

File Ref: AC20335 – 03 – R1

24 June 2021

Mr N. Radburnd  
 Cequent Projects Ltd  
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Email: nradburnd@cequent.co.nz

Dear Nick

**Re: Hanmer Springs Fly-Ride Project – Tower height changes**

As requested, we have reviewed the expected effect of the tower height changes provided in your email of the 9<sup>th</sup> of June 2021, as follows:

Pole	Height in Original Application	Proposed Revised Height	Increase
T1	6.0 m	6.4 m	0.4 m
T2	10.2 m	11.0 m	0.8 m
T3	7.4 m	8.5 m	1.1 m
T4	8.7 m	9.8 m	1.1 m
T5	7.3 m (2 towers)	11.5 m	4.2 m
T6	6.8 m	8.5 m	1.7 m
T7	7.3 m	7.3 m	0 m

We have also been in correspondence with Gary Walton (Marshall Day Acoustics) who is reviewing the Application on behalf of the Hurunui District Council. Mr Walton has asked about expected noise levels at the upper level of neighbouring dwellings (where they are not single storey), and so we have also considered that issue in the updated model.

**1.0 OUTCOMES OF UPDATED ANALYSIS**

Our original conclusion was that noise effects would be minimal provided there was some management of design and speed in key areas of the ride. That remains our overall conclusion, however as described below the areas requiring management change slightly with the updated analysis.

Specific outcomes are:

- 24 Oregon Heights (existing dwelling, two storeys but no elevated balconies on the northern façade). This property is totally shielded by the terrain in all scenarios.
- 26 Oregon Heights (vacant site). The situation for any dwelling constructed on this site is likely to be similar to that described above for 24 Oregon Heights.

- 17 Oregon Heights (existing dwelling, single level on the northern façade however there are some north facing clerestory windows at a high level). This property has less shielding from the terrain. With the tower height changes, predicted noise levels in the scenario described in section 3.1 and 3.2 of our original report increase over an area of the site at ground level, and a portion of the upper northern façade. Noise levels could be reduced to 45 dB  $L_{AFmax}$  by modifying the areas where management of design and speed of the ride is considered to include the portion within 150 metres of the final corner, and a portion of the track in the vicinity of 'Pole T4' (depending on the actual tower / track configuration in this area).
- 19 Oregon Heights (vacant site). It is unclear what arrangement of dwelling might be anticipated on this site. It is slightly closer to the ride than 17 Oregon Heights, and the screening issues are similar. Similar noise mitigation measures to those described above would be relevant if a dwelling was constructed on this site with outdoor living areas to the north.

Trust this is of assistance.

Kind Regards,



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Principal Acoustic Engineer  
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