

**Anchor Timber
Bungalows**
Falkirk

Installer: A.C Whyte

Sector: Social Housing
Low Rise
Refurbishment

After refurbishment



Before refurbishment



Client:
Falkirk Council

Building Type:
Anchor Timber Bungalows

Project Size:
15 Properties

Product:
Hybrid - Structural External
Wall Insulation & External
Wall Insulation

Project Background:

From April 2019 to October 2019 Structherm's unique Hybrid system was installed by Approved Installation Contractor, A. C. Whyte on 15 non-traditional Anchor bungalow properties in Falkirk, on behalf of Falkirk Council.

The construction of Anchor properties was introduced in 1967 and these specific bungalows were built by Falkirk Council in 1997 on the site of Weir Steel houses that had been demolished. The foundations of these Weir Steel homes were of a good condition and were retained for the new homes.

Anchor homes were built with a timber frame, brick cladding on the gables, and timber lining to the front and rear elevations. The Building Research Establishment (BRE) report for this type of property highlights the possibility of localised decay of timber frame panels and plywood infill panels.



Design Solution:

Structherm's hybrid system is a cost-effective method of extending the life of non-traditional properties – both low and high rise. This solution utilises their standard external wall insulation system, with the strength of the unique Structural EWI panels in the areas that need it. Falkirk Council appointed A. C. Whyte to deliver the refurbishment scheme.

The external timber cladding of Anchor Bungalows can

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mean these houses are exposed to adverse weather conditions which make them cold and expensive to heat. The bungalows in this particular project showed no signs of degradation or rot in either the timber frame or wood cladding. But because of the LABSS guidelines on insulating timber houses, the wooden clad areas were unsuitable for standard external wall insulation.

Structherm's Structural EWI system incorporates a 10mm cavity between the existing timber and the rear of the SEWI panels which allows any moisture which may build up to escape. The system effectively moves the dew point to the outside of the new render resulting in a warmer, drier environment within the houses. The client also specified a U Value of 0.22 W/m²K or better. As a result the SPH125 panel was specified.

The gable ends of the properties were of a good condition and simply needed standard phenolic external wall insulation. While the interfaces between the brick and timber clad substrates were a challenge, the system designers worked closely with Falkirk Council and A. C. Whyte to ensure a high quality installation and dry dash finish.



Results:

- With Structherm's Hybrid SEWI, combined with re-roofing and additional external work, the aesthetic upgrade of the Anchor properties is transformational.
- Hybrid SEWI is a cost-effective solution for thermal and aesthetic upgrading of non-traditional housing.
- Falkirk Anchor properties were thermally upgraded to 0.22 W/m²K, which is more efficient than the current industry standard of 0.3 W/m²K for refurbished homes.
- There was no requirement for decanting tenants.