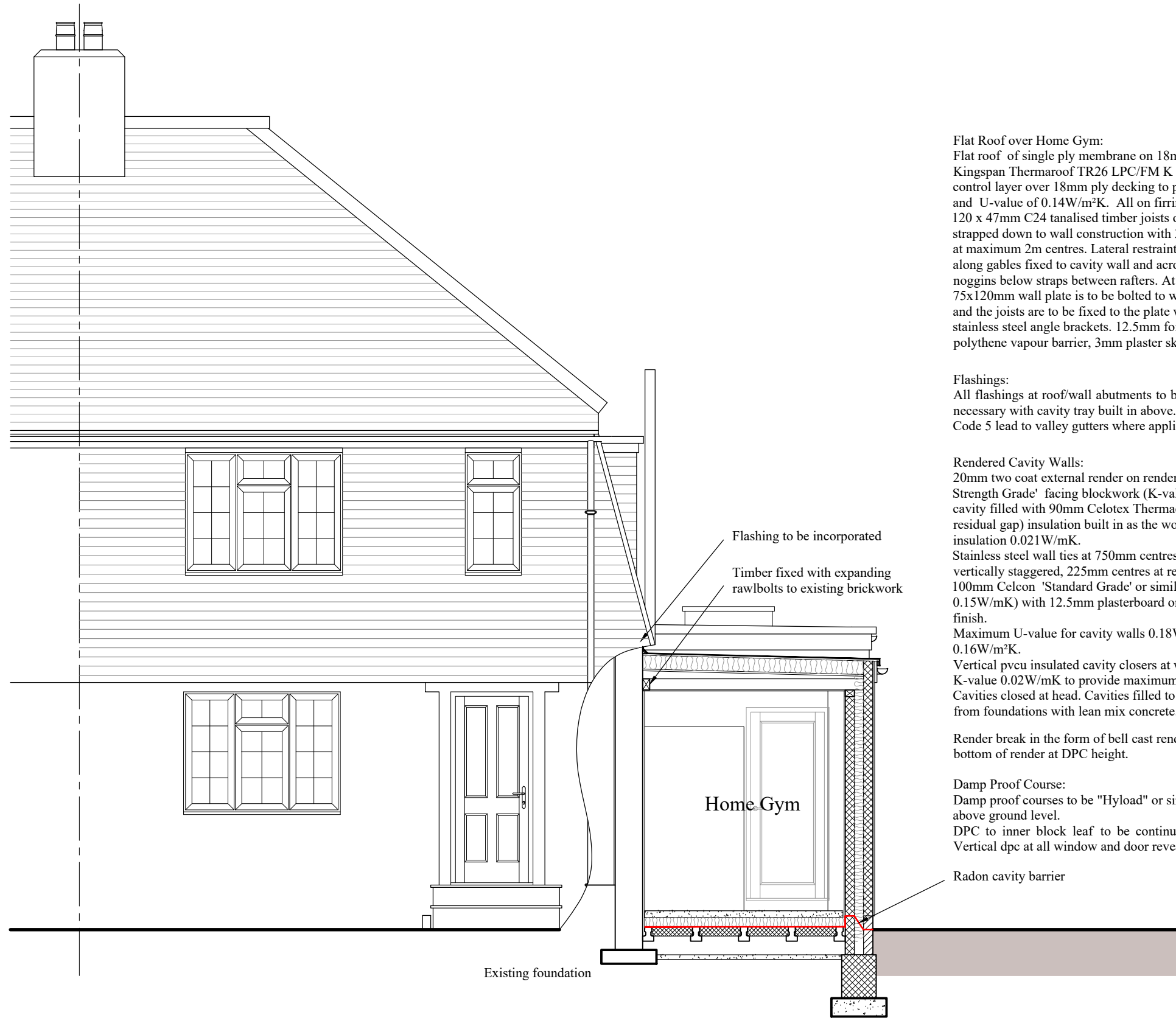


0.5m 1.0m 1.5m 2.0m 2.5m 3.0m 3.5m 4.0m 4.5m 5.0m



**Flat Roof over Home Gym:**

Flat roof of single ply membrane on 18mm ply decking over 150mm Kingspan Thermarof TR26 LPC/FM K on high performance vapour control layer over 18mm ply decking to provide warm roof construction and U-value of 0.14W/m<sup>2</sup>K. All on furring pieces to falls of 1 in 40 on 120 x 47mm C24 tanalised timber joists on 100x75mm wall plate strapped down to wall construction with 30x 5mm galvanised steel straps at maximum 2m centres. Lateral restraint straps 30x5mm at 2m centres along gables fixed to cavity wall and across 3no. rafters. Solid timber noggins below straps between rafters. At existing external wall of house a 75x120mm wall plate is to be bolted to wall using expanding rawlbolts and the joists are to be fixed to the plate with Simpson Strong -Tie stainless steel angle brackets. 12.5mm foil backed plasterboard ceiling on polythene vapour barrier, 3mm plaster skim coat.

**Flashings:**

All flashings at roof/wall abutments to be Code 4 lead cut and dressed as necessary with cavity tray built in above.  
Code 5 lead to valley gutters where applicable.

**Rendered Cavity Walls:**

20mm two coat external render on render mesh over 100mm Celcon 'Hi-Strength Grade' facing blockwork (K-value 0.18W/mK) with 100mm cavity filled with 90mm Celotex Thermaclass Cavity Wall 21 (10mm residual gap) insulation built in as the work proceeds. K-value of insulation 0.021W/mK.

Stainless steel wall ties at 750mm centres horizontally, 450mm centres vertically staggered, 225mm centres at reveals.

100mm Celcon 'Standard Grade' or similar inner blockwork (K-value 0.15W/mK) with 12.5mm plasterboard on dabs with 3mm skim plaster finish.

Maximum U-value for cavity walls 0.18W/m<sup>2</sup>K, Actual required 0.16W/m<sup>2</sup>K.

Vertical pvcu insulated cavity closers at window and door reveals and cill, K-value 0.02W/mK to provide maximum U value of 1.2W/m<sup>2</sup>K. Cavities closed at head. Cavities filled to 225mm below lowest DPC level from foundations with lean mix concrete.

Render break in the form of bell cast render stop bead to be provided at bottom of render at DPC height.

**Damp Proof Course:**

Damp proof courses to be "Hyload" or similar approved minimum 150mm above ground level.

DPC to inner block leaf to be continuous with floor damp membrane. Vertical dpc at all window and door reveals unless pvcu closers closed.

Radon cavity barrier

project **GARAGE CONVERSION**  
27 BRIDGE STREET  
WYE  
KENT  
TN25 5ED

client **MS LYDIA PRENTICE CHALLIS**

scale **1:50 @ A3**

drawn

date **SEPTEMBER 2025**

drawing no. **BS2507.10**

drawing title **SECTION A-A**

amendments

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