THE GRANARY - LEOMINSTER

A combined timber and oak frame system to complement the existing building

Project: The Granary

Company: Frame Technologies

Sector: Self Build

Technology: TechVantage™ E

Overview:

A truly one-off home, The Granary is a historical cottage in Kingsland, a village in the outskirts of Leominster. Needing more space, the home-owners opted for an extension over relocating. They contracted Frame Technologies to design, manufacture and install a combined timber and oak frame system to complement the existing building. Frame Technologies created a timber system to expand the country home with a second storey and kitchen development, allowing the homeowners more family room.

The Challenge:

The home-owners found themselves with a problem that is not uncommon: they needed more space for their growing family but didn't want to leave Kingsland or their oak frame cottage, a quirky curved-structure home. The home-owners found their solution in self-build – and in Frame Technologies. With designs in place for a contemporary open-plan new wing, Frame Technologies expanded the family home, sensitively integrating the 135m^2 new wing using oak purlins and glazed gable, supplied by local oak frame supplier, Border Oak.

Meeting the Brief:

Timber frame was key to creating a new wing that would complement its historic counterpart and green surroundings. Frame Technologies manufactured vaulted ceilings and traditional dormers to match the exterior timber cladding. Due to the nature of the existing building, the extension needed to be formed as an 'L' shape, facilitating a spacious layout with easy access to the staircase. Frame Technologies restructured walls and constructed a corridor to achieve this design.

Offsite-Manufactured Timber Frame:

Speed of build was paramount as the family were living in their home for the duration of the construction work. Frame Technologies' offsite approach allowed the entire new wing to be erected within two weeks, as we manufactured the timber frame in our precision-controlled factory in Presteigne. Implementing this offsite approach minimised hazard risks, waste, weather dependence, labour costs and onsite disruption, while simultaneously improving project efficiency and offering a one-stop-shop supply for the self-builders.

Achieving the Optimum Performance:

Using Frame Technologies' popular TechVantage™ E system – a 140mm panel combining rigid polyurethane insulation, 9mm OSB outer sheathing, a vapour control layer and plasterboard in a breathable full insulation package – we were able to achieve an overall U-value of 0.17 W/m^{2}K, exceeding building regulation requirements.

Having previously struggled with heating in their cottage, the family now

have a well-insulated home that remains consistently warm, dramatically cutting heating bills. They no longer need to use their aga heating system, which they now enjoy purely as a decorative kitchen feature. Having invested in underfloor heating, the family has an additional energy-efficient heating supply for the coldest times of the year.

Homeowner Comment:
“From the moment that we met Frame Technologies, they were enthusiastic and ready to help us. Having got in touch, we realised that we’re located near to Simon and Jennifer, who came round with a bottle of wine to discuss our plans! As we progressed with the self-build extension, Frame Technologies dealt with questions as soon as they arose and were happy to adapt plans to meet our new design ideas as the build process evolved. Simon and Jennifer consistently checked that we were happy with all developments throughout the process, and our self-build extension was completed in the time span that we had agreed. We would highly recommend them to anyone starting their self-build journey.”