

DA ACOUSTIC REPORT

El Jannah, Shop 2006, 8 Cross Street, Brookvale

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The work reported herein has been carried out in accordance with the terms of membership. We stress that the advice given herein is for acoustic purposes only, and that the relevant authorities should be consulted with regard to compliance with regulations governing areas other than acoustics.



1.0 INTRODUCTION

PKA Acoustic Consulting has been commissioned by Vaibhav Purohit of El Jannah Franchise Pty Ltd to provide an acoustic report to assess the noise impact from the proposed El Jannah, Warringah Mall located at Shop 2006, 8 Cross Street, Brookvale upon the surrounding environment.

It is PKA's understanding that as part of the approval documentation, the council/centre management requires an acoustic report to assess the environmental noise impact of the proposed development and to provide compliance recommendations with the acoustic criteria if required.

2.0 SITE DESCRIPTION

The proposed development is located within Warringah Mall within a building at Unit 2006, 8 Cross Street with several other food premises, shops and gyms within a large commercial precinct.

The site is bound by Cross Street to the south and west and surrounded by other existing commercial premises on the remaining sides.

Figure 2-1 Site Location





The nearest sensitive receivers are located more than 200m away with no direct line of sight to the development significantly shielding by several buildings. Due to this, no acoustic impact is anticipated to any of the residential receivers with the most affected premises being the adjacent and surrounding commercial premises.



Figure 2-2 Site Location (Context) – Extract from Provided Plans



3.0 NOISE CRITERIA

NSW EPA Noise Policy for Industry (2017)

Noise generated from commercial premises and mechanical noise is generally assessed against the requirements of the *NSW EPA Noise Policy for Industry 2017 (NPfI)*. The policy sets out two separate criteria to ensure environmental noise objectives are met. The first criterion considers intrusive noise to residential properties and the second is set to ensure the amenity of the land use is protected. The lower value of both criteria is considered to be the Project noise trigger level, which is the limit of the L_{Aeq-15min} noise level that must not be exceeded for the corresponding period of the day.

Amenity Criterion

To limit continuing increases in noise levels, the maximum ambient noise level within an area from commercial noise sources should not normally exceed the levels as specified in Table 2.2 of the policy for the specified time of the day. The NPfI recommends the following Amenity Noise Levels for various receiver premises.

Table 3-1 Noise Criteria - Amenity for receiver buildings

Type of receiver	Time of day	Recommended Amenity Noise Level L _{Aeq (period)}
	Day	60 dB(A)
Residential (Urban)	Evening	50 dB(A)
(Orball)	Night	45 dB(A)
Commercial	When In Use	65 dB(A)

To ensure that industrial noise levels (existing plus new) remain within the recommended amenity noise levels for an area, a project amenity noise level applies for each new source of industrial noise as follows:

Project amenity noise level for development = recommended amenity noise level minus 5 dB(A).

To standardise the time periods for the intrusiveness and amenity noise levels, this policy assumes that the Amenity $L_{Aeq, 15min}$ will be taken to be equal to the $L_{Aeq, period} + 3$ decibels (dB).

Intrusiveness Criterion

The intrusiveness of a stationary noise source may be considered acceptable if the average of the maximum A-weighted levels of noise, $L_{Aeq 15 minute}$ from the source do not exceed by more than 5dB the Rating Background Level (RBL) measured in the absence of the source. This applies during all times of the day and night. There also exists an adjustment factor to be applied as per the character of the noise source. This includes factors such as tonal, fluctuating, low frequency, impulsive, intermittent etc. qualities of noise. The RBL is determined in accordance with Section 2.3 of the NSW EPA NPfI. The intrusiveness criterion is $L_{Aeq 15 minute} < RBL+5$.

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4.0 ASSESSMENT

4.1 Operational Details

PKA reviewed the "Statement of Environmental Effects" document for the development prepared by Romic Planning (dated 14th August 2024) which summarised the operational details for the premises. Key operational details for the purpose of the acoustic assessment are presented below.

- The fit out will be within an existing commercial tenancy and will be used as a food and drink premises.
- The premises will not be licensed and therefore, will not serve alcohol.
- A total of 42 seats will be on site (30 internal and 12 external).
- The premises is proposed to operate between 6am and 11pm, 7 days of the week.
- Major mechanical exhaust and air-conditioning equipment will be located on the rooftop of the building.
- No carparking is provided within the premises and street parking will used by any patrons. Therefore, this component is not being assessed any further.
- For noise breakout calculation purposes, then following source noise levels were considered. The following spectrum is based on extensive noise measurements conducted by PKA that includes general patron activity and general background music.

Table 4-1 Source Noise Levels Within Restaurant (Including Background Music)

Noise Source	Octave band frequency (Hz)								
(Spatial Average)	63	125	250	500	1K	2К	4К	8К	dB(A)
L _{Aeq-15min}	65	66	71	74	70	67	61	55	75

4.2 Calculated Patron Noise Impact at Sensitive Receivers

Based on the proposed operational management, the following table presents the results of the patron activity within the premises. The calculations include the loss in energy through the façade, distance loss, shielding effects and directivity and the effect of the 10dB(A) broadband sound transmission loss from inside to outside through an open door (assumed).

Table 4-2 Calculated Noise Impact from Patron Activity at Surrounding Sensitive Receivers

Sound Pressure Level within Premises L _{10-15min} Noise Impact at Receivers		Time of Day	Project Trigger Levels (L _{Aeq-15min})	Complies?
75 dB(A) (from Table 4-1)	<50 dB(A) at nearest commercial receiver	When In Use	63 dB(A)	Yes



4.3 Proposed Equipment Schedule

PKA reviewed the preliminary mechanical drawings provided (prepared by Zone Design, Job No. 24149) which included the following indicative mechanical schedule for co-ordination. (*SWL: Sound Power Level. SPL: Sound Pressure Level, U/A: Unavailable*).

Item Ref.	Serving	Make/Model	Sound Level
KEF-R-01	Hood 1 Exhaust Air Fan	ECO DYNAMIC ARV-1000-4D-AL	SPL 61dB(A) at 3m
KEF-R-02	Hood 2 & 3 Exhaust Air Fan	ECO DYNAMIC ARV-1000-4D-AL	SPL 61dB(A) at 3m
TEF-R-01	Toilet Exhaust Air Fan	Fantech Model CEEC25D	SPL 76dB(A) at 3m
EVC-01	Kitchen Make up Air	Cool Breeze Cascade Model S240	U/A
EVC-02	Kitchen Make up Air	Cool Breeze Cascade Model S240	U/A
ESP-01	Charcoal Hood Exhaust	GxESP-1000x	U/A
ESP-02	Charcoal Hood Exhaust	GxESP-1000x	U/A
ESP-03	Charcoal Hood Exhaust	GxESP-1000x	U/A
ESP-04	Charcoal Hood Exhaust	GxESP-1000x	U/A
ESP-05	Charcoal Hood Exhaust	GxESP-1000x	U/A
ESP-06	Charcoal Hood Exhaust	GxESP-1000x	U/A
Condensers (x2)	Shop Front & Server Room	Temperzone and Daikin Selections	U/A

 Table 4-3 Proposed Plant & Manufacturer Rated Source Noise Levels

PKA preformed preliminary acoustic calculations based on the limited noise data available and calculated that acoustic feasibility is achievable, mainly due to the higher allowable noise levels at commercial receivers when compared to residential receivers. However, due to preliminary nature of the design, a detailed acoustic impact will be necessary during the CC stage of the development when the mechanical drawings are further developed, and a final equipment schedule is available (typically available when a contactor is engaged) to ensure that the noise goals established in Table 4-2 are achieved.

5.0 RECOMMENDATIONS

1. Outdoor Mechanical Plant and equipment

Prior to the construction certificate stage, the locations and final selections of all the outdoor mechanical and plant equipment must be checked by a qualified acoustic consultant to ensure that the rated sound power/pressure levels will comply at the boundary of the sensitive receivers (noise impact at commercial receiver boundaries must be less than L_{Aeq-15min} 63 dB(A).

2. Complaint Handling

 If any complaints occur from other external residents/receivers during operation, section 11 titled "Reviewing performance" of the NSW Industrial Noise Policy (INP) provides a method of complaint handling and management. Post negotiations, the following recommendations should be implemented (taken from the NSW INP). Where residual noise impacts have been negotiated, it is recommended that the proponent run a complaints-monitoring system. Components of such a system could include:

- a complaint hotline to record receiver complaints regarding the development.
- a system for logging complaints and dealing with them.

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- a database of complaints and the proponent's responses/actions. This should be readily accessible to the community and regulatory authorities.
- a system for providing feedback to the community (this could be in the form of regular meetings with affected residents, or a newsletter).



APPENDIX A DRAWINGS USED TO PREPARE REPORT

No.	Rev.	Title	Date
500	DA4	Cover Sheet	12/08/2024
501	DA4	3D Views – External	12/08/2024
502	DA4	3D Views – External	12/08/2024
503	DA4	3D Views – External	12/08/2024
504	DA4	3D Views – External	12/08/2024
505	DA4	3D Views – External	12/08/2024
506	DA4	3D Views – External	12/08/2024
507	DA4	Schedule – External Signage	12/08/2024
508	DA4	Schedule – External Signage	12/08/2024
509	DA4	Site - Locality	12/08/2024
520	DA4	Floor Plan – Existing Condition & Demolition – Level G	12/08/2024
521	DA4	Floor Plan – Proposed	12/08/2024
522	DA4	Roof Plan	12/08/2024
531	DA4	Elevations – External	12/08/2024
532	DA4	Elevations – External	12/08/2024
533	DA4	Sections – Building Details	12/08/2024



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