BEFORE THE INDEPENDENT HEARING PANEL ON PROPOSED PRIVATE PLAN CHANGE 13 TO THE OPERATIVE HAMILTON CITY DISTRICT PLAN

IN THE MATTER of the Resource Management Act 1991 (the Act)

AND

IN THE MATTER of proposed Private Plan Change 13 to the Hamilton City District Plan

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Statement of rebuttal evidence of James Robert Hugh Bell-Booth on behalf of the Waikato Racing Club Incorporated
Dated: 17 August 2023

MAY IT PLEASE THE INDEPENDENT HEARING PANEL

INTRODUCTION

1. My name is James Robert Hugh Bell-Booth. I have previously given a statement of evidence in relation to the above matter, dated 26 July 2023.

CODE OF CONDUCT

2. I re-confirm that I will abide by the code of conduct for expert witnesses, as set out in the Environment Court's Practice Note 2023.

PURPOSE AND SCOPE OF EVIDENCE

3. This statement of rebuttal evidence responds to the evidence filed by Mr Alex Jacob on behalf of Chartwell Investments Ltd, Ecostream Irrigation Ltd and Takinini Rentors Ltd dated 9 August 2023.

RESPONSE TO SUBMITTER EVIDENCE

4. Mr Jacobs evidence[1] provides the following suggestions in his evidence on which I intend to comment:

   (a) Address the notation of the limit in the proposed rule 25.8.3.7 (e); suggesting 65dB $L_{Aeq\ (15\ min)}$ instead of 65 dB L_{Aeq}.

   (b) Qualifying the proposed exclusion in Rule 25.8.3.7 such that it applies to the proposed Medium Density Residential Zone only and does not apply to other Residential zones.

   (c) Low frequency internal noise performance standards and Low Frequency sound insulation design requirements for sleep disturbance.

[1] Paragraph 53 to 58

(d) A 4m Acoustic fence at the boundaries of the Industrial zoned sites adjacent PPC13 to mitigate sleep disturbance from low frequency noise and impulsive noise in the night-time period.

(e) No complaints covenants covering both the neighbouring Industrial Zone and the Racecourse.

Wording of the noise limit in rule 25.8.3.7.(e)

5. I agree with Mr Jacobs suggestion that the noise limit in 25.8.3.7 (e) should be written as 65 dB $L_{Aeq\ (15\ min)}$ as this is the method used throughout the HCDP.

Qualifying the proposed exclusion in Rule 25.8.3.7

6. The rebuttal evidence of Mr Olliver proposes a revised wording to address this, and I agree with him for the reasons Mr Olliver states.

Low frequency internal noise performance standards and sound insulation design requirements

7. Mr Jacobs suggests adopting both:

(a) internal noise performance criteria for noise in the 63 Hz and 125 Hz octave bands, and

(b) external 63 Hz and 125 Hz octave band noise levels on which to base the sound insulation design.

8. I note that the HCDP presently permits noise sensitive activities within the Industrial Zone without the suggested low frequency criteria. One such example is the mixed use development at 6 Ken Browne Drive, immediately adjacent PPC13.

9. I am not aware of any situations where the HCDP rule for noise sensitive spaces fails to provide adequate protection. I understand from Mr McGregor that there are no incidents of complaint pertaining to noise that complies with the HCDP performance standards for noise sensitive activities lawfully established in the Industrial zone that have been subject to reverse sensitivity effects pertaining to low frequency noise.

10. My understanding of the Auckland Unitary Plan's internal octave band noise limits referred to in Mr Jacobs' evidence is that their origin is based on external noise limits for the mixed use zone on the Auckland waterfront (predating the AUP). The original mixed use zone rules were to address bass beat from music, and did not apply to fixed mechanical plant. In the development of the AUP these original external performance standards where linearly adjusted down without consideration for the non linear nature of the equal loudness curves. This has resulted in octave band performance criteria that dictates a much lower overall internal noise level of circa 25 dB L_{Aeq} rather than the intended 35 dB L_{Aeq}. In summary, the adoption of the AUP criteria is not considered appropriate in this circumstance.

11. Therefore, I do not agree with the suggested internal octave band limits which Mr Jacobs proposes.

12. Mr Jacobs suggests the sound reduction of the building envelope should be designed to achieve his suggested internal noise performance criteria based on 75 dB at 63 Hz and 70 dB at 125 Hz at the boundary between PPC13 and the adjoining Industrial zoned sites. The recommendation is made '*based on long term measurements at similar facilities'*.[2]

13. I provide for context the measurements of the existing environment, which includes actual facilities and industrial activities. These demonstrate that the 15 minute night-time[3] noise levels in the 63 Hz and

[2] Paragraph 43 (a) ii of Mr Jacobs evidence
[3] 10:00 pm to 7:00 am

125 Hz octave bands are presently substantially lower than those suggested, being:

(a) 50-53 dB on average (ranging between 39 dB and 68 dB) in the 63Hz octave band, and
(b) 44 – 45 dB on average (ranging between 34 dB and 58 dB) in the 125 Hz octave band.

14. I acknowledge that future activity in the Industrial zone may generate different noise levels in future. However, it is not clear what the "similar facilities" are that Mr Jacobs refers to, or whether these are a realistic comparison to the Te Rapa Industrial Zone area in question. In my opinion it is the Planning experts' role to determine if future activities are "likely", "reasonably foreseeable" and "not fanciful" and of the type that could generate sound levels of the magnitude suggested.

15. To give a frame of reference for the suggested octave band levels I refer to other octave band criteria that are included in the HCDP.

16. Rule 25.8.3.7d contains the following 63 Hz and 125 Hz octave band noise external performance standards for activities in the Te Awa Lakes Business 6 Zone received within any other Business 6 zoned site or any site in the Te Awa Lakes Visitor Accommodation Overlay area:

(a) 60 dB at 63 Hz, and
(b) 55 dB at 125Hz.

17. These rules anticipate commercial activities such as bars and restaurants that have a component of amplified music. The octave band criteria are for bass beat of the music received externally.

18. Mr Jacobs' suggested octave band criteria are 15 decibels higher than those limits applied to the Te Awa Lakes Business 6 Zone which I consider is too generous for the reasons I explain below.

19. Both the Rule 25.8.3.9 c and temporary events Rule 25.3.5.2 contain the following 63 Hz and 125 Hz octave band noise performance standards which apply within Residential zone boundaries for events such as amplified outdoor concerts:

    (a) 70 dB at 63 Hz, and
    (b) 65 dB at 125 Hz.

20. By way of comparison these octave band limits applied to the Six60 concert that was held in the Claudelands Oval. The concert was compliant with these limits.

21. Mr Jacob's suggested octave band levels of 75 dB at 63 Hz and 70 dB at 125 Hz are 5 decibels higher than those limits applied to an amplified outdoor concert.

22. From an acoustic point of view I think Mr Jacobs' suggested 63 Hz and 125 Hz octave band levels are unlikely to be generated to the extent suggested and therefore should be not be adopted as he proposes.

23. Given the industrial zone standards don't prescribe octave band standards for other noise sensitive activities, to apply it in this circumstance is unnecessary in my opinion.

4m Acoustic fence

24. Mr Jacobs suggests a 4m acoustic fence to address L_{max} events and low frequency noise.

25. Like the low frequency noise discussed in Paragraph 8 and 9, I am not aware of any situations where the HCDP rule for noise sensitive spaces fails to provide adequate protection from L_{max} events. I understand from

Mr McGregor that there are no incidents of complaint pertaining to noise that complies with the HCDP performance standards for noise sensitive areas lawfully established in the Industrial zone that have been subject to reverse sensitivity effects pertaining to L_{max} events.

26. Mr Jacobs selectively identifies one very loud activity (an impact driver) as a basis to require 10 dB more attenuation than what is provided by the proposed rule – which replicates the existing HCDP requirement.

27. I consider that the L_{max} events of the magnitude in the example provided:

    (a) Do not presently occur in the night-time period (demonstrated by monitoring),

    (b) Are unlikely to happen in the future, given that they wouldn't satisfy BPO consideration for an activity of that magnitude outside, at night. Therefore, it would not satisfy s16 and s17 of the RMA in my opinion.

28. I reiterate the presence of existing noise sensitive activities in the area such as 6 Ken Browne Dr and MetlifeCare Forest Lakes Village.

29. Therefore, I consider that the potential impact on receiver amenity and subsequent potential reverse sensitivity from L_{max} events are adequately and appropriately controlled under the proposed PPC13.

30. Noise reduction provided by an acoustic screen (solid barrier, earth bund or combination thereof) can mitigate noise to some floors of noise sensitive areas within the proposed development. A 1.8m barrier is currently proposed as a standard in PC13 to replicate Rule 25.5.3.

31. I note that my assessment does not rely on the noise reduction provided by the 1.8m barrier. Rather, the barrier is one measure used in

combination with several other more pertinent measures (e.g., sound insulation to meet internal noise limits, the 30m setback, and building form providing screening to outdoor areas).

32. I acknowledge that the inclusion of a 4m acoustic barrier would reduce the level of noise incident on the façades of future developments within PC13 - primarily for the bottom two floors.

33. Additional height of an acoustic barrier would reduce the degree of sound reduction required by the façade for parts of the building. However, even without the fence the buildings can be designed to achieve appropriate internal noise levels. How the internal noise performance criteria are achieved is to be determined at the time of resource consent application. It follows that it is unnecessary to impose a standard which requires a 4m high barrier.

No complaints covenants

34. As discussed in my Evidence in Chief[4] I maintain that the best approach is the one adopted by the proposed rule framework which includes assessment criteria specifically enabling consideration by Council of whether reserve sensitivity noise effects are likely to occur, and whether an appropriate noise environment can be achieved, on an application for development within the Noise Sensitive Area

35. I acknowledge that no complaints covenants are useful for "setting expectations" of incoming residents. However, I consider them a planning tool, and don't provide any further acoustic mitigation or enhanced acoustic amenity. The covenant doesn't change the noise emission at issue.

[4] Paragraph 94 to 96

CONCLUSION

36. I have considered the suggested recommendations within Mr Jacobs' evidence.

37. I do not recommend adopting an internal octave band noise criteria.

38. While I accept that a 4m high acoustic barrier would provide lower noise levels incident on parts of any future building, whether this is appropriate in any particular circumstance can be considered at the resource consent stage. In my opinion, the plan controls proposed in PC13 to mitigate noise are appropriate and it is unnecessary to impose a standard which requires a 4m high barrier.

39. In my opinion, with the inclusion of my recommendations in my evidence in chief and this evidence, any adverse noise effects, including potential reverse sensitivity, can and will be managed.

James RH Bell-Booth
17 August 2023