

**EXTENSION BUILDING REGULATIONS NOTES**

**CDM 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

**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 of Schemes (Kite Marks) 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 lintels 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, BS, NICEIC Certification Services or Zurich Ltd. An appropriate 537671 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 better than 80 lumens per circuit watt. All fixed to have lighting capacity (lm) 185 x total floor area, 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 TVRs 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 gear less than 550mm to be specified by engineer.

**SAFETY GLAZING**  
 All glazing in critical locations 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.

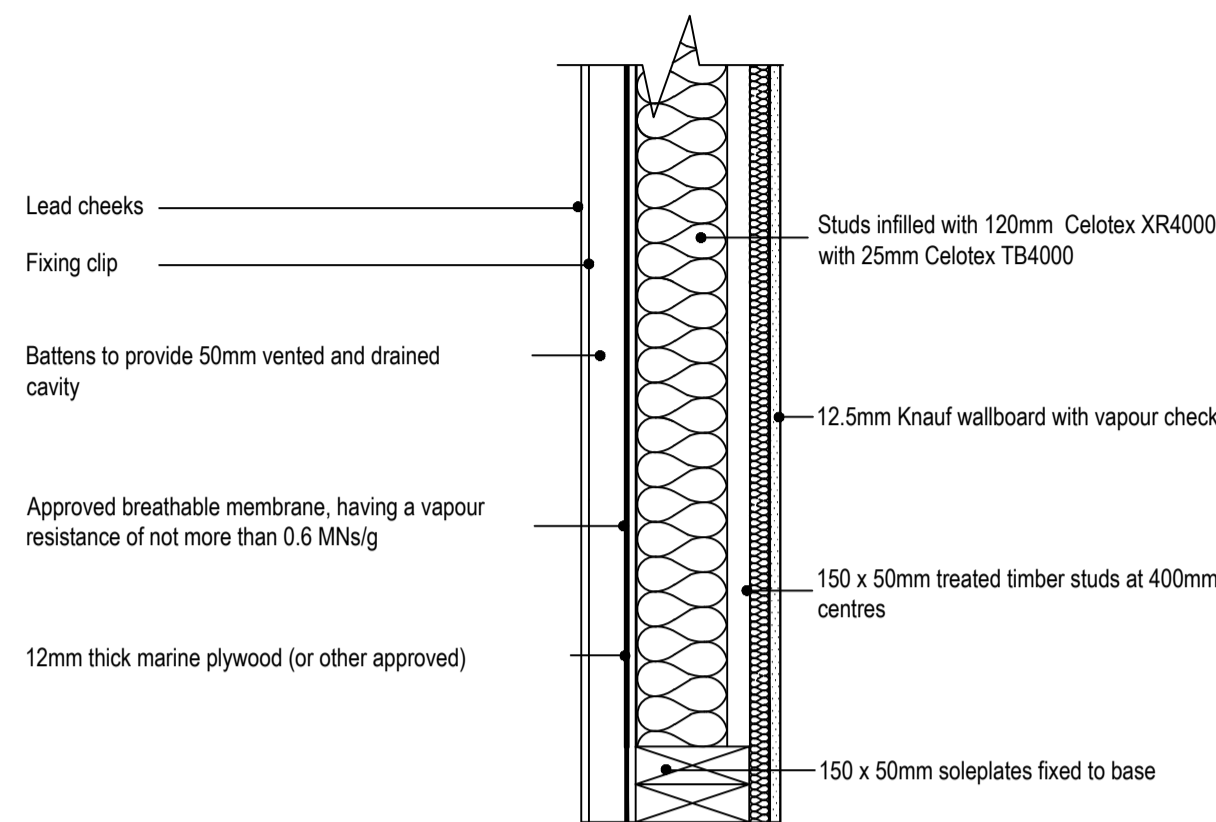
**NEW AND REPLACEMENT WINDOWS**  
 New and replacement windows to be double glazed with 16mm argon gas and soft coat low-E glass. Window Energy Rating to be Band C or better and to achieve U-value of 1.4 W/m<sup>2</sup>K. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension.

**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 6000mm<sup>2</sup> and to kitchens, bathrooms, WCs and utility rooms at a rate of 4000mm<sup>2</sup>. Where an open plan kitchen diner is proposed, a minimum of 3 trickle vents are necessary within the room (each 6000mm<sup>2</sup>).  
 Purge ventilation - New Windows/doors to have operable area in excess of 1/20th of their floor area, if the window opens more than 30° or 1/10th 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.

**FLAT ROOF RESTRAINT**  
 100m x 50mm C16 grade timber wall plates to be strapped to walls with 1000mm x 30mm x 5mm galvanized mild steel straps at maximum 2.0m centres fixed to internal wall faces.

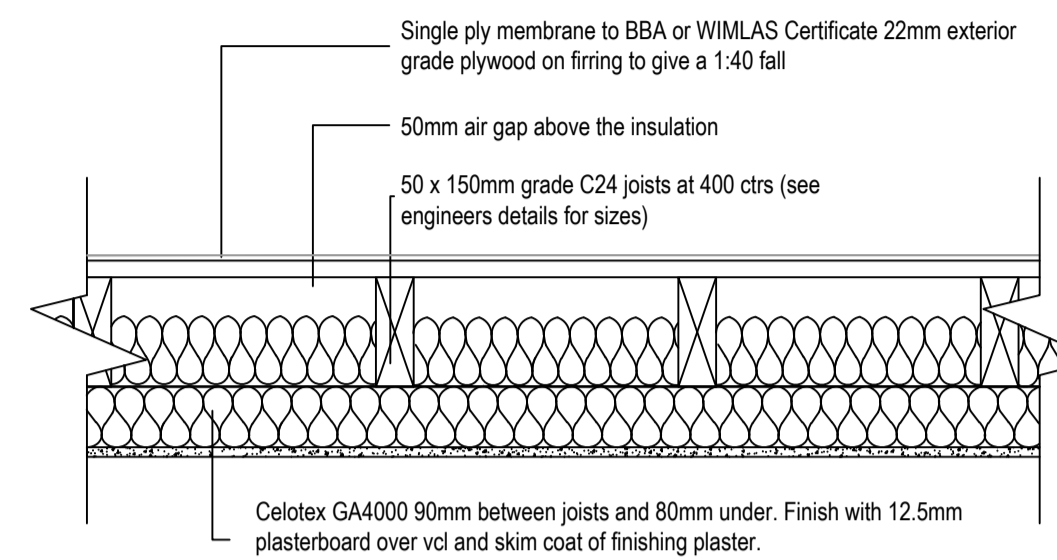
**RAINWATER DRAINAGE**  
 New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes.

**1 LEAD CLAD TIMBER FRAMED WALL**



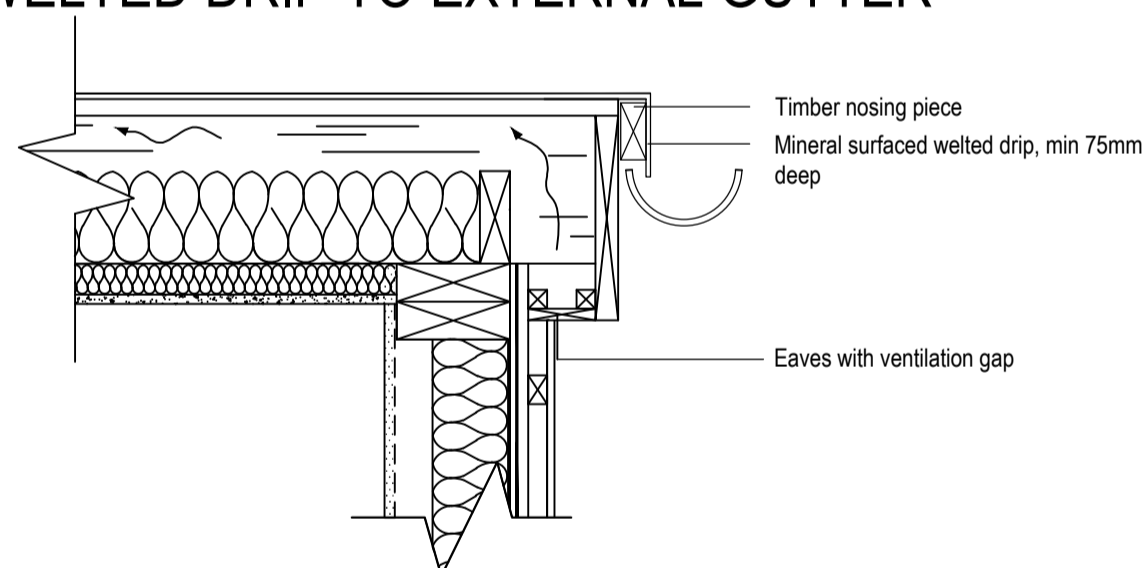
**TIMBER FRAME WALL**  
 To achieve minimum U Value of 0.18 W/m<sup>2</sup>K  
 Finished by lead cheeks installed to fixing clip and fixed to vertical 25 x 50mm preservative-treated battens to provide vented and drained cavity, battens fixed vertically to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick W.B.P external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using 150mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm ctrs or to s/engineer's details and calculations. Insulation to be 120mm Celotex XR4000 between studs with 25mm Celotex TB4000 over. Provide vcl and 12.5mm plasterboard over internal face of insulation. 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. Walls within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides.

**2 COLD FLAT ROOF**

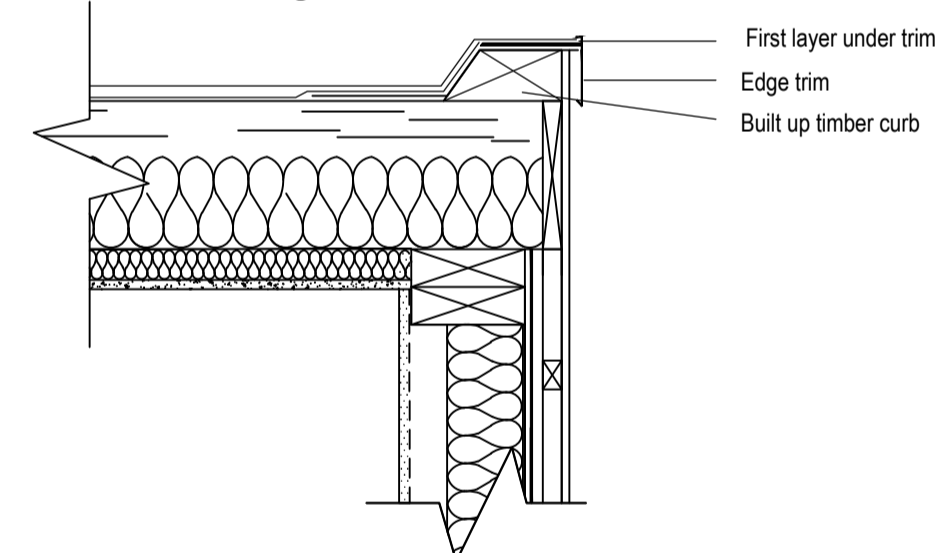


**VENTILATED FLAT ROOF**  
 (imposed load max 1.0 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)  
 To achieve U value of 0.15 W/m<sup>2</sup>K  
 Flat roof to be single ply membrane roofing with aa fire rating as specialist specification, with a current BBA or WIMLAS Certificate on 22mm exterior grade plywood, laid on firrings to give a 1:40 fall on 50 x 150mm grade C24 timber joists at 400 ctrs. Cross-ventilation to be provided on opposing sides by a proprietary eaves ventilation strip to give 25mm continuous ventilation, with fly proof screen. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a continuous 50mm air gap above the insulation for ventilation. Insulation to be Celotex GA4000 90mm between and 80mm under joists. Finish with 12.5mm plasterboard over vcl and skim coat of finishing plaster.

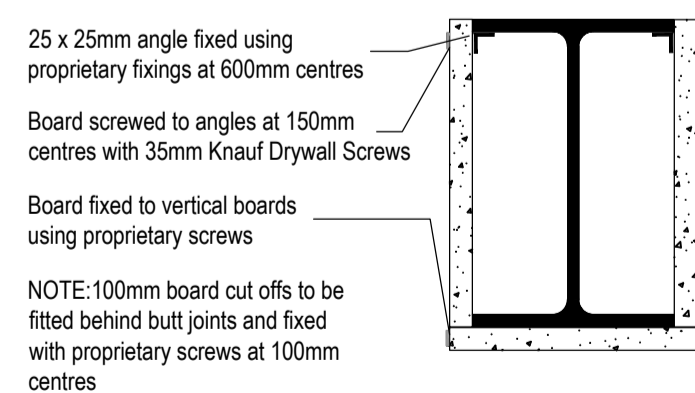
**WELTED DRIP TO EXTERNAL GUTTER**



**VERGE DETAIL**

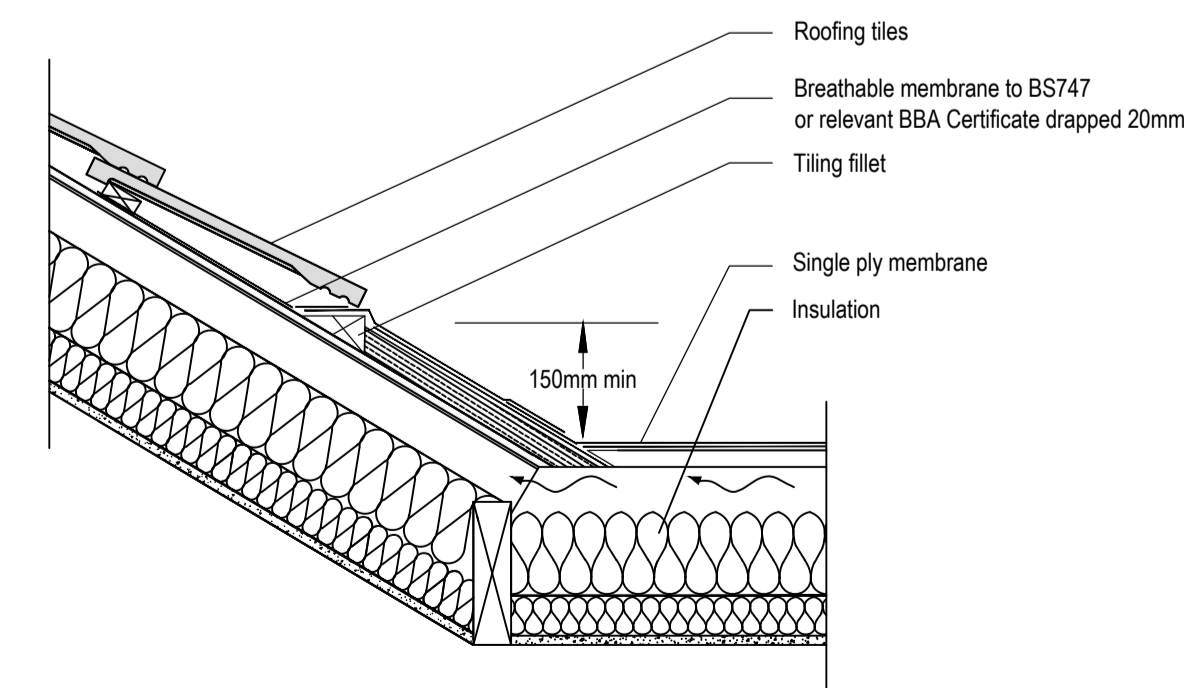


**FIRE PROTECTION OF STEEL BEAM**  
 (Knauf fire board - as section 6 :2012 of manufacturer's details)



**BEAMS**  
 Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullfire 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.

**COLD PITCHED ROOF AND COLD FLAT ROOF ABUTMENT**



Structural design by suitably qualified engineer



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

<b>Site</b>	18 Cranham Terrace, Oxford, Oxfordshire OX2 6DG	<b>Date</b>	21.02.2024
		<b>Sheet</b>	21-1986 D06 REV 4
		<b>Job</b>	Loft Conversion
<b>Title Number</b>	ON26054	<b>Scale</b>	Not To Scale
		<b>Title</b>	Specification & Section Detail Drawings 1:10