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## *Acoustic Report*

### **For Proposed Extension of Restaurant Operating Hours at**

### **Shop 3, No. 168-176 Haldon St, Lakemba**

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## **1.0 CONSULTING BRIEF**

Acoustic, Noise & Vibration Solutions Pty Ltd was engaged to investigate the environmental noise impact on the surrounding environment of the proposed extension of operating hours for the existing restaurant at Shop 3 No. 168-176 Haldon St, Lakemba as per Canterbury Bankstown Council requirements.

As per our calculations and the acoustical study below, the proposed extension of operating hours is to comply with the requirements of the NSW Noise Policy for Industry (2017), Noise Guide for Local Government, NSW Environmental Protection Authority (EPA), and Canterbury Bankstown Council requirements.

This commission involves the following:

- Inspect the site and environs.
- Measure the background noise levels at critical locations and times.
- Prepare an Environmental Noise Impact Report.
- Establish acceptable noise level criterion.
- Quantify noise emissions from the proposed extension of operating hours
- Calculate the level of noise emission, taking into account building envelope transmission loss, screen walls and distance attenuation.
- Provide in principle noise control recommendations (if necessary).

## **2.0 SCOPE AND INTRODUCTION**

The existing restaurant located at Shop 3 No. 168-176 Haldon St, Lakemba (Figure 1 – Site Location) is currently approved (On a trial basis) to operate from 8:00 am – 12:00 am Monday to Friday and from 9:00 am – 12:00 am Saturday and Sunday. A proposal has been submitted to Council that seeks a permanent operating hour same as the trial basis times listed in Table 2.1 below.

**Table 2.1 – Existing and Proposed Hours of Operation for Restaurant**

DAY	CURRENT HOURS OF OPERATION ( TRIAL)	PROPOSED HOURS OF OPERATION (PERMANENT)
Monday to Friday	8:00 am – 12:00am	8:00 am – 12:00 am
Saturday to Sunday	9:00 am – 12:00am	9:00 am – 12:00 am



There are no proposed changes to any other aspects of the existing development, only the hours of operation.

The existing site is currently occupied by a one-story commercial building. The site is located in a mixed residential and commercial area with background noise levels dominated by traffic noise arising from Haldon Street and Gillies Street, as well as operational noise from the commercial premises located to the east and, north and south of the subject site (Figure 2 – Surrounding Environment).

The nearest residential receivers that have the potential to be impacted by the proposed extension of operating hours are located as per Table 2.2 below (Figure 3 – Nearest Residential Receivers).

**Table 2.2 – Nearest Residential Receivers**

Receiver	Address	Type of Dwelling
<b>R1</b>	No. 151-173 Haldon Street (North East of the site)	Residential Apartments Opposite to Restaurant.
<b>R2</b>	No. 175 Haldon Street (East of the site)	Residential Apartments Opposite to Restaurant.
<b>R3</b>	No. 180 Haldon Street (South of the site)	Residential Apartments above commercial spaces

The noise emissions from the proposed extension of operating hours must not exceed the acceptable levels at the locations of the receivers. Noise control may be required for the proposed licensed restaurant to comply with the noise criteria set out in Section 4 of this report. The noise controls in Section 6 of this report are reasonable and feasible in reducing the noise to an acceptable level.

### **3.0 NOISE SURVEY, INSTRUMENTATION & RESULTS**

On February 14<sup>th</sup>, 2023, an engineer from this office visited the site to inspect the surroundings and carry out noise measurements for the existing development. Unattended noise readings were carried out on the opposite side of the site away from the restaurant to obtain noise readings that are representative of the existing background noise levels without the restaurant being in operation during the extended operating hours (Figure 4 – Noise Reading Location- Points A).

The unattended environmental noise monitoring was carried out for a period of seven (7) days from February 14<sup>th</sup>, 2023 to February 21<sup>st</sup>, 2023. All measurements were taken in accordance with the Australian Standards AS 1055 “Acoustics – Description and Measurements of Environmental Noise”.



The noise survey was conducted to determine a conservative reading of the existing  $L_{(A90, 15 \text{ minutes})}$  and  $L_{(Aeq, 15 \text{ minutes})}$  for the day (7:00 – 18:00), evening (18:00 – 22:00) and night (22:00 – 7:00) periods.

All sound level measurements and analysis performed throughout this project are carried out with a NSRTW\_MK3 wireless sound level data logger (Serial No. CPp0Dd04c1c9iLtiSwBRPD- Office Tag -Machine 1-). The sound logger specification is as follows:

- Type 1 digital MEMS microphone
- Non-volatile 128 Mb recording memory
- Records L-max, L-min and Leq levels
- Log interval adjustable from 125 ms (8 points per second) up to hours
- A, C and Z weighting curves
- Oscilloscope and spectrum analyser features
- Observes and records 100% of the acoustic signal
- Software calculates global Leq according to ISO and OSHA methods
- WIFI connectivity to report measured levels remotely
- Weatherproof casing designed for indoor/outdoor applications
- Activity detection and logging.
- Long-term measurement and recording of acoustic levels for environmental impact studies.

The microphone of the noise reading machine was positioned 1.5m above ground level. The factory-calibrated noise reading machine (Figure 5 – Calibration Certificate) was calibrated prior to and after reading with our Svantek SV 33A S/N: 90200 Class 1 Calibrator with no significant drift recorded. Any readings affected by strong wind or rain have been disregarded.

The Full Average Statistical Noise Parameters  $L_{(Aeq, 15 \text{ minutes})}$ ,  $L_{(A90, 15 \text{ minutes})}$ ,  $L_{(A10, 15 \text{ minutes})}$ ,  $L_{(A1, 15 \text{ minutes})}$  are presented in Figure 6 – Noise Survey. A summary of those readings is presented in Table 3.1 below:

**Table 3.1 - Summary of Existing Noise Survey between 14<sup>th</sup> February, 2023 – 21<sup>st</sup> February, 2023 (Point A)\***

<i>Location</i>	<i>Time Period</i>	<i>Arithmetic Mean LAeq dB(A)</i>	<i>Arithmetic Mean LA90 dB(A)</i>	<i>RBL dB(A)**</i>
Point A	Day Time (7:00am-6:00pm)	N/A*	N/A*	N/A*
	Evening Time (6:00pm-10:00pm)	64*	48*	44*
	Nighttime (10:00pm-7:00am)	62	50	42

\* Restaurant is approved to operate during the day and part of/all the evening hours.

\*\* RBL is calculated in accordance with the Noise Policy for Industry 2017 (Fact Sheet B).



#### **4.0 ACCEPTABLE NOISE LEVELS**

The restaurant is proposed to extend their operations until the hours listed in Table 2.1 with patrons expected to leave the premises after these times. The noise emitted by the proposed extension of operating hours must comply with the noise criteria listed in the following guidelines:

- NSW Policy for Industry NPfI (2017)
- NSW Noise Guide for Local Government (Sleep Disturbance Criteria)
- NSW Road Noise Policy (for Traffic Generation)

#### **4.1 NSW NOISE POLICY FOR INDUSTRY (2017)**

The above policy seeks to promote environmental well-being through preventing and minimizing noise by providing a framework and process for deriving noise limits conditions for consent and licenses.

The Noise Policy for Industry NPfI 2017 recommends two separate noise criteria to be considered, the Intrusive Noise Criteria and the Amenity Noise Criteria. A project noise trigger level being the lowest of the amenity and the intrusiveness noise level is then determined.

If the predicted noise level  $L_{Aeq}$  from the proposed project exceeds the noise trigger level, then noise mitigation is required. The extent of any 'reasonable and feasible' noise mitigation required whether at the source or along the noise path is to ensure that the predicted noise level  $L_{Aeq}$  from the project at the boundary of the most affected residential receiver is not greater than the noise trigger level.

##### **4.1.1 AMENITY NOISE CRITERIA**

The amenity noise levels presented for different residential categories are presented in Table 2.2 of the Noise Policy for Industry 2017. These levels are introduced as a guide for appropriate noise levels in residential areas surrounding industrial areas.

For the proposed extension of operating hours at Shop 3 No. 168-176 Haldon St, Lakemba, the recommended amenity noise levels are presented in Table 4.1.1.1 below:



**Table 4.1.1.1 - Recommended Noise Levels from Industrial Noise Sources**

<i>Type of Receiver</i>	<i>Area</i>	<i>Time Period</i>	<i>Recommended Leq Noise Level, dB(A)</i>
Residence	Urban*	Day	60
		Evening	50
		Night	45
Commercial	All	When in Use	65
Industrial interface (applicable only to residential noise amenity areas)	All	All	Add 5 dB(A) to recommended noise amenity area

\*RBL > 45,40,35 for Day, Evening and Night.

Where a noise source contains certain characteristics such as tonality, intermittency, irregularity or dominant low-frequency content, a correction is to be applied which is to be added to the measured or predicted noise levels at the receiver before comparison with the criteria. Shown below are the correction factors that are to be applied:

**Table 4.1.1.2 – Modifying Factor Corrections as per Fact Sheet C (Noise Policy for Industry 2017)**

<i>Factor</i>	<i>Correction</i>
Tonal Noise	+ 5 dB <sup>1,2</sup>
Low-Frequency Noise	+ 2 or 5 dB <sup>1</sup>
Intermittent Noise	+ 5 dB
Duration	+ 0 to 2 dB(A)
Maximum Adjustment	Maximum correction of 10 dB(A) <sup>1</sup> (excluding duration correction)

1. Where a source emits tonal and low-frequency noise, only one 5-dB correction should be applied if the tone is in the low-frequency range, that is, at or below 160 Hz.
2. Where narrow-band analysis using the reference method is required, as outlined in column 5, the correction will be determined by the ISO1996-2:2007 standard.

Correction for duration is to be applied where a single-event noise is continuous for a period of less than two and a half hours in any assessment period. The allowable exceedance of the  $L_{Aeq,15min}$  equivalent noise criterion is depicted in Table 4.1.1.3 for the duration of the event. This adjustment accounts for unusual and one-off events and does not apply to regular and/or routine high-noise level events.





**Table 4.1.1.3 – Adjustment for Duration as per Fact Sheet C (Noise Policy for Industry 2017)**

<i>Allowable duration of noise (one event in any 24-hour period)</i>	<i>Allowable exceedance of LAeq,15min equivalent project noise trigger level at receptor for the period of the noise event, dB(A)</i>	
	<i>Daytime &amp; evening (7 am–10 pm)</i>	<i>Night-time (10 pm–7 am)</i>
1 to 2.5 hours	2	Nil
15 minutes to 1 hour	5	Nil
6 minutes to 15 minutes	7	2
1.5 minutes to 6 minutes	15	5
less than 1.5 minutes	20	10

According to Section 2.4 of the above policy, the project amenity noise level is determined as follows:

**Project amenity noise level for industrial developments = recommended amenity noise level (Table 2.2) minus 5 dB(A)**

To convert from a period level to a 15-minute level, a plus 3 is added as per Section 2.2 of the policy.

Therefore, the project amenity noise levels for the proposed extension of operating hours at Shop 3 168 – 176 Haldon St, at point A are as follows:

- **Day period:** N/A\*
- **Evening period:**  $50 - 5 + 3 = 48^*$
- **Night period:**  $45 - 5 + 3 = 43 \text{ dB(A)}$

\*Restaurant is previously approved to operate during the day and part of/all evening hours.

#### **4.1.2 INTRUSIVENESS NOISE CRITERIA**

The Noise Policy for Industry in Section 2.3 summarizes the intrusive criteria as below:

$$L_{Aeq, 15 \text{ minute}} \leq \text{rating background level plus 5}$$

The background noise level known as  $L_{A90,15 \text{ minutes}}$  is the noise exceeded 90% of a period over which annoyance reactions may occur (taken to be 15 minutes). The RBL is defined as the overall single-figure  $L_{A90,15 \text{ minutes}}$  background level representing each assessment period (day/evening/night) over the whole monitoring period.

For the short-term method, the rating background noise level is simply the lowest measured



$L_{AF90,15min}$  level.

For the long-term method, the rating background noise level is defined as the median value of the daily lowest tenth percentile of  $L_{90}$  background noise levels and calculated in accordance with Fact Sheet B of the NPfI 2017.

Therefore, the acceptable  $L_{eq}$  noise intrusiveness criteria for the background noise during the day, evening and night at point A are as follows:

- **Day period:** N/A\*
- **Evening period:**  $44 + 5 = 49 \text{ dB(A)}^*$
- **Night period:**  $42 + 5 = 47 \text{ dB(A)}$

\*Restaurant is previously approved to operate during the day and part of/all evening hours.

#### **4.1.3 PROJECT NOISE TRIGGER LEVEL**

The project noise trigger level is the lower (that is, the most stringent) value of the amenity and intrusiveness noise levels for the day, evening and night-time. Therefore, the project noise trigger levels for the proposed development are as shown below:

- **Day period  $L_{Aeq,15 \text{ min}}$ :** N/A
- **Evening period  $L_{Aeq,15 \text{ min}}$ :**  $48 \text{ dB(A)}$
- **Night period  $L_{Aeq,15 \text{ min}}$ :**  $43 \text{ dB(A)}$

#### **4.2 NSW NOISE GUIDE FOR LOCAL GOVERNMENT**

The Department of Environment and Conservation (NSW) published the *Noise Guide for Local Government* in June 2004. The policy is specifically aimed at assessing noise from light industry, shops, entertainment, public buildings, air conditioners, pool pumps and other noise sources in residential areas.

Section 2.2.1 of the Noise Guide for Local Government states that a noise source is generally considered to be intrusive if the noise from the source when measured over a 15-minute period exceeds the background noise by more than 5 dB(A).

Therefore, the acceptable noise criterion is as follows:

- $48/50 + 5 = 53/55 \text{ dB (A)}$  during the evening/night time.



#### **4.2.1 SLEEP DISTURBANCE**

In order to minimize the potential of sleep disturbance due to transient noises from the restaurant during the night hours (10:00pm – 7:00am), Section 2.2.4 of the Noise Guide For Local Government recommends that  $L_{A1,1\text{-minute}}$  level of any noise outside a bedroom should not exceed the background noise level by more than 15dB.

**$L_{A1, 1 \text{ minute}} \leq 50 + 15 = 65 \text{ dB(A)}$  outside bedroom window of nearest residential receiver.**

Similar text about sleep arousal is adopted in the Noise Policy for Industry 2017 as below:

**Where the subject development/premises night-time noise levels at a residential location exceed:**

- **$L_{Aeq,15\text{min}}$  40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or**
- **$L_{AFmax}$  52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater,**

**a detailed maximum noise level event assessment should be undertaken.**

Further studies by the enHealth Council (2004) and the guidelines published by the World Health Organisation (1999) were reviewed and analysed in terms of the guidance on noise exposure and sleep disturbance. The enHealth report states that:

*‘as a rule for planning for short-term or transient noise events, for good sleep over 8 hours the indoor sound pressure level measured as a maximum instantaneous value should not exceed approximately 45 dB(A)  $L_{A, (Max)}$  more than 10 or 15 times per night’*

As per acoustic calculations presented in Table 5.1.3 of this report, the development will comply with the Sleep Disturbance criteria above.

#### **4.3 OFFICE OF LIQUOR & GAMING (OLGR) CRITERION RELATED TO NOISE FROM LICENCED HOTELS, CLUBS & RESTAURANTS**

The NSW Office of Liquor, Gaming and Racing (OLGR) requires the following noise criteria for all licensed premises:

*“The  $L_{A10}$ \* noise level emitted from the licensed premises shall not exceed the background noise level in an Octave Band Centre Frequency (31.5Hz – 8kHz inclusive) by more than 5dB between 7:00am and 12:00 midnight at the boundary of any affected residence”*



*The LA10\* noise level emitted from the licensed premises shall not exceed the background noise level in an Octave Band Centre Frequency (31.5Hz – 8kHz inclusive) between 12:00 midnight and 7:00am at the boundary of any affected residence.*

*Notwithstanding compliance with the above, the noise from the licensed premises shall not be audible within any habitable room in any residential premises between the hours of 12:00 midnight and 7:00am. Interior noise levels which still exceed safe hearing levels are in no way supported or condoned by the NSW Office of Liquor, Gaming and Racing.*

*\*For the purposes of this condition, the LA10 can be taken as the average maximum deflection of the noise emission from the licensed premise”*

*The LA10\* noise level emitted from the premises must not exceed the background noise level in any octave band centre frequency (31.5Hz – 8k Hz inclusive) between 12:00 midnight and 7:00am at the boundary of any affected residence.*

**As the restaurant above does not serve any liquor, the OLGR is not relevant to this acoustical study.**

## **5.0 PREDICTED NOISE FROM PROPOSED EXTENSION OF RESTAURANT OPERATING HOURS**

The main sources of noise from the proposed extension of operating hours of the existing restaurant will be as follows:

- Patrons in the indoor areas of the restaurant
- Vehicular movement noise in/out from the carpark
- Operation of existing mechanical plant and equipment

### **5.1 NOISE FROM OPERATIONAL NOISE INSIDE THE PREMISES**

At any time, a total maximum of thirty (30) patrons are expected in the indoor dining area. Low background music/TV may be played at this premises. It is usually the case that approximately 20% to 50% of the patrons could be talking loudly at any one time in the dining areas.

As per Harris /Pearson, Bennet, & Fidell (1977) report, the sound power level of (1) person talking is as per the table below.



Vocal Effort	No. of Talkers	Sound Power Levels [dB] at Octave Band Centre Frequencies [Hz] * , ** , ***							
		125	250	500	1000	2000	4000	8000	dB(A)
<b>Females</b>									
Casual	1	48.0	61.0	61.0	54.0	51.0	47.0	48.0	61.0
Normal	1	49.0	63.0	66.0	61.0	56.0	44.0	50.0	66.0
Raised	1	47.0	67.0	72.0	70.0	66.0	61.0	54.0	74.0
Loud	1	47.0	62.0	77.0	79.0	76.0	70.0	62.0	82.0
Shouted	1	48.0	68.0	82.0	89.0	88.0	81.0	71.0	93.0
<b>Males</b>									
Casual	1	58.0	62.0	63.0	55.0	53.0	51.0	48.0	63.0
Normal	1	60.0	66.0	69.0	62.0	58.0	54.0	48.0	69.0
Raised	1	65.0	71.0	76.0	70.0	66.0	61.0	55.0	76.0
Loud	1	69.0	78.0	85.0	84.0	79.0	73.0	63.0	87.0
Shouted	1	58.0	83.0	93.0	97.0	93.0	85.0	76.0	100.0

For a number of patrons (n) in any vocal category the increase in noise level at any octave band centre frequency is  $\Delta L = 10 \log_{10}(n)$ .

The total noise level from all groups is determined using the equation

$$L = 10 \log_{10} \left( \sum_{i=1}^n 10^{(L_i / 10)} \right)$$

Where  $L_i$  is the noise level from each group.

Tables 5.1.1 below lists the Total Noise Levels (Sound Power)  $L_{Aeq}$  from patrons in the restaurant area.

**Table 5.1.1- Sound Power Level  $L_{Aeq}$  from 30 Patrons - Indoor Restaurant Area -**

Description	dB(A)	Octave Band Centre Frequencies (Hz)								
		31.5	63	125	250	500	1k	2k	4k	8k
<b><math>L_{Aeq}</math> 30 Patrons - Indoor Dining Area (50% talking) + Low Background music/TV</b>	<b>85</b>	**	52	57	71	81	79	77	72	70

The sound loss through the façade of the building in general is given at any center frequency using Lord/Templeton as follows:

$$L_2 = L_1 - R + 10 \log S - 17 - 20 \log(r) + DI$$

Where;

$L_2$  is the noise level at location 2 outside the room;

$L_1$  is the internal noise level at the source;

$r$  is the distance in meters to location 2 from the source;

$R$  is the weighted sound reduction index of the façade;

$S$  is the area of the façade; and



*DI* is the directivity associated with the source.

Table 5.1.2 below presents the predicted  $L_{Aeq,15\text{ min}}$  noise levels from the inside of the restaurant operations at the boundary of the nearest residential receivers.

**Table 5.1.2 – Sound Pressure Level  $L_{Aeq}$  from 30 Patrons – Indoor Dining Area**

Activity	Period	Expected $L_{Aeq}$ , 15min at Boundary of R1*	Expected $L_{Aeq}$ , 15min at Boundary of R2*	Expected $L_{Aeq}$ , 15min at Boundary of R3*	Complies with Noise Guide for Local Government as per Section 4.2**
<b><math>L_{Aeq}</math> 30 Patrons in the Indoor Dining Area + Low Background Music/TV (50% Talking)</b>	10:00pm – 12:00pm	30 dB(A)	35 dB(A)	25 dB(A)	<b>Yes ✓ Complies Evening/Night</b>  $\leq 53/55$ dB(A)

\*At balcony

\*\* NPfI does not apply – Exclusions listed in section 1.5 page 5 of the policy.

\*\*\* Only background Music/Tv. No live music, No amplified music.

Table 5.1.3 below presents the predicted  $LA_{1,1\text{min}}$  noise level from the restaurant operations at the external façade of the nearest residential receivers R1, R2 & R3 and their compliance with the Sleep Disturbance Criteria.

**Table 5.1.3 – Predicted Maximum Noise Level -  $LA_{1\text{ min}}$  at Façade of Residential Receivers**

Activity	Period	Expected $L_{Aeq}$ , 15min at Boundary of R1*	Expected $L_{Aeq}$ , 15min at Boundary of R2*	Expected $L_{Aeq}$ , 15min at Boundary of R3*	Complies with Noise Guide for Local Government as per Section 4.2*
<b>Maximum Noise Generated from Restaurant</b>	10:00pm – 12:00pm	43 dB(A)	48 dB(A)	38 dB(A)	<b>Yes ✓</b>  $< 50 + 15 = 65$ dB(A)

\*At balcony, R1, R2, R3

## **5.2 VEHICULAR MOVEMENT NOISE IN/OUT OF THE CARPARK**

The site features an existing underground carpark shared between the restaurant and the surrounding shops. Access to the carpark is from Haldon St.



Car parking noises may typically comprise of adults talking, car radios, cars starting up and car doors closing. Typical Noise levels for car parking activities are listed in Table 5.2.1 below:

**Table 5.2.1 – Car Park Noise Source Levels**

<b>Car Park Noise Source</b>	<b>Average Sound Power Level, dB(A)</b>
Car Door Closing	95*
Car Starting	95*
Car Accelerating	90
Car Moving at 10km/hr	81

\*Car park is enclosed so No noise emanation is expected from above activities.

For vehicles entering the basement carpark, the only noise generated will be from cars moving in and out of the driveway. The remainder of car activities listed in the table above will occur inside the basement and therefore noise produced by those activities will be attenuated by the basement enclosure.

Predicted noise levels at the nearest residential receivers due to cars entering and exiting the restaurant are presented in Table 5.2.2 below.

**Table 5.2.2 – Predicted Noise from Vehicles Entering and Exiting the Carpark**

<b>Activity</b>	<b>Period</b>	<b>Expected Leq dB(A) at RD*</b>	<b>Expected Leq dB(A) at RD*</b>	<b>Expected Leq dB(A) at RD*</b>	<b>Complies with the Project Noise Trigger level as per Section 4.1.3**</b>
<b>Vehicles Entering/Exiting the On-site Car Park</b>	10:00pm – 12:00pm	23 dB(A)	26 dB(A)	35 dB(A)	Yes <=48/43 dB(A) Evening/Night-time Criteria

\*At Balcony

\*\*Provided all recommendations in section 6.0 are adhered to.

### **5.3 MECHANICAL PLANT NOISE EMISSION**

As previously mentioned, there are no proposed changes to the existing mechanical plant and equipment on site. The existing mechanical ventilation (fan/duct) is located on the roof of the site (Figure 7 – Mechanical Exhaust Location)



Noise measurements carried out on site during night-time hours of operation found that the operation of the existing mechanical plant and equipment was not audible over the background noise level at the boundary of the nearest residential receiver.

Provided recommendations in Section 6 of this report are adhered to, the operation of mechanical plant and equipment will comply with the criteria set out in Section 4 of this report.

## **6.0 NOISE CONTROL RECOMMENDATIONS**

### **6.1 INDOOR DINING AREA**

The predicted noise levels from people talking in the indoor dining area comply with the relative Noise Criteria.

No patrons are permitted to congregate outside the restaurant. No live bands or amplified music are permitted on site at any time.

### **6.2 DELIVERIES & WASTE COLLECTIONS**

We recommend that all deliveries to the site and waste collection to be carried between the hours of 7:00 a.m. to 6:00 p.m.

### **6.3 SIGNS**

We recommend that signs are installed outdoor and at the entry reminding patrons not to congregate outside and be aware of the residential receivers during the evening and night hours by keeping noise to a minimum.

### **6.4 FAN NOISE**

- Run existing Kitchen Fan at 50% speed during the operating hours of 10:00 p.m. to 12:00 a.m.
- Switch Kitchen Fan off between 12:00 a.m., and 7:00 a.m.

## **6.5 NOISE MANAGEMENT PLAN**

A Noise Management Plan should be implemented and should include the following:

- Install a contact number at the front of the restaurant so that complaints regarding the operation of the restaurant can be made.
- Implement a complaint handling procedure. If a noise complaint is received, the complaint should be recorded on a Complaint Form, containing the following details:





- Name and address of the complainant
- Time and date the complaint was received
- The nature of the complaint and the time/date the noise was heard
- The name of the employee that received the complaint
- Actions taken to investigate the complaint and a summary of the results of the investigation
- Indication of what was occurring at the time the noise was happening (if applicable)
- Required remedial action (if applicable)
- Validation of the remedial action
- Summary of feedback to the complainant

Also, a permanent register of complaints should be held on the premises which shall be reviewed monthly by staff to ensure all complaints are being responded to. All complaints received shall be reported to management with initial action/investigation commencing within 7 days. The complainant should also be notified of the results and actions arising from the investigation.

## **7.0 NOISE IMPACT STATEMENT**

Acoustic, Noise & Vibration Solutions Pty Ltd have taken noise level measurements at the most noise-sensitive locations for the proposed extension of operating hours at the existing restaurant at Shop 3 No. 168-176 Haldon St, Lakemba. The levels of noise emission from the proposed extension of operating hours have been calculated and quantified using reliable test data.

Provided the noise controls recommended in Section 6 of this report are fully implemented, we are confident that the noise emission levels from the operation of the restaurant at Shop 3, No. 168 to 176 Haldon St, including its mechanical plant during the trading hours Monday to Friday 8:00 am – 12:00am, Saturday to Sunday 9:00 am – 12:00am will be controlled and meet Canterbury Bankstown Council noise requirements.

We hope this report meets your requirements. Should you require further explanations, please do not hesitate to contact us.

Yours sincerely,

M. Zaioor  
Australian Acoustical Society (Member #1032)  
M.S. Eng'g Sci. (UNSW).  
M.I.E.(Aust), CPEng



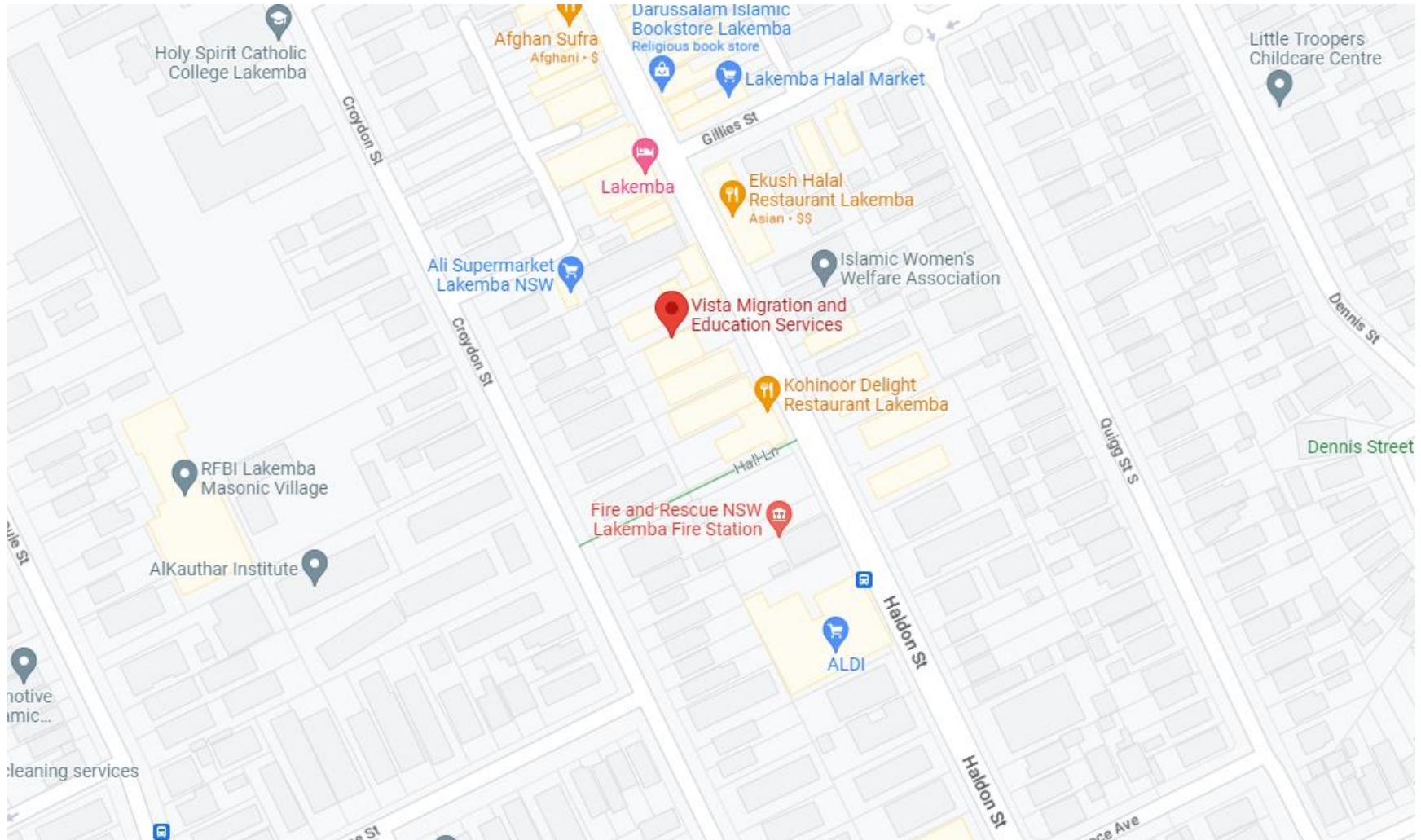
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**Figure 1 – Site Location**





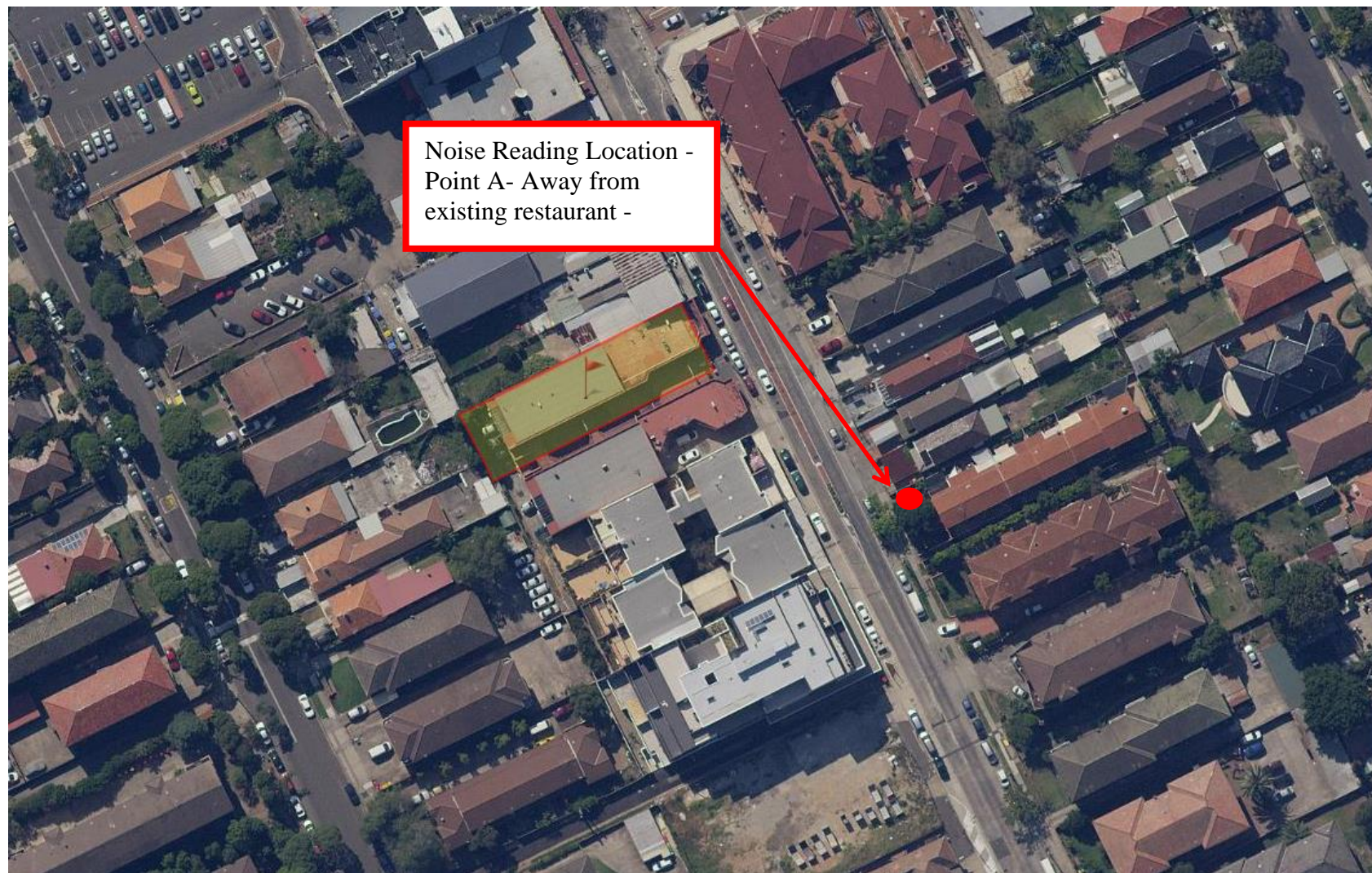
**Figure 2 – Surrounding Environment**





**Figure 3 – Nearest Residential Receivers**





**Figure 4 – Noise Reading Locations (Points A)**

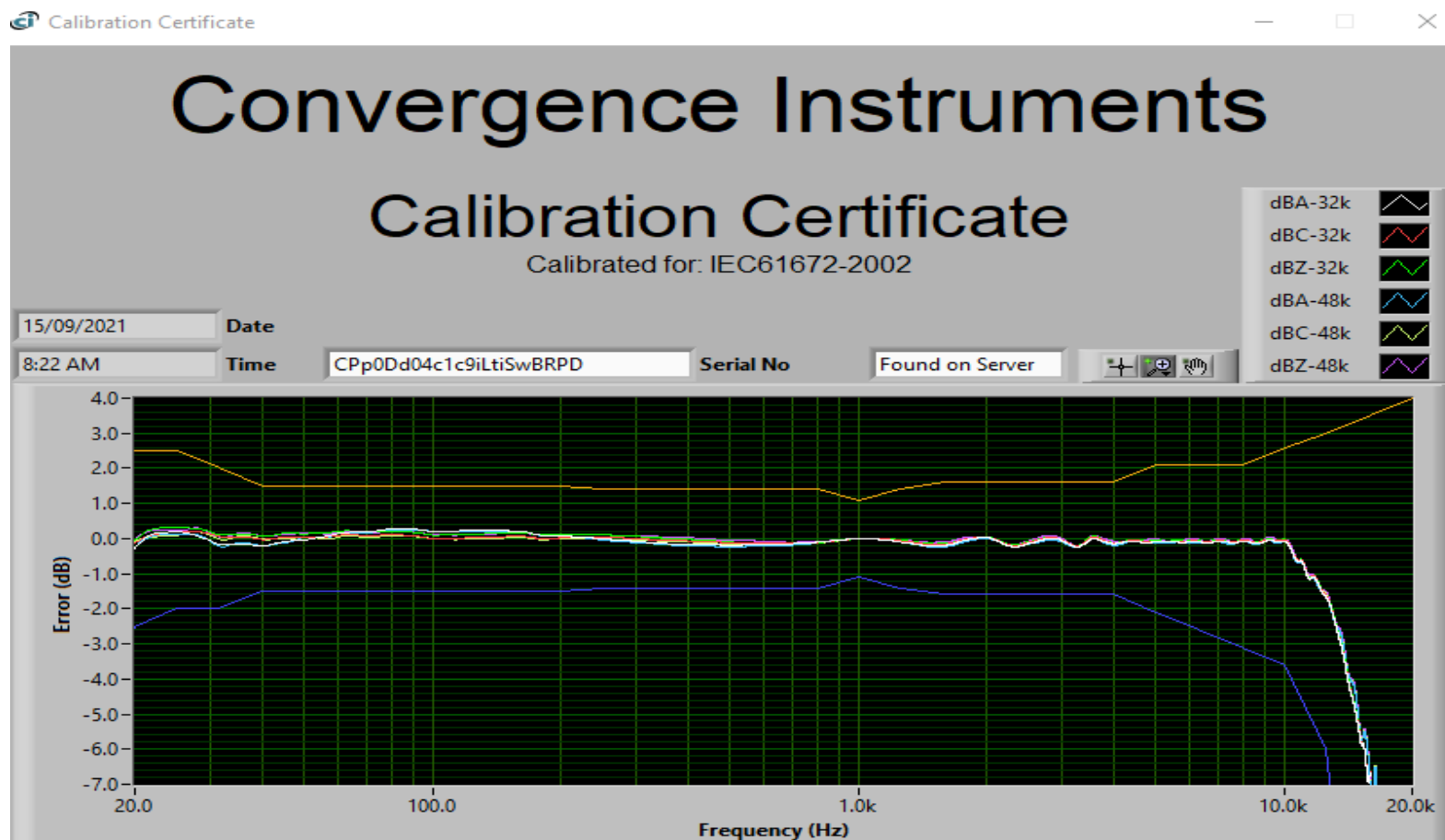


Figure 5 – Calibration Certificate

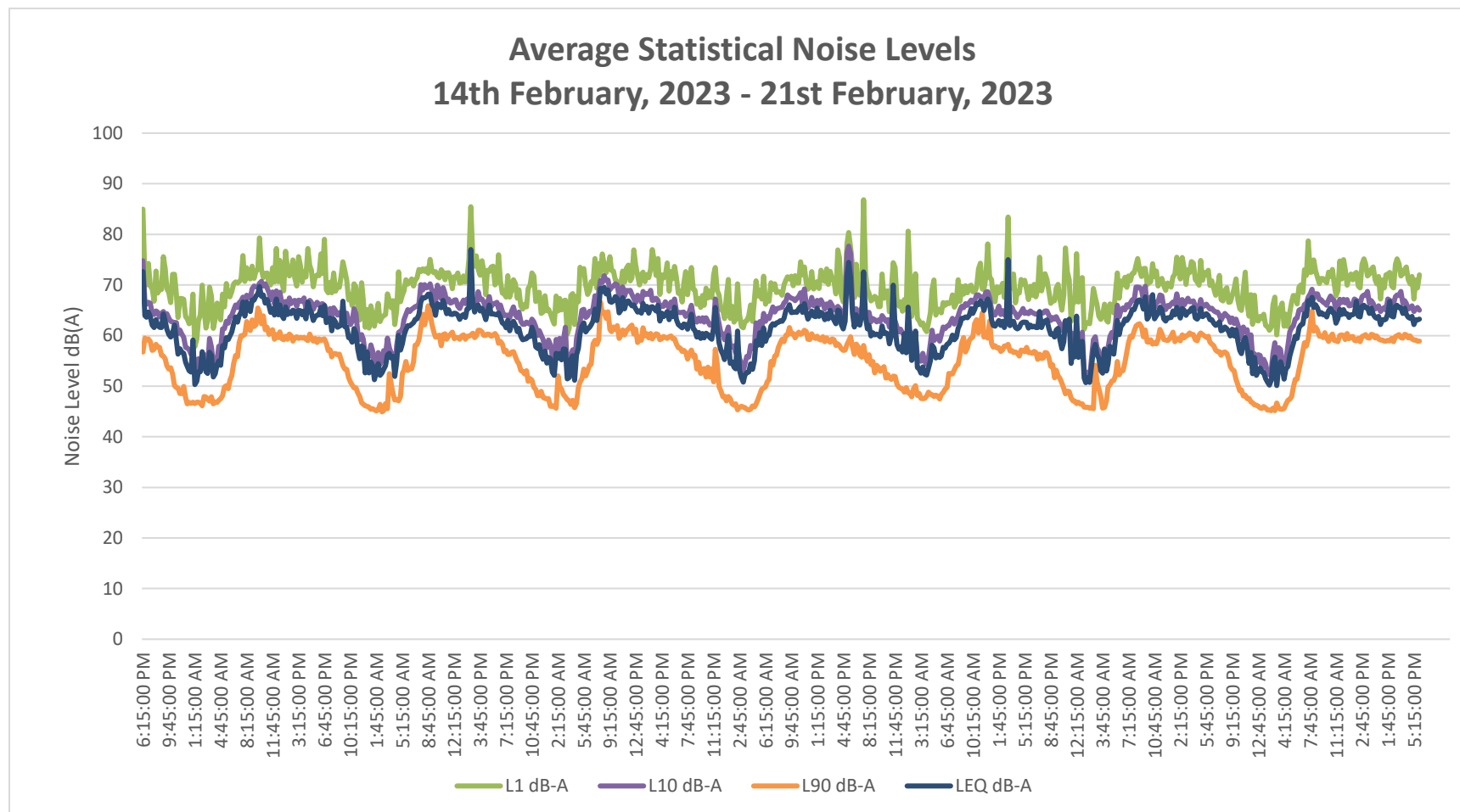


Figure 6 – Noise Survey (Point A)





**Figure 7 – Mechanicus Exhaust Location**