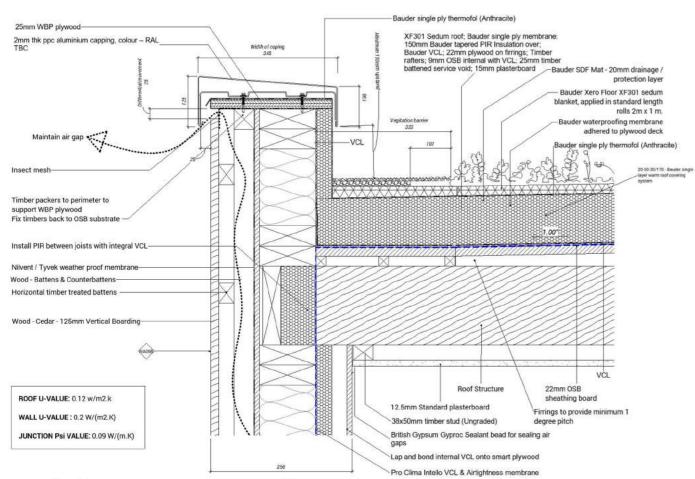
# **HOLLY HALL BARN**

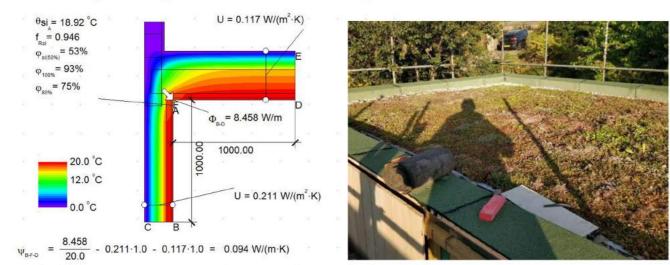
### **DETAIL BOARD 01**

### **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**



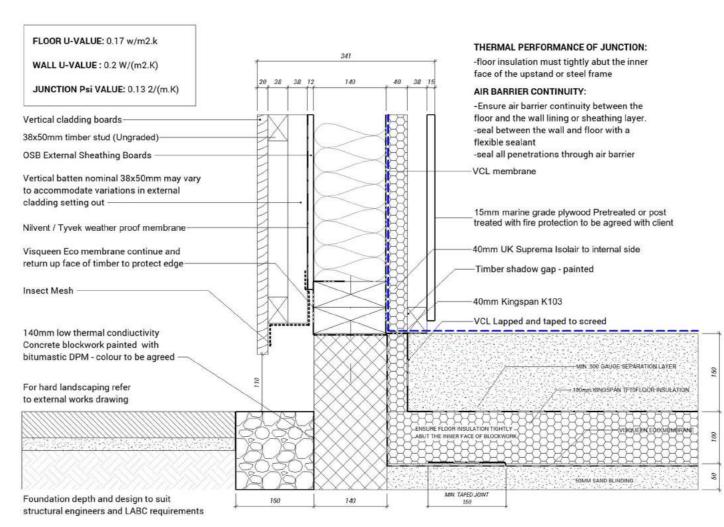
Workshop Parapet - Thermal Model



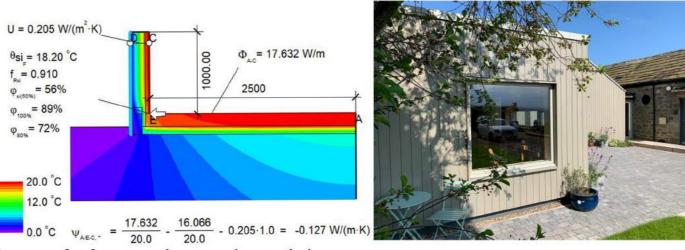
BIM Model - Section

### 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



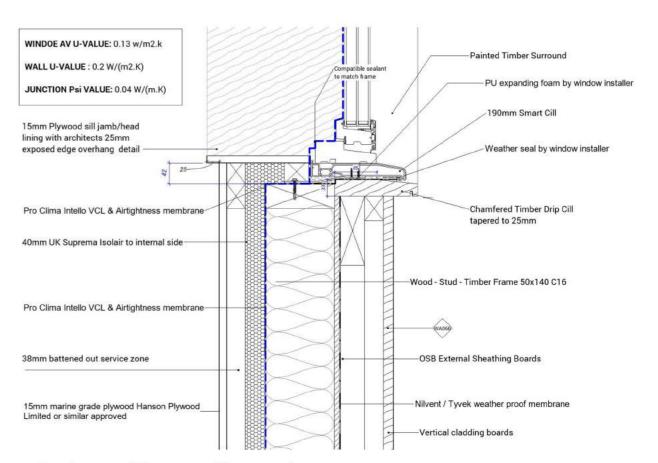
Ground Floor - Thermal Model



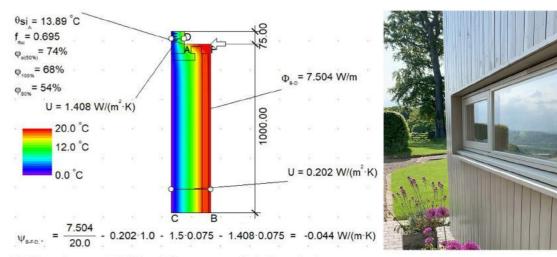
**BIM Model** - Long Living Room

#### RIM

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.

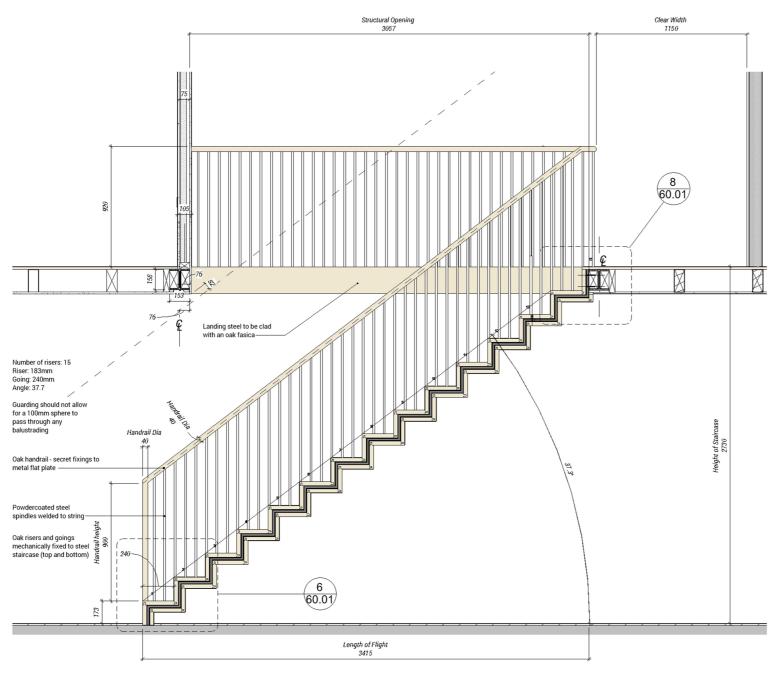
The staircase was centred in the room which helped delineate between the living room and the dining room. The new staircase was made from a steel frame that was clad in oak risers and treads mechanically fixed to both the top and underside of the risers and going. An oak fascia continues round the floor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

Number of risers: 15
Riser: 183mm
Going: 240mm
Angle: 37.7 mechanically fixed. The handrail sweeps down to top of the first riser.

**Staircase Section** 

Oak skirting and architrave 19mm x 119mm plain rectangular profile as skirting

**Window Seat Elevation** 

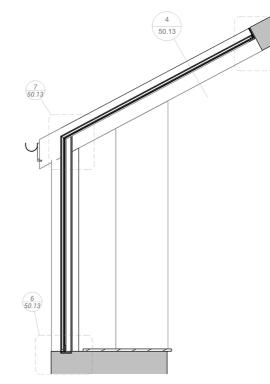


# 80x100 Treated SW built up kerb above Code 5: Lead Flashing with formed drip & continuous clip (copper or stainless stee min. 100mm with side kerbs. lead fully support on timber sole/or plywood on battens Internal Finishes NB. Line trimmed opening at head Structural opening 1440mm to glass cor Relative position coordinated on site wit

### **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**

## -80x100 Treated SW built up kerb above existing roof structure. 12mm ply lining to take lead flashing -Code 5: Lead Flashing with formed drip & polythene backing rod Factory-applied structural adhesive sea -Factory-applied structural glazing tap imber sole/or plywood on \ NB. Assumed Line of Wall opening at Cill level Eaves Window - Rafter Details

Eaves Window - Head Details

with 4mm Crown Cut Oak veneered

-flexible plywood installed to cheeks and head of arched window.

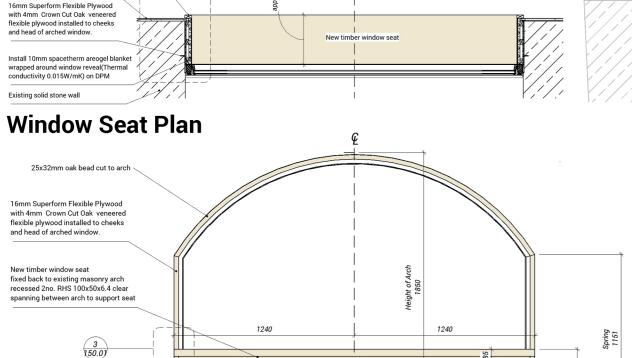
Glue oak laminated plywood

Oak nosings - factory fitted to

100 x 50 x 6.4 RHS to engineers specification to clear span arch structural opening and fix back to solid stone wall

laminated plywood to allow seat to 'slot' over 2no. RHS

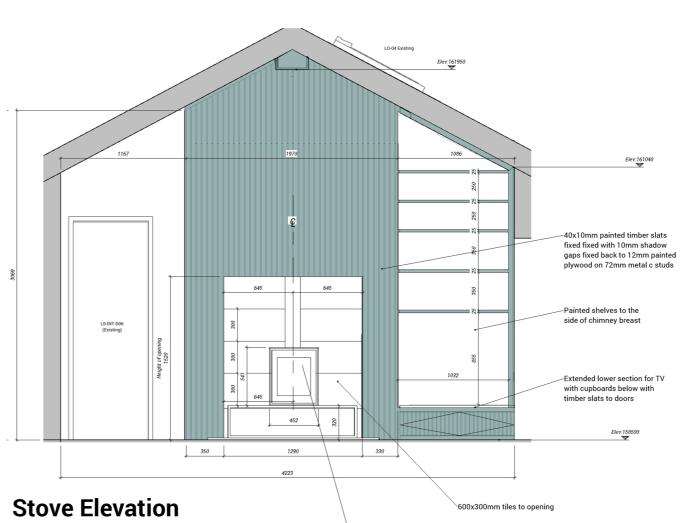
Window seat depth 363 7 150.01 pproximate dimension to be checked on site 25x32mm oak bead cut to arch plasters Product ref: mmfhlm Leave for 7 days of curing then Dry bag plaster 3mm skim Product ref: mmfp— 16mm Superform Flexible Plywood with 4mm Crown Cut Oak veneered **Window Seat Section** 



**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.



### **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.

Modivar 5 wood burning stove









## JDDK DISCOVER DESIGN DELIVER