



Kahu Swanson and Jacinda Aplin's 127m² home was designed to exceed minimum building code standards, with high-performance insulation and ventilation. PHOTOS: EHAUS MANAWATŪ

The house that stays 20C, whatever the weather

Building new was the only way for a Manawatū family to get the healthy home they wanted, writes **Joanna Davis**.

When Kahu Swanson talks about his family's old house, he remembers the stifling summer nights. "It was 30C inside," he says. "You couldn't sleep."

Swanson, an electronics engineer, his wife Jacinda Aplin, a scientist, and their young son were living in a renovated 1940s stucco home that was cold in winter, hot in summer and expensive to run.

Both Swanson and his son, Jensen, 11, suffer from asthma and allergies, and the condensation and temperature swings made life harder than it needed to be.

After years of trying to fix it with upgrades – including a ducted heat pump – the couple realised that if they wanted a home that was warm, dry and healthy year-round, they would have to build it themselves.

Just outside Palmerston North, that's what they've done.

Their two-bedroom home, built with eHaus Manawatū, is deliberately compact, entirely white and designed to perform well beyond minimum building code standards.

"When looking at purchasing pre-existing homes, they all suffered from the same issues," Aplin says. "We realised if we wanted a house that was warm, dry, well-ventilated and affordable to live in, we probably had to build it ourselves."

Swanson, 43, says it was his wife's idea to focus on energy efficiency from the outset. A constant indoor temperature was the initial drawcard. "But the more you learned, the more you realised the other benefits."

The result is a 127m² home whose footprint extends beyond 200m² when



The house just outside Palmerston North is a simple rectangular shape – another design feature that minimises heat loss or gain through the overall external wall area.

you include the garage, covered foyer and deck.

Instead of chasing extra bedrooms or multiple ensuites, they prioritised what mattered: a generous living area, internal storage, a proper laundry inside the house and thoughtful flow.

They skipped the ensuite, but positioned the bathroom directly beside the bedroom. "We just tried to make specific choices," Swanson says. "It doesn't feel like a sacrifice."

Outside, the walls, roof, window joinery and garage door are all white, which certainly makes it stand out, but the choice wasn't about looks.

Research shows lighter colours reflect solar radiation and reduce heat absorption. White roofs are one of the simplest and most cost-effective ways to limit summer overheating. After living under a dark roof that trapped heat well into the night, the couple were convinced.

"In our old house, summer nights were unbearable," Aplin says. "Now we don't notice the weather until we step outside."

The white finish was achieved with conventional materials: Rockcote cladding, white powder-coated finishes and high-performance uPVC windows.

Other energy-efficient elements are 140 millimetre-thick framing and insulation –

compared with the more common 90mm – an insulated slab and a mechanical heat-recovery ventilation (MHRV) system that continuously brings in fresh air while extracting stale air, retaining heat in the process.

Swanson appreciates the ventilation system most. "It's the same thing as opening your windows, but you don't lose any heat," he says.

For a family managing asthma and allergies, the filtered air is a game-changer.

Inside, the temperature remains stable at 20C year-round.

There's no condensation on windows, fewer insects and noticeably less outside noise. Visitors often comment on how calm and even the space feels.

"Comfort isn't something we think about any more," Aplin says. "It's only when people walk in and say, 'it's nice in here' that we're reminded how different it really is."

Design played a critical role. Extended eaves to the northwest act as a zero-energy heating and cooling system.

In summer, when the sun sits high, the overhang blocks direct rays from striking the glazing. In winter, the lower sun angle allows light to penetrate beneath the cover and warm the interior naturally.

Window placement was equally



Kahu Swanson, Jensen, 11, and Jacinda Aplin. The family had their own home built after realising they wanted a higher-performance home than any that were on the market.

deliberate. Large north-facing windows capture winter sun in the entry, kitchen and living areas.

There are no east-facing windows and only one small window to the west, limiting unwanted summer heat gain.

High-performance joinery was another priority. While the building code requires double glazing, many homes still use aluminium frames, which readily conduct heat and cold. This house uses uPVC joinery from Klima, reducing thermal transfer and condensation risk.

Swanson acknowledges that the perceived downside is cost – much of it tied up in elements that are unseen, such as the MHRV system and insulated slab.

"The hardest part is not everybody sees the value," he says. "They would rather have a five-bedroom, two-ensuite, triple-bay garage and a mediocre home. I do think that's changing, though."

The house has drawn industry recognition, winning four awards at the 2025 Master Builders House of the Year, including regional supreme winner and a place in the top 100.

Next on the family's list is finishing the landscaping and, longer term, adding solar panels. For now, they're simply enjoying living in a home that works.

Swanson says they still catch themselves noticing the quiet. "You'll be sitting there and it's comfy and still inside," he says. "Then you look outside and see it blowing a storm."