



PO Box 678  
Kotara NSW 2289  
ABN: 36 602 225 132  
P: +61 2 4920 1833  
www.mulleracoustic.com

21 March 2025

MAC242248-02LR1

Attention: Stewart Floresta  
McDonald's Australia Limited  
PO Box 392  
Pennant Hills NSW 2120

Dear Stewart,

## Response to Request for Further Information

### Proposed McDonald's Operation, 37 Roseberry Street, Balgowlah, NSW

#### 1 Introduction

This letter provides a response to a Request for Additional Information from Northern Beaches Council (NBC) pertaining to the Noise Assessment (Report reference: MAC242248-01RP1V1, December 2024) (NA) prepared by Muller Acoustic Consulting Pty Ltd (MAC) for the proposed McDonald's Operation to be located at 37 Roseberry Street, Balgowlah, NSW (the project). The correspondence from NBC and the MAC responses are outlined below.

A glossary of terms, definitions and abbreviations used in this report is provided in **Appendix A**.

## 2 Comments and Responses

### 6. *Acoustic Report*

*The submitted acoustic report details recommendations and noise controls for the operation of the development. Clarification is sought about the following:*

- *The “barrier attenuation” relied upon, or whether this simply refers to the orientation and design of the building itself, and*
- *The reasons for the assumed 50% reduction of cars during the night.*

#### **Response to Comment #6**

This statement refers to the noise reduction (attenuation) provided by the building and its orientation especially when the building is located between a noise source and receivers. It is also applicable to other building elements such as the roof parapet which provides shielding of mechanical cooling and ventilation plant on the rooftop to surrounding receivers.

The reduction in onsite vehicles during the night period has been included in the assessment as it corresponds to lower sales numbers experienced during the night period for 24/7 operations compared to the busier daytime trade period. Accordingly, to allow for this in the predictive modelling, MAC assumes the 50% reduction in the vehicles in the carpark and drive thru.

### 7. *Hours of Operation*

*The proposed hours of operation, being 24 hours a day, seven days a week, are not supported in the surrounding context, adjoining residential development.*

*Concern is raised that, of the developments in the surrounding E1 Local Centre and E3 Productivity Support zones, the proposed development is in the closest proximity to a high number of residential dwellings, and has the greatest potential for unreasonable acoustic impact, given a substantial proportion of the operation of the premises is conducted outdoors.*

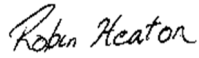
*Approved hours of operation of surrounding larger-scale developments (such as supermarkets, food and drink premises, and large-scale retail premises), commence no earlier than 6.00am and conclude no later than 11.00pm.*

#### **Response to Comment #7**

The NA report submitted demonstrated that the operation trading 24 hours seven days would satisfy the derived Project Noise Trigger Levels (PNTLs) for the site. In accordance with the NPI, there is no requirement or justification to restrict the trading to the proposed hours of 6.00am to 11.00pm where PNTLs are met. Furthermore, the existing ambient noise levels in the area are considered to be high given the proposed operation is in the E1 local centre, with continuous traffic flows being the dominant noise source during all periods.

We trust this letter addresses your current requirements, if you have any further questions regarding the above, please contact the undersigned.

Yours sincerely



**Robin Heaton**  
Senior Acoustic Engineer  
**BEng (Hons) | MAAS**  
[rheaton@mulleracoustic.com](mailto:rheaton@mulleracoustic.com)

Reviewed: Oliver Muller, Principal Acoustic Scientist, BSc (REM & HGeog) | MAAS

*This page has been intentionally left blank*

# Appendix A – Glossary of Terms

A number of technical terms have been used in this report and are explained in **Table A1**.

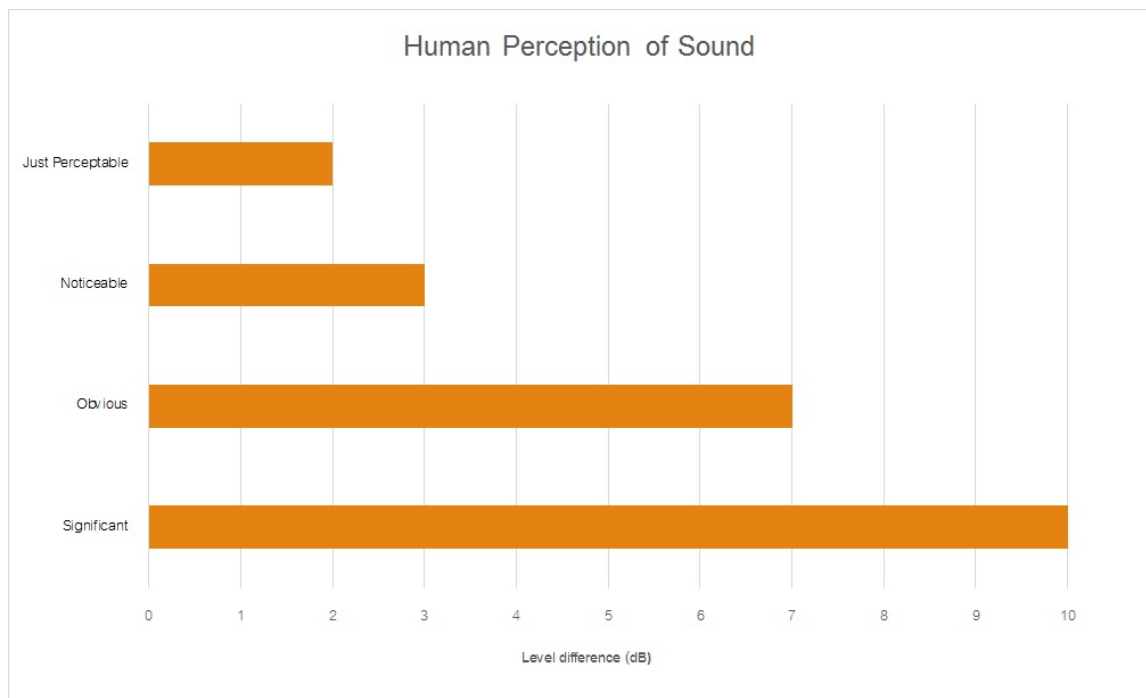
Table A1 Glossary of Acoustical Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured L90 statistical noise levels.
Ambient Noise	The total noise associated with a given environment. Typically, a composite of sounds from all sources located both near and far where no particular sound is dominant.
A Weighting	A standard weighting of the audible frequencies designed to reflect the response of the human ear to sound.
Background Noise	The underlying level of noise present in the ambient noise, excluding the noise source under investigation, when extraneous noise is removed. This is usually represented by the LA90 descriptor
dBA	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
dB(Z), dB(L)	Decibels Z-weighted or decibels Linear (unweighted).
Extraneous Noise	Sound resulting from activities that are not typical of the area.
Hertz (Hz)	The measure of frequency of sound wave oscillations per second - 1 oscillation per second equals 1 hertz.
LA10	A sound level which is exceeded 10% of the time.
LA90	Commonly referred to as the background noise, this is the level exceeded 90% of the time.
LAeq	Represents the average noise energy or equivalent sound pressure level over a given period.
LAm <sub>ax</sub>	The maximum sound pressure level received at the microphone during a measuring interval.
Masking	The phenomenon of one sound interfering with the perception of another sound. For example, the interference of traffic noise with use of a public telephone on a busy street.
RBL	The Rating Background Level (RBL) as defined in the NPI, is an overall single figure representing the background level for each assessment period over the whole monitoring period. The RBL, as defined is the median of ABL values over the whole monitoring period.
Sound power level (L <sub>w</sub> or SWL)	This is a measure of the total power radiated by a source in the form of sound and is given by $10 \cdot \log_{10} (W/W_0)$ . Where W is the sound power in watts to the reference level of $10^{-12}$ watts.
Sound pressure level (L <sub>p</sub> or SPL)	the level of sound pressure; as measured at a distance by a standard sound level meter. This differs from L <sub>w</sub> in that it is the sound level at a receiver position as opposed to the sound 'intensity' of the source.

Table A2 provides a list of common noise sources and their typical sound level.

**Table A2 Common Noise Sources and Their Typical Sound Pressure Levels (SPL), dBA**

Source	Typical Sound Pressure Level
Threshold of pain	140
Jet engine	130
Hydraulic hammer	120
Chainsaw	110
Industrial workshop	100
Lawn-mower (operator position)	90
Heavy traffic (footpath)	80
Elevated speech	70
Typical conversation	60
Ambient suburban environment	40
Ambient rural environment	30
Bedroom (night with windows closed)	20
Threshold of hearing	0

**Figure A1 – Human Perception of Sound**



*This page has been intentionally left blank*