

Bader Ventura Passive House Pilot, Mangere Development



What is a Passive House?

Passive House is a performance based standard that is first and foremost about delivering on a promise: a comfortable, well-ventilated home that needs very little energy. These homes regulate their own temperature through smart design, the use of high performing construction materials, and a mechanical ventilation system with heat recovery.

For our customers, this means more affordable heating, fresh indoor air quality and comfortable and healthy temperatures year-round. Environmentally, we're delivering high performing homes with significantly reduced carbon emissions.

Kāinga Ora is proud that Bader Ventura is on track to become Australasia's first Passive House public houses delivered by central government.

Project details

Several older state homes that are past their best are being replaced with 19 new warm, dry homes. Of these new homes, 18 will be three-storey walk-up apartments constructed to Passive House standard.

- 12 x three-bedroom; and
- 6 x two-bedroom homes in three-storey walk-up apartment buildings
- 1 x four-bedroom standalone home (not part of the Passive House pilot)

Expected timeline: July 2021 - June 2023

Location: Corner of Bader Drive and Ventura Street, Mangere (part of Mangere Development)



Sustainability outcomes



Reduced operational energy carbon by more than

70%*



Low carbon concrete

Where some of the cement is replaced with a 'Fly Ash' substitute



Reduced heating by around

85%*

(average heating energy use of less than 15kWh/m2/year)



Targeting an 8 Homestar Version 4.1 rating



Will achieve MBIE's Building for Climate Change 2035 proposed final performance cap for thermal demand by 2023



Customer outcomes



Greater heating affordability - electricity bill of about \$1 per day*.



Comfortable year-round temperatures targeting between 20 - 25°C



Fresh, filtered indoor air quality



Little, if any, need to use heaters or to open windows (unless customers wish to)



Homestar benefits such as: close to transport and amenities, water and energy efficiency, and a healthy indoor environment

*Estimated comparison to a standard 6 Homestar version 4.1 house.

Thank you to our project partners:



Mechanical Building Services Engineers



Structural Engineers



Architects



Build Partner



Passive House Lead and Façade