



Downsizing to an eHaus has given Wilf and Min a home that is a “privilege” to live in. Their old home was large and hard to heat, and it was impacting Mins health. Their new home provides a smarter, more manageable home where they can now use every room comfortably.

Noho provides a consistently warm, dry environment that has significantly improved Min’s breathing and reduced respiratory issues. Built to eHaus Euro standards, the home requires minimal heating, very low energy consumption, and provides a quiet, comfortable, and affordable way to live well into retirement.

BACKGROUND AND CHALLENGES

Wilf and Min previously lived in a 450sqm home on a rural property, that they designed and built in 2008. The couple pushed performance beyond standard building requirements of the day and included double glazing and high levels of insulation before these became regulation, but it was still costly to keep every room warm.

Min lives with breathing issues, and exposure to cold has previously led to serious infections. While beautiful, their home wasn’t protecting Min from the

cold and associated health complications.

As they approached retirement, they knew their next home needed to be consistently warm, dry and low maintenance, and one that would protect their health.

When they downsized, they wanted a smarter, more future-proofed solution, so they worked with eHaus Whanganui to create an architecturally designed high-performing home.

OUR SOLUTIONS

Design: One of the home's most noticeable design features is visible from the street: there are no windows on the front façade. This was a deliberate choice to provide security and privacy from the road while allowing the home to open up to more private outdoor areas of the home. Another unique design element is that all of the external doors open out, saving space inside and making it more functional.

The roofline in the dining and kitchen area is raised on a 8 degree angle to accommodate a 4m high-level window. Sitting above the north-western roof height, this window plays an important role in

bringing natural light into the space, and helps capture the sun's warmth in the afternoon. It's a simple design move that enhances both comfort and the feeling of light and space.

High performing windows: Windows are one of the biggest potential points of heat loss or solar gain, (with an estimated 35-50% of heat in a home lost through windows and doors), and a well-insulated wall can be undermined by poor performing window joinery.

Noho features German made Wood Alu joinery to slow the heat transfer and improve insulation, warmth and condensation.

Weather protection: The living area and rear deck face south-west, overlooking the surrounding rural landscape. Positioned on an elevated site, Noho is exposed to strong winds.

To ensure the outdoor area remains comfortable and usable, the rear deck has been designed with generous soffits and protective side walls. These elements help shield the deck from wind and rain, creating a sheltered outdoor area that can be enjoyed in a wider range of conditions.



Design Specs:

- **Floor:** MaxRaft EPS slab 200mm U-value = 0.182 W/(m²K)
- **Wall:** 140mm timber frame with service cavity U-value of 0.24 W/(m²K)
- **Roof:** Double layer of fibreglass insulation U-value of 0.129 W/(m²K)
- **Window Joinery Frame:** Eco Windows German Wood Alu Uf value 1.2 W/(m²K)
- **Glazing:** Triple Glazed Low E Argon Ug value 0.50 W/(m²K) G Value 50%
- **Ventilation:** Stiebel Eltron LWZ 280 (Balance)
- **Cladding:** James Hardy oblique horizontal weather board and Stria vertical cladding, Resene Rockcote
- **Hot Water:** Stiebel Eltron WWK302H hot water heat pump

HOME OWNER FEEDBACK

“It was very important as we get older that our house maintained warmth and looked after our health.

We were also looking for a cheap style of living. Once you've paid the initial build costs, the cost of comfort [in an eHaus] is very cheap because you don't have to heat the home to be comfortable. Our heat pump doesn't go on very often.

We just live in the whole house now. It has improved our quality and longevity of life. It's a whole lot warmer. It's a lot quieter. It's a privilege living here and we just love it.”

Wilf and Min, Noho owners

RESULTS

Noho delivers stable year-round comfort (warm in winter, cool in summer) and is also exceptionally quiet. Their home meets the eHaus Euro standard, achieving an airtightness result of 0.4 air change per hour (0.4ACHn50) and is designed to be 20-25 degrees inside all the time, no matter the weather outside. In comparison, standard homes built between 2000-2009 have, on average, 4.5 air changes per hour (4.5ACHn50), and homes built in the 1960's have around 10.5 air changes per hour (10.5ACHn50) which results in a draughty home. For Wilf and Min, this means the warmth stays in, and they don't have to worry about draughts bringing in cold air, allergens, or outside noise. Unlike previous homes, they no longer close off rooms or limit which spaces they use in winter.

1

Energy efficient

Noho on average saves 85% of heat energy costs.

2

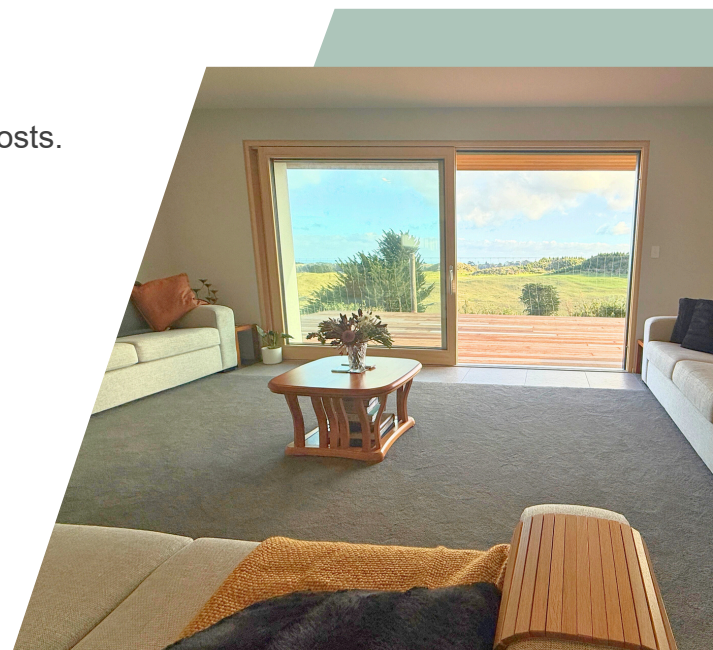
Healthy space to live

98% of pollutants and allergens removed from the home and minimal condensation. Owners note an improvement in health and far fewer respiratory issues.

3

Carbon savings

Annual carbon savings of 2,384.99KG per year.



ABOUT THIS EHAUS

Noho is a high-performance eHaus designed to support comfort, health, and ease of living as its owners move into retirement. Replacing a much larger previous home, this architecturally designed 261sqm residence - including 177sqm treated internal living area - delivers stable year-round temperatures, exceptional quietness, and dramatically reduced energy bills.

The three-bedroom home includes two bathrooms and an open-plan kitchen, dining and living area that flows seamlessly to two separate outdoor living spaces. The ceiling in the dining and kitchen area is angled to accommodate a high-level window that sits above the north-western roof height to bring in afternoon sunlight and warmth.

One outdoor living space is covered with louvres and enclosed with sliding glass doors, meaning this versatile area can be enjoyed in all weather. It can be opened up on warm, sunny days, or closed off to create a sheltered, light-filled extension of the living space during cooler or windy conditions. The built-in kitchenette further enhance its functionality.

The large south-west facing windows and doors are triple glazed and are protected from wind and solar gain with deep soffits.

Built to eHaus Euro standards, the home prioritises comfort, air quality, and low maintenance, allowing its occupants to enjoy their home, and their retirement, without compromise.

eHaus Regional Team and Project Managers:

eHaus Whanganui

Architect: Dean Baldock

Year completed: 2025

Performance Specifications:

- Heating Demand: 20.1kWh/(m²yr)
- Heating Load: 11.3W/m²
- Frequency of Overheating: 3.2% year over 25C
- Treated Floor Area: 177m²
- Air Leakage @ 50Pa: 0.4ACHn50
- Per Demand: 23kWh/(m²yr)

