

**Proposed Christchurch District Plan – Airport Noise – On behalf of Kainga Ora
Jonathan Selkirk – Summary Statement**

I am a mechanical engineer providing heating, cooling and ventilation advice on behalf of Kainga Ora with regards to the proposed Christchurch District Plan.

My background is in designing heating, ventilation and air conditioning systems for buildings, most commonly to ensure a reasonable level of indoor air quality and thermal comfort.

These indoor conditions are universally desired across all forms of occupied buildings, and occasionally also for unoccupied buildings.

The science behind providing acceptable indoor conditions generally considers specific design and application details such as the type of use, occupancy numbers, thermal insulation of the building, and the extent and quality of glazing, among other factors.

I have experience across education, health, industrial, residential, and commercial buildings, including new and existing buildings, from master planning stages, through design and construction, to post construction monitoring and reporting.

I am a part of a ventilation working group which includes contractors, designers, and professional bodies such as Green Building Council, Energy Efficiency Conservation Authority, BRANZ, and staff members from MBIE.

We are developing an update for New Zealand Building Code G4 Ventilation to be put forward to MBIE for review, specifically regarding residential dwellings.

Our ventilation working group is aware MBIE are planning a review of the current ventilation requirements of the NZ building code within the next two years.

The majority opinion of the ventilation working group is that mechanical ventilation needs to play a larger part in ventilation of dwellings, and the current ventilation requirements for residential dwellings are no longer suitable. Our work aims to bring us into line with other nations such as the United States of America, England, and Ireland.

Please refer to the Kainga Ora PC14 document, section 6.1.7.2.2 (a) (iii), for my proposed ventilation rules regarding airport noise effects.

My justification for provision of ventilation above minimum building code rates is because of the highly variable conditions New Zealand residential dwellings are subject to with large changes in internal air quality possible due to variable occupancy, usage of the dwelling, and other unforeseen or maintenance events.

These are some of the reasons why I believe a ventilation rate higher than the minimum building code requirement is of benefit.

Yours Sincerely

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