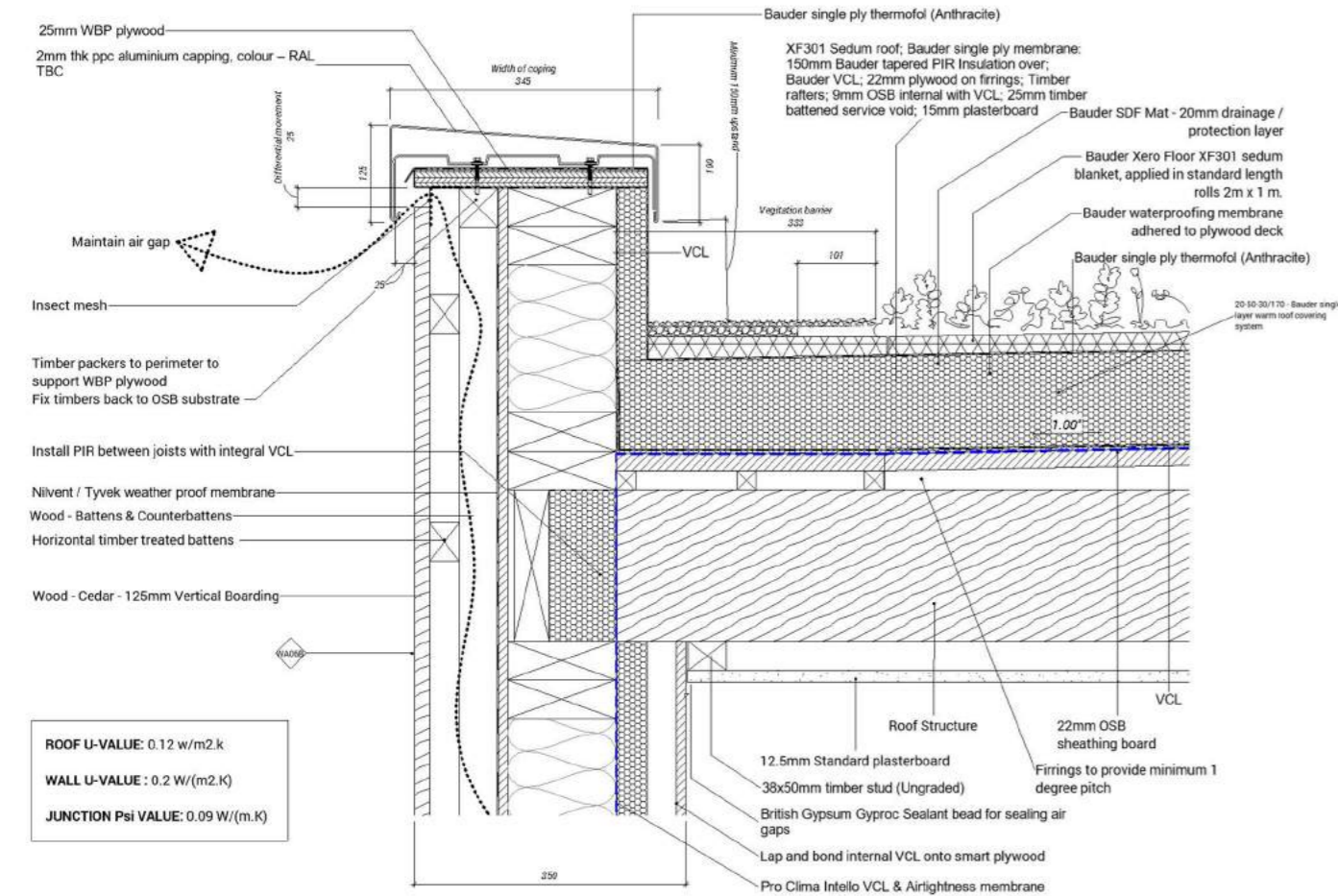


HOLLY HALL BARN

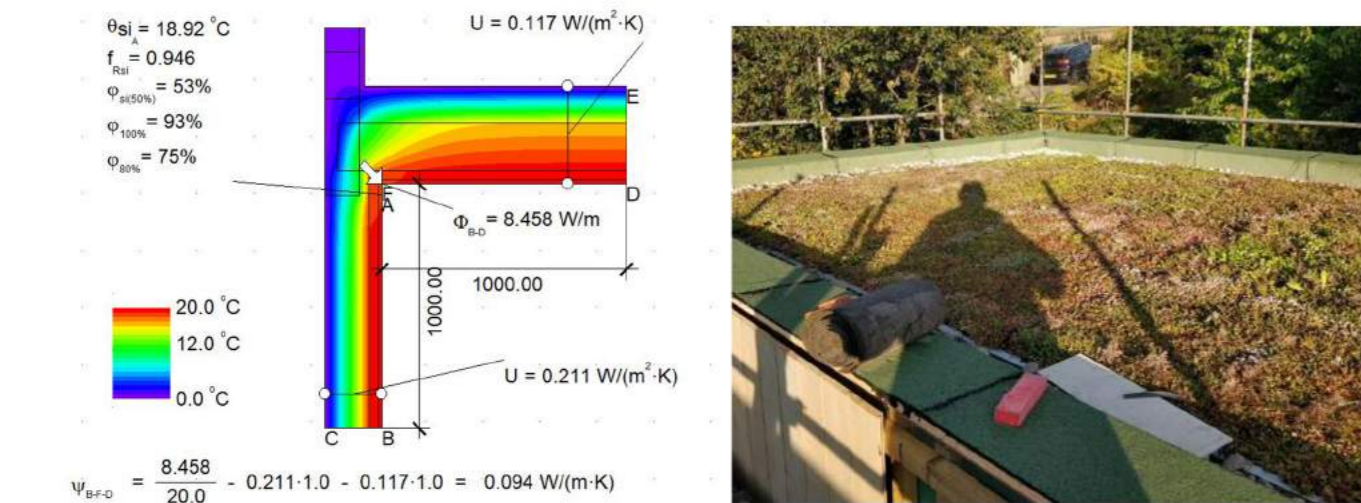
DETAIL BOARD 01

Innovation and Sustainability

Timber frame was chosen as a sustainable renewable resource with lower embodied carbon than that of concrete or steel. Complimentary building materials were also chosen such as wood fibre 'Isolair Multi' insulation boards. A wood chip boiler was also installed with the addition of a dry pellet store with fully automated pellet feed.



Workshop Parapet - Detail Drawing



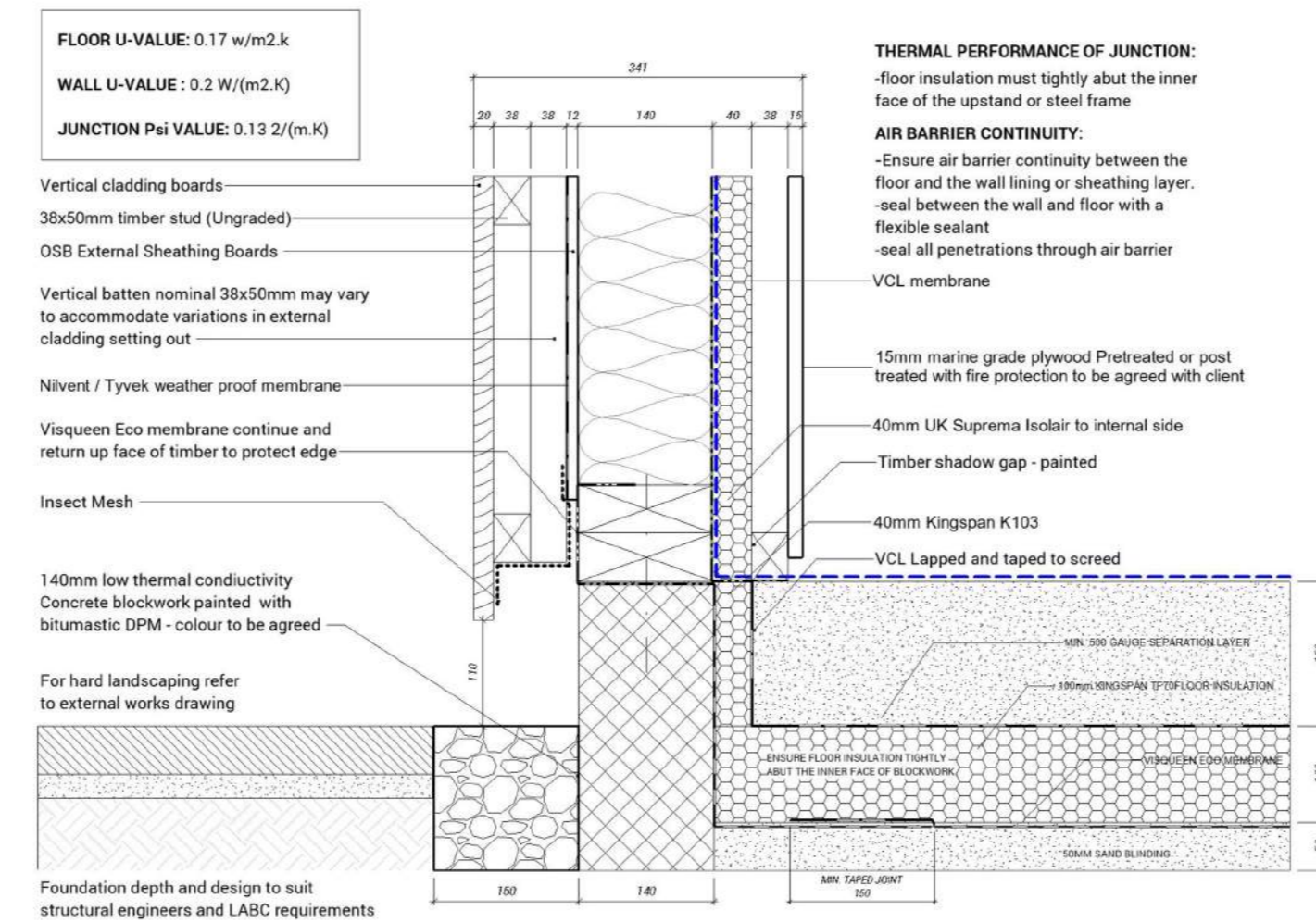
Workshop Parapet - Thermal Model



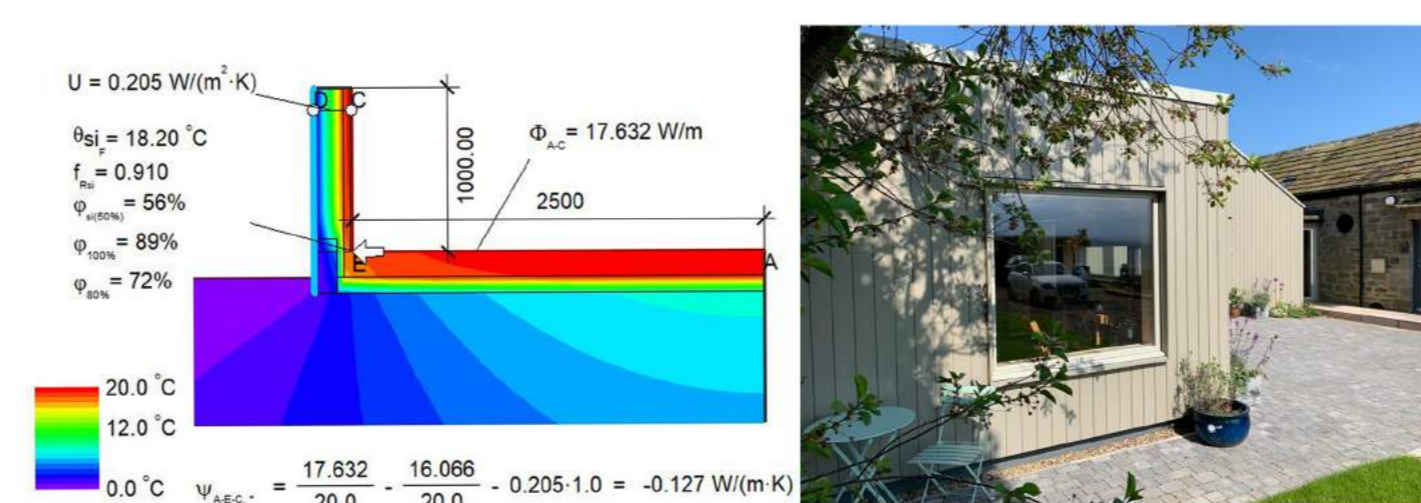
BIM Model - Section

Performance and Robustness- Thermal Modelling

Detail drawings were produced in Revit with the new build junction PSI values calculated in Flixo to ensure low thermal bridges at the junctions. The heated workshops fabric first approach used Low U-values to new thermal elements.



Ground Floor - Detail Drawing



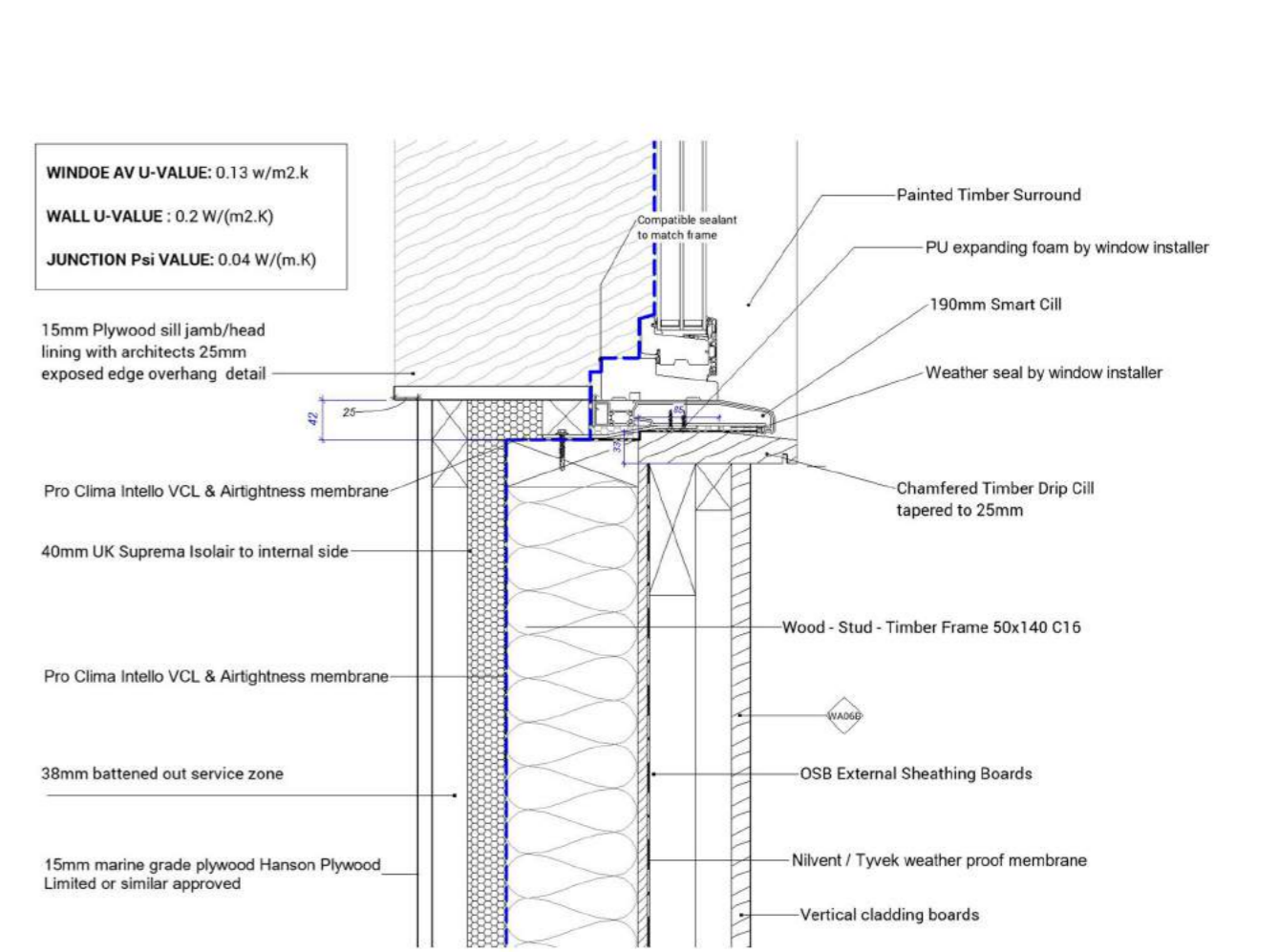
Ground Floor - Thermal Model



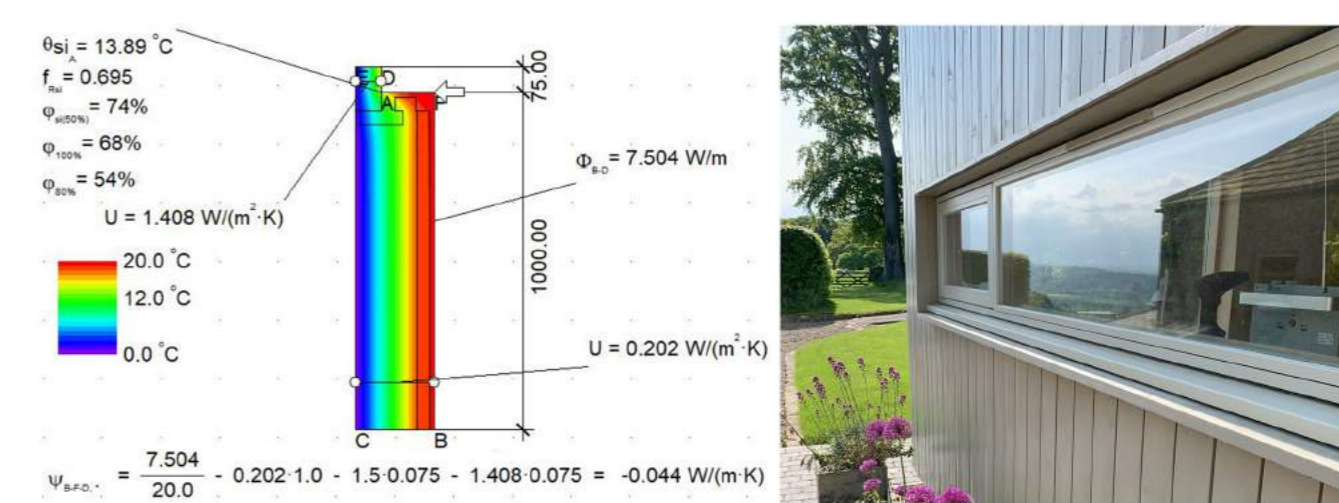
BIM Model - Long Living Room

BIM

The scheme was modelled using Revit and all drawings were produced in Revit. This gave a benefit of allowing the client to visualise the scheme using images produced with an Enscape Plug-In. Some of these images are shown to the bottom of the scheme.



Window Cill - Detail Drawing



Window Cill - Thermal Model



BIM Model - External



BIM Model - Window Seat

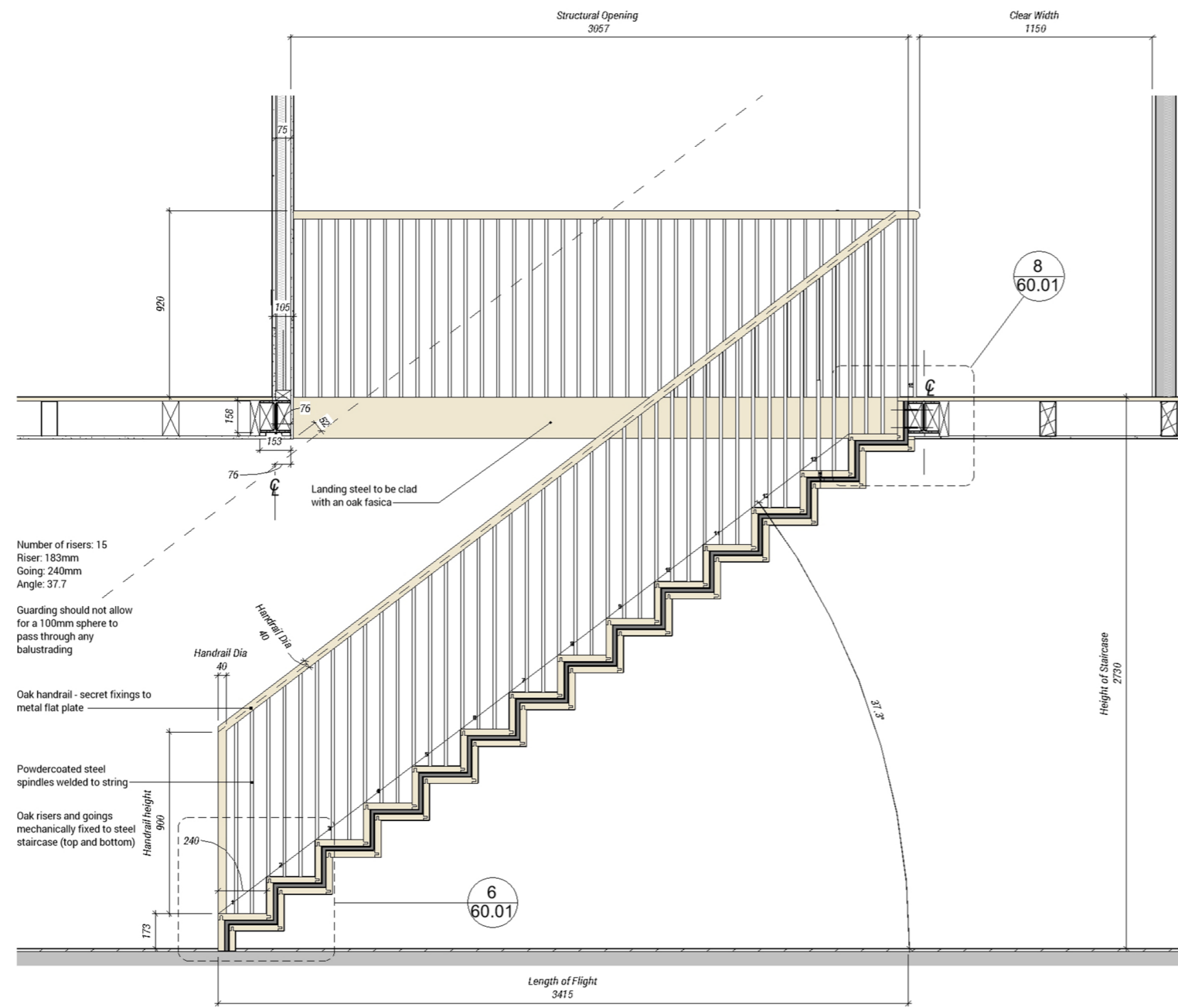
HOLLY HALL BARN

DETAIL BOARD 02

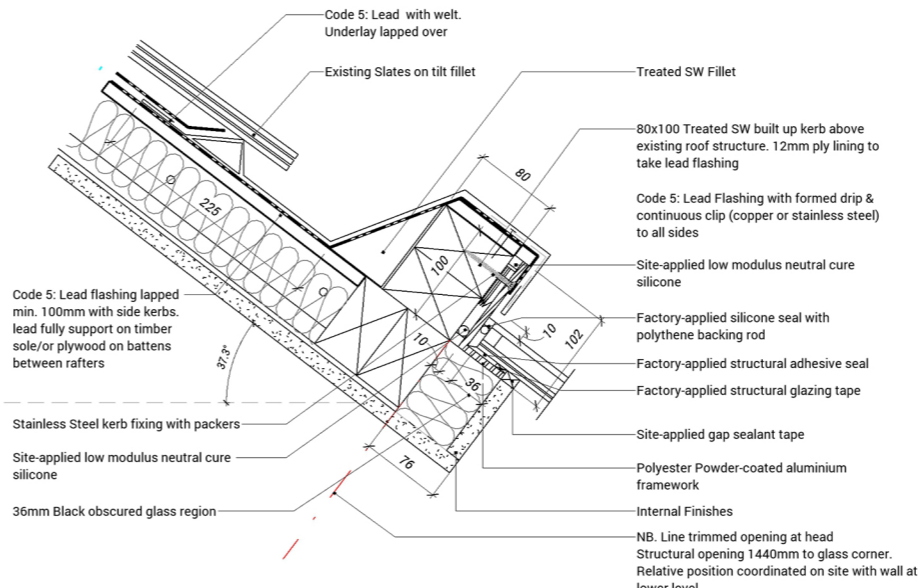
Staircase

The original spiral staircase was removed and in its place we installed a clear spanning 'zig zag' staircase.

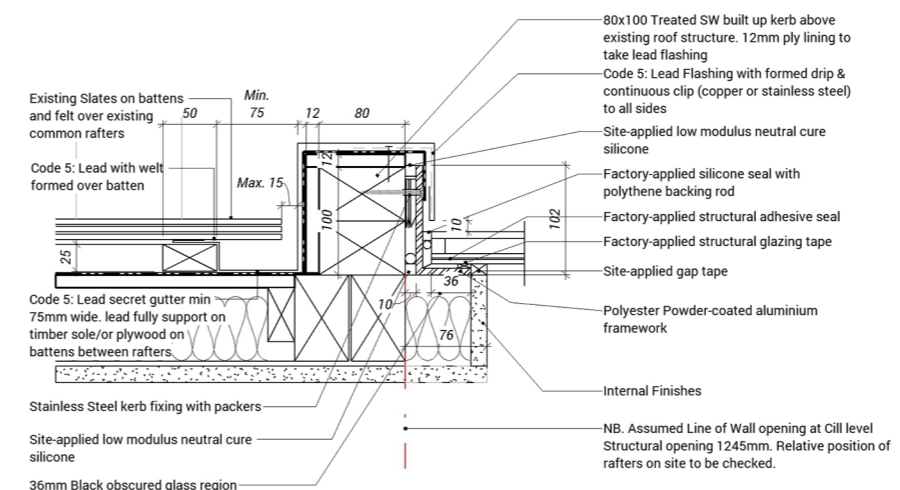
The staircase was centred in the room which helped delineate between the living room and the dining room. The new staircase was made from a steel frame that was clad in oak risers and treads mechanically fixed to both the top and underside of the risers and going. An oak fascia continues round the floor opening, cladding the steel trimmers. Painted metal spindles rise up to a flat steel plate upon which the oak handrail is mechanically fixed. The handrail sweeps down to top of the first riser.



Staircase Section



Eaves Window - Head Details

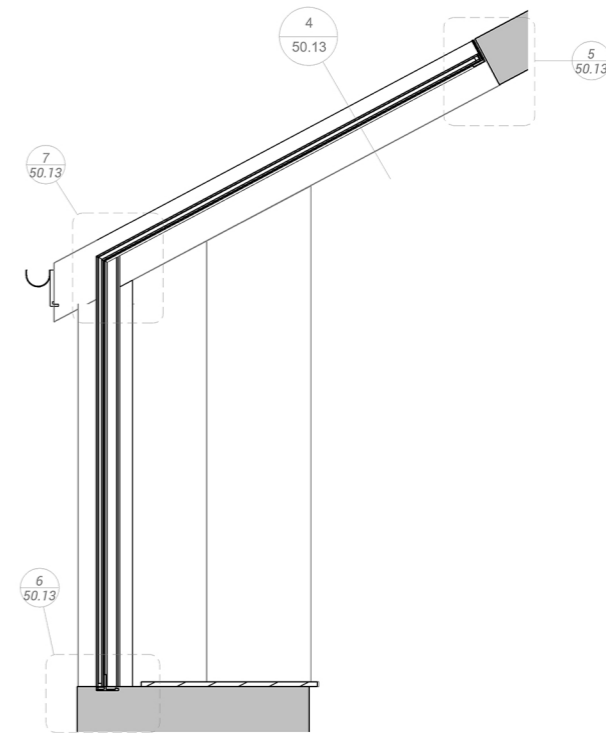


Eaves Window - Rafter Details

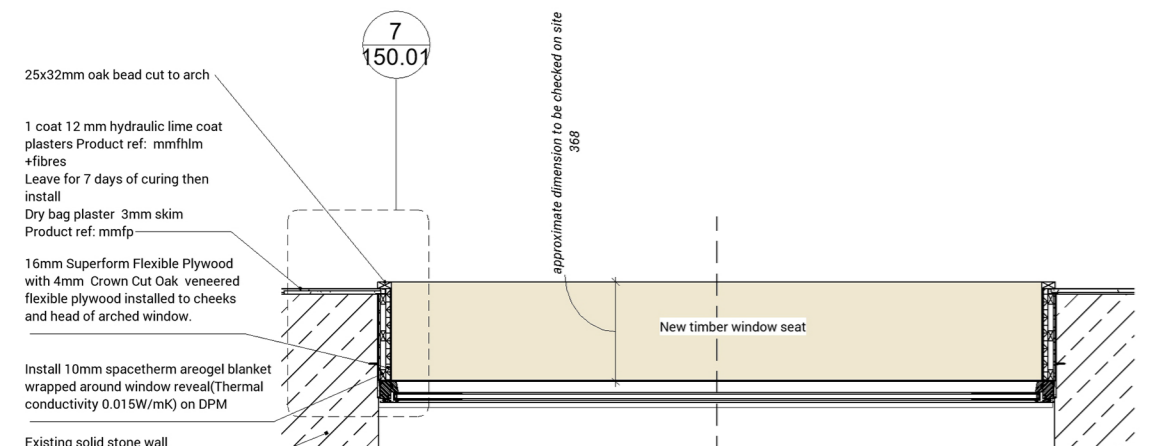
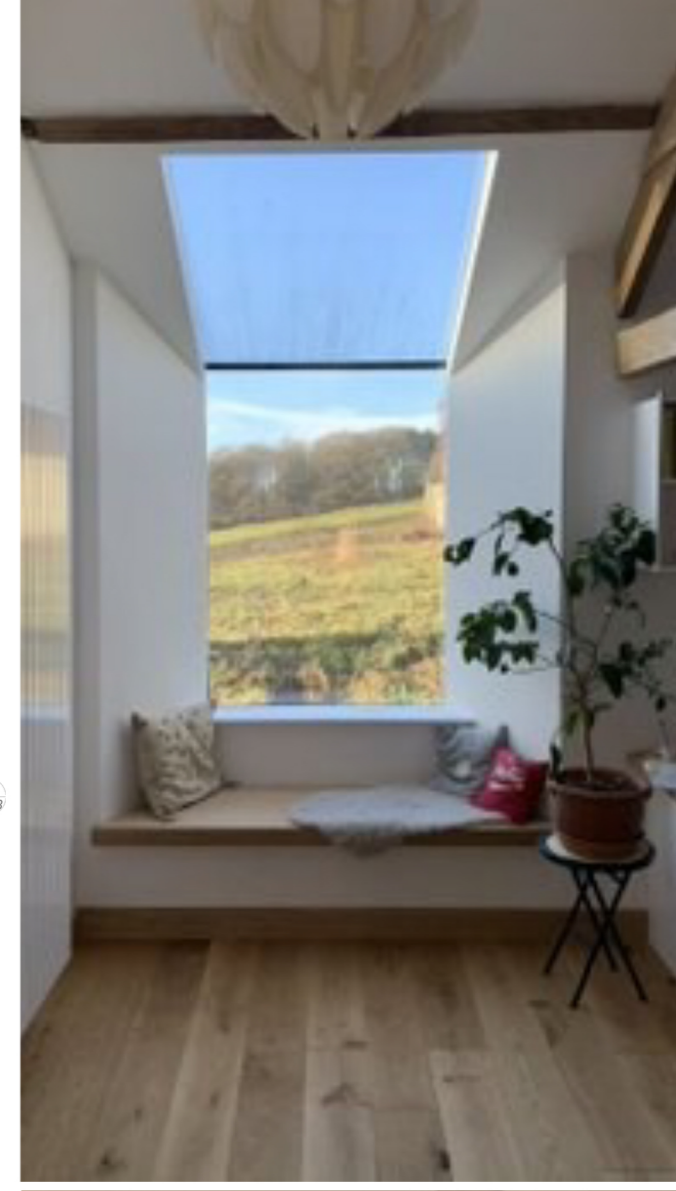
Eaves Window

A glass to glass eaves window was installed to the west wall of the study / music room.

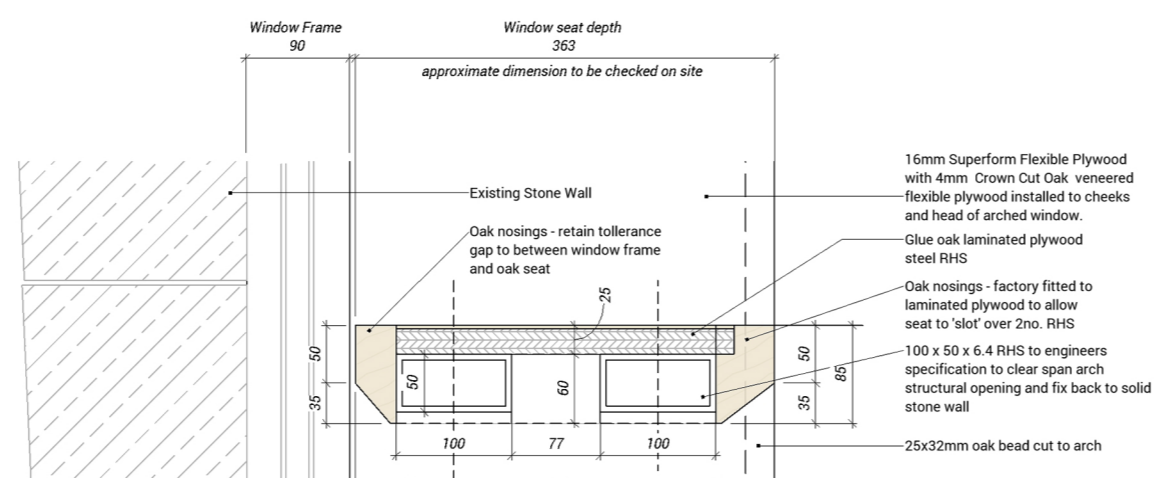
It was detailed in a way to hide the window frame giving a frameless effect to the window as shown in the Head and rafter details and the image to the right.



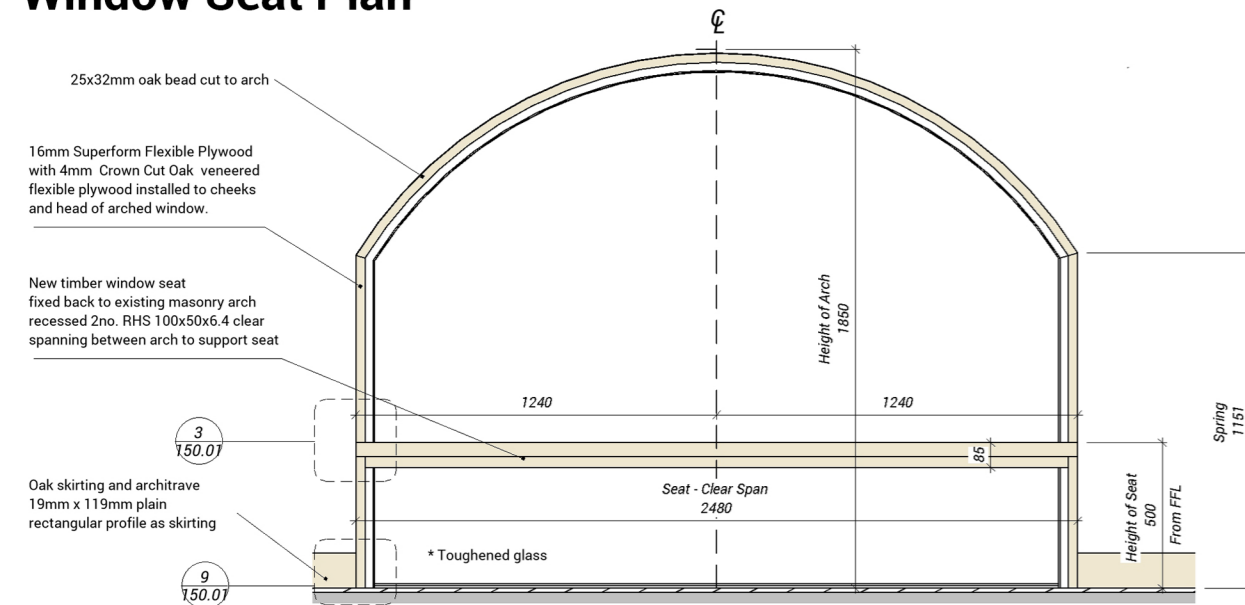
Eaves Window Section



Window Seat Plan



Window Seat Section

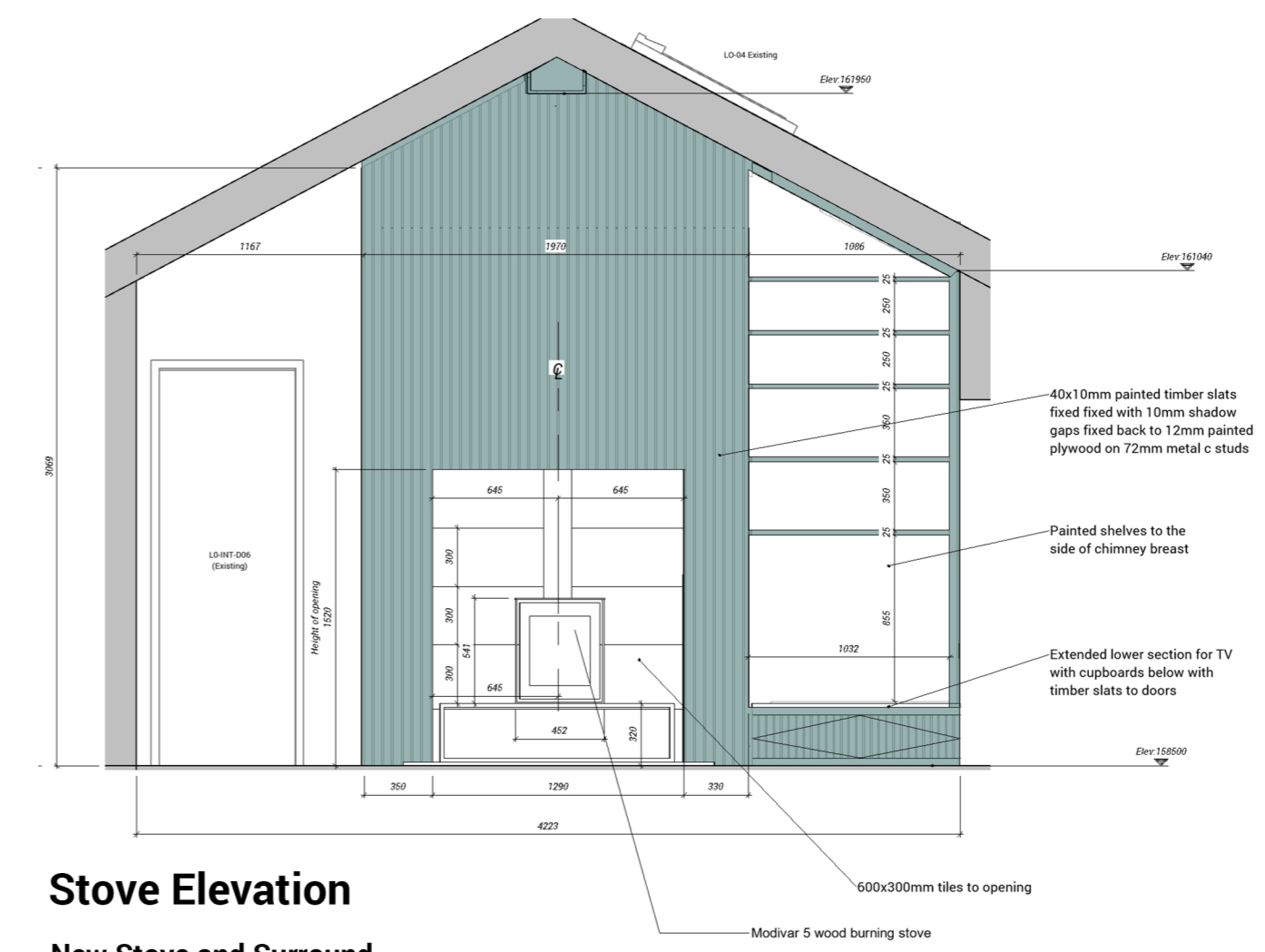


Window Seat Elevation

Window Seat

The existing window which sat within the living room was removed and replaced with a fixed, arched double glazed window. The stone cheeks were insulated at the jambs with aerogel to provide a better surface temperature factor and then wrapped with a flexible oak veneer plywood.

The bench clear spans the stone cheeks which was achieved by installing steel 2no. RHS bearing onto steel angle brackets.



Stove Elevation

New Stove and Surround

A new stove was installed with a site formed surround that accommodated the log store, book case and TV location. The stove was installed in accordance with HETAS guidance and Approved Document J. The alcove was lined with fire resistance tiles. The flue discharges through the existing roof to a terminal.