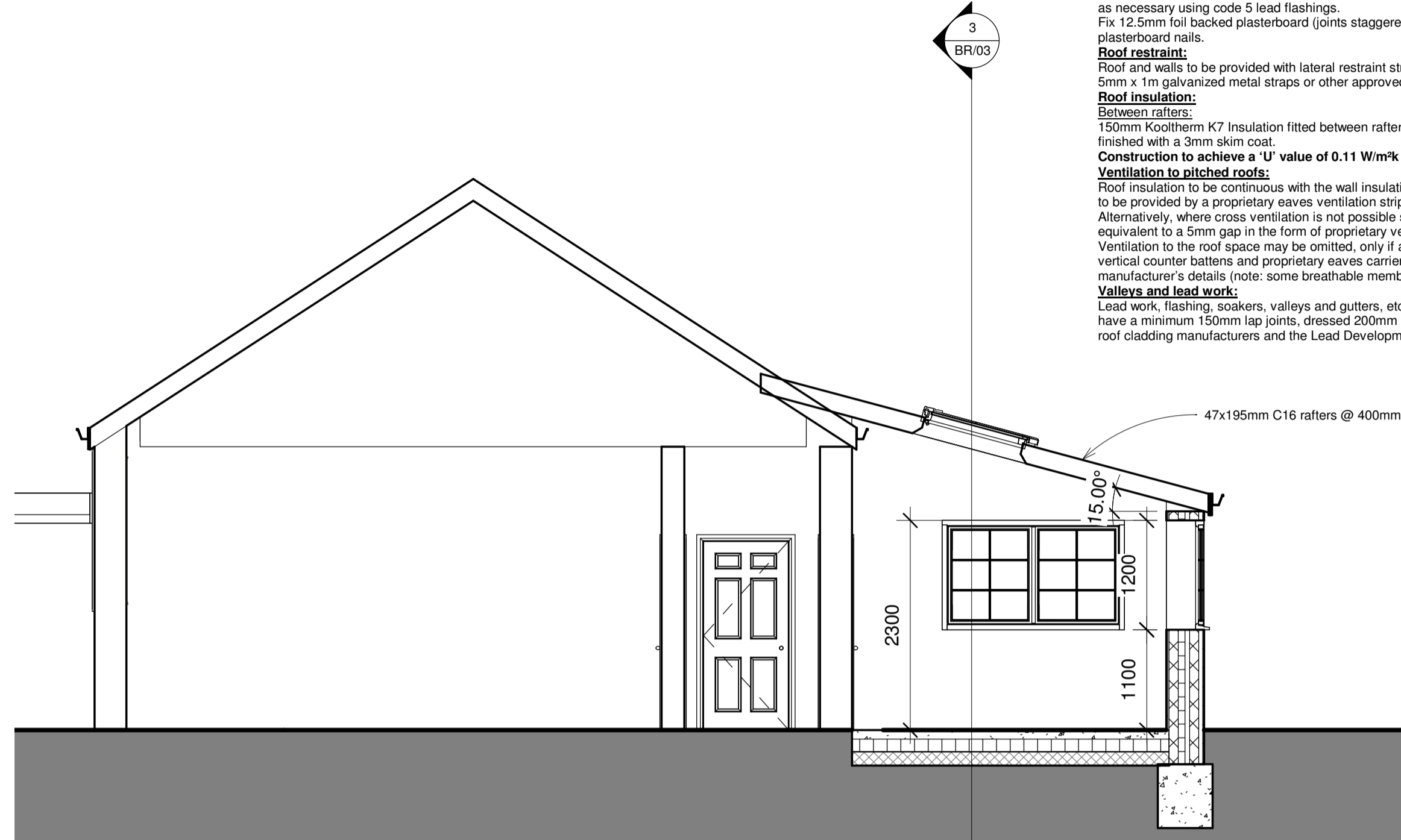


Pitched roof coverings:
 Roof covering to consist of slate and associated capping, verge/eaves details fixed in accordance with manufacturer's details for pitch and exposure as detailed on the drawings.
 Cladding to be fixed to a minimum 25 x 50mm treated timber batten or to manufacturer's directions and roof timbers to be overlaid with Kingspan Nilvent.17 Breathable Membrane
 Roof to be formed from kiln-dried stress graded timbers sized, spacing, spans, bracing and fixings as detailed on the drawing. Alternatively, the roof may be formed from proprietary prefabricated manufactured trusses/attic trusses and bracing to BS EN 1995-1-1:2004+A2:2014 but both with a foil backed 12.5mm plasterboard and skim ceiling finish.

Cut roof construction:
 Roof to be constructed using kiln-dried stress graded timber. Rafters, ceiling joists, purlin, hanger and binder sizes in accordance with TRADA Span Tables - suitable for the proposed clear spans and all properly fixed together using approved fixings.
 Where the ceiling joists are raised above wall plate level they must be fixed within the bottom third of the rafter using 12mm diameter high tensile bolts and steel toothed connectors to connect each rafter and ceiling joist to prevent possible roof spread. Joists raised above this level are to be designed by a suitably qualified person and approved by building control before works commence.
 Struts and braces to be 100 X 50mm, wall plates to be 100 x 50 fixed to inner skin of cavity wall using galvanized strapping as detailed below.
 Soffits, fascias and barge boards etc. in upvc to BS EN 607:2004, fixed in compliance with manufacturer's details.
 Allow for building in as work proceeds or insertion of proprietary stepped/cavity tray DPC to follow line of new roof 150mm above all roof/wall abutments as necessary using code 5 lead flashings.
 Fix 12.5mm foil backed plasterboard (joints staggered) and 5mm skim coat of finishing plaster to the underside of all ceilings using galvanized plasterboard nails.

Roof restraint:
 Roof and walls to be provided with lateral restraint straps across at least 3 timbers as noted in wall section at ceiling, wall plate and verge levels with 30 x 5mm x 1m galvanized metal straps or other approved to BS EN 845-1:2013 at maximum 2m centres.

Roof insulation:
Between rafters:
 150mm Kooltherm K7 Insulation fitted between rafters with 62.5mm Kingspan Kooltherm K118 insulated plasterboard fixed to inside face of rafters finished with a 3mm skim coat.
Construction to achieve a 'U' value of 0.11 W/m²K
Ventilation to pitched roofs:
 Roof insulation to be continuous with the wall insulation but stopped back at eaves or at junctions with rafters to allow a 50mm air gap. Cross ventilation to be provided by a proprietary eaves ventilation strip equivalent to a 25mm continuous gap at eaves level with insect grill.
 Alternatively, where cross ventilation is not possible such as mono pitch, covered ceiling or room in the roof provide additional ridge/high level ventilation equivalent to a 5mm gap in the form of proprietary vent tiles spaced in accordance with manufacturer's details.
 Ventilation to the roof space may be omitted, only if a proprietary BBA or similar approved breathable roof membrane, with minimum 25mm thick treated vertical counter battens and proprietary eaves carrier system is used. Breathable roof membranes and proprietary roof vents must always be installed as manufacturer's details (note: some breathable membranes may also require additional roof ventilation)
Valleys and lead work:
 Lead work, flashing, soakers, valleys and gutters, etc., to be formed from Code 5 lead sheet and fully supported on treated valley boards, etc., and to have a minimum 150mm lap joints, dressed 200mm under tiles, etc., and not to be fixed in lengths exceeding 1.5m and to be fixed in accordance with the roof cladding manufacturers and the Lead Development Association recommendations.



Trench foundations:
 675mm x 600mm trench fill foundations, concrete mix to conform to BS EN 206-2013 and BS 8500-2:2015+A1:2016. All foundations to be a minimum of 100mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. Stepped foundations should overlap by twice the height of the step, or 1m whichever is the greater. The height of the step should not be greater than the thickness of the foundation, all constructed in accordance with 2004 Building Regulations A1:2 and BS 8004:2015 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. Should any adverse soil conditions or difference in soil type 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.

Ground bearing solid concrete floors:
 Topsoil and vegetable matter to be cleared from site and floor to be in filled with minimum 150mm maximum 600mm clean sand blined compacted hardcore. A 300um (1200g) continuous polythene DPM/radon barrier is to be lapped & sealed at all joints, laid over sand blined hardcore & linked to DPC's in walls.

Floor & external perimeter edges of floor slab to be insulated with 140mm Kingspan Kooltherm K103 insulation, under a minimum 100mm thick ST2, or Gen1 concrete floor slab with a trowel smooth surface with 25mm up stands to the external walls.

A 125um polythene separating layer is to be installed between the concrete slab and insulation.

Construction to achieve a 'U' value of 0.11 W/m²K
 Insulation to be omitted and concrete thickness increased in areas where non-load bearing partitions are built off the floor slab.

Where area of fill exceeds 600mm the floor is to be suspended as detailed in this guidance.

Where necessary, proprietary plastic radon sumps to be installed in subfloor of ground bearing slab as manufacturer's details, www.visqueenbuilding.co.uk. Sumps to be connected to 110mm diameter proprietary air sealed upvc pipes, and fitted with an access plug cap above ground level to allow connection to a radon fan and duct system - up to eaves level of the building.

A sign identifying radon pipe work is to be fixed to the wall above the capping. 1200g DPM radon barrier is to be taped and sealed at all joints, junctions, service entry points and sealed to a continuous cavity tray (using a proprietary tape) which is supported by the cavity in-fill at ground level and brought through the external wall leaf with weep-holes to the external skin.

Horizontal Damp Proof Courses and trays (DPC's):
 Horizontal DPC's and DPC trays with weep holes at 1.0m centres to be provided 150mm above ground level continuous with and sealed to the floor DPM and radon DPC tray.

Vertical damp proof courses and trays etc.:
 Stepped and horizontal DPC/cavity trays are to be provided over all openings, roof abutments/projections and over existing walls with different construction or materials. Install vertical DPC or proprietary insulated cavity closers at all closings, returns, abutments to cavity work and openings etc.

Tanking systems:
 Tanking systems to be installed/applied by a tanking specialist in compliance with tanking manufacturer's details which must be approved by Building Control before works commence on site.

Cavity walls:
 Walls to consist of

- 15mm timber cladding
- 50x50mm vertical treated softwood battens
- Tyvek Housewrap Breather Membrane
- 100mm dense concrete blockwork external skin
- 50mm clear cavity
- 75mm Kingspan Kooltherm K108 Insulation board
- 100mm Thermalite Aircrete Turbo Blockwork
- 12.5mm plasterboard & 3mm skim

Ensure all gaps & all voids are sealed to prevent any air leakage.

Walls to be built with 1:1.6 cement mortar and tied with BBA approved 250mm long Ancon ST1 stainless steel wall ties or other approved double dip type tie in compliance with BS EN 1996-1-1:2005+A1:2012 & BS EN 845-1:2013, built 75mm min into each wall at maximum spacing in compliance with wall tie to manufacturer's details and typically at 600mm max horizontal, 450mm max vertical and 225mm max at reveals, verges and closings for cavities up to 125mm wide.

Cavity width and insulation details to be constructed to achieve a 'U' value of 0.16 W/m²K.
 Wall insulation to be continuous with roof insulation level and taken below floor insulation levels as manufacturer's details.

Wall abutments:
 Vertical junctions of new and old walls to be secured with proprietary profiled stainless steel metal crocodile type system with a continuous cavity fixed with DPC and pointed with flexible mastic as manufacturer's details.

Lintels and weep holes:
 Proprietary manufactured lintels to current British Standards/Euro codes (including specialist lintels supporting stone facings) are to be provided over all structural openings.

The positions, types, sizes, end bearings etc of lintels must be in compliance with the lintel manufacturer's standard tables suitable for the proposed loadings and clear spans.

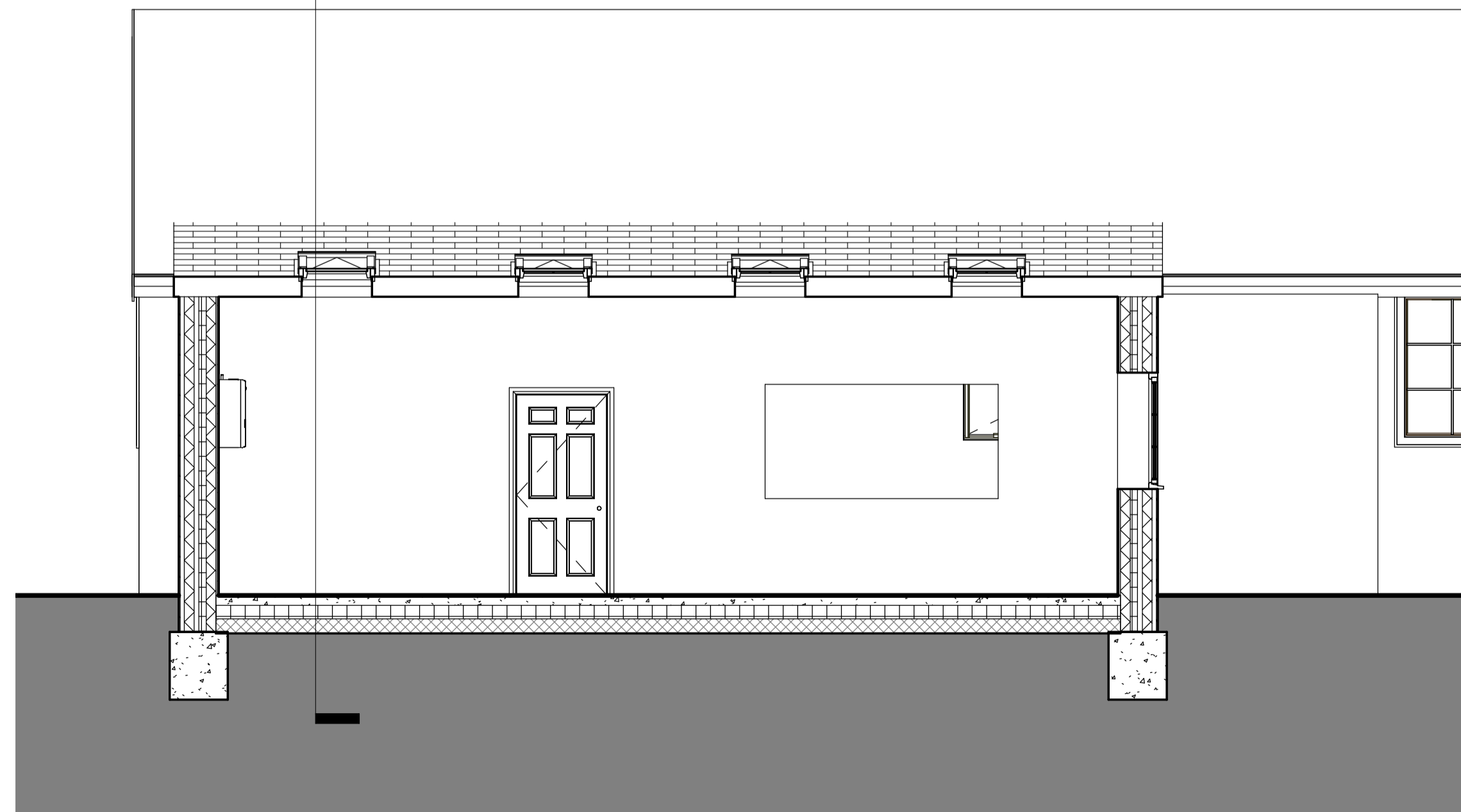
Stop end and DPC trays to be provided above all externally located lintels in compliance with lintel manufacturer's details. Weep holes at 450mm centres with at least two per opening.

Expansion joints:
 External walls should be provided with adequately spaced and sized expansion joints, in accordance with masonry manufactures details with adequate tying to each side of the joint and leaf of masonry using stainless steel wall ties (normally at each block height) and sealed externally with a proprietary flexible mastic sealant (normally expansion joints are 10-12mm wide and spaced vertically at max 12m centres in brick work and 6m centres in block work)

Strapping and restraint:
 Walls to be restrained at intermediate floor, ceiling and gable walls by the provision of 30 x 5 x 1000mm lateral restraint straps or other approved in compliance with BS EN 845-1:2013, at maximum 2m centres carried across at least 3 joists or rafters, etc, with a minimum of 38mm wide x 3/4 depth nogging.

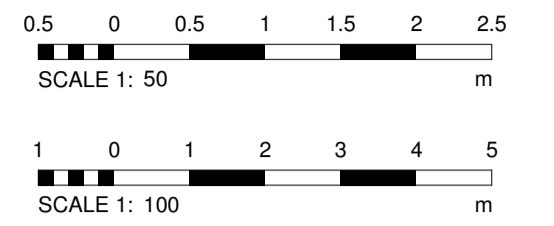
Cavity Closers:
 Proprietary acoustic/insulated fire stop cavity closers, or similar are to be provided to all cavity openings/closings, tops of walls and junctions with other properties.

1 Section 1
1 : 50



3 Section 2
1 : 50

Notes:



Preparation, protection, access, demolition & ground investigation:
 Demolitions, existing structures to be supported & protected where necessary, any existing sub structures (e.g. foundations and slab etc.), taken up & removed off site to a licensed tipping site. Where the demolition of a structure or part of a structure exceeds 50m³, a notice of the proposed demolition should be sent to the Local Authority Building Control Department before works commence.
 Provide all necessary health and safety requirements including: site security, scaffolding, access ladders, material hoists, temporary protection and working platforms etc. which are to be erected, maintained, certificated, dismantled and removed by suitably qualified and insured specialists.
 All plumbing, drainage, heating, electrical services etc. to be carried out by suitably qualified & experience specialists or registered competent persons, tested & appropriate certification issued where required in this specification.
 Any asbestos/contaminated soil/lead paint is to be inspected & removed by a specialist. Asbestos is to be removed and disposed off-site by a specialist licensed contractor as required under the Control of Asbestos Regulations 2006.
 Ground to be prepared for new works as described including location and alteration/modifications to all existing services as necessary, including sealing up, capping off, disconnecting, removing redundant services as necessary.
 Prior to and during works, the person carrying out the works is to liaise with and meet the requirements of the relevant Service Authorities, including the location and protection of all services as necessary. External paths, drives, patios, walls, fences & gardens etc. to be taken up and relayed/extended as necessary to accommodate the new works as described.
 All structural timber is to be grade C24, stress graded to BS 4978:2007+A1:2011 and sawn to BS EN 1313-1:2010. All timber is to be protected on site to minimize moisture content which must not exceed 22%. An initial ground investigation assessment should be carried out including a desk study and walk over survey which should be recorded and evaluated by a suitably qualified and experienced person, and where necessary, further basic geotechnical and contamination investigations should be carried out by a suitably qualified and experienced person.
 Where the initial assessment and basic investigations identify suspected hazards, further detailed investigations and remedial reports are required from a specialist and copy sent to Building Control and approved before works commence on site.

STATUS: Building Regulations

CadTech Design
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PROJECT:
Proposed Extension to Village Hall

CLIENT:
Eardisland Parish Council

SITE:
Village Hall, Church Road, Eardisland

TITLE:
Typical Sections

SCALE AT A1: 1 : 50	DATE: Nov 2020	DRAWN: Author	CHECKED: Checker
PROJECT NO: VHE/2020	DRAWING NO: BR/03	REVISION:	