

MALCOLM HUNT CONSULTING

PO Box 11-294, Wellington 04 472 5689

mha@noise.co.nz

Date of Issue: 8 October 2025

Reference: 112/02/6

Prepared For

Aaron Hakkaart

Planning Manager, Timaru District Council

c/- Nick Boyes, consultant planner, Core Planning & Property

Re: Review – Noise AEE Report

Resource Consent 102.2025.81.1- Home Centre Properties Ltd

Proposed new café and two fast-food restaurants

Corner of Evans Street and Grants Road, Marchwiell, Timaru

1.0 Introduction

Timaru District Council [Council] have engaged our services to review the Marshall Day Acoustics report “Quick Serve Restaurants Timaru - Assessment Of Noise Effects” (Rp 001 20250396 dated June 2025) provided in relation to the above consent application which seeks to construct and operate a new café and two fast-food restaurants at 194, 196-208 Evans Street and 4 Grants Road, Timaru.

The purpose of this peer review is to;

- 1] Check that noise information contained in the above Noise AEE report is sufficient to describe the likely actual and potential noise effects of proposed activities and that the noise information is presented is consistent with the recommendations of the relevant standards and guidelines; and
- 2] Check the noise report has arrived at its conclusion regarding noise effects based on acceptable methods and assumptions. The report’s conclusion (section 7.0, page 12) is that the proposed activity will have “minimal effect on residential amenity of surrounding noise-sensitive sites, and the existing level of residential amenity will be maintained”.
- 3] Assess whether proposed noise-related conditions of consent are fit for purpose.

2.0 Adequacy of Noise Information

Apart from concerns raised within Section 3 and Section 4 below, the MDA noise report provides sufficient information to enable a reasonable assessment of noise effects to be carried out. We note, as per Section 88[6][b] of the RMA, the assessment needs to be in such detail as corresponds with the scale and significance of the actual or potential effects that the activity may have on the environment and shall be prepared in accordance with the Fourth Schedule to the Resource Management Act 1991. The omissions outlined below within Section 3.3.2 and 3.3.3 below indicate there are several issues where, in our view, the assessment of noise effects falls below that required by the Fourth Schedule.

Apart from these identified deficiencies, the noise-related information and calculation results provided within the MDA report, and information contained in the consent application and AEE, provide reasonably sufficient information to enable noise effects to be reasonably well understood and assessed. Noise has been assessed in the MDA report using the appropriate NZ Standards and district plan noise provisions.

3.0 Review of Noise Assessment

The MDA noise report provides a reasonable description of the site and surrounding area in addition to noise emissions expected from the three, single story proposed commercial buildings with drive-throughs and on-site carparking.

3.1 Ambient Sound Levels

Monitoring of existing noise levels has been carried out by the consultant at various positions within the existing residential shown in Figure 1. Survey details are provided in Appendix B to the Noise AEE report. Summary results are provided in Table1 of the report which indicates the presence of significant levels of ambient noise¹. State Highway 1 traffic was identified as the dominant noise source at all locations.

The ambient sound level monitoring results are consistent with levels of traffic noise for the area reported by NZTA. The following contour diagram of LAeq(24 hr) traffic noise levels produced by NZ Transport Authority² confirm the presence of significant levels of traffic noise in the area 24 hours per day.

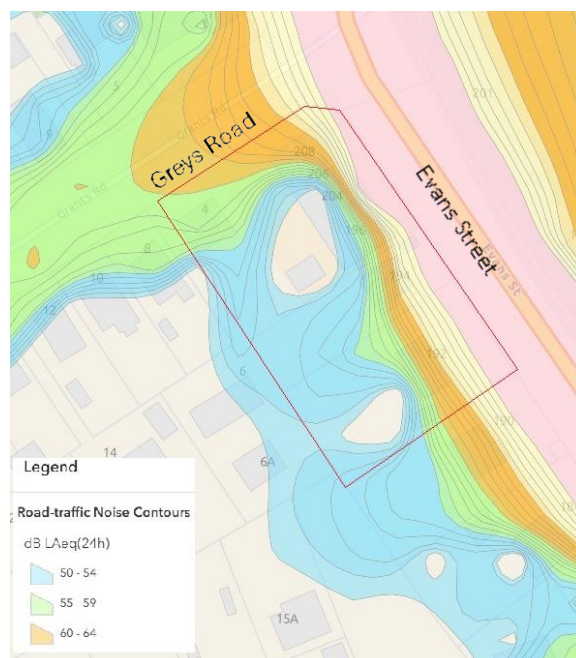


Figure 1 Existing 24 hour traffic noise levels (50 dBA to 65 dBA) due to road traffic using State Highway 1 (Evans Street) and Grants Road. Note; application site outlined in red.

In general, we agree the closest residential sites to the proposed development receive significant levels of ambient sound, principally due to passing road traffic.

¹ The MDA report indicates 190 Evans Street was found to experience ambient noise levels of 62dB LAeq (15min) during the day and 58 dB LAeq (15min) at night. The dwellings on Grants Road were found to experience ambient noise levels of 60 dB LAeq (15min) during the day and in the range of 52 – 57 dB LAeq (15min) overnight.

² NZTA traffic noise contours (LAeq 24hr) due to existing traffic flows.

<https://www.arcgis.com/home/item.html?id=7fd0c57ebe274e579b05c27c66e2a4fa>

3.2 Noise Limit Guidance

Section 4.0 of the Noise AEE provides a summary of guidance around appropriate noise levels for activity noise received within sites used for residential purposes. The summary comprises a discussion of noise limit guidance set out within:

- Operative Timaru District Plan Noise Rules
- World Health Organization
- NZ 6802:2008 *Acoustics – Environmental Noise*

The summary of guidance on noise limits notes both the WHO guidance and NZS 6802:2008 recommended day and night noise emissions up to 55 and 45 dB LAeq respectively are appropriate for the protection of residential amenity. Although we generally agree with this summary, we note the following omissions;

- a) Evening noise limit – the summary of NZ 6802:2008 guidance on noise limits ignores the recommendation at clause 8.6.2 (*guidance for the reasonable protection of health and amenity associated with use of land for residential purposes*) for limits applying during ‘evening’ periods (e.g. 7pm to 10 pm) however such provisions are not mandatory. In addition, Section 4.1 of the Noise AEE references the Proposed Timaru District Plan, however the summary makes no mention of evening limits for noise received within residentially zoned sites (see Table 24 – Noise performance standards – noise limit of LAeq(15 min) 45 dB applies between 7pm to 10 pm).
- b) Recommended compliance noise limits – Section 4.0 of the Noise AEE recommends an activity noise limit based on WHO guidance and NZS 6802:2008 of LAeq 55 dB for daytime and LAeq 45 dB for night time. The Noise AEE discussion omits to mention that these limits are 5 dB above the noise limits prescribed in the operative district plan and Proposed district plan. With recommended compliance noise limits being 5 dB in excess of the operative district plan permitted activity noise standards it is correct for Section 14.0 of the main AEE document to state “overall, the activity is considered a non-complying activity”.

We consider the Noise AEE is slightly hampered by the omissions discussed above, however we are generally accepting of the proposed noise limits, particularly having regard to the relatively high pre-existing levels of 24 hour ambient noise (see Section 3.1 above).

3.3 Predicted Activity Noise Levels

The report indicates noise emissions will mainly arise from mechanical services, drive-through activities (vehicle noise and noise associated with the ordering station loudspeaker and payment window) in addition to vehicle noise associated with carparking. We note sounds emitted from the ordering station are assessed within the Noise AEE (Section 5.2) as likely to contain Special Audible Characteristics and has been appropriately (in our view) ‘penalised’ by the addition of +5 dB above the expected LAeq value in accordance with Section 6.3 of NZS 6802:2008.

The MDA report assumes noise from indoor activities (patrons dining and food preparation) within each restaurant will be adequately controlled by the building envelope such that their contribution at the site boundary will be negligible. We agree this is a reasonable assumption.

Section 6.0 of the Noise AEE report sets out a discussion of predicted noise levels received at the four closest residential sites (8, 6, 6a Grants Road and 190 Evans Street). We consider noise levels at these four closest locations adequate to assess noise received at residential locations located a greater

distances from the location of the proposed activities.

Section 6.2 refers to a noise control fence considered necessary to control noise levels received at 8, 6, 6a Grants Road and 190 Evans Street. As shown in Figure 3 of the Noise AEE report, a section of this fence opposite the order stations is recommended to be 3.5 metres high, in order to provide sufficient noise mitigation for the extra noise generated by amplified speakers located at the order stations. Details of the noise control fence are included in at Appendix D to the Noise AEE³ however this does not mention requirements for minimum fence height or minimum surface mass. In general we support this form of boundary-based noise mitigation however we do not support recommended noise condition 3 as we consider both the minimum surface mass and height above ground level both need to be included in the condition. We do not support condition 3 referring to Appendix D of the Noise AEE report as this appendix makes no mention of either the minimum surface mass or required minimum height above ground level. Rather than referring to Appendix C for fence height extents, we consider it would be better to refer to the fence design specified in Appendix 2 drawing SK 1.3 Rev. A of the main AEE document. Both minimum surface mass and fence height need to be specified within the condition wording in our view.

Section 6.3 sets out the noise prediction methodology and states the prediction calculations are based on ISO 9613-2:1996 *“Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation”* which ensures a range of factors affecting the sound propagation are taken into account (including sound ‘power’ at source, distance, site screening and various meteorological effects). While we generally agree with the method of prediction and assumptions made, we have not ourselves undertaken any predictions to prove the veracity of predicted noise levels. Should the accuracy of predicted noise levels be brought into question, it remains for the consultant to justify the noise prediction results presented in the Noise AEE report.

3.3.1 Daytime Vs Night Time Predicted Noise Levels

We have concerns regarding the accuracy of Table 7 (predicted daytime LAeq noise levels) compared with Table 8 (night time LAeq noise levels) for the receiver location at 8 Grants Road. It is unclear why the same received noise level (LAeq 45 dB) is predicted for this location during both night time and daytime. Clearly, the ITA report has identified busier periods during ‘peak hours’ which one would naturally consider likely to result in more noise from the site being received at 8 Grants Road during these busy periods. If there are report amendments or addendums issued for the Noise AEE report, we request this matter be discussed and clarified.

3.3.2 Night Time Predicted Noise Levels

A noise contour plot of predicted noise levels is included at Appendix E to the Noise AEE however this is only for predicted night-time noise levels between the hours of 2200 and 0100 which is the time period during which only Popeyes and Restaurant 3 are said to be operating. Table 8 presents the results of night time noise predictions for each of the nominated residential receiver locations for this scenario. As below, we are concerned noise levels for the period 2200 to 0100 hrs noise is when only TWO restaurants are operating. In addition, it is noted Table 8 results of the early morning period (0500 hrs to 0700 hrs)

³ Noise mitigation fencing details are also shown in the landscape plan SK1.3 of Appendix 2 to the main AEE document, however the landscape plan (SK1.2) needs amending as this only refers to a 2 metre high fence along the residential boundary.

relates to noise emitted only from the Starbucks site which is the only site said to be operating during this time period.

In summary, Table 8 indicates both the early morning and late night operations will result in residential sites receiving LAeq noise levels at, or within 1 dB, of the proposed 45 dB night time noise limit (this is with the noise barrier in place). Having regard to the additive effect of cumulative activity noise levels received within adjacent residential sites, it is evident from Table 8 that non-compliance with the 45 dB limit is likely should ALL THREE proposed commercial activities be undertaken after 10pm or if TWO or more commercial activities are undertaken concurrently before 7am.

In order to ensure the recommended LAeq 45 dB noise limit is complied with during the noise sensitive night time period, it is considered essential that hours of operation for each of the three proposed commercial activities be stipulated within noise-related consent conditions. Currently recommended noise limits for day time and night time set out within Section 8.0 of the Noise AEE are insufficient to ensure cumulative noise effects are adequately controlled to meet the LAeq 45 dB noise limit proposed between 2200hrs and 0700 hrs. Below, we set out how noise limit conditions needs to be framed in order to control cumulative activity noise levels to achieve the 45 dB noise limit.

3.3.3 Heavy Vehicle Noise

Paragraph 47 of the Integrated Transport Assessment⁴ (ITA) indicates heavy goods vehicles will visit the on-site loading zone which the ITA implies (at para 47) is provided as part of the 'Popeye' restaurant, however according to the site plans, this appears incorrect. The ITA states this bay will deliver goods for all three commercial operations. Appendix 2 plans (SK 1) for the development show the 'loading zone' and heavy goods delivery vehicle parking/manoeuvring area is in fact adjacent to 'Restaurant 3' which is as close as 2 metres to the side boundary with the residential site at 190 Evans Street. The rear of the goods handling yard is adjacent to the residential boundary at 6a Grants Road. A boundary fence only 2 metres in height is proposed along both these boundaries.

The concerns are;

- a) The Noise AEE predictions of activity noise do not include any contribution from on-site heavy vehicle movements or goods handling. We consider this oversight reasonably significant as this undermines the reliability of activity noise levels predicted to be received at 190 Evans Street and 6a Grants Road.
- b) The ITA report states, due to its location, the loading space will need to be used before 10 am "when the Popeyes opens" with the ITA report recommending (at para 47) a condition to ensure these heavy vehicle goods movements take place when there is "minimal activity on site" to facilitate easy access to or from the loading bay. We are concerned that any condition developed to deal with traffic effects of on-site heavy vehicle activity should avoid on-site movements during noise sensitive periods (after 10pm and before 7am).

4.0 Summary and Recommendations

Based on our review, we consider the Noise AEE report provides a reasonably robust assessment of potential noise effects of the proposal however some deficiencies have been identified which need to be addressed, as below. Given the significant levels of traffic noise found in the area, we have no concerns

⁴ AEE Appendix 5: *Integrated Transport Assessment - SH1/Grants Road, Timaru* Dated April 2025, Prepared By: Antoni Facey, Traffic Engineer And Director, Avanzar.

regarding the noise limits proposed as condition 1 of the Noise AEE (section 8.0) being 5 dB above the permitted activity noise limits. We consider the proposed conditions refer to the correct noise measurement and assessment standards. However we consider the following deficiencies that need to be addressed before consent is approved on noise grounds.

- 1) Regarding the main body of the Noise AEE report, we consider the report deficient in terms of the assessment failing to consider noise effects generated by on-site heavy vehicle goods delivery and waste removal vehicles. We consider the consultant should provide an amended report or report addendum which covers the cumulative noise from on-site activity noise (vehicles, mechanical plant, outdoor speakers, etc.) which will be received, at times, concurrently with noise from heavy vehicles and waste removal vehicles using the loading zone and associated goods yard. Should these additional noise effects cause potential non-compliance, we recommend the consultant review the fence height requirements in affected areas or other practical mitigation measures.
- 2) Regarding suggested noise conditions set out within Section 8.0 of the Noise AEE, we consider the following matters need to be addressed;
 - (a) Recommended noise condition 3 stipulating site fence requirements to mitigate noise effects needs to include both the minimum surface mass and specify height(s) above ground level. We do not support condition 3 referring to Appendix D of the Noise AEE report as this is advisory. Instead we recommend reference be made to the fence design specified in Appendix 2 drawing SK 1.3 Rev A of the main AEE document, with both minimum surface mass and fence heights specified within the condition wording.
 - (b) We have identified a lack of activity controls within conditions governing night time operating hours for each activity. As explained above (Section 3.3.2) night time cumulative noise effects are a concern. Having regard to the additive effect of cumulative activity noise levels received within adjacent residential sites, it is evident from Table 8 that non-compliance with the night time 45 dB limit is likely if ALL THREE proposed commercial activities be undertaken after 10pm or if TWO or more commercial activities are undertaken concurrently before 7am. As currently worded, we consider recommended noise conditions set out within Section 8.0 of the Noise AEE are insufficient to ensure cumulative noise effects are adequately controlled to meet the LAeq 45 dB noise limit proposed between 2200hrs and 0700 hrs. We recommend an additional 'operating hours control' condition needs to be included to deal with this potential non-compliance.
 - (c) Any consent condition included to deal with traffic effects of on-site heavy vehicle activity (as recommended by the ITA report) should avoid on-site heavy vehicle movements during noise sensitive period of after 10pm and before 7am.

Malcolm Hunt Consulting



Malcolm Hunt

B.Sc. M.E.[*mech*], Dip Pub. Health. RSH Dip. Noise Control