



98 MARSHALLTOWN ROAD, GROVEDALE

Acoustic Report for Town Planning Application

For

MARSHALLTOWN ROAD GROVEDALE LAND PTY LTD
C/- SPROUT PROPERTY

DOC. REF: V2691-01-P ACOUSTIC REPORT (R0)
2 JUNE 2026

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Project	98 Marshalltown Road, Grovedale
Subject	Acoustic Report for Town Planning Application
Client	Marshalltown Road Grovedale Land Pty Ltd c/- Sprout Property
Document Reference	V2691-01-P Acoustic Report (r0)
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1 Introduction

Enfield Acoustics has been engaged by Marshalltown Road Grovedale Land Pty Ltd c/- Sprout Property to assess the proposed childcare centre at 98 Marshalltown Road, Grovedale (Subject Land). This assessment will form part of the planning permit application for the proposed development.

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 Watson Young dated 29 May 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 123 children;
- Dedicated ground floor play area; and
- Carpark

Sensitive uses surrounding the Subject Land were identified as follows:

Tag	Location of Sensitive Use	Direction	Type
R1	85-89 Marshalltown Road	North	Dwelling
R2	94-96 Marshalltown Road	East	Dwelling
R3	100 Marshalltown Road	West	Dwelling
R4	5 Hewitt Drive	West	Dwelling
R5	7 Hewitt Drive	West	Dwelling
R6	9 Hewitt Drive	West	Dwelling
R7	Lot 2 - 98 Marshalltown Road <i>Subject Land</i>	South	Vacant lot

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

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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.

It is understood that the Subject Land is proposed to be divided into two lots, with Lot 1 as the proposed childcare centre and Lot 2 as vacant land. It is therefore reasonable for our assessment to also consider noise impacts and mitigation opportunities on potential future residential uses at Lot 2.

3 Site Inspection

A site inspection was carried out by our office on 21 April 2026.

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

Location	Background Noise Level
M1	45 dB(A), L ₉₀
M2	40 dB(A), L ₉₀
M3	39 dB(A), L ₉₀

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

Noise measurements were carried out between 12pm to 1pm 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

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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 be conservative, the AAAC noise target has been derived based on the lowest background noise levels measured at M3, as follows:

Location	Noise Target
All identified sensitive uses	49 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.

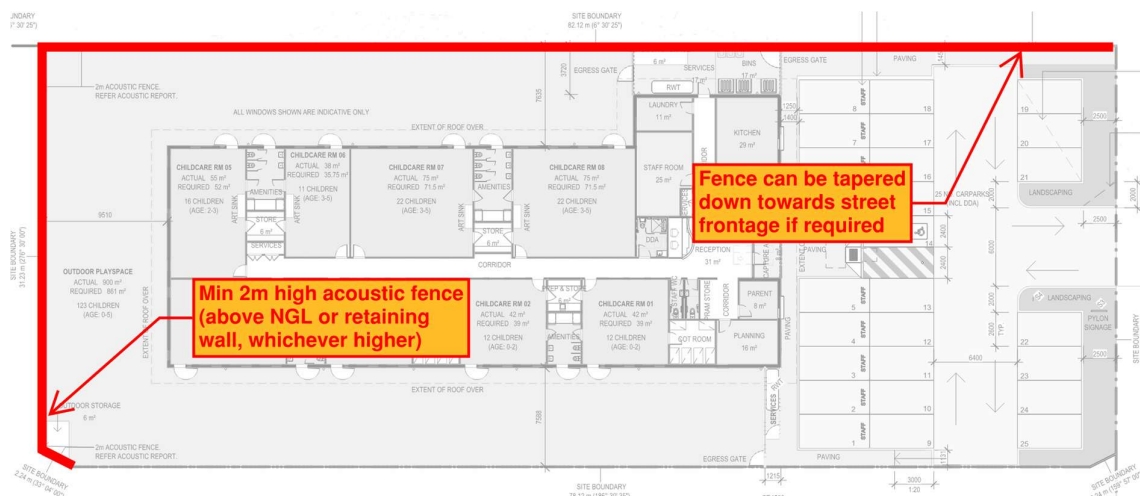
Our modelling assumes sound power levels of children playing outside in accordance with the AAAC Guideline, as follows:

Location	Number of Children	SWL
Outdoor play area	123 (mix of ages 0-5)	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.

In lieu of specific requirements and definitions in the AAAC Guideline, our assessment considers all land within 10m of a dwelling as a noise sensitive area, noting that this is consistent with the requirements when assessing a noise source according to the Regulations and Noise Protocol.

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



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Inclusive of the acoustic screening shown above, the results of our modelling indicate that outdoor play noise is expected to be **≤48dB(A) L_{eq}** at all identified receptors and would comply with the AAAC Guideline, indicating a 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 our assessment is likely conservative with regard to compliance margins, as the lowest background noise levels measured at location M3 were used to derive noise targets. Dwellings that are sited closer to Marshalltown Road (i.e., Receivers R1, R2 and R3) are exposed to higher background noise levels and resulting noise targets and would therefore comply with the AAAC Guideline by even greater margins than shown.

To this end, Enfield Acoustics is satisfied that the proposal will not result in adverse noise impacts at all identified sensitive uses, providing that the acoustic screening as shown above is installed.

4.3 Traffic Noise

The Plans indicate car parking 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 identified sensitive uses	44 dB(A), L _{Aeq}

We have assumed that up to 60 vehicle movements could occur in a 60-minute period, 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 peak pick-up and drop-off periods; however, this should be confirmed by a traffic engineering study.

Based on previous measurements of car parks 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 **≤43dB(A) L_{eq}** and would comply with AAAC noise targets.

Results are shown in Appendix A.

Given the appreciable volumes of road traffic observed on Marshalltown Road, noise emissions from the car park to the worst-affected dwellings (which are also located near Marshalltown Road) would likely be masked or tempered by road traffic noise, especially from vehicles travelling at greater speeds than at the proposed car park.

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4.4 Sleep Disturbance

It is typical for childcare centres 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 carparks, 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 carparks conducted by our office, the following sound power level was assumed in our assessment:

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

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 **≤59dB(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.

Enfield Acoustics 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:

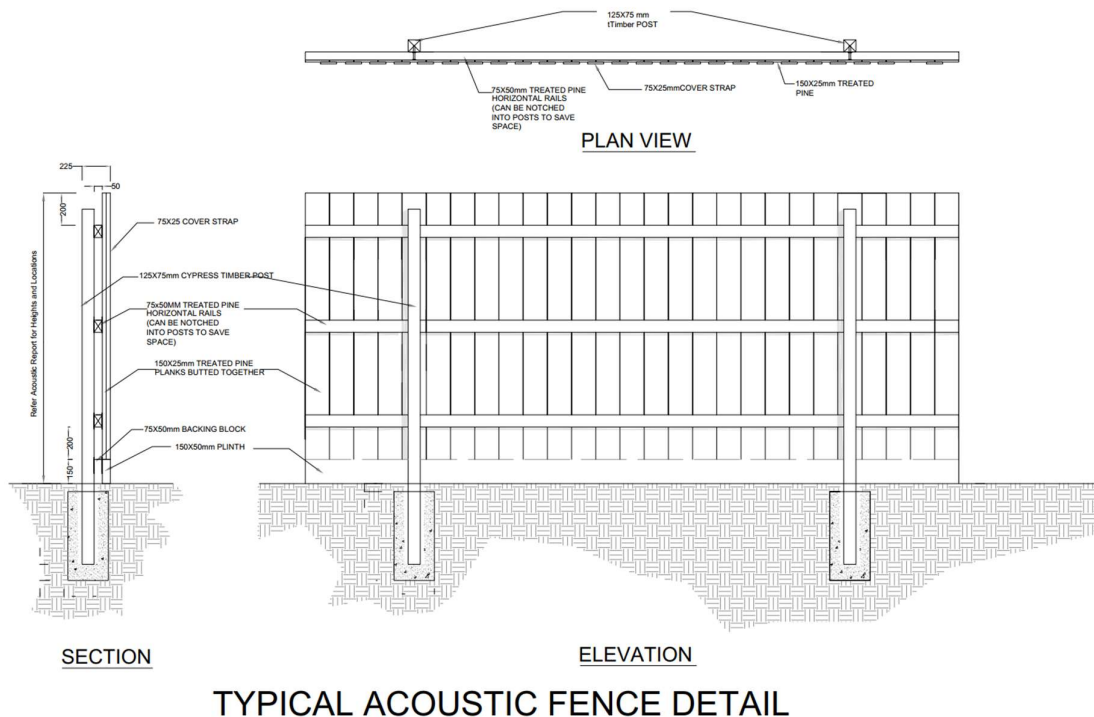
Ground Floor Boundary Acoustic Fence

- 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, ModularWalls TrendWall and VogueWall, as long as 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:



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Appendix A: Noise Modelling Results

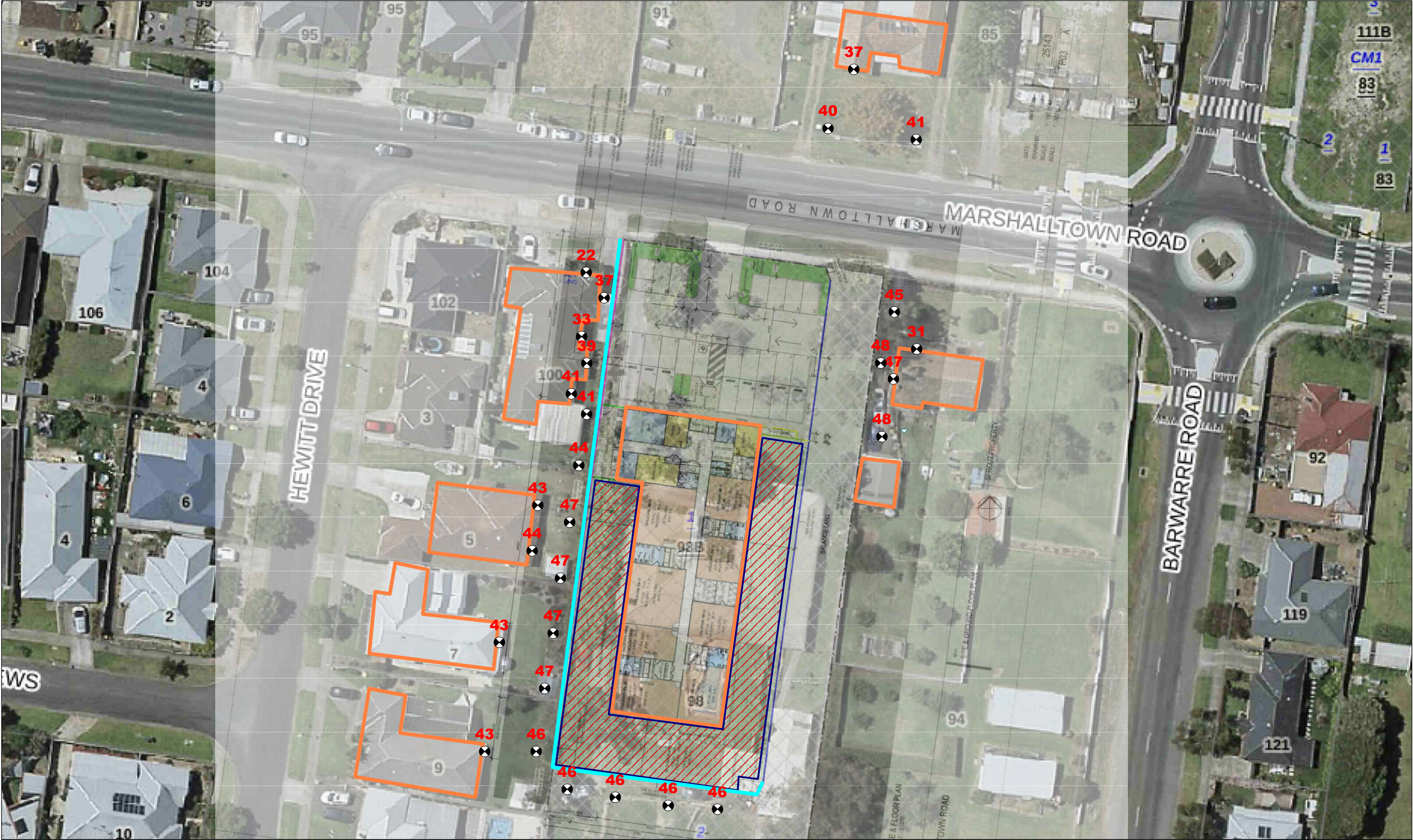
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Scale: 1: 558 @ A3

Legend:

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

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Noise emission levels from OUTDOOR PLAY

LAeq Noise Levels

AAAC Guideline Assessment

Project No: V2691

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NOTES:

*Propagation in accordance with ISO9613

Drawing No: MAP-01

Date: 02.06.2026



Scale: 1: 558 @ A3 Legend: - Point Source - Area Source - Crossing - Building - Barrier - Contour Line - Receiver ENFIELD ACOUSTICS NOISE VIBRATION PO Box 920 North Melbourne, VIC 3051 P: 03 9111 0090	Noise emission levels from CARPARK TRAFFIC LAeq Noise Levels AAAC Guideline Assessment Project No: V2691	This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach copyright legislation	NOTES: *Propagation in accordance with ISO9613
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