

Nicole Footer
Level 1
85 Hutt Street
Adelaide SA 5000

S5702C5

Attention: Nicole Footer

21 December 2018

Dear Nicole,

**GOODWOOD RD APARTMENTS – 134-136 GOODWOOD RD
ROOFTOP PLANT NOISE**

An assessment has been made of the environmental noise from rooftop mounted plant associated with the proposed apartments at 134-136 Goodwood Road, Goodwood. In particular the assessment considers the noise to the adjacent school including the proposed building addition.

The assessment considers the environmental noise generated by the rooftop plant against the goal noise levels provided by *Environment Protection (Noise) Policy 2007* (the Policy). Achieving these goal noise levels ensures appropriate amenity of an area.

The proposed rooftop plant comprises a total of 18 domestic sized air conditioning units located on the roof of Level 1 and Level 2 of the apartments.

Criteria

The Policy provides goal noise levels to be achieved at sensitive receivers from general activity at a site including the operation of mechanical plant. It is based on the World Health Organisation Guidelines to prevent annoyance and unreasonable interference on the amenity of an area.

The Policy provides goal noise levels to be achieved at sensitive receivers based on the principally promoted land use of the Development Plan Zones in which the noise source (the development) and the noise receiver (the school) are located. Based on the land uses and the “development” nature of the project, the noise from the proposed apartments should not exceed an average (L_{eq}) noise level of 52 dB(A) during the daytime (7am to 10pm) at the adjacent school.

Assessment

The noise level from the rooftop plant has been predicted based on Manufacturer's noise level data for all proposed units.

The assessment has considered the following rooftop plant with all units operating continuously throughout the day:

- Serving First Floor:
 - 10x RZQ125LV1 AC units;
- Serving Second Floor:
 - 6x RZQ125LV1 AC units; and,
 - 2x RZQ140LV1 AC units.

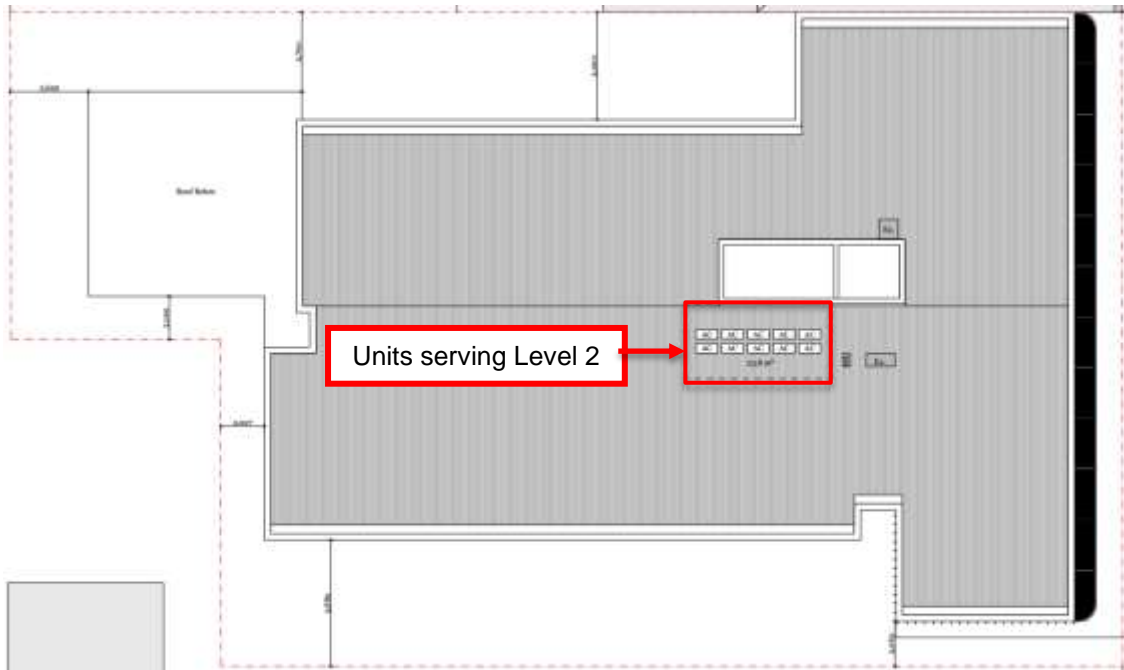
The units are proposed to be located within the designated areas on Level 1 and Level 2 as shown in the following Figure 1 and Figure 2.

Figure 1: Level 2 Plan.



The figures show that the proposed mechanical plant, comprising domestic sized air conditioning units, will be located at a setback from the roof edge such that they will not overlook the school due to shielding provided by the roof structure.

Figure 2: Roof Plan



The noise from the rooftop plant is predicted to be no more than 45 dB(A) at the adjacent school. Therefore, the noise from mechanical plant is easily below the goal noise level of 52 dB(A) provided by the Policy and will not have an adverse impact on the amenity of the area.

Further, it is noted that the proposed development is located within an existing high noise environment and the predicted noise levels are significantly lower than existing noise measured in the area.

If you have any questions or require clarification, please call me.

Yours faithfully
Sonus Pty Ltd

Chris Turnbull
Principal

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