



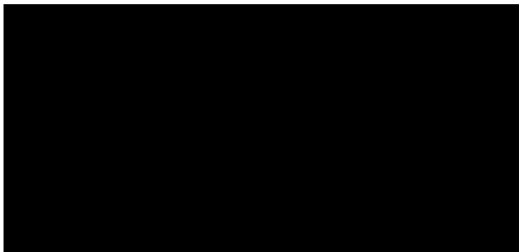
297-307 ROSLYN ROAD,
HIGHTON

Acoustic Report for Town Planning
Application

For



DOC. REF: V2436-01-P ACOUSTIC REPORT (R0)
4 FEBRUARY 2026

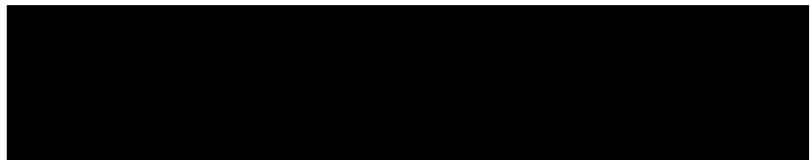




Project 297-307 Roslyn Road, Highton

Subject Acoustic Report for Town Planning Application

Client



Document Reference

Date of Issue 4 February 2026

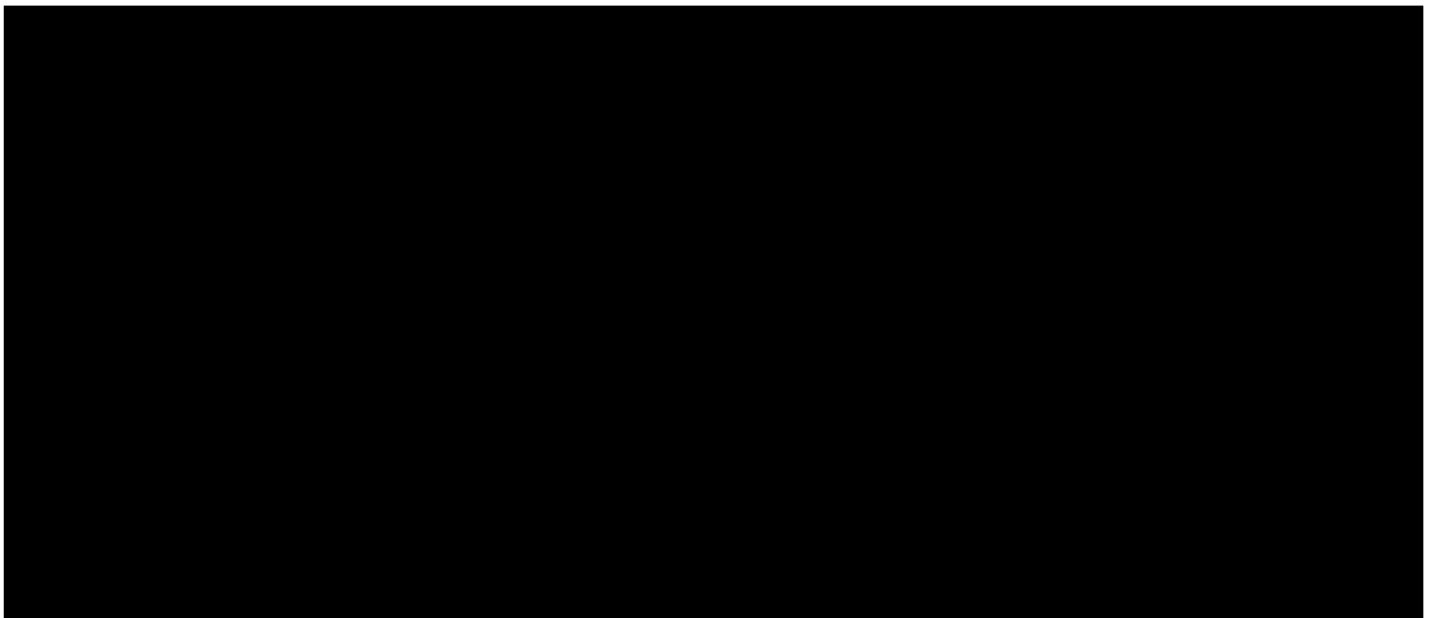




Table of Contents

1	Introduction	3
2	Subject Land Use	4
3	Site Inspection	5
4	Assessment	6
4.1	Legislation	6
4.2	Outdoor Play Areas	6
4.3	Traffic Noise	8
4.4	Sleep Disturbance	9
5	Recommendations and Conclusion.....	10
	Appendix A: Noise Modelling Results	12

1 Introduction

_____ has been engaged by _____ Solutions Pty Ltd to assess the proposed childcare centre at 297-307 Roslyn Road, Highton (Subject Land). This assessment has been conducted in response to Council RFI Item 8 for Planning Permit Application No. PP-909-2025 dated 28 November 2025, as follows:

8. Acoustic report	Environmental Health have requested the following information be provided for assessment: <i>An acoustic report prepared by a suitably qualified person to demonstrate how the proposal will comply with relevant noise legislation and mitigate amenity impacts on nearby existing and future residences to this development.</i> This is needed as they note that: <i>The application is for a childcare centre accommodating 116 children, with proposed opening hours of 6.30am to 6.30pm from Monday to Friday, in addition to a separate residential property.</i> <i>As the proposed childcare centre is located in a residential area, with residential properties to the north, east, south and west, an acoustic report outlining appropriate noise mitigation measures is required in order to ensure that the amenity of the surrounding properties is not impacted. The residential property that is part of this application should also be considered.</i> <i>The planning report provided by Metropol Planning, dated 30th October 2025 (revision B), also states that the remainder of the subject site to the west is slated for future residential development. As such, this should also be considered in the acoustic assessment, given the shared boundary and potential for noise disturbance.</i> <i>The planning report mentions that a 1.8m high acoustic fence has been included where the outdoor play areas interfaces with existing and future residential developments, however as no acoustic report has been provided, there is no way of knowing if this is likely to be sufficient to mitigate noise and ensure compliance with relevant guidelines. Car park noise should also be considered, particularly as the centre will open at 6.30am, which is considered to be the nighttime period.</i>
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In accordance with Council's RFI, this report assesses potential noise impacts from the proposed childcare centre at proximate sensitive receivers surrounding the Subject Land.

Our assessment is based on Plans prepared by Malcolm Elliot Architects dated 3 February 2026 in accordance with the Association of Australasian Acoustical Consultants (AAAC) *Guideline for Childcare Centre Acoustic Assessment*.

2 Subject Land Use

It is understood that the Application seeks approval to develop the Subject Land for use as a childcare centre. The Application proposal is for:

- Up to 116 children;
- Dedicated outdoor play area; and
- Carparking

Sensitive uses surrounding the Subject Land were identified as follows:

Tag	Location of Sensitive Use	Direction
R1	234, 236 & 238 Roslyn Road	North
R2	295 Roslyn Road & 2 & 4 Remony Avenue	East
R3	Proposed Subject Land dwellings	South
R4	Future dwellings	South
R5	Future dwellings	West

Refer below for a site map showing locations of sensitive uses relative to the Subject Land:



Given that the sensitive uses identified above are the closest to the Subject Land, it is intrinsic that compliance at these locations would also result in compliance at all other possible sensitive uses proximate to the Subject Land.

In accordance with Council's RFI, our assessment will also consider noise impacts to potential future residential development to the east and south.

3 Site Inspection

A site inspection was carried out by our office on 3 December 2025 to conduct background noise monitoring.

Background noise measurements were carried out with the following noise levels recorded:

Location	Background Noise Level
M1	45 dB(A), L ₉₀
M2	44 dB(A), L ₉₀

It was observed that the ambient noise environment was dominated by traffic on Roslyn Road, with moderate levels of road traffic observed. Overall, the background noise environment surrounding the Subject Land is considered elevated and consistent with areas next to busy roads.



Noise measurements were carried out at approximately 1pm to 2pm, as it is typical to find the lowest background noise throughout the middle of the day (between peak traffic periods). This results in a conservative noise assessment in comparison to the average daily measurements being considered, which would include peak traffic periods. This time is also representative of when the maximum number of children are most likely to be outdoors in play areas, subsequently representing the highest risk for noise impacts at adjacent residential premises with respect to background noise vs intrusive noise.

4 Assessment

4.1 Legislation

Two sources of noise associated with childcare centres (services plant and music noise) are subject to legislated noise limits of *Environment Protection Regulations 2021* (Regulations) and *EPA Publication 1826 – Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues* (Noise Protocol)

The Noise Protocol is enforceable under the *Environmental Protection Act 2017*. In practice, given the normal operating hours of childcare centres, these sources do not present any material risk where the permit conditions require compliance with the Noise Protocol. Regardless, childcare centres are required to comply with the Noise Protocol, and it is usually sufficient to approve a permit with the following conditions:

1. Plant equipment and music playback on the land shall comply with *EPA Publication 1826 – Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues* at all times.

4.2 Outdoor Play Areas

There are currently no guidelines or policies in Victoria, at a statutory level or within the planning scheme, for the assessment of noise emissions associated with outdoor play areas of childcare centres. In lieu of such guidelines or policies, it is appropriate to consider the *Guideline for Childcare Centre Acoustic Assessment, September 2020* published by the Association of Australasian Acoustic Consultants (the AAAC Guideline) and Victorian Civil and Administrative Tribunal (VCAT) precedents.

It is important to note that case history indicates that VCAT has not accepted the AAAC Guideline as being wholly appropriate for the assessment of reasonable amenity. These views are shared by acoustic experts and members of the AAAC and Australian Acoustical Society in Victoria. Generally, the AAAC Guideline is viewed as being aspirational but not reflective of reasonable expectations to minimise noise. Regardless, where an application can meet the upper noise targets of the AAAC Guideline (i.e. background noise +10dB), it is typically viewed as being an appropriate design response in minimising noise impacts.

To remain conservative, the AAAC noise target has been derived based on the lowest background noise levels measured on site, as follows:

297-307 Roslyn Road, Highton

V2436-01-P Acoustic Report (r0)

Location	Noise Target
All sensitive uses	54 dB(A), L _{Aeq}

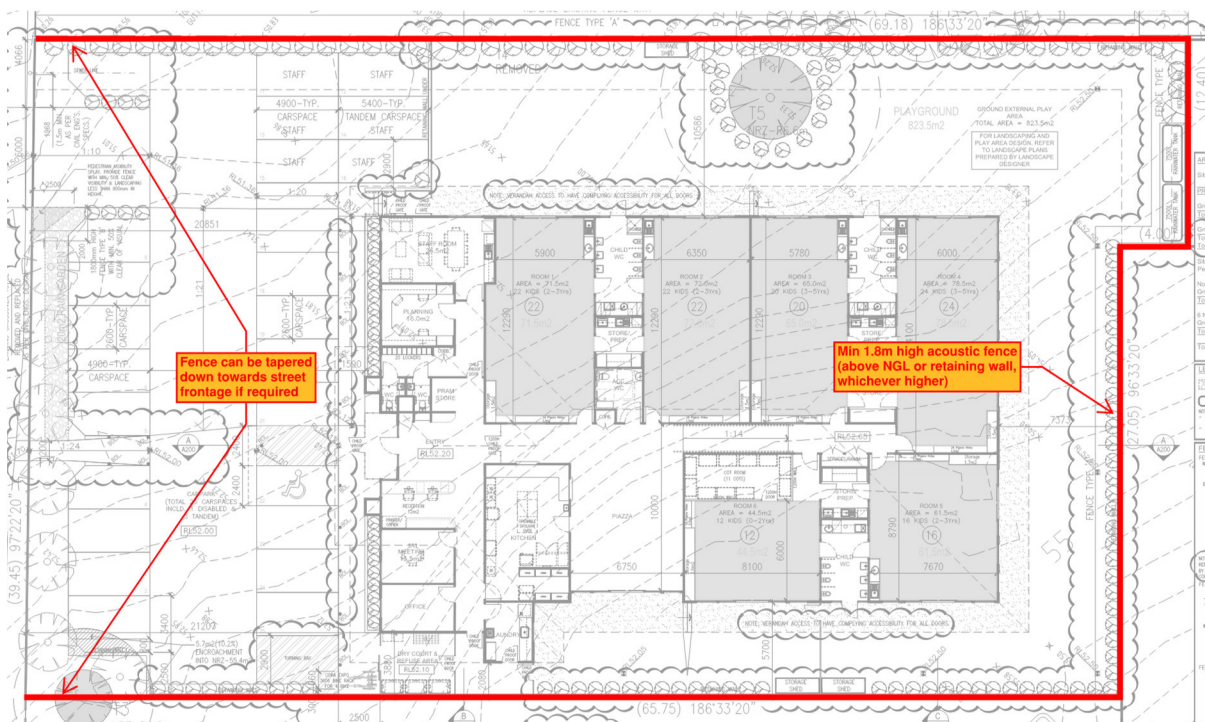
Our office has prepared 3D acoustic modelling based on the site conditions, proposed plans and number of placements, in accordance with the AAAC Guideline. The modelling assumes that all children would be located outside at the same time. In practice, this results in a conservative assessment given that pickup and drop-off times typically vary over a day and varying ages and group segregation often results in scattered play times and areas of use.

Our modelling assumes sound power levels of children playing outside in accordance with the AAAC Guideline, as follows:

Location	Number of Children	SWL
Outdoor play area	116 (mix of ages 0-6)	96 dB(A)

The research paper *Carrying Out Noise Assessments for Proposed Childcare Facilities – Proceedings of Acoustics 2006* identified that typically only up to 35% of the number of children within outdoor play areas are expected to be vocal at a given time, noting that this has been considered in our acoustic model.

To assist in mitigating noise emissions from the Subject Land, the following acoustic screening is recommended:



is satisfied that the acoustic screening recommended above has been incorporated into the referenced plans.



The acoustic screening recommended above is in part to assist in mitigating noise impacts from the carpark (discussed later).

Inclusive of the acoustic screening shown above, the results of our modelling indicate that outdoor play noise is expected to be **≤47dB(A) L_{eq}** at all identified sensitive uses and would comply with the more onerous AAAC Guideline noise target of 'Background + 5dB', indicating a more than satisfactory outcome.

A map of the noise model showing noise levels at all surrounding sensitive receptors can be referred to in Appendix A.

It is noted that the noise modelling predicts compliance at all ground level receptors of potential future dwellings. For Receiver R3, noise levels at upper-level windows overlooking the outdoor play area is expected to be **≤45dB(A) L_{eq}** and would also comply with the AAAC target.

For Receiver R4 & R5, it is unknown at this stage whether double-storey dwellings would be constructed. As a sensitivity assessment, however, noise levels would be on the thresholds of meeting the AAAC target at upper-level windows (should they exist in the future).

Regardless, we consider it sufficient that the Applicant provides noise mitigation to any private outdoor areas (e.g. on ground level) for unconstructed or unapproved dwellings, given that an acoustic fence would need to be >3m high to shield upper-level windows, which in our experience is considered impractical and may conflict with other planning requirements (e.g. overshadowing). It is also not possible to accurately engineer an acoustic fence to protect upper-level dwellings where the layout and building design are undetermined.

Further, we estimate that with minimum forms of glazing construction (e.g. 6mm float glass), internal noise levels within future upper-level windows (if any), are expected to be <25dB(A), indicating reasonable internal amenity.

To this end, [REDACTED] is satisfied that the acoustic screening recommended is adequate and reasonable in providing noise mitigation to existing and future residential uses abutting the Subject Land.

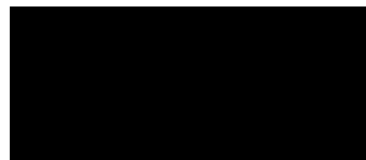
4.3 Traffic Noise

The Plans indicate carparking towards the north section of the Subject Land.

The AAAC guideline recommends that noise from pickup and drop-offs does not exceed Background + 5dB(A), resulting in the following noise target:

Location	Noise Target
All sensitive uses	49 dB(A), L_{Aeq}

We have assumed that up to 60 vehicle movements could occur in a 60-minute period within the carpark area, with pick-up and drop-offs occurring at the proposed car park on the Subject Land.



In our experience, this represents a worst-case scenario during pick-up and drop-off times but would need to consider the appropriate traffic engineering study

Based on previous measurements of carpark areas conducted by our office, the following sound power level was assumed in our assessment:

Location	Sound Power Level
Carpark area 60 cars per hour	78 dB(A)

Inclusive of the acoustic screening shown in Section 4.2, the results of our modelling indicate that the use of the car park (including occasional delivery vans) is expected to be **≤37dB(A) L_{eq}** and would comply with AAAC noise targets by significant margins.

Results are shown in Appendix A.

4.4 Sleep Disturbance

The childcare centres is proposed to commence operation (drop-offs and staff arrival) before 7am, however, outdoor play use is not expected to occur before 7am. As such, our assessment will consider sleep disturbance impacts from carpark use on the Subject Land.

No specific policy exists in assessing the risk of sleep disturbance of carpark areas, however 'Sleep Disturbance' criteria derived from the NSW Road Traffic Policy can be used as a method of assessing the likelihood of noise impacts for short duration or transient events.

The Sleep Disturbance assessment trigger of **L_{max} 65dB(A)** outside habitable room windows is often used to determine if noise emissions are likely to cause adverse impacts during the most sensitive 'Night' period (10pm to 7am). However, for very infrequent events of 1-2 during the 'Night' period, it is generally accepted that outdoor noise levels of up to 80dB(A), L_{max} do not impact on health and wellbeing.

Based on previous measurements of carpark areas conducted by our office, the following sound power level was assumed in our assessment:

Item	Sound Power Level
Car door slams	93 dB(A), L_{Amax}

The results of our modelling summarised below:

Inclusive of the acoustic screening shown in Section 4.2, the results of our modelling indicate that the use of the carpark is expected to be **≤58dB(A) L_{max}** and would comply with the sleep disturbance threshold by reasonable margins.

Results are shown in Appendix A.



5 Recommendations and Conclusion

The Application reviewed by our office is considered to be equivalent to many other approved childcare centres with respect to acoustic outcomes. The proposed use of the Subject Land as a childcare centre is expected to comply with the AAAC guideline with standardised controls (acoustic screening) approved at the majority of childcare centres in Victoria.

██████████ is satisfied that a permit can be approved on this basis. It is recommended that the approved permit include the following conditions:

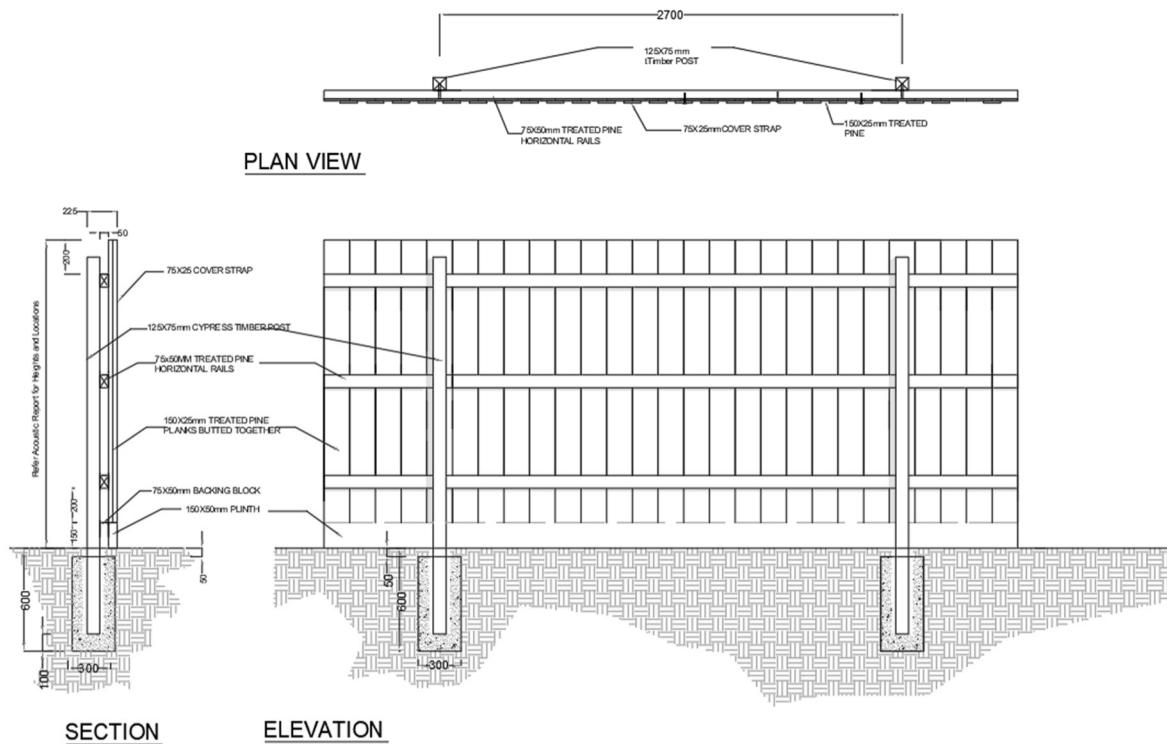
1. Noise emissions from the land shall comply with *EPA Publication 1826 – Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues* at all times.

All acoustic fencing shall be constructed as follows:

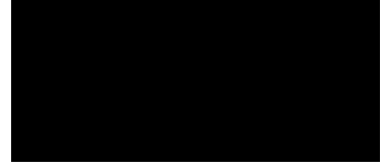
Ground Floor Boundary Acoustic Fence

- To the specified heights and locations as shown in Section 4.2;
- Using fibre cement sheeting, treated timber, lightweight aerated concrete, transparent acrylic panels, glass, profiled sheet cladding, and ModularWalls TrendWall and VogueWall, as long the selected material (or combined skins) has a mass of at least 10kg/m²;
- The fence shall have no gaps or holes in it, or the likelihood of such occurring through natural causes or deformations, thus allowing noise to pass through;
- The fence must be designed and built in an acceptable manner so that noise will not pass underneath it;
- Any butt joints shall be sealed with a fire-rated weather proof mastic or an overlapping piece of material meeting the mass requirements of 10kg/m² (minimum 35mm each side of the butt joint); and
- Where multiple cladding layers are used (e.g. FC sheeting over timber paling fence), joints in the cladding materials shall not coincide.

An example detail for an acoustic-grade timber paling fence is shown below:



TYPICAL ACOUSTIC FENCE DETAIL



Appendix A: Noise Modelling Results



Legend: - Point Source - Area Source - Crossing - Building - Barrier - Contour Line - Line of Fault - Receiver Scale: 1: 598 @ A3	Noise emission levels from OUTDOOR PLAY L_{Aeq} Noise Levels AAAC Guideline Assessment Project No: V2436	NOTES: *Propagation in accordance with ISO9613
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Legend: - Point Source - Area Source - Crossing - Building - Barrier - Contour Line - Line of Fault - Receiver Scale: 1: 598 @ A3	Noise emission levels from CARPARK TRAFFIC LAeq Noise Levels AAAC Guideline Assessment Project No: V2436	NOTES: *Propagation in accordance with ISO9613
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Scale: 1: 598 @ A3

Legend:

- Point Source
- Area Source
- Crossing
- Building
- Barrier
- Contour Line
- Line of Fault
- Receiver

Noise emission levels from CARPARK

LAeq Noise Levels

Sleep Disturbance Assessment

Project No: V2436

NOTES:

*Propagation in accordance with ISO9613