

CASE STUDY

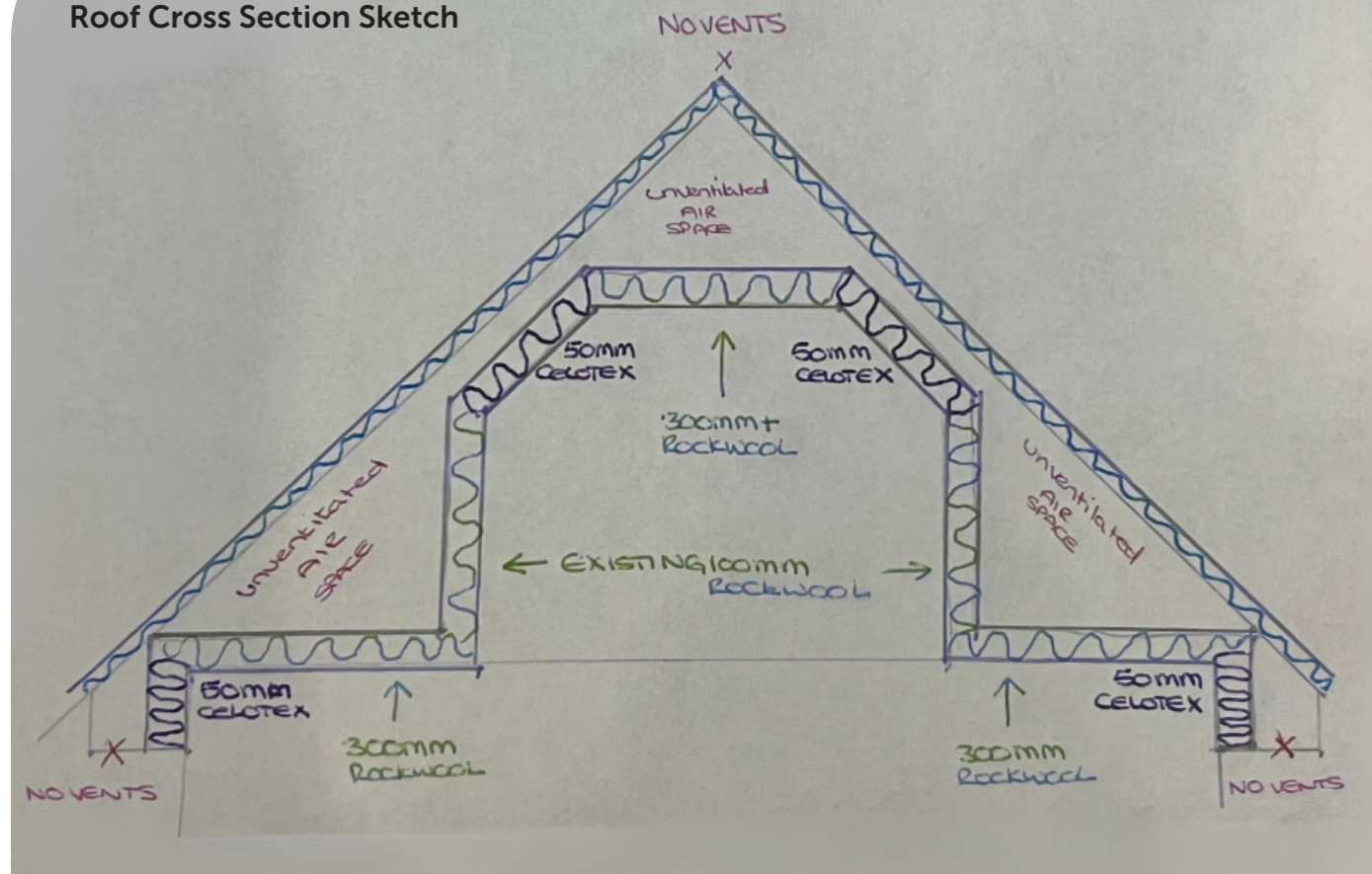
RE-ROOFING



Re-Roofing Case Study: Improving Energy Efficiency

"This 1930s house has large rooms, including two rooms in the roof space. The cavity walls had been filled, double glazing throughout, and rock wool insulation in all accessible parts of the attic. It seemed as much as possible had been insulated but the heating costs were still very high, and if the temperature was turned down in unused North facing bedrooms then mildew would appear on ceiling and sloping wall cold spots. It then became apparent that the problem was most of the roof was still uninsulated and those parts were completely inaccessible from inside.

Roof Cross Section Sketch



We looked for local roofing companies for advice and found Moran Roofing and a few others. A neighbour had used Moran Roofing and spoke highly of their advice, work, and the improvement in comfort after completion. Lee Moran came to see us and explained that in this case proper insulation could only be fitted from the outside after removing tiles, and since more than half the roof needed work, it would be best to remove the lot, tiles battens and felt, fully insulate all the exposed areas with 50mm rigid foam board, and then put multi foil insulating material over all the roof slopes before adding another layer of battens and replacing the tiles. In addition he recommended bringing the roof up to modern standards by using screw fixings on the hip and ridge tiles instead of mortar, and overall creating an unvented 'warm roof' construction which should provide the highest level of insulation and also be maintenance free.

The company produced a clear, detailed quotation supported by appropriate documentation, and Lee patiently answered all questions. He used a drone to photograph the roof from various angles, and from this was able to establish the number of tiles in place, how best to insulate the various dormers and small sections of flat roof, and give a fixed price. We agreed to proceed.

The project ran well, we were fortunate to have two excellent roofers to do the work, John and Stan, who remained throughout the project and guided us through various options and solutions as unexpected problems arose, and some further improvements and enhancements were made. The project took much longer than planned because of staff shortages but we worked around this with a break for a while to suit us, then John and Stan returned to complete the work. They were true professionals and genuinely nice people, excellent at all times and in all ways.

The improvements in comfort are impressive. In summer the bedrooms used to be unbearably hot with the sun beating through the uninsulated roof and heating them like greenhouses. Now they are just pleasantly warm. As winter approaches we notice the house stays warmer and needs far less heating, it feels warmer even when the room temperatures are low, probably because we no longer have downdrafts from the cold uninsulated ceilings and wall areas. And of course no mildew any more. An unexpected improvement was in sound insulation, we no longer hear the rain on the roof, the birds on the chimney cowls, or the bins being emptied each week about 6am.

Even more impressive were the findings from a new EPC (Energy Performance Certificate) survey as we were able to compare this with the previous survey 18 months earlier: the energy now required to heat the property is about half. At current energy prices this represents a huge financial saving.

Overall, we are pleased we had this work done, and Moran Roofing was a good choice because of their experience, professionalism and knowledge. We were reassured greatly by this as we needed confidence in the outcome. It was expensive and disruptive but the benefits are clear, and the property should now be suitable for a more efficient clean energy heat-pump system in place of continuing to burn harmful fossil fuels."

J.S.

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