465-469 PRINCES HIGHWAY, ROCKDALE
ACOUSTIC REPORT
FOR
EMAG APARTMENTS PTY LTD

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1.PROJECT DESCRIPTION

1.1.REPORT TO SUPPORT DEVELOPMENT APPLICATION

This Acoustic Report has been prepared for the property located on 465-469 Princes Highway, Rockdale for the use of the site as a residential development.

The report is aimed at addressing noise from the district and noise created at site by occupant use and mechanical services plant at the closest sensitive receiver locations.

1.2.REFERENCE DOCUMENTATION

The report is based on the details given in the following set of documents:

1. Axel Richter Architect Drawings, Project 465-469 Princes Highway Dated: 27.05.24

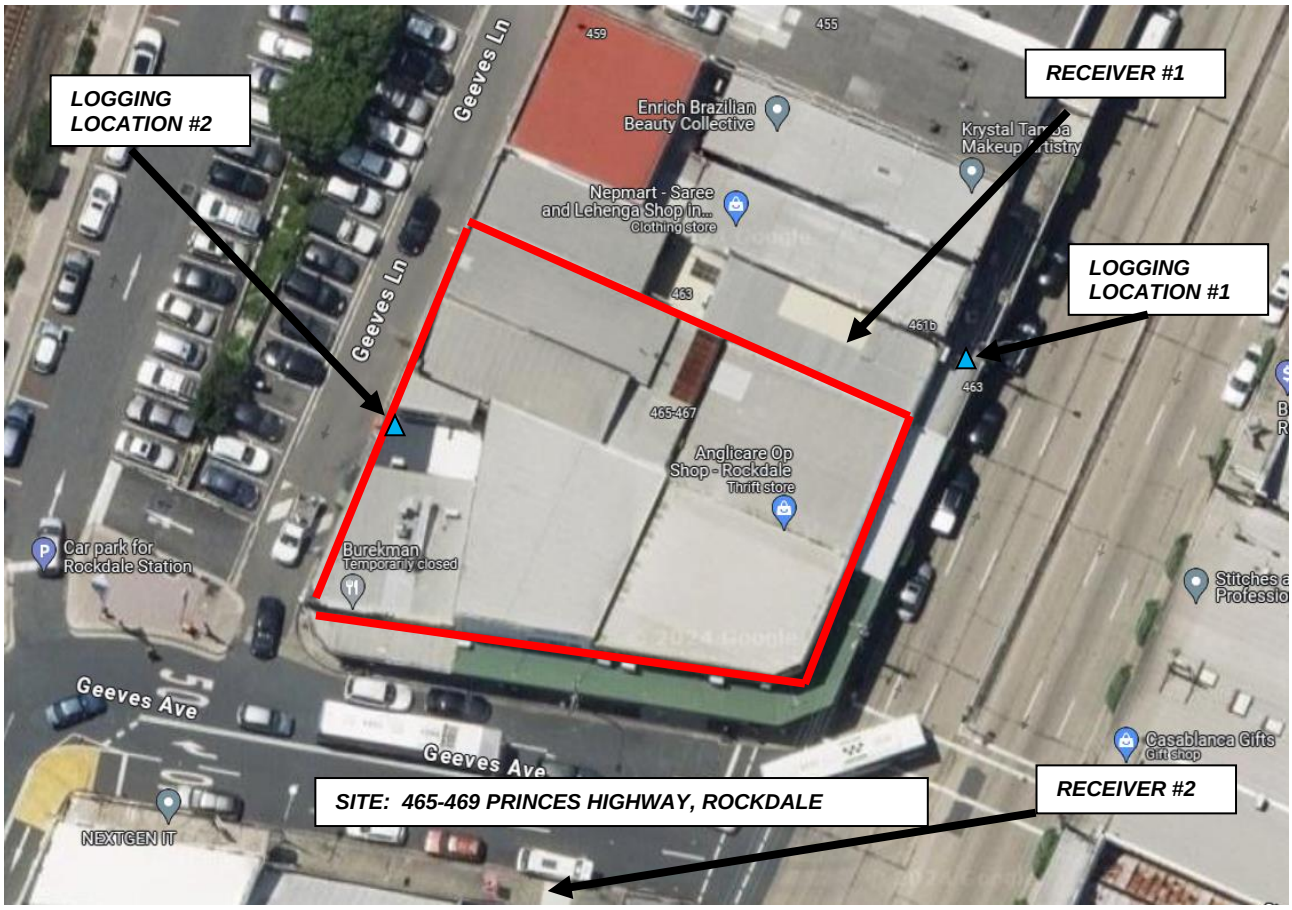
1.3.DESCRIPTION OF THE SITE

The proposed site consists of multiple commercial buildings.

The existing front of the site is shown in the photo below.

Photo of site; 465-469 Princes Highway

The existing site and surrounding area can be seen in the Google Aerial Photo below:



Google Aerial Photograph,

1.4.CLOSEST SENSITIVE RECEIVERS

The site currently sits in a predominately mixed use area, the closest residential & commercial sensitive receivers have been identified below and shown on the Google aerial photo above.

The neighbouring closest sensitive receiver has been indentified below:

- Location #1, Existing Commercial Receiver - 463 Princes Highway, Rockdale
- Location #2, Existing Residential Sensitive Receiver - 471 Princes Highway, Rockdale

1.5.DISTRICT BACKGROUND NOISE

District background noise in the immediate location of the proposed site is dominated by road traffic noise from Princes Highway and rail noise from Rockdale Station Line.

1.6.TRAFFIC NOISE AT PROJECT LOCATON

The dominant background noise for this project is road traffic noise from Liverpool Road on the Northern side of the property. As the site is located on a >20,000 daily vehicle road an assessment of vehicle noise must be carried out in accordance with The State Environmental Planning Policy 2021.

1.7.RAIL NOISE AT PROJECT LOCATON

The site lies within 35 meters of a rail line and therefore is required to be assessed under the State Environmental Planning Policy (Transport and Infrastructure) 2021.

1.8.COMMERCIAL AREA NOISE AT PROJECT LOCATION

The site is located on Princes Highway with typical ground level commercial buildings.

1.9.PROPOSED HOURS OF OPERATION

The project consists of ground floor proposed commercial shops to have their own proposed hours of operation and remaining residential apartments. At the time of preparing this report there is no specific proposed hours of operation for the commercial. As the remaining property is residential the hours of operation would be 24/7.

2.NOISE CRITERIA

2.1.BAYSIDE COUNCIL ROCKDALE DCP 2011

Within the Rockdale DCP internal noise criteria has been nominated based on the following;

Noise mitigation treatments and design considerations for developments adjoining busy roads or rail corridors, that satisfy the requirements for habitable rooms in accordance with Department of Planning, Industry and Environment's 'Development Near Rail Corridors and Busy Roads – Interim Guideline' and the requirements of Clause 2.120 of SEPP (Transport and Infrastructure) 2021 must be addressed, where appropriate. Details are to be included with the documentation submitted with the development application.

In addition to the above the DCP section 4.4.5 Visual and Acoustic Privacy also states the following;

7. All residential development except dwelling houses are to be insulated and to have an Impact Isolation between floors to achieve an Acoustical Star Rating of 5 in accordance with the standards prescribed by the Association of Australian Acoustical Consultants (AAAC).

2.2.NOISE POLICY FOR INDUSTRY

The Noise Policy For Industry 2017 documents the requirements for determining the Noise Trigger Level and Sleep Disturbance.

2.3.CODE AS2107

The indoor mechanical services sound levels nominated in the code AS 2107, 2000, titled 'Acoustics, Recommended design sound levels and reverberation times for building interiors' is used for the areas not covered by the City's DCP as set out in the Table below:

Table 1; Recommended internal design sound levels L_{Aeq}-dB(A)

	AS 2107 Satisfactory ❶	**AS 2107 Maximum ❷**	**Selected Req.**
- Bedrooms	30 dB(A)	40 dB(A)	**35 ❸**
- Living Areas	35 dB(A)	45 dB(A)	**40 ❸**

- Toilets & Bathrooms, Hallways	45	55	**55**
- Car park	55	65	**65**

❶ *AS 2107 Satisfactory; regarded as appropriate in areas of major roads*

❷ *AS 2107 Maximum; regarded as level where most people become dissatisfied*

❸ *DCP Controls 35 dB(A) @ 1 Hour reputable maximum for the night period with windows closed*

2.4.STATE ENVIRONMENTAL PLANNING POLICY (TRANSPORT AND INFRASTRUCTURE) 2021

The State Environmental Planning Policy 2021 under clause 2.100 states the following:

(1) This section applies to development for any of the following purposes that is on land in or adjacent to a rail corridor and that the consent authority considers is likely to be adversely affected by rail noise or vibration—

(a) residential accommodation,

(b) a place of public worship,

(c) a hospital,

(d) an educational establishment or centre-based child care facility.

(2) Before determining a development application for development to which this section applies, the consent authority must take into consideration any guidelines that are issued by the Planning Secretary for the purposes of this section and published in the Gazette.

(3) If the development is for the purposes of residential accommodation, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded—

(a) in any bedroom in the residential accommodation—35 dB(A) at any time between 10.00 pm and 7.00 am,

(b) anywhere else in the residential accommodation (other than a garage, kitchen, bathroom or hallway)—40 dB(A) at any time.

The State Environmental Planning Policy 2021 under clause 2.120 states the following:

(1) This section applies to development for any of the following purposes that is on land in or adjacent to the road corridor for a freeway, a tollway or a transitway or any other road with an annual average daily traffic volume of more than 20,000 vehicles (based on the traffic volume data published on the website of TfNSW) and that the consent authority considers is likely to be adversely affected by road noise or vibration—

(a) residential accommodation,

(b) a place of public worship,

(c) a hospital,

(d) an educational establishment or centre-based child care facility.

(2) Before determining a development application for development to which this section applies, the consent authority must take into consideration any guidelines that are issued by the Planning Secretary for the purposes of this section and published in the Gazette.

(3) If the development is for the purposes of residential accommodation, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded—

(a) in any bedroom in the residential accommodation—35 dB(A) at any time between 10.00 pm and 7.00 am,

(b) anywhere else in the residential accommodation (other than a garage, kitchen, bathroom or hallway)—40 dB(A) at any time.

2.5.COMPLIANCE WITH THE BUILDING CODE OF AUSTRALIA

Compliance with the Building Code of Australia **(BCA)** is a statutory requirements of new residential multi occupancy buildings. Part F5 of the BCA titled details the "Sound Transmission and Insulation Requirements" for residential developments. Specifically addressing separating walls and floors.

The acoustic criteria for the internal walls are stated within the BCA and are listed below:

- 50 Rw+Ctr for a wall separating Sole Occupancies (Discontinuous construction required)
- 50 Rw for a wall separating Sole Occupancy with a plant room, lift shaft, stairway, public corridor, public lobby, or parts of a different classification (Discontinuous construction not required)
- 40 Rw+Ctr for a services shaft wall if adjacent to a habitable room
- 25 Rw+ Ctr for a services shaft wall if adjacent to a kitchen or non-habitable room

We note that the site proposes to have internal lift access to each apartment, to comply with the BCA the door assembly must not be less than 30 Rw.

3.NOISE MEASUREMENTS

3.1.DISTRICT BACKGROUND NOISE MONITORING LOCATION AND TIME

The fifteen minute continuous L_{Aeq}, L_{A90}, and L_{A1} descriptor background noise monitoring was carried out at 5 meters above ground level at the monitoring location 1 between 10:15 28/03/2024 and 10:30, 04/04/2024 located at the front of the proposed site and at monitoring location 2 between 10:15 1/08/2024 and 12:15, 8/08/2024 due to battery failure located at the rear of the proposed site.

The log of the results of background noise monitoring for the roof are shown in Appendix 1. Raw data is available upon request.

3.1.1.Monitoring Instrumentation

Noise measurement instrumentation used to log continuous district background noise in this report is an ARL, Model EL 316 (Type 1) environmental noise logger Serial No. 16-203-500. Attended site analysis of district noise was taken using a SVAN 945A sound analyser, Serial No 9418. Field calibration checks for the instruments were carried out using a Acoustic Calibrator Type Rion NC 73 Serial No. 11127967. All instruments hold current NATA calibration certificates and measurement instruments are in accordance with the requirements of AS 1259.2, Sound Level Metres, Integrating Averaging.

3.1.2.Monitoring, Calibration and Calculation Procedures

In accordance with the procedures laid out in AS 1055.1 field calibration check of the environmental noise logger was carried out immediately prior to and at completion of monitoring sessions and instrument was found to be within the specified limits.

A microphone wind-guard was in place for the full duration of the monitoring and so no correction factor required.

The 15 minute L_{Aeq} and L_{A90}, log results were down loaded and single figure L_{A90} representative values calculated using Microsoft Excel software in accordance with the procedures given in the INP for the day(7AM to 6 PM), the evening period, (6 PM to 10 PM) and the night time period, (10PM to 7 AM) and single figure L_{Aeq} over the days monitored. The Repeatable Maximum Laeq (1 Hour) day and evening log results were calculated between 6 AM to 10 PM and night log results between 10 PM and 6 AM

3.1.3.Environmental Conditions During Monitoring

Temperatures on site were between 10 to 30^{o}C for the logging period.

Wind Speed at was monitored at Sydney Airport. The results of the log indicated that at no time during the logging period did the local wind speed exceed the maximum level of 5 M/S. Metrological data including temperature, barometric pressure, wind speed at site were not outside the recommendations of AS 1055 and INP and so the L_{A90} and L_{Aeq} measurements are considered valid

The resulting $L_{A\,90}$ log averages over the period monitored was then used to determine the Intrusiveness Criteria. The resulting $L_{A\,Eq}$ log averages over the period monitored was then calculated and used to determine the Amenity Criteria. The Project Specific Noise Level for the site was determined as the lesser of the Intrusiveness and Amenity Criteria.

3.1.4.Logger Settings

The settings of the environmental noise logger is shown in the Table below:

Table 2; Noise Logger Settings

Acoustic Research Laboratories Pty Ltd - Type 1 Environmental Noise Logger	**Logger Settings**
Frequency Weighting	A
Time Averaging	Fast
Statistical Interval	15 minute
Pre-measurement Reference	94.1
Post-measurement Reference	94
Engineering Units	dB SPL

3.2.BACKGROUND NOISE RESULTS

3.2.1.Background Noise Single Figure Results

Analysis of the 15 minute L_{A90} and L_{AEq} results were carried out using Microsoft EXCEL according to the requirements of the INP and the single figure RBL and the site noise from road traffic results for each period are shown in the table below:

Table 3; Single Figure RBL's and Site Noise for Project

NOISE DETAILS/Period times	**Day (0700 to 1800)**	**Evening (1800 to 2200)**	**Night (2200 to 0700)**
Location 1 RBL $L_{A90\ 15\ min}$	**57.4**	**57.2**	**45.8**
Location 1 Leq $_{15\ min}$ period log average Noise	**73.1**	**70.6**	**69.1**
Location 2 RBL $L_{A90\ 15\ min}$	**47.1**	**46.5**	**39.4**
Location 2 Leq $_{15\ min}$ period log average Noise	**57.5**	**54.2**	**52.0**

Table 4: Summary of Traffic Noise For Each Facade

Road Traffic Noise Monitored L $_{Aeq,\ -}$	**Day L $_{Aeq,\ T=15hr}$**	**Night L $_{Aeq,\ T=9hr}$**
Road Traffic Noise East Facade L $_{Aeq,}$	**73dB(A)**	**69.1dB(A)**
Noise West Facade L $_{Aeq,}$	**56dB(A)**	**52dB(A)**

4.NOISE POLICY FOR INDUSTRY

4.1.EXTERNAL NOISE LEVEL DETERMINATION IN ACCORDANCE WITH NOISE POLICY FOR INDUSTRY 2017 - NOISE TRIGGER LEVEL

4.1.1.Single Figure Results

The Noise Policy for Industry 2017(NPFI) requires:

- Intrusiveness Criteria be determined by calculating the Rated Background Levels **(RBL)** over the days monitored. We used the 5 days of 15 minute noise logging at site found in Appendix 1 to determine the background, the LA90 background noise logged result reflected a reliable background level. Being measured adjacent to Closest Sensitive Receiver #1.
- The Project Trigger Noise Level or external noise criteria for the project is determined as the lesser of the Intrusiveness and Amenity Criteria for the site for each period of the day.

Table 5; Noise Monitoring Results - Location 1

Period times	**Day (0700 to 1800)**	**Evening (1800 to 2200)**	**Night (2200 to 0700)**
Location RBL $L_{A90\ 15\ min}$-❶	**57.4**	**57.2**	**45.8**
Location Intrusiveness Criteria $L_{AEq\ 15\ min}$ RBL + 5	62	62	51
Project Amenity Noise Level at Closest Sensitive receivers $L_{AEq\ 15\ min,\ (Urban}$ Table 2.2 NPFI)	60	50	45
Selected Project Trigger Level	60	50	45
Project Trigger adjacent to closest residence	60	50	45
$L_{AEq\ 15\ min,}$ day period Local Road Traffic	60-5+3=58❷	50-5+3=48❷	45-5+3=43❷
Industrial Noise Trigger Level(PSNL) $L_{AEq\ 15\ min}$ =stricter of Intrusiveness and Amenity Criteria $_R$	**58**	**48**	**43**

❶ *RBL at Boundary LA90 T=15 min from Appendix 1 results*

❷ *Site Noise, Additional 3 dB added to LAEq T=15 min measured value from Appendix 1 results*

Table 6; Noise Monitoring Results - Location 2

Period times	**Day (0700 to 1800)**	**Evening (1800 to 2200)**	**Night (2200 to 0700)**
Location RBL $L_{A90\ 15\ min}$-❶	**47.1**	**46.5**	**39.4**
Location Intrusiveness Criteria $L_{AEq\ 15\ min}$ RBL + 5	52	52	44
Project Amenity Noise Level at Closest Sensitive receivers $L_{AEq\ 15\ min,\ (Urban}$ Table 2.2 NPFI)	60	50	45
Selected Project Trigger Level	60	50	45
Project Trigger adjacent to closest residence	60	50	45
$L_{AEq\ 15\ min,}$ day period Local Road Traffic	60-5+3=58❷	50-5+3=48❷	45-5+3=43❷

Industrial Noise Trigger Level(PSNL) $L_{AEq\ 15\ min}$ =stricter of Intrusiveness and Amenity Criteria R	**58**	**48**	**43**

❶ *RBL at Boundary LA90 T=15 min from Appendix 1 results*

❷ *Site Noise, Additional 3 dB added to LAEq T=15 min measured value from Appendix 1 results*

5.DETERMINATION OF CONSTRUCTION REQUIREMENTS

5.1.SEPP 2021 ASSESSMENT

As the site is located on a busy road an assessment of traffic noise must be carried out. SEPP 2021 requires the criteria of 35db(A) at any time in bedrooms and 40dB(A) at any time in habitable rooms, therefore the average over 9 Hrs is not applicable. Instead we have used Maximum 1Hr measurements.

Table 7: Summary of Traffic Noise For Each Facade

Road Traffic Noise Monitored $L_{Aeq,\ -}$	**Day $L_{Aeq,\ T=1hr\ Max}$**	**Night $L_{Aeq,\ T=1hr\ Max}$**
Road Traffic Noise East Facade $L_{Aeq,}$	**77 dB(A)**	**72dB(A)**
Road Traffic Noise West Facade $L_{Aeq,}$	**58dB(A)**	**58dB(A)**

5.2.CALCULATIONS OF BUILDING ATTENUATION WORKS USING AS 3671

The calculation method to determine the attenuation of facade elements is given in AS 3671; 1989 which uses the 9 hour log average for the night period typically, however due to the proximity of Liverpool Road we have used the 1 Hr Max to satisfy the criteria of 'at any time'.

We note that the latest architectural plans show blank floors with no floor layout, due to the possibility of having sleeping areas on the perimeter we have treated all facades as having sleeping areas.

Code AS 3671 defines Road Traffic Noise Reduction(TNR) as the difference between the appropriate $L_{Aeq,\ T}$ monitored and the appropriate internal or "receiving" room background level L_{Arec} and values for this site are shown in the Table below:

Table 8; Noise Reduction Determination L_{Aeq}-dB(A)

Face, Location & Use of Space in the Building	$L_{Aeq,\ T}$❶	L_{Arec} ❷	**TNR (❶-❷)**	**Construction Category ❸**
East Sleeping areas	72 dB(A)	35 dB(A)	**37**	Category 4
West Sleeping areas	58 dB(A)	35 dB(A)	**23**	Category 2
South Sleeping Areas Front 2 of site apartments	69 dB(A)	35 dB(A)	**34**	Category 3
South Sleeping Areas Rear 3 of site apartments	63 dB(A)	35 dB(A)	**28**	Category 3
Commercial	73 dB(A)	50 dB(A)	**23**	Category 2

❶ *Night period 1Hr LAeq value*

❷ *Recommended internal level from DCP*

❸ *Construction 1, 2, & 3 Categories defined in AS 3671 as, Category 1 is TRN=< 10, Category 2 is TRN>10 ,<=25 and Category 3 TNR >25, <=35, Category 4 > 36*

5.3.EXTERNAL BUILDING DESIGN REQUIREMENTS

Using the above Traffic Noise Reduction figures we have calculated the Rw requirements for construction on each facade including window requirements.

Table 9; Calculated Traffic Noise Wall Attenuation for each Facade

Face, Location all levels & Use of Space in the Building	**TNR**	***TNAc Requirement***	***Rw equivalent***
East Sleeping areas	**37**	26	29
West Sleeping areas	**23**	20	23
South Sleeping Areas Front 2 of site apartments	**34**	20	23
South Sleeping Areas Rear 3 of site apartments	**28**		
Commercial	**23**		

Table 10; Calculated Window & Sliding Door Attenuation

Face, Location all levels & Use of Space in the Building	**TNR**	***TNAc Requirement***	***Rw equivalent***
East Sleeping areas Level 1 to Level 3	**37**	38	41
East Sleeping areas Level 4 & Level 5	**32**	33	36
East Sleeping Areas Level 6 to Roof	**29**	30	33
West Sleeping areas All Levels	**23**	24	27
South Sleeping Areas Front 2 of site apartments Levels 1 & Level 2	**34**	35	36
South Sleeping Areas Front 2 of site apartments Levels 3 to Roof	**29**	30	33
South Sleeping Areas Rear 3 of site apartments All Levels	**28**	29	32
Commercial	**23**	29	32

Using the above calculated required attenuation figures we have nominated possible complying construction combinations. We note that the below combinations have been prepared as an example and the project is not required to use the exact nominated combinations. The only criteria for construction combinations is the calculated Rw attenuation addressed above.

Table 11; Example Complying Combinations

Item	**Combination**	**Combination Attenuation**	**Required Attenuation**
SoundOUT™ Sliding Door with primary 541 Sliding Door (4mm Tgh) and 100mm air gap	6.38mm Lam Glass (ATF798)	42Rw	41Rw
Sliding Door	10.38 Lam (ATF794)	35Rw	~36Rw

Sliding Door	6.38 Lam (ATF793)	32Rw	~33Rw
Commercial Windows	6.38mm Lam Glass in frame. (ATF1195)	~32Rw	32Rw
Operable Sliding Windows	6.38mm Lam Glass in frame.	~32Rw	25-32Rw
Operable Sliding Windows	10.38mm Lam Glass in frame. (ATF1199)	~35Rw	35Rw
Wall Construction	Precast Concrete	47Rw	35Rw
Roof	CSR 6402	41Rw	41Rw

We recommend that prior to CC window attenuation requirements are recalculated to ensure required attenuation. We also recommend that during the construction stage our acoustic report is provided to the window manufacturer to ensure that the installed products meet the calculated attenuation.

We note that we expect rubber seals to be installed in all windows.

As noted above the windows facing Princess Highway on level 1 to 3 are rather extreme acoustic grade windows due to the noise on Princess highway. Due to this possible forms of additional attenuation could be included within the design on the balcony to reduce the window class.

Possible attenuation methods could be;

- Operable glazing on the balcony whether it be sliding windows or glass louvres.
- The operable glazing expected to be 6.38Lam could achieve a minimum 25Rw therefore only requiring 6.38Lam sliding doors.
- We note glass louvres would have to be manufactured with rubber seals.
- Requirements to be recalculated during CC stage based on final architectural drawings.

6.NOISE FROM PROPOSED DEVELOPMENT

6.1.SOURCES OF NOISE FROM SITE

6.1.1.Mechanical Services Noise

Mechanical Services that may be generated at site will include the following:

- Mechanical ventilation for ground floor commercial
- Air Conditioning with outdoor air /ventilation
- Unit ventilation

6.1.2.Communal Open Space

The plans show multiple Communal Internal Space (CIS) and Communal Open Spaces (COS) located on;

- Level 1
- Level 2
- Level 3

- Level 4

Due to this we have calculated CIS & COS noise at closest sensitive receivers.

6.2.MECHANICAL SERVICES NOISE LEVELS

6.2.1.Internal Noise levels from Building Plant

The DA drawings do not include any details of the proposed mechanical Services proposed to be installed. Therefore the internal noise levels produced by the mechanical services plant on site that includes the bathroom exhaust fans, air conditioning units /ventilation fans shall comply with the levels given for the nominated spaces as listed in Table 1.

6.2.2.External Noise levels from Building Plant

The DA drawings do not include any details of the proposed Mechanical Services proposed to be installed. Therefore the external noise levels produced by the mechanical services plant on site that includes the bathroom exhaust fans, air conditioning units /ventilation fans shall comply with the Project Specific Noise level requirement for the building which is given in Table 5.

6.3.COMMUNAL OPEN SPACE

6.3.1.Communal Open Space Noise Spectrum

This has been based off previously measured communal open space noise with approximately 40 people talking.

The noise spectrum of the communal open space noise has been included within the table below:

Table 12: Noise Level Spectrum

	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
Communal Open Space	55	63	60	59	58	55	50	46	**62 @ 3M**

6.3.2.Communal Open Space Noise On Closest Sensitive Receivers

Based on the above acoustic model and parameters given, we have calculated the resulting sound pressure levels at each of these closest affected residences & have listed the relevant criteria as shown in the table below:

The formula used to determine sound pressure at the receiving locations from source noise is as follows:

$$Lp2=Lw+10Log_{10}Q-20Log_{10}r-11-Att$$

Where:

Lp2=sound pressure at receiver

Lw= sound power source

Q=directivity factor, 2 for roof discharges, 4 for traffic on driveway or through basement car park entrance

r= distance from outdoor unit to boundary

Att =attenuation of a noise barrier or other means where used

Table 13: Summary of Outside Noise Intrusion for surrounding properties

Source Location	Closest Sensitive Receiver	Noise Level	Criteria	Calculated Noise Level	Compliance with Criteria
COS Level 1	Closest Sensitive Receiver 1	62dB(A) @3m	58 / 48 / 43 dB(A)	<40dB(A)	Yes / Yes / Yes
COS Level 1	Closest Internal Reciver	62dB(A) @3m	35dB(A)	30dB(A)	Yes
CIS Level 1	Internal Hallway With 30Rw door	62dB(A) @3m	45 dB(A) AS2107	32dB(A)	Yes
CIS Level 2	Internal Hallway With 30Rw door	62dB(A) @3m	45 dB(A) AS2107	32dB(A)	Yes
COS Level 3	Closest Sensitive Receiver 1	62dB(A) @3m	58 / 48 / 43 dB(A)	40 dB(A)	Yes
CIS Level 3	Internal Hallway With 30Rw door	62dB(A) @3m	45 dB(A) AS2107	32dB(A)	Yes
CIS Level 4	Internal Hallway With 30Rw door	62dB(A) @3m	45 dB(A) AS2107	32dB(A)	Yes

Based on the above calculated noise levels at the closest sensitive receivers we have no acoustic recommendations or suggestions limiting the use of the outdoor space.

7.CONCLUSION

Based on our above assessments we believe the site can achieve the internal noise criteria with appropriate glazing. Due to the road traffic noise on Princess highway acoustic grade windows are required. We have presented alternative acoustic treatment to the balconies within this report.

The remaining facades of the development can achieve compliance with the relevant criteria utilising typical construction products.

End of Report

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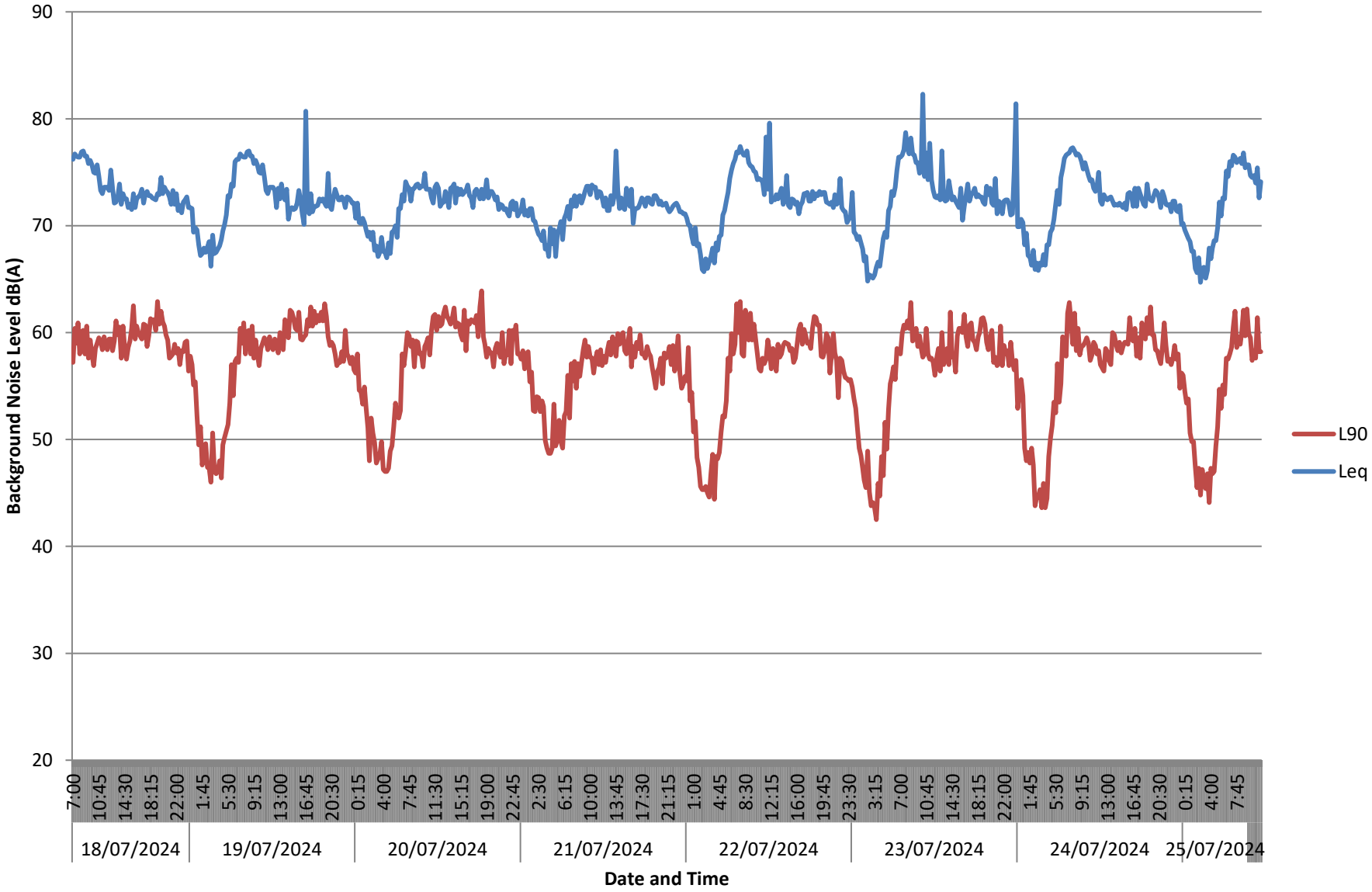
Background Noise Monitoring Location #1



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Background Noise Monitoring Location #2