

IMPROVEMENTS TO TRANSFORM A 1930'S HOUSE INTO A WARM, ENERGY EFFICIENT & ATTRACTIVE ECO-HOME

- ❖ CUT ENERGY BILLS - NO HEATING NEEDED
- ❖ IMPROVE INSULATION FOR HEAT LOSS & SOUND TRANSMISSION
- ❖ ENHANCE AIR TIGHTNESS
- ❖ UPGRADE ENERGY PERFORMANCE RATING TO AN ECO-HOUSE



In these days of climate change and high energy costs, much emphasis is rightly placed on the need for new build projects to be as eco-friendly as possible but there is also a great need to significantly update the green credentials of existing, outdated housing stock.

An example of such a project was to enhance the thermal efficiency of a 1930's house in Ramsgate, Kent, with the aim of reducing energy consumption and improving the overall levels of comfort for the residents.

The first step was to carry out a range of tests to ensure the viability of the project, assess what remedial actions were needed and ensure the costings were accurate and comprehensive. These tests indicated that various works would be required including lining the timber floors, sealing floor to wall perimeter joins and installing additional insulation to the external walls and roof space.



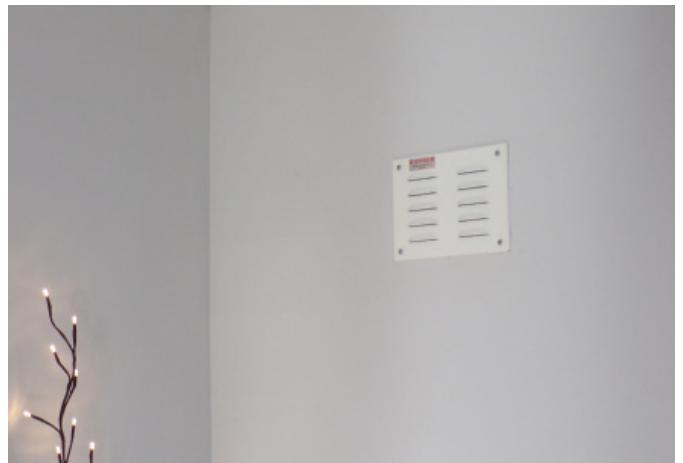
To minimise disruption and preserve internal floorspace, our external wall insulation system was installed to significantly reduce heat loss through the walls, thereby raising energy efficiency to cut emissions and reduce fuel costs. External Wall Insulation systems can also upgrade the external appearance of the property, protect the building structure and overcome thermal bridging and condensation problems.

Because these works combine to make the building much more airtight, it is important to ensure the indoor air is of a good quality so, an integral element of our installations is to secure correct ventilation levels by adding new vents wherever necessary.

On completion of the works, the air permeability of the building was shown to have plummeted from 10.7 to just $3.4\text{m}^3.\text{h}^{-1}.\text{m}^2$ @50Pa - well below the level of 4 required for eco-house standards. The property owner was extremely pleased with the improved appearance of the house and has reported that, since the work was completed, they have not needed to use their central heating, even during the winter months.



Insulation



Ventilation



Draft exclusion



Improved air tightness

The EnviroHouse insulation system comprises of a layer of high-density, fireproof insulation fixed to the outside of the existing walls, covered with a weatherproof panel which can then be painted, covered with a protective render or other decorative finish. Dry cladding methods offer an additional wide range of finishes including timber panels, stone or clay tiles and brick slips. A full range of trims and accessories ensures that all detailing issues can be dealt with in an effective and visually attractive way.