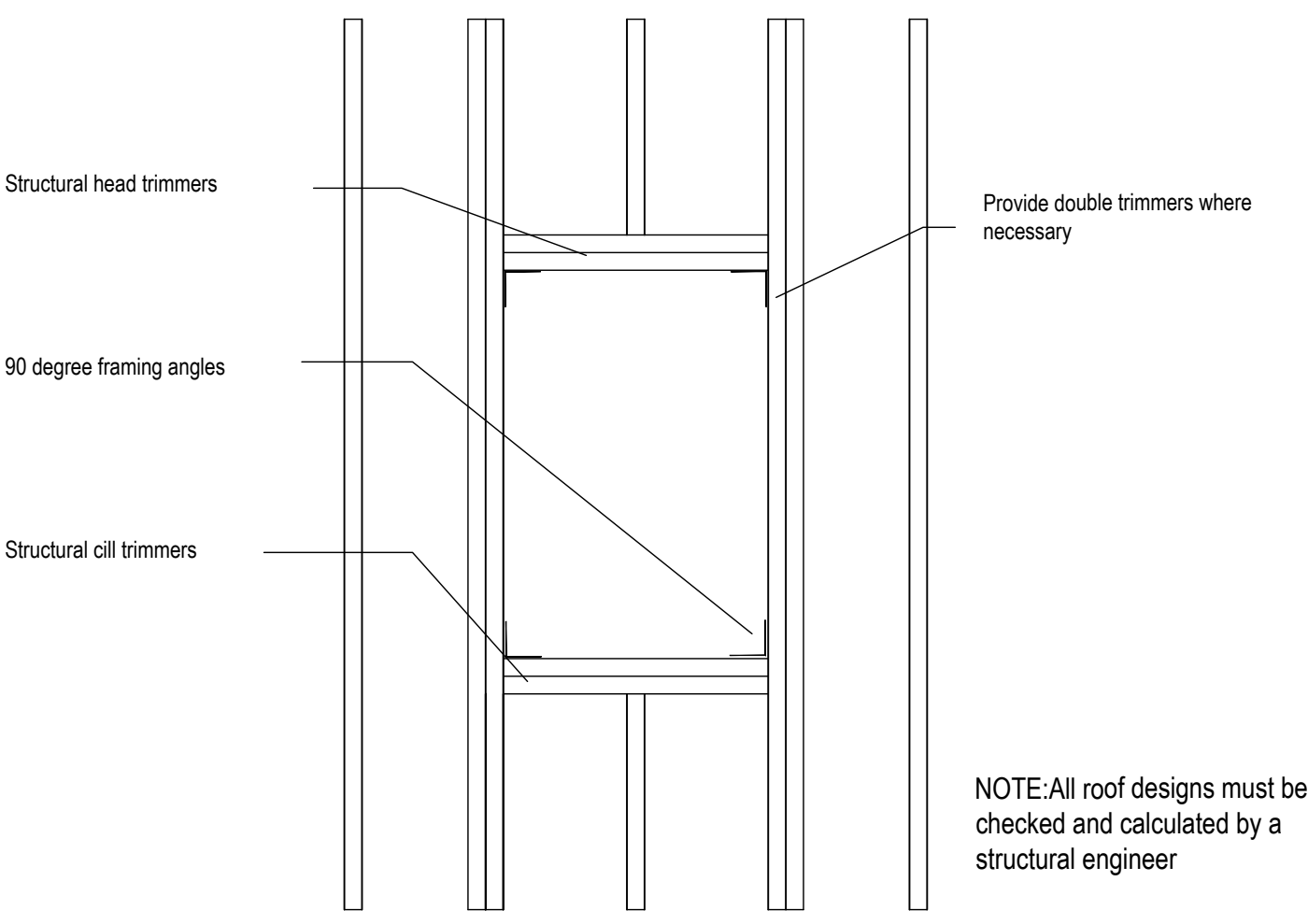
**STRIP FOUNDATION**  
Provide 225mm x 600mm concrete foundation, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.

**WALLS BELOW GROUND**  
All new walls to have Class A blockwork below ground level or alternatively semi engineering brickwork in 1:4 masonry cement or equal approved specification.

Foundation to be used if existing base/ foundation arrangement to Summer House is not suitable. To be confirmed by structural Engineer/ Building Control Officer.

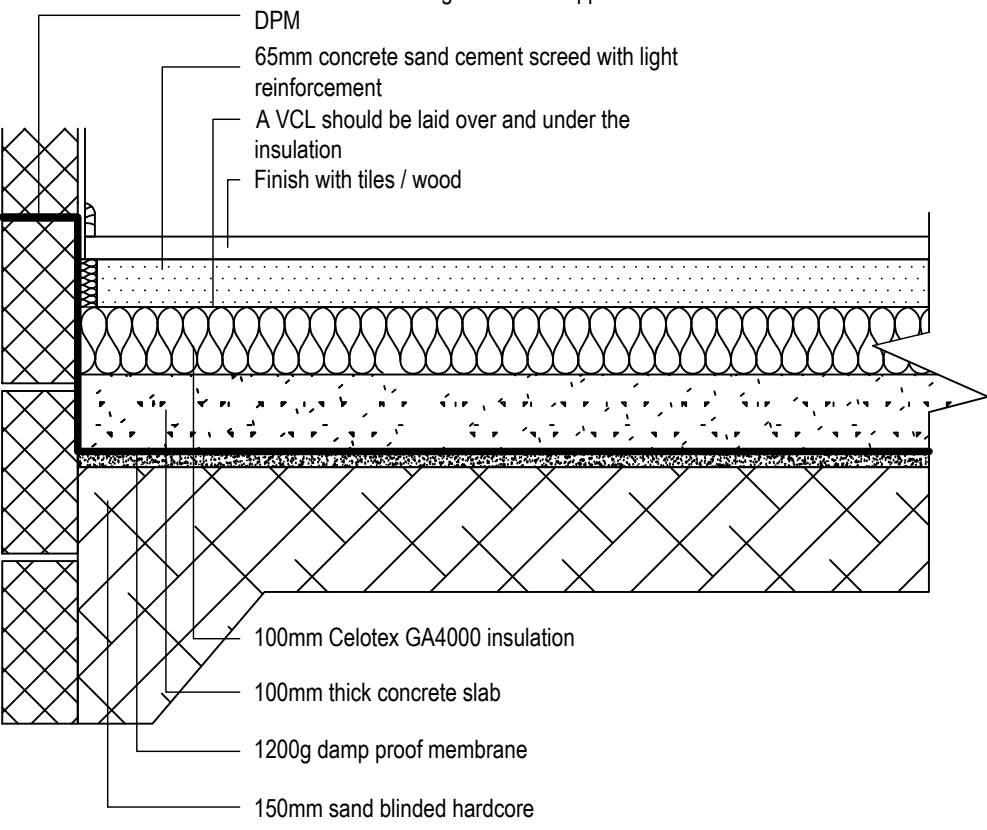
**ROOFLIGHTS (STRUCTURE)**

Rooflight installed in accordance with manufactures details




**ROOF LIGHTS**  
Min U-value of 1.6 W/m<sup>2</sup>K.  
Roof-lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufactures instructions with rafters doubled up to sides and suitable flashings etc.

**SOLID GROUND FLOOR**



**SOLID FLOOR INSULATION OVER SLAB**  
To meet min U value required of 0.18 W/m<sup>2</sup>K  
Solid ground floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over a 1200 gauge polythene DPM. DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min 100mm thick Celotex GA4000. 25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement. Where drain runs pass under new floor, provide A142 mesh 1.0m wide and min 50mm concrete cover over length of drain. Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia UPVC pipes with 100mm concrete cover laid under the extension. Pipes to terminate at new 65mm x 215mm air bricks with cavity tray over.



**74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk**

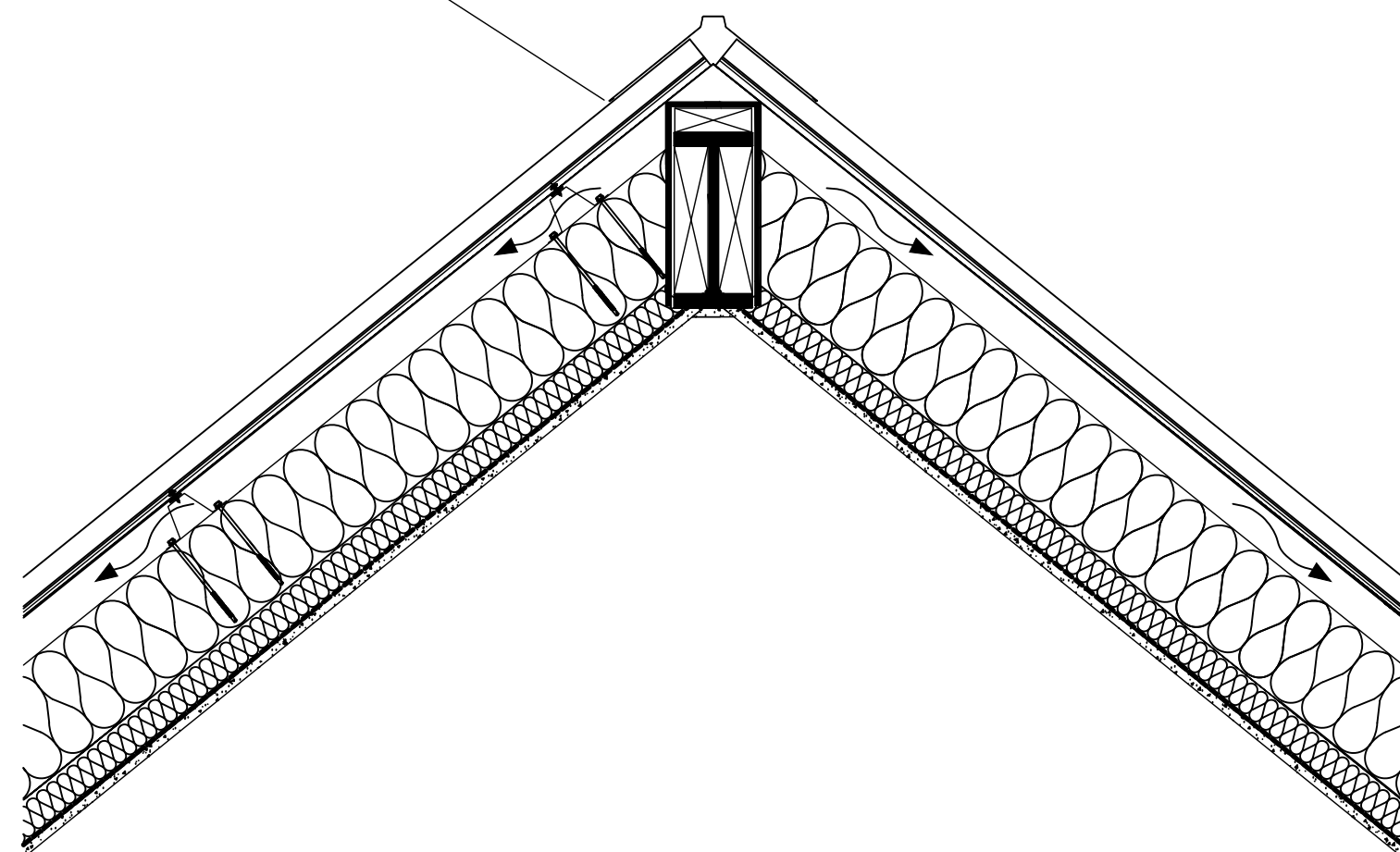
<b>Site</b>	Braefoot, Falstone, Northumberland	<b>Date</b>	26.02.2021
	NE48 1AA	<b>Sheet</b>	20-1073 D10 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
			<b>Title</b>



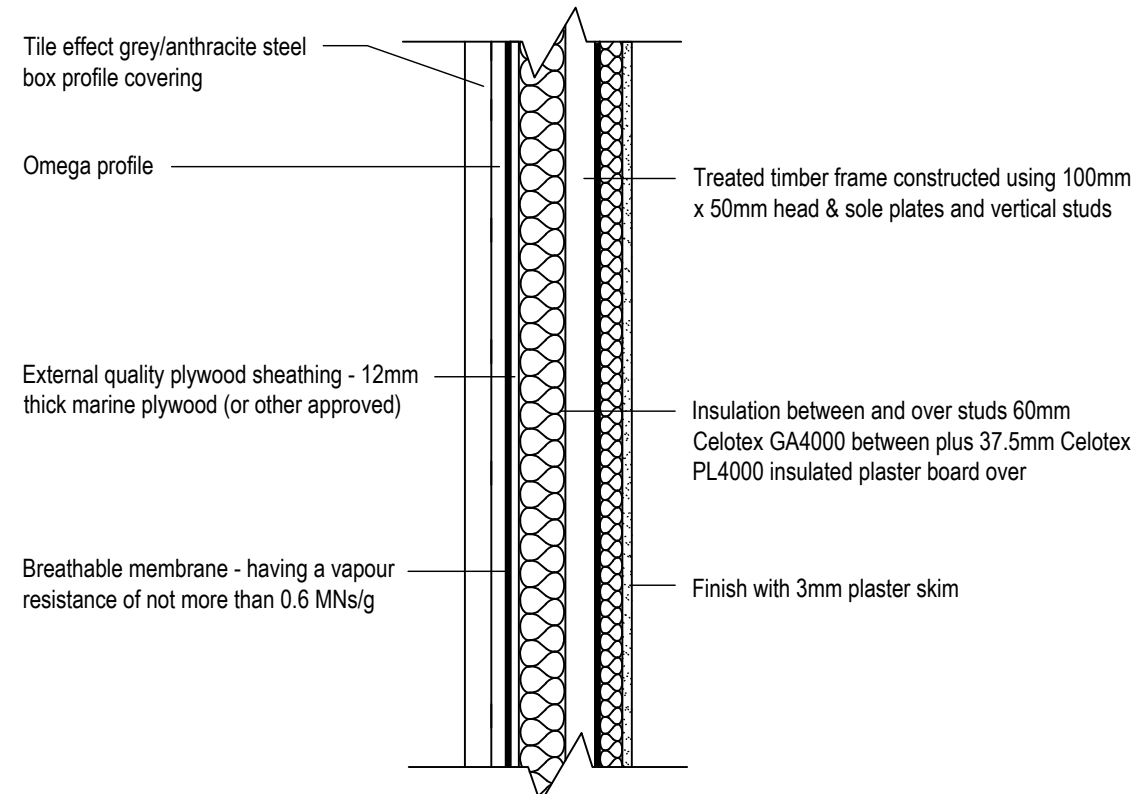
## RIDGE VENTILATION DETAIL

A continuous 5mm wide opening or the equivalent area is required to the length of the ridge or provide high level tile vents as agreed with the Building Control Officer

Structural design by suitably qualified engineer



## CLAD FINISH TIMBER FRAMED WALL

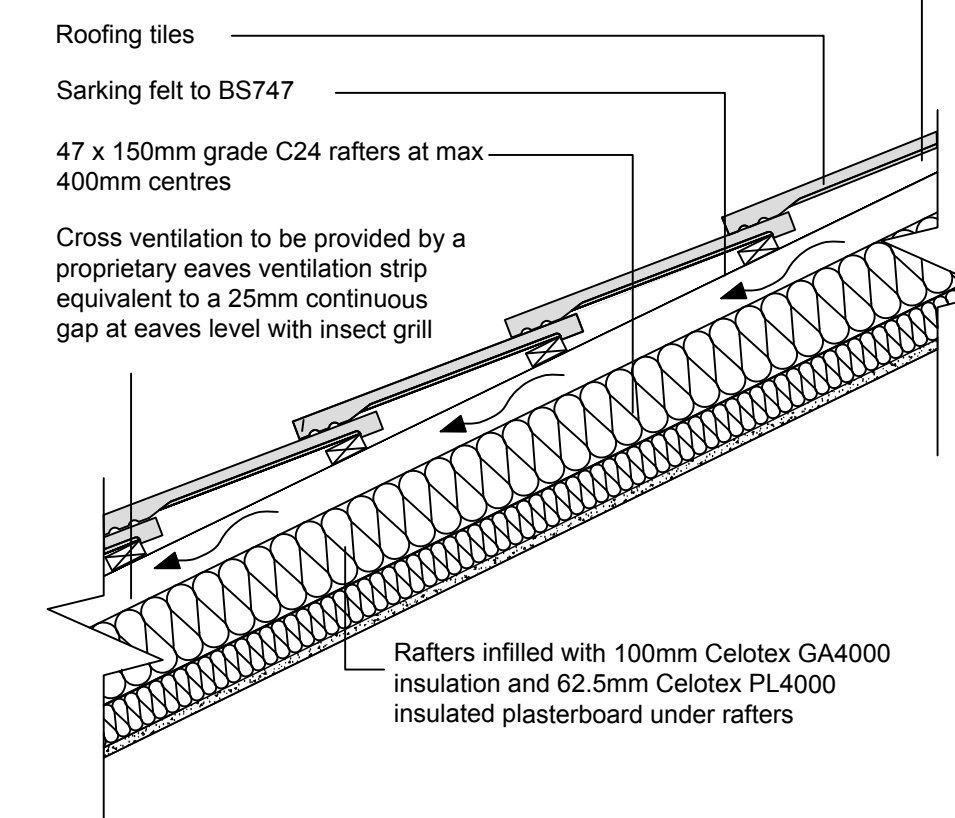


### TIMBER FRAME WALL

To achieve minimum U Value of 0.28W/m<sup>2</sup>K  
Horizontal cedar / black wood cladding on 25 x 38mm preservative-treated battens fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick WBP external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm ctrs or to s/engineer's details & calculations. Insulation to be 60mm Celotex GA4000 between studs plus 37.5mm Celotex PL4000 insulated plasterboard with VCL over. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

## ROOF DETAIL (PORCH)

A continuous 5mm wide opening or the equivalent area is required to the length of the ridge



PITCHED ROOF  
(imposed load max 0.75 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)  
To achieve U-value 0.18 W/m<sup>2</sup>K

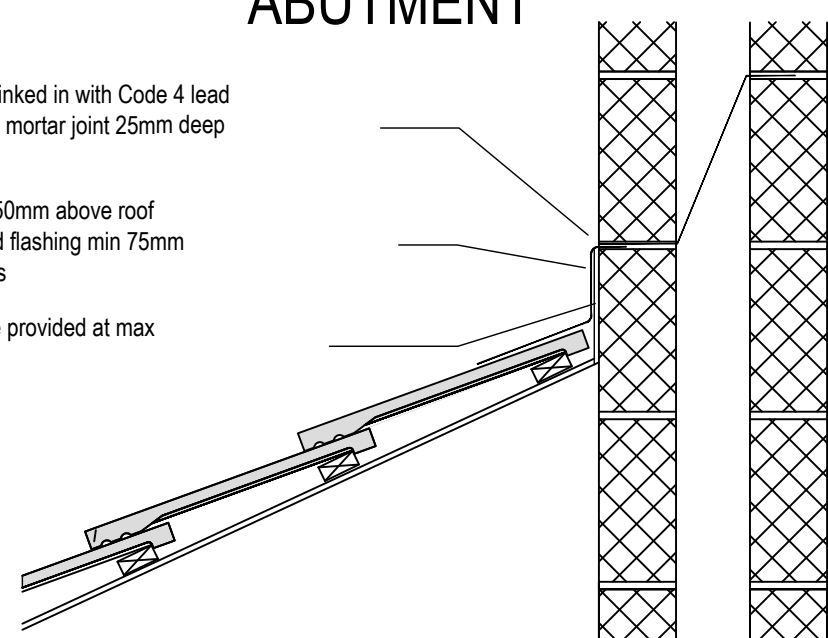
Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Roofing tiles to match existing on 25 x 38mm tanalised sw treated battens on sarking felt to relevant BBA Certificate. Supported on 47 x 150mm grade C24 rafters at max 400mm centres max span 3.47m. Rafters supported on 100 x 50mm sw wall plates. Insulation to be 100mm Celotex GA4000 between rafters and 62.5mm Celotex PL4000 insulated plasterboard under rafters. Provide 5mm skim coat of finishing plaster to the underside of all ceiling.

## PITCHED ROOF AND WALL ABUTMENT

Cavity tray to be linked in with Code 4 lead flashing fitted into mortar joint 25mm deep

Cavity tray min 150mm above roof structure and lead flashing min 75mm above roofing tiles

Weep holes to be provided at max 1m centres



## COLD ROOF EAVES DETAIL (OUTBUILDING)

Ensure insulation is installed tightly between the rafters and over rafters to prevent thermal bridging

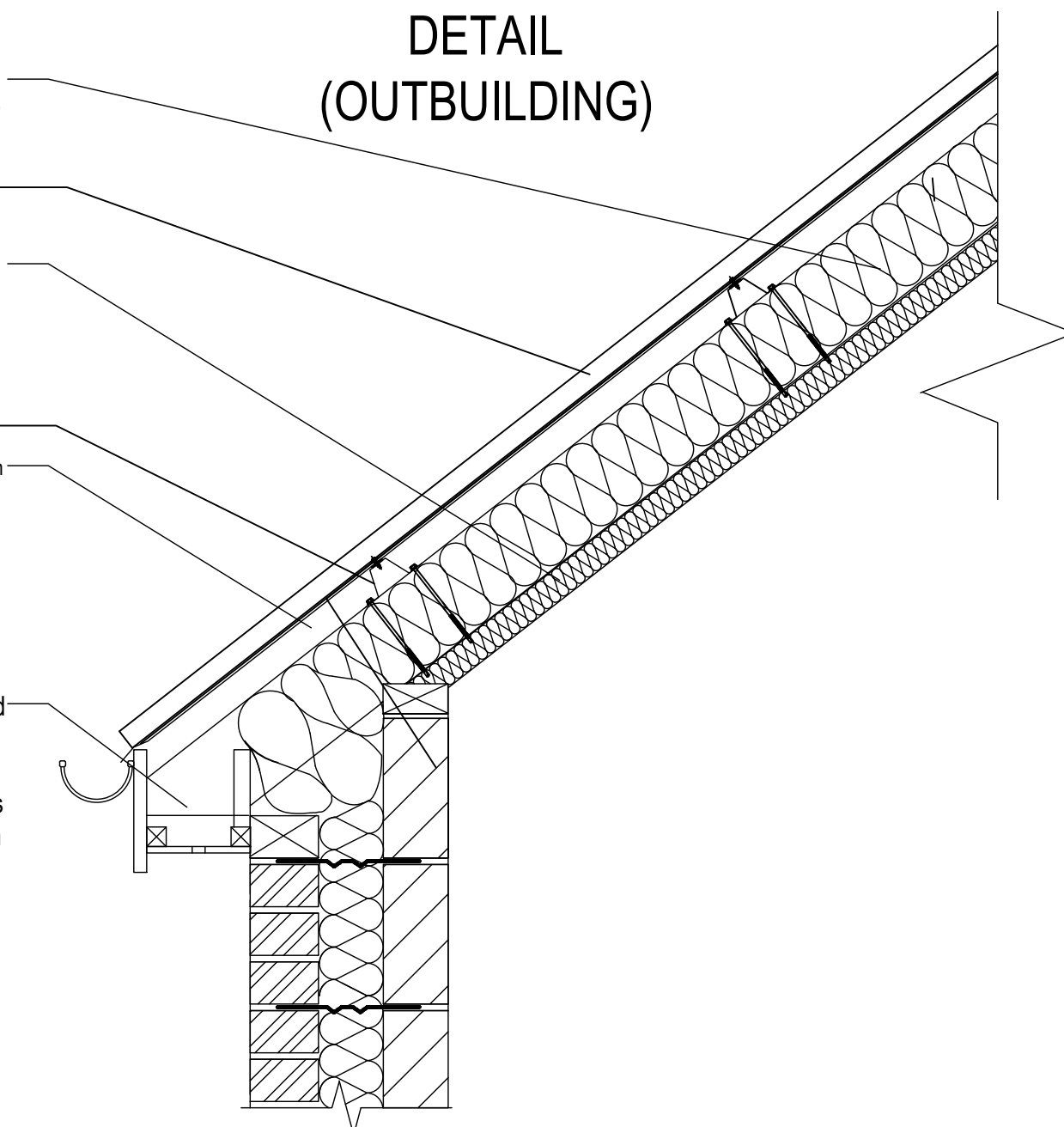
Tile effect grey/anthracite steel box profile covering

Ensure continuity of insulation

Omega profile

Eaves ventilator tray to ensure a 50mm ventilation gap

Cross ventilation to be provided by a proprietary eaves ventilation strip equivalent to a 25mm continuous gap at eaves level with insect grill and 50mm air gap between felt and insulation



## ROOF DETAIL (OUTBUILDING)

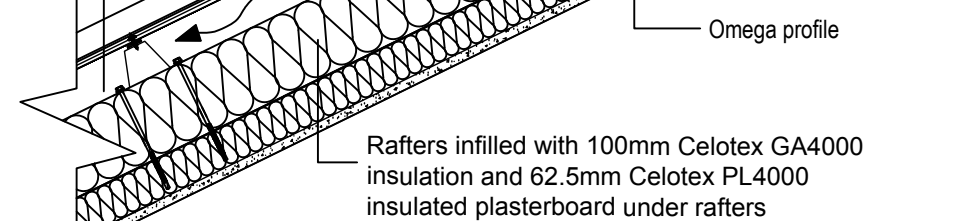
A continuous 5mm wide opening or the equivalent area is required to the length of the ridge

Tile effect grey/anthracite steel box profile covering

Sarking felt to BS747

47 x 150mm grade C24 rafters at max 400mm centres

Cross ventilation to be provided by a proprietary eaves ventilation strip equivalent to a 25mm continuous gap at eaves level with insect grill



PITCHED ROOF  
(imposed load max 0.75 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)  
To achieve U-value 0.18 W/m<sup>2</sup>K

Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Tile effect grey/anthracite steel box profile covering screwed to omega profiles on sarking felt to relevant BBA Certificate. Supported on 47 x 150mm grade C24 rafters at max 400mm centres max span 3.47m. Rafters supported on 100 x 50mm sw wall plates. Insulation to be 100mm Celotex GA4000 between rafters and 62.5mm Celotex PL4000 insulated plasterboard under rafters. Provide 5mm skim coat of finishing plaster to the underside of all ceiling.

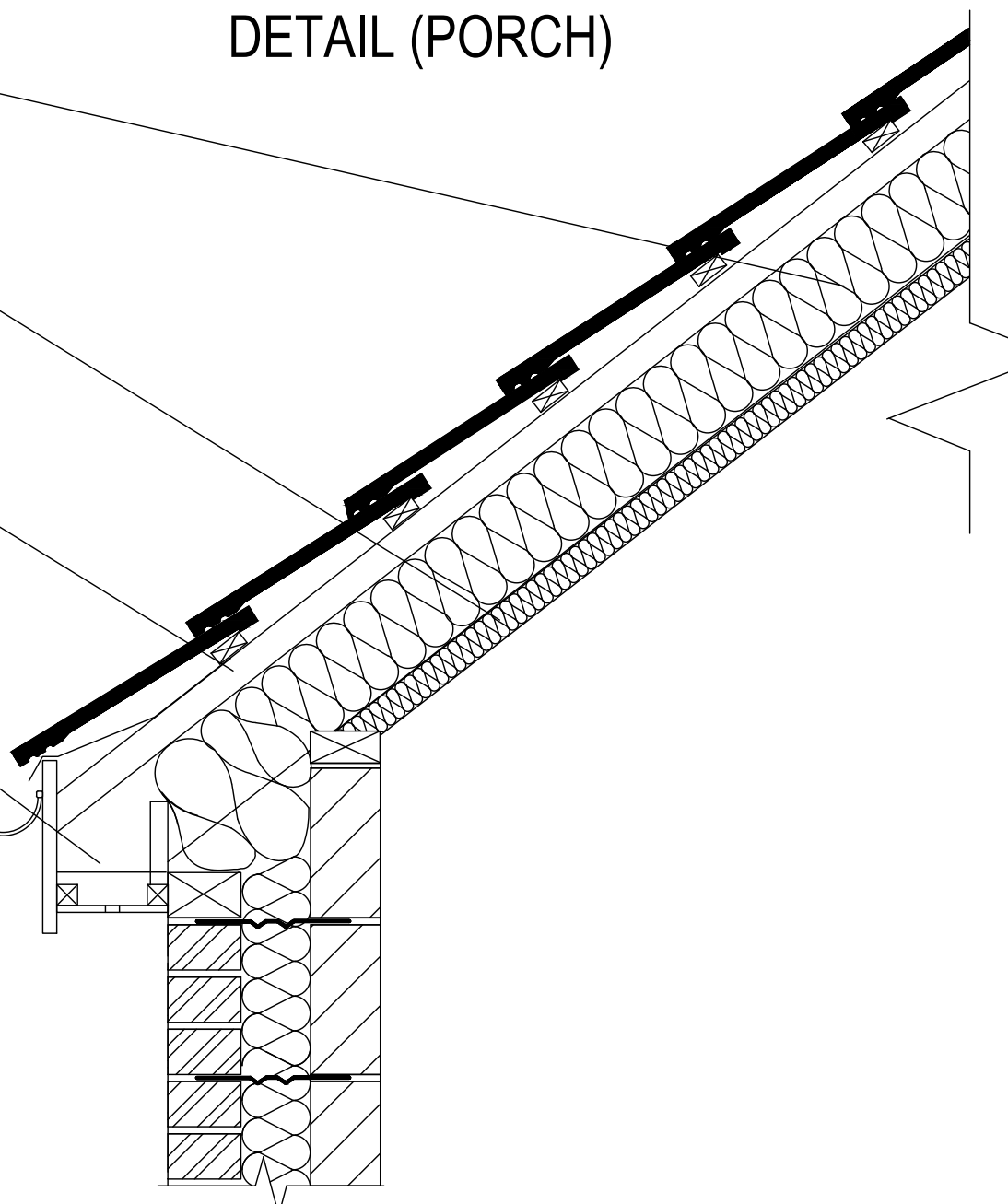
## COLD ROOF EAVES DETAIL (PORCH)

Ensure insulation is installed tightly between the rafters and over rafters to prevent thermal bridging

Ensure continuity of insulation

Eaves ventilator tray to ensure a 50mm ventilation gap

Cross ventilation to be provided by a proprietary eaves ventilation strip equivalent to a 25mm continuous gap at eaves level with insect grill and 50mm air gap between felt and insulation



**Arkiplan**  
74 Cardiff Road, CF15 7QE • Enquiries@ArkiPlan.co.uk

<b>Site</b>	Braefoot, Falstone, Northumberland NE48 1AA	<b>Date</b>	26.02.2021
		<b>Sheet</b>	20-1073 D11 Rev 0
		<b>Job</b>	New Extension & New Garden Room
		<b>Scale</b>	As Shown@A1
		<b>Title</b>	Specification & Section Detail Drawings 1:10