

# case study



## MVHR delivers outstanding results for Hillside House



Building a new home into the side of a hill gave the Weeden family in Sevenoaks, Kent, even more reasons to choose a mechanical ventilation with heat recovery (MVHR) system from ADM Systems.

That's because Mr Weeden knew that it was the only practical way of ensuring that the rooms below ground level, which lacked windows, received adequate levels of ventilation.

Without an MVHR system to regularly circulate and change the air in these areas it would have resulted in an ongoing problem with stale, damp conditions.

Aside from this, the MVHR system is able to maximise energy efficiency by recovering over 90 per cent of the heat from the outgoing stale air, before feeding it back into the property as warm, fresh, filtered air.

Reusing this heat, which would normally be lost to the outside air with standard extractor fans or passive ventilation, not only reduces heating bills, but creates a much healthier building.

### The heat recovery files

Client: Trevor Weeden

Locations: Kent

Ventilation: Mechanical ventilation with heat recovery system (MVHR)

Property: Five bedroom house

"An MVHR system was the only effective way of providing adequate ventilation in the areas built into the hillside. We were very impressed with both the product and service provided by ADM Systems."

Trevor Weeden

That's because moisture-laden air, if allowed to remain in the property, would have resulted in condensation forming on cooler surfaces, which is most visible with streaming windows and peeling painted surfaces.

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The MVHR system fitted in the Weeden's property works by a series of ducts that collect stale moist air from inside the property. ADM advised on the size of heat exchanger, location and quantity of ducts required.

The ducts collect stale contaminated air, which is then fed into the heat exchanger unit and exhausted to the outside. Clean fresh air is then simultaneously drawn from the outside and, as the two air streams pass each other, the heat is transferred from the outgoing stale air to the fresh incoming air. There is no mixing of air streams.

**Mr Weeden added: "We asked the architect to make our home as energy efficient as possible and the only way of doing this was to increase the amount of insulation and ensure high levels of air tightness.**

That turned out to be a double edged sword as it traps moisture laden air inside the home, especially in the areas built into the hillside where there is no natural ventilation.

The MVHR system offers the best of both worlds by maintaining energy efficiency and creating a wonderfully fresh and healthy indoor air quality in all areas of our new home."

John Hughes Design, the architect on this project, recommended ADM Systems to Mr Weeden.

"We have specified an MVHR system from ADM several times before because we knew that they are an independent company and therefore aren't tied to a particular manufacturer," said John Hughes. "That means they are able to assess each property and then, with their technical knowledge, recommend the most appropriate system from a wide range of manufacturers."

**John continued: "We were delighted with the service and ongoing support offered by ADM Systems. They gave us the confidence that our commitments to the client would be met - and that is extremely important for the reputation of our company."**

ADM has been supplying energy efficient ventilation systems for over 30 years. It is able to advise clients on the most suitable system for both new builds and refurbishments.

"The MVHR system is now an integral part of our heating and ventilation system," said Mr Weeden. "I would highly recommend ADM Systems as they were extremely conscientious throughout the installation."

For more information on ADM Systems, telephone: 01756 701051. Alternatively visit the website at: [www.admsystems.co.uk](http://www.admsystems.co.uk)

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