



Appendix I

ACOUSTIC REPORT



Transportation Noise Assessment

410 Canning Highway, Attadale

Reference: 260511535-02

Prepared for:
Western Corporate

Reference: 260511535-02

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Date	Rev	Description	Author	Verified
23-Sep-26	0	Issued to Client	Dave Perry	Terry George

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1. INTRODUCTION

Western Corporate is proposing a mixed-use development at 410 Canning Highway, Attadale - refer *Figure 1-1*. The development includes commercial usage of Ground and 1st Floor, with residential dwellings proposed as per below:

- 2nd Floor – 8 apartments;
- 3rd Floor – 8 apartments;
- 4th Floor – 8 apartments;
- 5th Floor – 6 apartments;
- 6th Floor – 2 apartments (Penthouses).

Plans are provided in *Appendix A*.

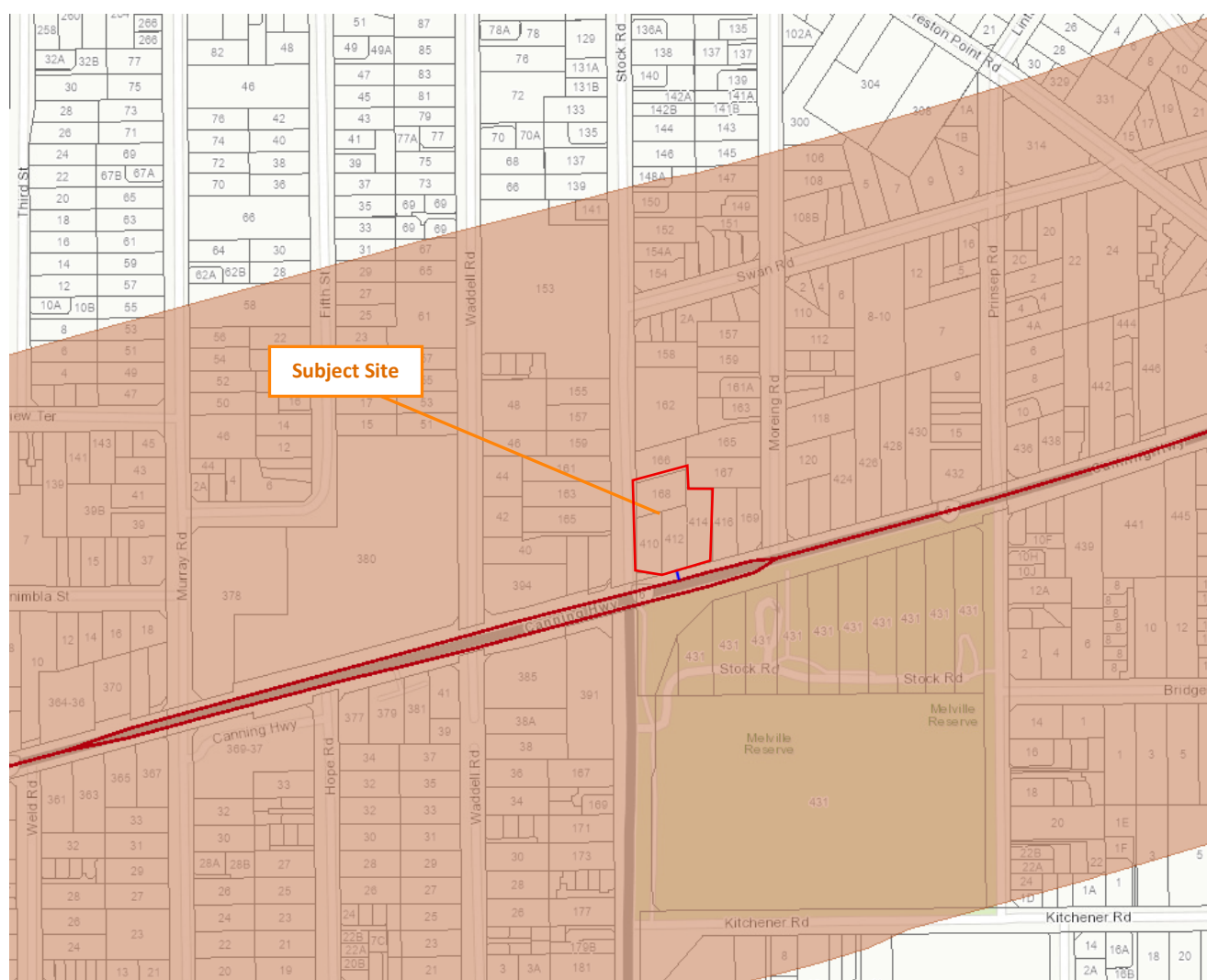


Figure 1-1: Subject Site Location (Source: DPLH PlanWA)

The proposed development is approximately 8 metres from Canning Highway. This road is considered a 'Strategic Freight/Major Traffic Route' as shown on the PlanWA Maps and the subject site is within the trigger distance (refer *Table 1-1* and *Figure 1-2*), such that a noise assessment is required in accordance with *State Planning Policy No. 5.4 Road and Rail Noise*, being the subject of this report.

Table 1-1: Transport Corridor Classification and Trigger Distances

Transport Road Classification	Trigger Distance	Distance Measured From
Strategic Freight and Major Traffic Routes Roads as defined by Perth and Peel Planning Frameworks and/or roads with either 500 or more Class 7 to 12 Austroads vehicles per day, and/or 50,000 per day traffic volume	300 metres	Road carriageway edge
Other Significant Freight/Traffic Routes These are generally any State administered road and/or local government road identified as being a future State administered road (red road) and other roads that meets the criteria of either ≥ 100 Class 7 to 12 Austroads vehicles daily or $\geq 23,000$ daily traffic count (averaged equivalent to 25,000 vehicles passenger car units under region schemes)	200 metres	Road carriageway edge

**Figure 1-2: Subject Site Locality in Relation to Road (Source: DPLH PlanWA)**

Appendix B contains a description of some of the terminology used throughout this report.

2. CRITERIA

The criteria relevant to this project is provided in *State Planning Policy No. 5.4 Road and Rail Noise* (hereafter referred to as SPP 5.4) produced by the Western Australian Planning Commission (WAPC). SPP 5.4 is supported by the *Road and Rail Noise Guidelines* (the Guidelines) and the Department of Planning, Lands and Heritage mapping. The objectives of SPP 5.4 are to:

- Protect the community from unreasonable levels of transport noise;
- Protect strategic and other significant freight transport corridors from incompatible urban encroachment;
- Ensure transport infrastructure and land-use can mutually exist within urban corridors;
- Ensure that noise impacts are addressed as early as possible in the planning process; and
- Encourage best practice noise mitigation design and construction standards.

Table 2-1 sets out noise targets that are to be achieved by proposals under which SPP 5.4 applies. Where the targets are exceeded, an assessment is required to determine the likely level of transport noise and management/mitigation required.

Table 2-1: Noise Targets for Noise Sensitive Land-Use

Scenario	Outdoor Noise Target		Indoor Noise Target	
	55 dB L _{Aeq} (Day)	50 dB L _{Aeq} (Night)	40 dB L _{Aeq} (Day) (Living and Work Areas)	35 dB L _{Aeq} (Night) (Bedrooms)
Noise-sensitive land-use and/or development				

Notes:

- Day period is from 6am to 10pm and night period from 10pm to 6am.
- The outdoor noise target is to be measured at 1-metre from the most exposed, habitable¹ facade of a noise sensitive building.
- For all noise-sensitive land-use and/or development, indoor noise targets for other room usages may be reasonably drawn from Table 1 of Australian Standard/New Zealand Standard AS/NZS 2107:2016 *Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors* (as amended) for each relevant time period.
- Outdoor targets are to be met at all outdoor areas as far as is reasonable and practicable to do so using the various noise mitigation measures outlined in the Guidelines.

The application of SPP 5.4 is to consider anticipated traffic volumes for the next 20 years from when the noise assessment has been undertaken.

In the application of the noise targets, the objective is to achieve:

- Indoor noise levels as specified in Table 2-1 in noise-sensitive areas (e.g. bedrooms and living rooms of houses); and
- A reasonable degree of acoustic amenity for outdoor living areas on each residential lot.

¹ A habitable room is defined in State Planning Policy 3.1 as a room used for normal domestic activities that includes a bedroom, living room, lounge room, music room, sitting room, television room, kitchen, dining room, sewing room, study, playroom, sunroom, gymnasium, fully enclosed swimming pool or patio.

3. METHODOLOGY

Noise measurements and modelling have been undertaken in accordance with the requirements of SPP 5.4 and associated Guidelines, as described in *Section 3.1* and *Section 3.2*.

3.1. Site Measurements

Noise monitoring was undertaken on site using a Brüel & Kjær 2250 (S/N: 3011946) sound level meter (refer *Figure 3-1*). This meter complies with the instrumentation requirements of *Australian Standard 2702-1984 Acoustics – Methods for the Measurement of Road Traffic Noise*. The meter was field calibrated before and after the measurement session and found to be accurate to within ± 1 dB. Lloyd George Acoustics holds a current laboratory calibration certificate for the meter.

The microphone was approximately 1.4 metres above existing ground level and approximately 8 metres from the edge of Canning Highway main carriageway. The measurements were recorded on 4 June 2026, between 12.00 pm and 1.00 pm.



Figure 3-1: Photograph of Sound Level Meter on Site

From the one-hour measurement, a relationship between noise levels and the hourly traffic volumes can then be derived to determine the existing $L_{Aeq}(\text{Day})$ and $L_{Aeq}(\text{Night})$ at the measurement location.

3.2. Noise Modelling

The computer program *SoundPLAN 9.1* was utilised incorporating the *Calculation of Road Traffic Noise* (CoRTN) algorithms, modified to reflect Australian conditions. The modifications included the following:

- Vehicles were separated into heavy (Austroads Class 3 upwards) and non-heavy (Austroads Class 1 and 2) with non-heavy vehicles having a source height of 0.5 metres above road level and heavy vehicles having two source heights at 1.5 metres and 3.6 metres above road level;
- A -0.8 dB correction has been applied to the lower level heavy vehicle noise source and -8.0 dB to the higher level noise source based on the *Transportation Noise Reference Book*; Paul Nelson (1987), so as to provide consistent results with the CoRTN algorithms.

Predictions are made at heights of 1.4 metres above floor level and at 1-metre from the façade of the proposed building, resulting in a + 2.5 dB correction due to reflected noise.

Various input data are included in the modelling and these are discussed in *Section 3.2.1* to *Section 3.2.5*.

3.2.1. Ground Topography

Topographical data was taken from publicly available sources (e.g. *Google*) in the form of spot heights. This was combined with the proposed development and existing neighbouring dwellings to create a 3D noise model.

3.2.2. Road Surface

The corrections applied for different road surface finishes are provided in *Table 3-1* (as provided in SPP 5.4 Guidelines).

Table 3-1: Noise Relationship Between Different Road Surfaces

Chip Seal				Asphalt			
14mm	10mm	5mm	Slurry	Dense Graded	Novachip	Stone Mastic	Open Graded
+3.5 dB	+2.5 dB	+1.5 dB	+1.0 dB	0.0 dB	-0.2 dB	-1.5 dB	-2.5 dB

The existing road surface is dense graded asphalt and assumed to remain unchanged into the future.

3.2.3. Vehicle Speed

The existing posted speed is 60 km/hr and assumed to remain unchanged into the future.

3.2.4. Traffic Volumes

Existing traffic volumes were obtained from Main Roads WA Traffic Map. A modelled Validation Plot and Forecast 2046 traffic volumes were obtained from Main Roads WA (Scott Hazelbrook, Traffic Modelling Analyst, Reference: #43730, dated 27 May 2026). The validation plot allows the forecast volumes to be calibrated with *Table 3-2* providing the traffic volumes used in the noise modelling. Note that the percentage heavy vehicles are assumed to be the same in the future as existing.

Table 3-2: Traffic Information Used in Noise Modelling

Parameter	Scenario			
	Existing – 2026		Future – 2046	
	Eastbound	Westbound	Eastbound	Westbound
24-hour Volume	13,399	10,972	16,799	13,872
% Heavy	6.8%	7.4%	6.8%	7.4%

3.2.5. Ground Attenuation

The ground attenuation has been assumed to be 0.0 (0%) for the roads and 0.5 (50%) outside of the roads, noting that 0.0 represents hard reflective surfaces such as water and 1.0 represents absorptive surfaces such as grass.

4. RESULTS

4.1. Noise Monitoring

The results of the hourly noise level measurements, in free-field conditions, were:

- 4 June 2026: 12.00 pm and 1.00 pm – 67.1 dB $L_{Aeq,1hour}$.

Combining the measured noise level with the corresponding hourly traffic volume, as shown in *Figure 4-1*, results in 66.8 $L_{Aeq(Day)}$ and 59.3 $L_{Aeq(Night)}$. Based on these results, the $L_{Aeq(Day)}$ is more critical than the $L_{Aeq(Night)}$ since their difference is greater than 5 dB (refer *Section 2*).

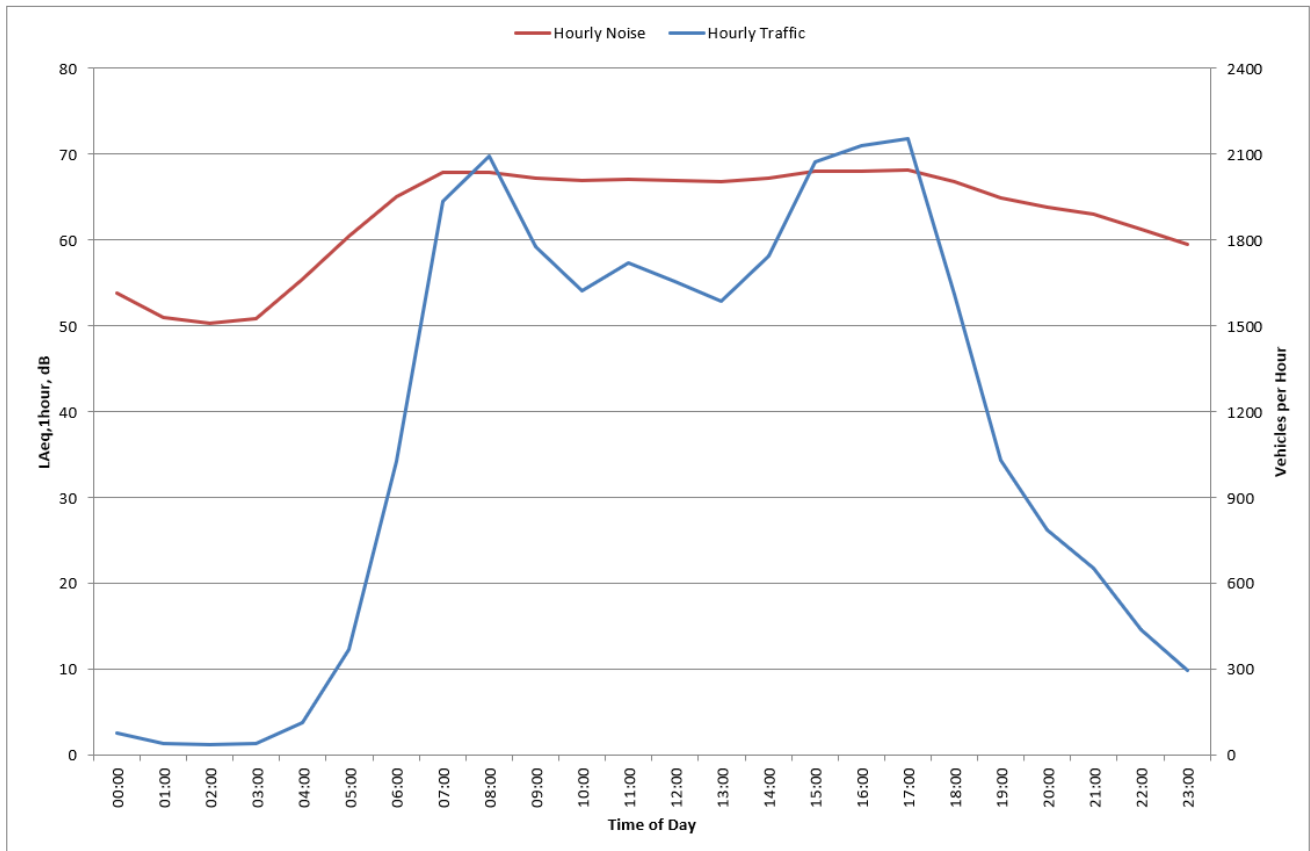


Figure 4-1: Noise Level Relationship to Hourly Traffic Volumes

4.2. Noise Modelling

The noise model was initially set-up for existing conditions and calibrated to the noise measurement location. The model is then updated to include the proposed building and future traffic volumes, maintaining the same model calibration.

Table 4-1 provides the predicted outdoor $L_{Aeq(Day)}$ noise levels to the façade of each habitable room.

Table 4-1: Predicted Future (2046) $L_{Aeq(Day)}$ Outdoor Noise Levels

Level	Apartment	Room	$L_{Aeq(Day)}$, dB
2 nd Floor	Apt. 01	Bed 01	37
		Bed 02	46
		Living	45
	Apt. 02	Bed 01	34
		Bed 02	34
		Living	34
2 nd Floor	Apt. 03	Bed 01	34

Level	Apartment	Room	L _{Aeq} (Day), dB
		Bed 02	34
		Living	34
	Apt. 04	Bed 01	35
		Bed 02	44
		Living	45
	Apt. 05	Bed 01	58
		Bed 02	56
		Living	58
	Apt. 06	Bed 01	58
		Bed 02	58
		Living	57
	Apt. 07	Living	57
		Bed 01	59
		Bed 02	58
	Apt. 08	Bed 01	59
		Bed 02	55
		Living	59
3 rd Floor	Apt. 09	Bed 01	41
		Bed 02	51
		Living	51
	Apt. 10	Bed 01	36
		Bed 02	35
		Living	35
	Apt. 11	Bed 01	36
		Bed 02	36
		Living	35
3 rd Floor	Apt. 12	Bed 01	37

Level	Apartment	Room	L _{Aeq} (Day), dB
		Bed 02	50
		Living	51
	Apt. 13	Bed 01	67
		Bed 02	57
		Living	63
	Apt. 14	Bed 01	67
		Bed 02	60
		Living	58
	Apt. 15	Living	58
		Bed 01	64
		Bed 02	61
	Apt. 16	Bed 01	64
		Bed 02	57
		Living	63
4 th Floor	Apt. 17	Bed 01	43
		Bed 02	53
		Living	51
	Apt. 18	Bed 01	39
		Bed 02	38
		Living	38
	Apt. 19	Bed 01	39
		Bed 02	38
		Living	38
	Apt. 20	Bed 01	39
		Bed 02	50
		Living	50
4 th Floor	Apt. 21	Bed 01	66

Level	Apartment	Room	L _{Aeq} (Day), dB
		Bed 02	55
		Living	61
	Apt. 22	Bed 01	66
		Bed 02	59
		Living	56
	Apt. 23	Living	56
		Bed 01	63
		Bed 02	59
	Apt. 24	Bed 01	63
		Bed 02	55
		Living	61
5 th Floor	Apt. 25	Bed 01	65
		Bed 02	58
		Living	58
	Apt. 26	Bed 01	42
		Bed 02	42
		Bed 03	43
		Living	43
	Apt. 27	Bed 01	60
		Bed 02	58
		Living	54
	Apt. 28	Bed 01	42
		Bed 02	42
		Bed 03	43
		Living	42
5 th Floor	Apt. 29	Bed 01	54

Level	Apartment	Room	L _{Aeq} (Day), dB
		Bed 02	60
		Bed 03	66
		Living	53
	Apt. 30	Bed 01	56
		Bed 02	57
		Bed 03	58
		Living	61
6 th Floor	Penthouse 01	Bed 01	56
		Bed 01	51
		Bed 02	53
		Bed 03	53
		Bed 04	52
		Kitchen	40
		Living	41
	Penthouse 02	Lounge	53
		Bed 01	55
		Bed 02	53
		Bed 03	53
		Bed 04	52
		Kitchen	40
		Living	40
		Lounge	54

5. ASSESSMENT

Where the outdoor noise targets of *Table 2-1* are achieved, no further controls are necessary. As such, *Table 5-1* provides the minimum construction recommended for those areas requiring upgrades.

Table 5-1: Minimum Construction Requirements

Element	Apt.	Room	Minimum Construction
Sliding Doors	05	Bed 01	Sliding door approximately 36% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Bed 02	Sliding door approximately 48% of floor area, thereby requiring $R_w + C_{tr} \geq 27$, likely achievable using 6mm thick glass with acoustic seals.
		Living	Sliding door approximately 43% of floor area, thereby requiring $R_w + C_{tr} \geq 26$, likely achievable using 6mm thick glass with acoustic seals.
	06	Bed 01	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Living	Sliding door approximately 70% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
	07	Living	Sliding door approximately 70% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Bed 01	Sliding door approximately 30% of floor area, thereby requiring $R_w + C_{tr} \geq 27$, likely achievable using 6mm thick glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
	08	Bed 01	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Bed 02	No treatment required, thus 6mm thick min. in frame achieving $R_w + C_{tr} \geq 26$.
		Living	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 26$, likely achievable using 6mm thick glass with acoustic seals.
	13	Bed 01	Sliding door approximately 36% of floor area, thereby requiring $R_w + C_{tr} \geq 34$, likely achievable using 10.5mm thick Acoustic Laminate glass with acoustic seals.
		Bed 02	Sliding door approximately 48% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Living	Sliding door approximately 43% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.

Element	Apt.	Room	Minimum Construction
Sliding Doors	14	Bed 01	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 34$, likely achievable using 10.5mm thick Acoustic Laminate glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 29$, likely achievable using 6.5mm thick Acoustic Laminate glass with acoustic seals.
		Living	Sliding door approximately 70% of floor area, thereby requiring $R_w + C_{tr} \geq 29$, likely achievable using 6.5mm thick Acoustic Laminate glass with acoustic seals.
	15	Living	Sliding door approximately 70% of floor area, thereby requiring $R_w + C_{tr} \geq 29$, likely achievable using 6.5mm thick Acoustic Laminate glass with acoustic seals.
		Bed 01	Sliding door approximately 30% of floor area, thereby requiring $R_w + C_{tr} \geq 31$, likely achievable using 10.38mm thick laminated glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 30$, likely achievable using 6.5mm thick Acoustic Laminate glass with acoustic seals.
	16	Bed 01	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 32$, likely achievable using 10.38mm thick laminated glass with acoustic seals.
		Bed 02	Sliding door approximately 46% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Living	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
	21	Bed 01	Sliding door approximately 36% of floor area, thereby requiring $R_w + C_{tr} \geq 34$, likely achievable using 10.5mm thick Acoustic Laminate glass with acoustic seals.
		Bed 02	No treatment required, thus 6mm thick min. in frame achieving $R_w + C_{tr} \geq 26$.
		Living	Sliding door approximately 43% of floor area, thereby requiring $R_w + C_{tr} \geq 27$, likely achievable using 6mm thick glass with acoustic seals.
	22	Bed 01	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 34$, likely achievable using 10.5mm thick Acoustic Laminate glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Living	Sliding door approximately 70% of floor area, thereby requiring $R_w + C_{tr} \geq 27$, likely achievable using 6mm thick glass with acoustic seals.
	23	Living	Sliding door approximately 70% of floor area, thereby requiring $R_w + C_{tr} \geq 27$, likely achievable using 6mm thick glass with acoustic seals.
		Bed 01	Sliding door approximately 30% of floor area, thereby requiring $R_w + C_{tr} \geq 30$, likely achievable using 6.5mm thick Acoustic Laminate glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.

Element	Apt.	Room	Minimum Construction
Sliding Doors	24	Bed 01	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 31$, likely achievable using 10.38mm thick laminated glass with acoustic seals.
		Bed 02	No treatment required, thus 6mm thick min. in frame achieving $R_w + C_{tr} \geq 26$.
		Living	Sliding door approximately 41% of floor area, thereby requiring $R_w + C_{tr} \geq 27$, likely achievable using 6mm thick glass with acoustic seals.
	25	Bed 01	Sliding door approximately 30% of floor area, thereby requiring $R_w + C_{tr} \geq 32$, likely achievable using 10.38mm thick laminated glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Living	Sliding door approximately 70% of floor area, thereby requiring $R_w + C_{tr} \geq 29$, likely achievable using 6.5mm thick Acoustic Laminate glass with acoustic seals.
	27	Bed 01	Sliding door approximately 30% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
		Bed 02	Sliding door approximately 44% of floor area, thereby requiring $R_w + C_{tr} \geq 28$, likely achievable using 6.38mm thick laminated glass with acoustic seals.
	29	Bed 01	No treatment required, thus 6mm thick min. in frame achieving $R_w + C_{tr} \geq 26$.
		Bed 02	Sliding door approximately 52% of floor area, thereby requiring $R_w + C_{tr} \geq 31$, likely achievable using 10.38mm thick laminated glass with acoustic seals.
		Bed 03	Sliding door approximately 38% of floor area, thereby requiring $R_w + C_{tr} \geq 34$, likely achievable using 10.5mm thick Acoustic Laminate glass with acoustic seals.
		Living	No treatment required, thus 6mm thick min. in frame achieving $R_w + C_{tr} \geq 26$.
	30	Bed 01	Sliding door approximately 33% of floor area, thereby requiring $R_w + C_{tr} \geq 26$, likely achievable using 6mm thick glass with acoustic seals.
		Bed 02	Sliding door approximately 54% of floor area, thereby requiring $R_w + C_{tr} \geq 30$, likely achievable using 6.5mm thick Acoustic Laminate glass with acoustic seals.
		Bed 03	Sliding door approximately 61% of floor area, thereby requiring $R_w + C_{tr} \geq 31$, likely achievable using 10.38mm thick laminated glass with acoustic seals.
		Living	Sliding door approximately 40% of floor area, thereby requiring $R_w + C_{tr} \geq 27$, likely achievable using 6mm thick glass with acoustic seals.
	All Others	Habitable	Where no specific requirements, adopt 6mm thick minimum and in frames achieving $R_w + C_{tr} \geq 26$.
External Glazing	Any	Habitable	To be reviewed in DD, however minimum is 6mm thick minimum and in frames achieving $R_w + C_{tr} \geq 26$.

Element	Apt.	Room	Minimum Construction
External Walls	Apt. 5, 6, 7, 8	Bed	Construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 45$.
		Living	Construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 45$.
	Apt. 13, 14, 15, 16	Bed	Mass construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 50$.
		Living	Construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 45$.
	Apt. 21, 22, 23, 24	Bed	Mass construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 50$.
		Living	Construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 45$.
	Apt. 25, 27, 29, 30	Bed	Mass construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 50$.
		Living	Construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 45$.
	Penthouse 01	Bed 01	Construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 45$.
	All Others	Habitable	Construction to be determined in DD – to achieve approximately $R_w + C_{tr} \geq 40$.
Roof / Ceiling	Where Roof Above		Concrete or metal deck with Anticon and 13mm thick sound-rated plasterboard with R4 fibrous insulation above.
Eaves	All		Enclosed.
Outdoor Living	Balcony		Noise levels may be above outdoor noise target. Alternative areas are available on the property that are below the outdoor noise target and therefore considered compliant.
Ventilation	Rooms Requiring Upgraded Glazing		Habitable room windows are openable to satisfy natural ventilation requirements of NCC. When windows are closed, the acoustic requirements will be met meaning the occupant has the option to have windows open or closed to satisfy natural ventilation or acoustic requirements.
Notification	Lot		Where ducted refrigerated a/c provided, incorporate fresh air duct intake on side of dwelling opposite corridor.

By implementing the *Table 5-1* construction recommendations, noise levels are calculated to comply with the indoor noise target of SPP 5.4. Alternative constructions can be accepted provided these are supported by a laboratory certificate.

Appendix A – Proposed House Plans



- LEGEND**
- FP FIREPLACE
 - FFL FINISHED FLOOR LEVEL
 - FCL FINISHED CEILING LEVEL
 - PDR POWDER ROOM
 - P PANTRY
 - L LINEN
 - L'DRY LAUNDRY
 - RL RELATIVE LEVEL
 - TOW TOP OF WALL
 - GMB GAS METER BOX
 - MB METER BOX
 - (0c) BRICK COURSING HEIGHT
 - EX. EXISTING
 - ST STORE ROOM

ZONING: R-AC0
PRECINCT: CITY OF MELVILLE
BLOCK SIZE: 4309m²

PROPOSED BUILDING AREA:
BASEMENT: 3485m²
GROUND FLOOR: 1593m²
1 FLOOR: 1420m²
2 FLOOR: 747m²
3 FLOOR: 747m²
4 FLOOR: 747m²
5 FLOOR: 736m²
6 FLOOR: 560m²

ZARQ.TM

185 YORK STREET,
SUBIACO
6008, WA AUSTRALIA
+61 0400 829 659
zarq.com.au

**STAGE
DEVELOPMENT
APPLICATION**

NOTE

- CHECK ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS, CONSULTANT DOCUMENTS AND SPECIFICATIONS.
- SEEK CLARIFICATION OF INCONSISTENCIES/ CONFLICTS FROM THE ARCHITECT.
- FIGURED DIMENSIONS TAKE PRECEDENCE. DO NOT SCALE DRAWINGS.

REV	COMMENTS	DATE
I	DEVELOPMENT APPLICATION - CITY OF MELVILLE	SEPT 2026
H	CONCEPT DESIGN	AUG 2026

PROJECT
#LOT 13, 14, 15 & 5 (410) CANNING
HIGHWAY, ATTADALE, WESTERN
AUSTRALIA 6156



JOB NO. ARCHITECT SCALE
2050 ZE 1:250 @A3
CLIENT
WESTERN CORPORATE

DRAWING TITLE
2ND FLOOR PLAN
REVISION
I

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A108

NOTE

- CHECK ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS, CONSULTANT DOCUMENTS AND SPECIFICATIONS.
- SEEK CLARIFICATION OF INCONSISTENCIES/ CONFLICTS FROM THE ARCHITECT.
- FIGURED DIMENSIONS TAKE PRECEDENCE. DO NOT SCALE DRAWINGS.

REV COMMENTS

I	DEVELOPMENT APPLICATION - CITY OF MELVILLE
H	CONCEPT DESIGN

DATE

SEPT 2026
AUG 2026

PROJECT

#LOT 13, 14, 15 & 5 (410) CANNING
HIGHWAY, ATTADALE, WESTERN
AUSTRALIA 6156



JOB NO. ARCHITECT SCALE

2050 ZE 1:250 @A3

CLIENT
WESTERN CORPORATE

DRAWING TITLE

3RD FLOOR PLAN

REVISION
I

DRAWING

A109

LEGEND

FP	FIREPLACE
FFL	FINISHED FLOOR LEVEL
FCL	FINISHED CEILING LEVEL
PDR	POWDER ROOM
P	PANTRY
L	LINEN
L'DRY	LAUNDRY
RL	RELATIVE LEVEL
TOW	TOP OF WALL
GMB	GAS METER BOX
MB	METER BOX
(0c)	BRICK COURSING HEIGHT
EX.	EXISTING
ST	STORE ROOM

ZONING: R-AC0

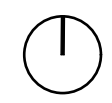
PRECINCT: CITY OF MELVILLE

BLOCK SIZE: 4309m²

PROPOSED BUILDING AREA:

BASEMENT: 3485m²
GROUND FLOOR: 1593m²
1 FLOOR: 1420m²
2 FLOOR: 747m²
3 FLOOR: 747m²
4 FLOOR: 747m²
5 FLOOR: 736m²
6 FLOOR: 560m²





- LEGEND**
- FP FIREPLACE
 - FFL FINISHED FLOOR LEVEL
 - FCL FINISHED CEILING LEVEL
 - PDR POWDER ROOM
 - P PANTRY
 - L LINEN
 - L'DRY LAUNDRY
 - RL RELATIVE LEVEL
 - TOW TOP OF WALL
 - GMB GAS METER BOX
 - MB METER BOX
 - (0c) BRICK COURSING HEIGHT
 - EX. EXISTING
 - ST STORE ROOM

ZONING: R-AC0
PRECINCT: CITY OF MELVILLE
BLOCK SIZE: 4309m²

PROPOSED BUILDING AREA:
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LEGEND

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MB METER BOX
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EX. EXISTING
ST STORE ROOM

ZONING: R-AC0

PRECINCT: CITY OF MELVILLE

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REV COMMENTS

I	DEVELOPMENT APPLICATION - CITY OF MELVILLE	SEPT 2026
H	CONCEPT DESIGN	AUG 2026

DATE

PROJECT

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JOB NO. ARCHITECT SCALE

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DRAWING TITLE

5TH FLOOR PLAN

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A111



- LEGEND**
- FP FIREPLACE
 - FFL FINISHED FLOOR LEVEL
 - FCL FINISHED CEILING LEVEL
 - PDR POWDER ROOM
 - P PANTRY
 - L LINEN
 - L'DRY LAUNDRY
 - RL RELATIVE LEVEL
 - TOW TOP OF WALL
 - GMB GAS METER BOX
 - MB METER BOX
 - (0c) BRICK COURSING HEIGHT
 - EX. EXISTING
 - ST STORE ROOM

ZONING: R-AC0
PRECINCT: CITY OF MELVILLE
BLOCK SIZE: 4309m²

PROPOSED BUILDING AREA:
BASEMENT: 3485m²
GROUND FLOOR: 1593m²
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REV	COMMENTS	DATE
I	DEVELOPMENT APPLICATION - CITY OF MELVILLE	SEPT 2026
H	CONCEPT DESIGN	AUG 2026

PROJECT

#LOT 13, 14, 15 & 5 (410) CANNING
HIGHWAY, ATTADALE, WESTERN
AUSTRALIA 6156



JOB NO. ARCHITECT SCALE
2050 ZE 1:250 @A3

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DRAWING TITLE
6TH FLOOR PLAN - PENTHOUSE

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Appendix B – Terminology

The following is an explanation of the terminology used throughout this report:

- **Decibel (dB)**

The decibel is the unit that describes the sound pressure levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

- **A-Weighting**

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as L_A , dB.

- **L_{eq}**

The L_{eq} level represents the average noise energy during a measurement period.

- **$L_{Aeq(Day)}$**

The $L_{Aeq(Day)}$ level is the logarithmic average of the L_{Aeq} levels from 6.00am to 10.00pm.

- **$L_{Aeq(Night)}$**

The $L_{Aeq(Night)}$ level is the logarithmic average of the L_{Aeq} levels from 10.00pm to 6.00am.

- **Noise-sensitive land use and/or development**

Land-uses or development occupied or designed for occupation or use for residential purposes (including dwellings, residential buildings or short-stay accommodation), caravan park, camping ground, educational establishment, child care premises, hospital, nursing home, corrective institution or place of worship.

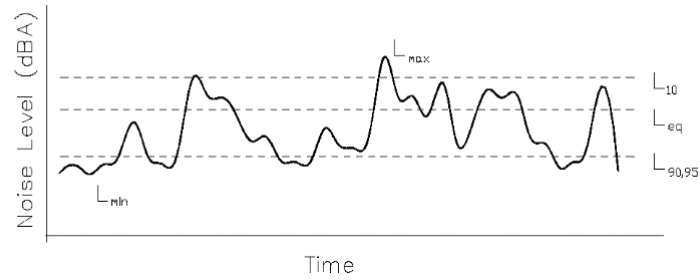
- **R_w**

This is the weighted sound reduction index. It is a single number rating determined by moving a grading curve in integral steps against the laboratory measured transmission loss until the sum of the deficiencies at each one-third-octave band, between 100 Hz and 3.15 kHz, does not exceed 32 dB. The higher the R_w value, the better the acoustic performance.

- **C_{tr}**

This is a spectrum adaptation term for airborne noise and provides a correction to the R_w value to suit source sounds with significant low frequency content such as road traffic or home theatre systems. A wall that provides a relatively high level of low frequency attenuation (i.e. masonry) may have a value in the order of – 4 dB, whilst a wall with relatively poor attenuation at low frequencies (i.e. stud wall) may have a value in the order of -12 dB.

- Chart of Noise Level Descriptors



- Austroads Vehicle Class

VEHICLE CLASSIFICATION SYSTEM AUSTRADS	
CLASS	LIGHT VEHICLES
1	SICUT Car, Van, Wagon, 4WD, UTV, Bicycle, Motorcycle
2	SICUT - TOWING Trailer, Caravan, Boat
HEAVY VEHICLES	
3	TWO AXLE TRUCK OR BUS "2 axle"
4	THREE AXLE TRUCK OR BUS "3 axle, 2 axle groups"
5	FOUR (or FIVE) AXLE TRUCK "4 (or 5) axle, 2 axle groups"
6	THREE AXLE ARTICULATED "3 axle, 3 axle groups"
7	FOUR AXLE ARTICULATED "4 axle, 3 or 4 axle groups"
8	FIVE AXLE ARTICULATED "5 axle, 3+ axle groups"
9	SIX AXLE ARTICULATED "6 axle, 3+ axle groups or 7+ axle, 3 axle groups"
LONG VEHICLES AND ROAD TRAINS	
10	EIGHT AXLE or HEAVY TRUCK and TRAILER "7+ axle, 4 axle groups"
11	DOUBLE ROAD TRAIN "7+ axle, 5 or 6 axle groups"
12	TRIPLE ROAD TRAIN "7+ axle, 7+ axle groups"

- Typical Noise Levels

