



Flagstone Land Lease Community

Transport Noise Intrusion Assessment

Lodge Management Platform Pty Ltd

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Sydney, NSW 4000

Prepared by:

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Australia

SLR Project No.: 620.10512.00205

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PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

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Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Lodge Management Platform Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



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1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) was commissioned by Lodge Management Platform Pty Ltd to conduct a transportation noise intrusion assessment for the Flagstone Land Lease Community, referred hereto as 'Flagstone LLC'.

This report addresses the transportation (i.e. railway and road traffic) noise intrusion onto the proposed development.

The purpose of this assessment is to present a set of noise prediction results and applicable Queensland Development Code Mandatory Part 4.4 (QDC MP4.4) Noise Categories for the lots, following detailed noise modelling of road traffic and railway noise intrusion, which was based on the plan of subdivision reproduced in **Appendix B**.

Results of noise intrusion predictions are presented in this report with and without the implementation of noise barriers in front of the lots most exposed to the abovementioned transportation noise sources.

Applicable Noise Categories (NC) as per the QDC MP4.4 were derived from the noise predictions for each lot with and without the noise barriers.

The noise predictions are based on the latest digital elevation model and transportation volumes available on the date of issue of this report, including road traffic volume forecasts for the period coinciding 10 years after an estimated project completion year and the potential future Inland Rail and Salisbury to Beaudesert railway projects.

The objective of this report is to support the application for Material Change of Use (MCU) to Other Residential (Land Lease Community) by informing the effectiveness of the implementation of noise barriers and the QDC MP4.4 Noise Categories applicable to the construction of the dwellings, after the implementation of these.

The following Codes are relevant to this assessment:

- Department of Transport and Main Roads (TMR) Transport Management Code of Practice Volume 1: Road traffic noise (CoP Vol 1).
- Department of Transport and Main Roads (TMR) Transport Management Code of Practice Volume 3: Operational railway noise and vibration (CoP Vol 3) (Interim Guideline).
- Queensland Development Code Mandatory Part 4.4 (QDC MP4.4).

Supporting material:

- UK Department of Transport Welsh Office Calculation of Road Traffic Noise 1988 (CoRTN)
- Ringheim, M 1984, 'Background Material for the Nordic Rail Traffic Noise Prediction Method', Kilde Report 130, KILDE, Norway (Kilde)

A glossary of terms used in this report are detailed in **Appendix A**.



2.0 Noise Assessment Requirements

Flagstone LLC will be part of the Greater Flagstone Urban Development Area (UDA) and therefore, is to meet the requirements of the Flagstone Development Scheme (FDS). The FDS Community Safety and Community Constraints indicates that residents and other sensitive uses are to be protected from the impacts of noise from regional transport corridors. However, the document does not provide a set of objective criteria for the assessment of these.

The current acoustic requirements applied by Economic Development Queensland (EDQ) for a number of lots within the Flagstone UDA are contained in the EDQ PDA development Condition 35 of 4 April 2014, EDQ reference DEV2012/403/128.

Condition 35 of the abovementioned Decision Notice is relevant to Acoustic Compliance and is reproduced in **Table 1**. This report assumes that the same conditions are to be applied for consistency in the assessment of other Flagstone roads carrying relevant volumes of traffic and the railway, as Flagstone LLC pertains the same PDA.

Table 1 PDA Development Condition 35

Condition	Timing
a) Except where identified in Condition 35A¹, submit to EDQ Development Assessment DSDI for compliance assessment a Noise Mitigation Report, certified by a RPEQ, for all lots within 100m from Flagstonian Drive Extension (excluding Lot 50021), the future North-South Arterial road and 200m from the railway corridor achieving a $\leq 35\text{dBA}$ for 1 hour max, over a 24 hour period for all habitable rooms. Where a $\leq 35\text{dBA}$ for 1 hour max, over a 24 hour period for all habitable rooms cannot be achieved, the Noise Mitigation Report is to provide the proposed noise mitigation measures generally in accordance with QDC MP4.4 – Buildings in a Noise Transport Corridor. If any noise barriers are proposed, the detailed design/construction plans certified by a RPEQ are to be provided including how passive surveillance of the streetscape can be maintained. Note: For lots fronting Flagstonian Drive (excluding Lot 50021), the acoustic fence must be no higher than that specified in the approved plan of development. Note: an acoustic report may address the acoustic needs of multiple stages/sub-stages in one report.	a) Prior to the commencement of site works for the relevant sub-stage.
b) Construct barrier(s) works generally in accordance with the certified plans submitted under part a) of this condition.	b) Prior to survey plan endorsement for each relevant sub-stage.
c) Submit to EDQ IS 'as constructed' plans, certified by a RPEQ, an asset register in a format acceptable to Council and 'Issued For Construction' plans for noise barriers within the relevant sub-stage.	c) Prior to survey plan endorsement for each relevant sub-stage.
Note 1: Condition 35A is in relation to the certification of noise walls specific to sub-stages 3G, 3Fi, 3H, 5Ai, 5Aii, 5Bi, 5Bii, 5C, 5D, 5Ei, 5Eii, 5Eiii, 5F, 5G, 5H, 5Ki, 5Kii, 5L, 5M, 5Qii, 5R and 5S. Therefore, it is not considered further.	



From the above, it is understood that EDQ considers the application of QDC MP4.4 at residential lots to achieve the acoustic requirements of Condition 35. Whilst MP4.4 does not provide internal noise limits or targets, the minimum building constructions in QDC MP4.4 would result in a reasonable internal transportation noise level within habitable rooms and is considered to meet the intent of the EDQ Condition 35.

QDC MP4.4 applies to residential buildings that are constructed within designated Transport Noise Corridors.

It is understood on this basis that, for the purpose of assessing transport noise, the North-South Trunk Connector, Flagstonian Drive, New Beith Road and the Sydney to Brisbane rail line are considered to be "Transport Noise Corridors".

Under the QDC MP4.4, when within a Transport Noise Corridor, the residential building needs to achieve certain levels of noise reduction, dependent upon the highest Noise Category in which all or any part of the building sits. The noise reduction can be achieved through incorporating appropriate building materials to the building envelope to achieve the required noise reduction in habitable rooms.

Reproduced from QDC MP4.4, the Noise Categories and associated minimum noise reduction requirements and minimum Weighted Sound Reduction Index (Rw) for facade building elements are shown in **Table 2**. The Rw is a measure of the sound insulation properties of a specific building material element.

QDC MP4.4 also provides acceptable forms of construction for the external elements of the building to assist in achieving a building design and construction which meets the required noise reduction for each Noise Category. These are reproduced in **Appendix C**, noting that other forms of construction are acceptable where they achieve the required Rw rating.

Table 2 QDC MP4.4 Noise Categories and Minimum Noise Reduction for Road Transport Noise

Noise Category	Transport Noise Level, Facade Corrected	Minimum Transport Noise Reduction for Habitable Rooms	Building External Envelope Component	Minimum Rw Required for Each Component	
4	Road traffic noise ≥ 73 dBA LA10(18hour) Rail traffic noise ≥ 85 dBA SEM ¹	40 dBA	Glazing	43	
			External Walls	52	
			Roof	45	
			Floors	51	
			Entry doors	35	
3	Road traffic noise 68 – 72 dBA LA10(18hour) Rail traffic noise 80 – 84 dBA SEM	35 dBA	Glazing	38	where total area of glazing for a habitable room is greater than 1.8 m ²
				35	where total area of glazing for a habitable room is less than or equal to than 1.8 m ²

¹ SEM: Single Event Maximum, defined in **Section 3.1**.



Noise Category	Transport Noise Level, Facade Corrected	Minimum Transport Noise Reduction for Habitable Rooms	Building External Envelope Component	Minimum Rw Required for Each Component	
			External walls	47	
			Roof	41	
			Floors	45	
			Entry doors	33	
2	Road traffic noise 63 – 67 dBA LA10(18hour) Rail traffic noise 75 – 79 dBA SEM	30 dBA	Glazing	35	where total area of glazing for a habitable room is greater than 1.8 m ²
				32	where total area of glazing for a habitable room is less than or equal to than 1.8 m ²
			External walls	41	
			Roof	38	
			Floors	45	
			Entry doors	33	
1	Road traffic noise 58 – 62 dBA LA10(18hour) Rail traffic noise 70 – 74 dBA SEM	25 dBA	Glazing	27	where total area of glazing for a habitable room is greater than 1.8 m ²
				24	where total area of glazing for a habitable room is less than or equal to than 1.8 m ²
			External walls	35	
			Roof	35	
			Entry doors	28	
0	Road traffic noise ≤57 dBA LA10(18hour) Rail traffic noise ≤69 dBA SEM	No additional acoustic treatment required – standard building assessment provisions apply.			



3.0 Noise Assessment Methodology

A three-dimensional noise model of the Greater Flagstone UDA was developed to incorporate Flagstone LLC. The model was developed within SoundPLAN v8.1 acoustic software to represent the future noise intrusion, including the following inputs:

- Calculation algorithms - SoundPLAN implementation of the following standards and methodologies:
 - Ringheim, M 1984, 'Background Material for the Nordic Rail Traffic Noise Prediction Method', Kilde Report 130, KILDE, Norway (Kilde). KILDE is widely accepted in Australia for the calculation of road traffic noise and its use is recommended in the CoP Vol 3.
 - UK Department of Transport Welsh Office Calculation of Road Traffic Noise 1988 (CoRTN). CoRTN is widely accepted in Australia for the calculation of road traffic noise and its use is recommended in the CoP Vol 1.
- Terrain elevation - Digital Elevation Model (DEM) built from:
 - *C24005A-CIVIL 3D MODEL 17072024 MGA2020.dwg* provided by the Flagstone LLC civil consultant.
 - 2017 3D LiDAR file representing existing contours outside the study area, as the latest available from a QLD Government website at the date of issue of this report.
- Noise barriers – Where required, top of barrier height of 2.5 m to 3.2 m above the DEM.
- Ground surface corrections – areas of soft (absorptive) and hard (reflective) ground.
- Sensitive receptors – locations where the transportation noise levels are to be assessed.

3.1 Railway Noise Modelling

The Kilde railway noise prediction methodology was applied to calculate railway noise levels. The methodology was used to predict the Single Event Maximum (SEM) rail noise levels² for daily railway traffic and referenced noise emissions specific for Queensland's rolling stock. The noise modelling also referenced guidelines on the prediction of railway noise from TMR.

The SEM is defined as the arithmetic average of maximum levels from the highest 15 single events over a given 24 hour period.

The QDC MP4.4 Noise Categories were determined from the noise contour maps calculated at 1.8 m and 4.6 m above ground level, representing the ground floor and first floor of two storey dwellings assumed for the development, respectively. The highest Noise Category predicted onto the lot at the ground floor and first floor is conservatively reported.

Rail noise contours were generated from noise predictions calculated using a grid spacing of 0.0 m.

The noise predictions by Kilde are free-field predictions. Therefore, the calculated railway noise levels were adjusted by +2.5 dBA to account for the reflected sound at 1 m from a building facade, in accordance with the TMR Vol 3.

² Kilde also predicts the LAeq(24hour). However, only the SEM is relevant to this noise assessment.



3.1.1 Railway Model Validation

The railway noise levels measured in 2022 (detailed in **Appendix D**) were referenced to verify the accuracy of the railway noise prediction model. The daily railway movements used to validate the model are detailed in **Table 3**.

Table 3 Daily Railway Movements

Train Type	Noise Emission	Modelled Speed	Train per 24-hour
XPT	95 dBA SEL, 87 dBA LA _{max} at 25 m	100 km/h	2
Locomotive (notch 8)	86 dBA SEL, 84 dBA LA _{max} at 25m	80 km/h	6
Freight wagons (1,000 m)	90 dBA SEL, 85 dBA LA _{max} at 25m	80 km/h	6

The noise model verification results are detailed in **Table 4**, which shows the predicted rail noise levels are within ± 2 dBA of the measured rail noise levels; therefore, the model is considered validated in accordance with CoP Vol 3.

Table 4 Verification of Railway Noise Model

Measured Rail Noise Levels		Predicted Rail Noise Levels		Verification of Predicted Levels	
L _{Aeq(24hour)}	SEM	L _{Aeq(24hour)}	SEM	L _{Aeq(24hour)}	SEM
49	80	49	81	0	+1

Railway noise levels were measured in the free-field at 1.5 m above ground and 55 m from a straight section of track with no signals, cross overs or other acoustically-significant track features.

3.1.2 Future Railway Operations

In the future, the Inland Rail project and proposed Salisbury to Beaudesert rail corridor could substantially increase passenger and freight rail operations adjacent to the Flagstone LLC.

The Inland Rail project will increase existing freight train operations as well as introduce new super-freighter train services. Railway data for the Inland Rail project has been referenced from the Inland Rail Environmental Impact Statement (EIS). Additionally, the Environmental Impact Statement (EIS) for the Cross River Rail project includes forecast future passenger services for the proposed Salisbury to Beaudesert corridor of up to 148 passenger trains per day.

The forecast future railway operations with the Inland Rail and Salisbury to Beaudesert projects adopted for this assessment are summarised in **Table 5**.

It is important to note that, as the Inland Rail and Salisbury to Beaudesert projects continue to be developed, the daily railway operations modelled in this assessment may be subject to change. Notwithstanding this, SLR has applied the best available information to forecast potential peak railway operations to provide a suitably conservative assessment of railway noise.

In this regard, the predicted noise levels may not be experienced everyday due to variability in timetabled railway operations and the variability of other parameters which influence noise emissions such as train speeds, train length and locomotive types.



Table 5 Forecast Future Daily Rail Movements

Train Type	Noise Emission	Modelled Speed	Trains per 24-hour
SMU passenger	90 dBA SEL at 25m 84 dBA LAmax at 25m	100 km/h	148
XPT	95 dBA SEL at 25 m 87 dBA LAmax at 25 m	100 km/h	2
Locomotive (notch 8)	86 dBA SEL at 25m 84 dBA LAmax at 25m	80 km/h	36
Inland Rail freight NR class	85 dBA SEL at 15m 90 dBA LAmax at 15m	100 km/h	4
Inland Rail super-freighter	85 dBA SEL at 15m 90 dBA LAmax at 15m	100 km/h	11
Freight wagons (1,000 m)	90 dBA SEL at 25m 85 dBA LAmax at 25m	80 km/h	36
Inland Rail wagons (1,000 m)	92 dBA SEL at 25m 88 dBA LAmax at 25m	100 km/h	15

3.2 Road Traffic Noise Modelling

Road traffic noise was modelled following general guidance from the TMR CoP Vol 1.

Road traffic volumes provided by Bitzios Consulting for the assessment of other Flagstone stages are presented in **Table 6** and **Figure 1**, as modelled for the Flagstone LLC, as well as the other Flagstone stages. The traffic forecasts for the Year 2041 have been used, which are adopted as a 10-year after construction scenario.

The 18 hour traffic volume has further been estimated from the Vehicles Per Day (VPD) traffic volume provided by the traffic consultant assuming 94% of traffic occurs between 6 am and 12 am (midnight).

All road surfaces were assumed to be Dense Graded Asphalt (DGA). On this basis, a road surface correction factor of 0 dBA was applied for all road traffic noise predictions, in accordance with CoP Vol 1.

A -0.7 dBA (free field) or -1.7 dBA (1m from facade) road traffic calibration factor was applied, where applicable, in accordance with the CoP Vol 1 with a further +2.5 dB facade correction factor in accordance with the CoRTN.

The QDC MP4.4 Noise Categories were determined from the noise contour maps calculated at 1.8 m and 4.6 m above ground level as per the DEM, for the ground floor and first floor of two storey dwellings assumed for the development, respectively. The highest Noise Category predicted onto the lot at ground floor and first floor is conservatively reported.

Road traffic noise contours were generated from noise predictions using a grid spacing of 0.0 m.

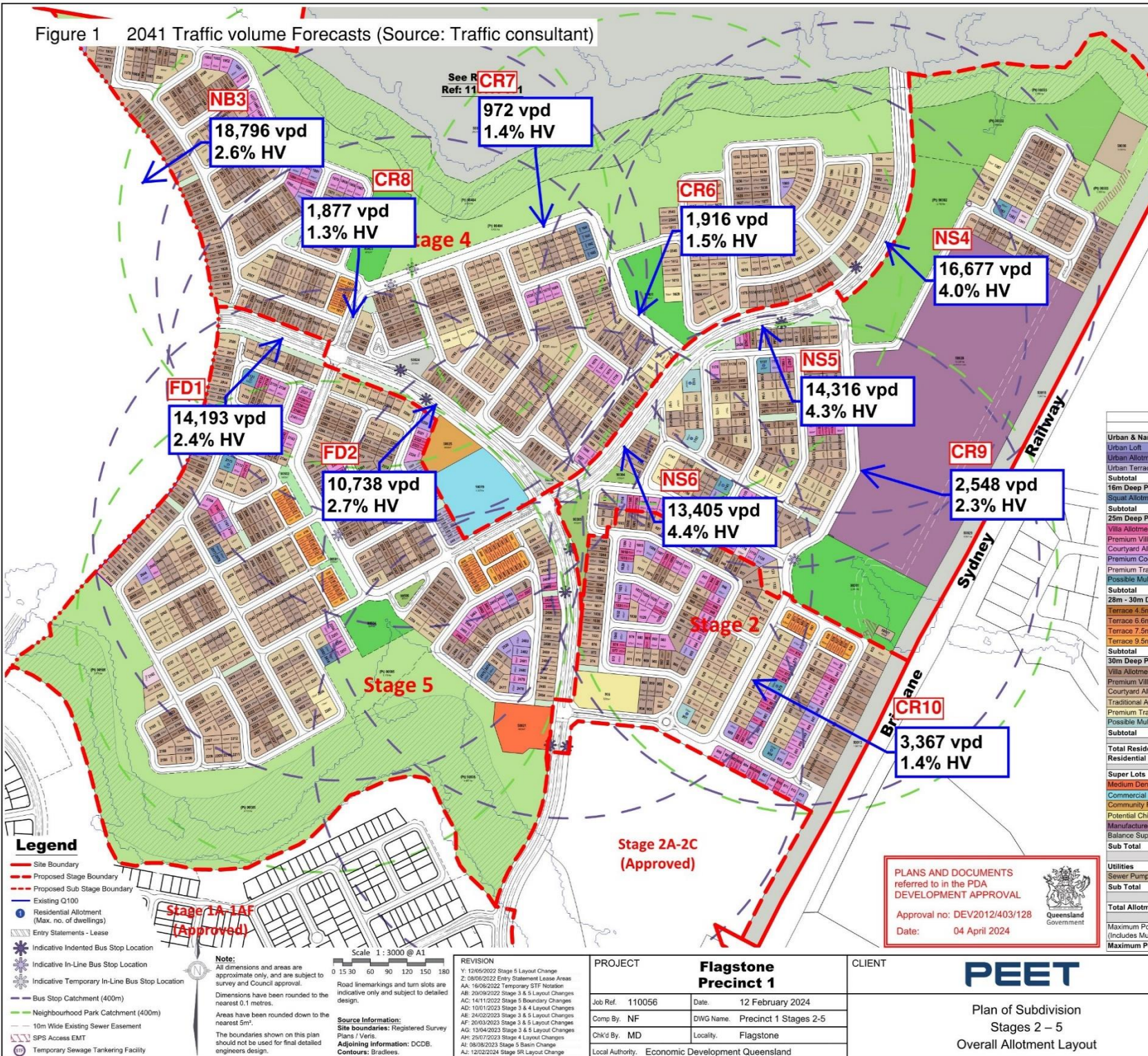


Table 6 2041 Road Traffic Forecasts

Road	Segment	Vehicles per day	18hr traffic volume estimate	% Heavy Vehicles	Posted Speed, Km/h
Flagstonian Drive	FD1	14,193	13,341	2.4	60
	FD2	10,738	10,094	2.7	60
New Beith Road	NB3	18796	17,665	2.6	70
North South Trunk Connector	NS4	16,700	15,698	4.0	70
North South Trunk Connector	NS5	14,316	13,457	4.3	70
North South Trunk Connector	NS6	13,405	12,601	4.4	70
Collector Road	CR6	1,916	1,801	1.5	50
Collector Road	CR7	972	914	1.4	50
Collector Road	CR8	1,877	1,764	1.3	50
Collector Road	CR9	2,548	2,395	2,3	50
Collector Road	CR10	3,367	3,165	1,4	50



Figure 1 2041 Traffic volume Forecasts (Source: Traffic consultant)



Land Budget Stages 2 – 5

Land Use	Stage 2	Stage 3	Stage 4	Stage 5	Overall	%
Area of Subject Site	16.883 ha	45.912 ha	301.998 ha	52.172 ha	416.965 ha	100.0%
Saleable Area						
Residential Allotments	9,636 ha	10,219 ha	22,160 ha	19,984 ha	61,999 ha	14.9%
Medium Density Allotment	—	—	1,324 ha	0,666 ha	0,666 ha	0.2%
Commercial Allotment	—	—	0,500 ha	—	0,500 ha	0.1%
Community Facility Allotment	—	—	—	—	—	—
Potential Child Care Allotment	0,628 ha	—	—	—	0,628 ha	0.2%
Manufactured Home Estate Allotment	—	12,038 ha	—	—	12,038 ha	2.9%
Balance Super Allotments	1,581 ha	2,919 ha	246,810 ha	—	251,310 ha	60.3%
Total Area of Allotments	11,845 ha	25,176 ha	270,794 ha	20,650 ha	328,465 ha	78.8%
Utilities						
Sewer Pump Station	—	0,508 ha	—	—	0,508 ha	0.1%
Total Area of Utilities	—	0,508 ha	—	—	0,508 ha	0.1%
Road						
Collector Road	1,502 ha	3,065 ha	4,559 ha	3,529 ha	12,655 ha	3.0%
Local Road	3,465 ha	4,511 ha	9,665 ha	8,671 ha	26,312 ha	6.3%
Linear Connections	0,071 ha	0,412 ha	0,390 ha	0,429 ha	1,302 ha	0.3%
Existing Road	—	0,063 ha	—	—	0,063 ha	0.0%
Entry Statements	—	—	—	—	—	0.0%
Total Area of New Road	5,038 ha	8,051 ha	14,614 ha	12,629 ha	40,332 ha	9.7%
Open Space						
Corridor Park	—	3,660 ha	14,787 ha	17,812 ha	36,259 ha	8.7%
Conservation Park (Within Corridor Park)	—	2,650 ha	6,357 ha	—	9,007 ha	2.2%
District Recreation Park	—	5,648 ha	—	—	5,648 ha	1.4%
Neighbourhood Recreation Park	—	2,346 ha	1,803 ha	0,627 ha	4,776 ha	1.1%
Local Recreation Park	—	0,523 ha	—	0,088 ha	0,611 ha	0.1%
Local Linear Recreation Park	—	—	—	0,366 ha	0,366 ha	0.1%
Stormwater Detention	—	—	—	—	—	0.0%
Total Open Space	—	12,177 ha	16,590 ha	18,893 ha	47,660 ha	11.4%

Yield Breakdown Stages 2 – 5

Residential Allotments			Stage 2	Stage 3	Stage 4	Stage 5	Overall
	Typical Size	Typical Area					
Urban & Nano Allotments Product							
Urban Loft	4.7 x 11.5m	50m²	—	—	—	—	0%
Urban Allotments	7.5 x 16m	120m²	—	—	—	—	0%
Urban Terrace	7.5 x 27.5m	170m²	—	—	—	16	16
Subtotal						16	16
16m Deep Product							
Squall Allotment	14 x 16m	220m²	—	4	4	10	18
Subtotal				4	4	10	18
25m Deep Product							
Villa Allotment	10 x 25m	250m²	29	10	3	21	63
Premium Villa Allotment	12.5 x 25m	313m²	—	—	—	3	3
Courtyard Allotment	14 x 25m	350m²	41	16	27	25	109
Premium Courtyard Allotment	16 x 25m	400m²	17	6	6	10	39
Premium Traditional Allotment	20 x 25m	500m²	—	4	—	1	5
Possible Multiple Residential Allotment	—	—	2	3	—	3	8
Subtotal			89	39	36	63	227
28m - 30m Deep Product							
Terrace 4.5m Allotment	4.5 x 28m	126m²	—	—	—	—	0%
Terrace 6.6m Allotment	6.6 x 28m	185m²	—	—	—	—	0%
Terrace 7.5m Allotment	7.5 x 28m	210m²	8	—	5	33	46
Terrace 9.5m Allotment	9.5 x 28m	265m²	4	—	2	12	18
Subtotal			12	—	7	45	64
30m Deep Product							
Villa Allotment	10 x 30m	300m²	32	35	91	72	230
Premium Villa Allotment	12.5 x 30m	375m²	33	66	155	123	377
Courtyard Allotment	14 x 30m	420m²	51	53	156	124	384
Traditional Allotment	20 x 30m	600m²	19	27	55	43	144
Premium Traditional Allotment	25 x 30m	720m²	—	7	5	2	14
Possible Multiple Residential Allotment	—	—	1	2	—	—	3
Subtotal			136	190	462	364	1152
Total Residential Allotments			237	233	509	498	1477
Residential Net Density			18.0 dw/ha	12.9 dw/ha	15.0 dw/ha	16.5 dw/ha	15.5 dw/ha
Super Lots			Lots	Lots	Lots	Lots	Lots
Medium Density Allotment			—	—	—	1	1
Commercial Allotment			—	—	1	—	1
Community Facility Allotment			—	—	1	—	1
Potential Child Care Allotment			1	—	—	—	1
Manufactured Home Estate Allotment			—	1	—	—	1
Balance Super Allotments			1	2	4	—	7
Sub Total			2	3	6	1	12
Utilities							
Sewer Pump Station			—	2	—	—	2
Sub Total			—	2	—	—	2
Total Allotments			239	238	515	499	1491
Maximum Potential Residential Dwellings (Includes Multiple Residential Allotments)			240	242	509	501	1492
Maximum Potential Net Residential Density			18.2 dw/ha	13.4 dw/ha	15.0 dw/ha	16.6 dw/ha	15.6 dw/ha

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Scale: 1:3000
Sheet: A1
Plan Ref: 110056 - 374
Rev: AJ

3.2.1 Road Traffic Noise Model Verification

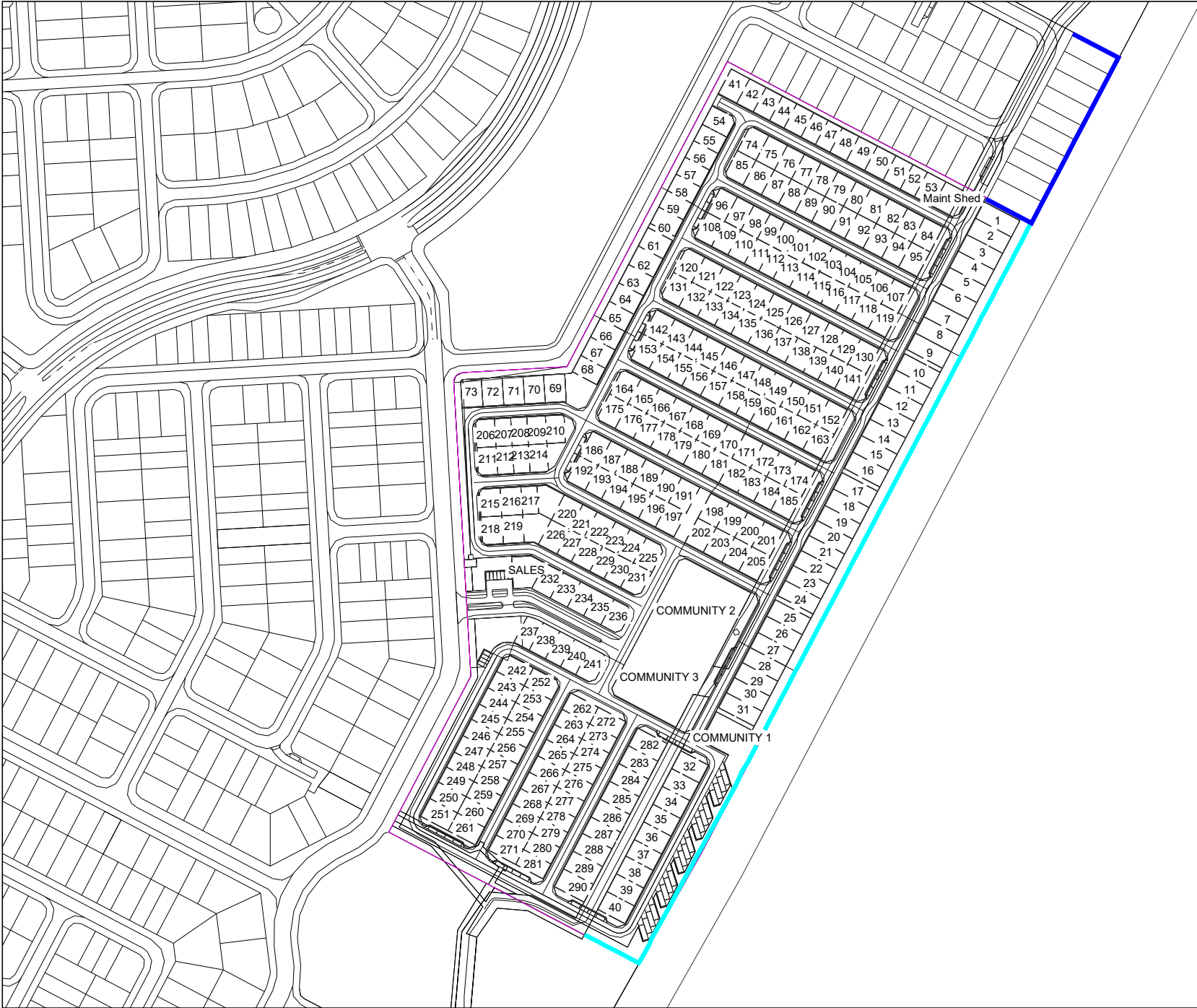
It is acknowledged that, according to the CoP Vol 1, a road traffic noise model is deemed to be verified if the average difference between the measured and calculated values of the noise descriptors is no more than ± 2.0 dBA.

A road traffic model verification for new roads to be built as part of the Flagstone development is not possible at this stage as the roads are non-existing. However, past experience has shown that noise predictions using CoRTN typically result in conservative predictions of levels at receptors.

3.3 Noise Barriers

A noise barrier option located on the boundary of the site was investigated to reduce the railway noise intrusion (**Figure 2**). The noise barrier is 3.2m high and 541m long, with a 3.2m high and 40m long return.





Signs and symbols

-  Noise barrier (other stages)
-  3.2m noise barrier
-  Project boundary



PROJECT	Flagstone Land Lease Community
CLIENT	Lodge Management Platform Pty Ltd
DESCRIPTION	Noise Barriers

Date: 8/10/2024
Project No.: 620.10512.00205
Report No.: 620.10512.00205-R14-v3.0
Prediction Method: Kilde
Prepared By: RO
Prediction Height:1.8 m

Figure 2

4.0 Noise Assessment Results

4.1 QDC MP4.4 Noise Categories

The QDC MP4.4 Categories applicable to all lots of the Flagstone LLC related to road traffic noise and railway noise are presented in **Appendix E (Table E-1)**. The results present the lot number, stage, modelled ground elevation at the (approximate) centre of the lot and the QDC MP4.4 Noise Category for Ground Floor and First Floor noise levels (read from the noise maps as the highest Noise Category within the lot), with and without noise mitigation.

The QDC MP4.4 noise category to be applied to the design of the dwelling inside the lots is the highest of the road and railway (last column in **Table E-1**) for the residual noise after the implementation of the noise barriers recommended in this report for the attenuation of railway noise.

Table 7³ presents a summary of QDC MP4.4 noise predictions on the lots with noise barriers in front. The modelled ground elevation at the approximate centre of the lot, as well as the modelled mid span elevation of the barrier and the approximate elevation of the railway section immediately in front are also presented for information.

Noise contours are provided in **Figure 3** to **Figure 6** to depict the railway noise levels with and without noise barriers. The contours show the predicted SEM noise descriptor and relevant QDC MP4.4 Noise Categories.

Noise contours are provided in **Figure 7** to **Figure 8** to depict the road traffic noise levels. The contours show the predicted LA10(18hour) noise descriptor and the applicable QDC MP4.4 Noise Categories without a road traffic noise barrier, which are not considered warranted due to the low Noise Category predicted on the most exposed lots. Noise impacts are best managed by implementation of facade acoustic treatment instead which are comparatively minimal.

³ Note that the Lot number allocation in this report may differ to the final allocation in the final Plan of Development, which is not defined at this stage.



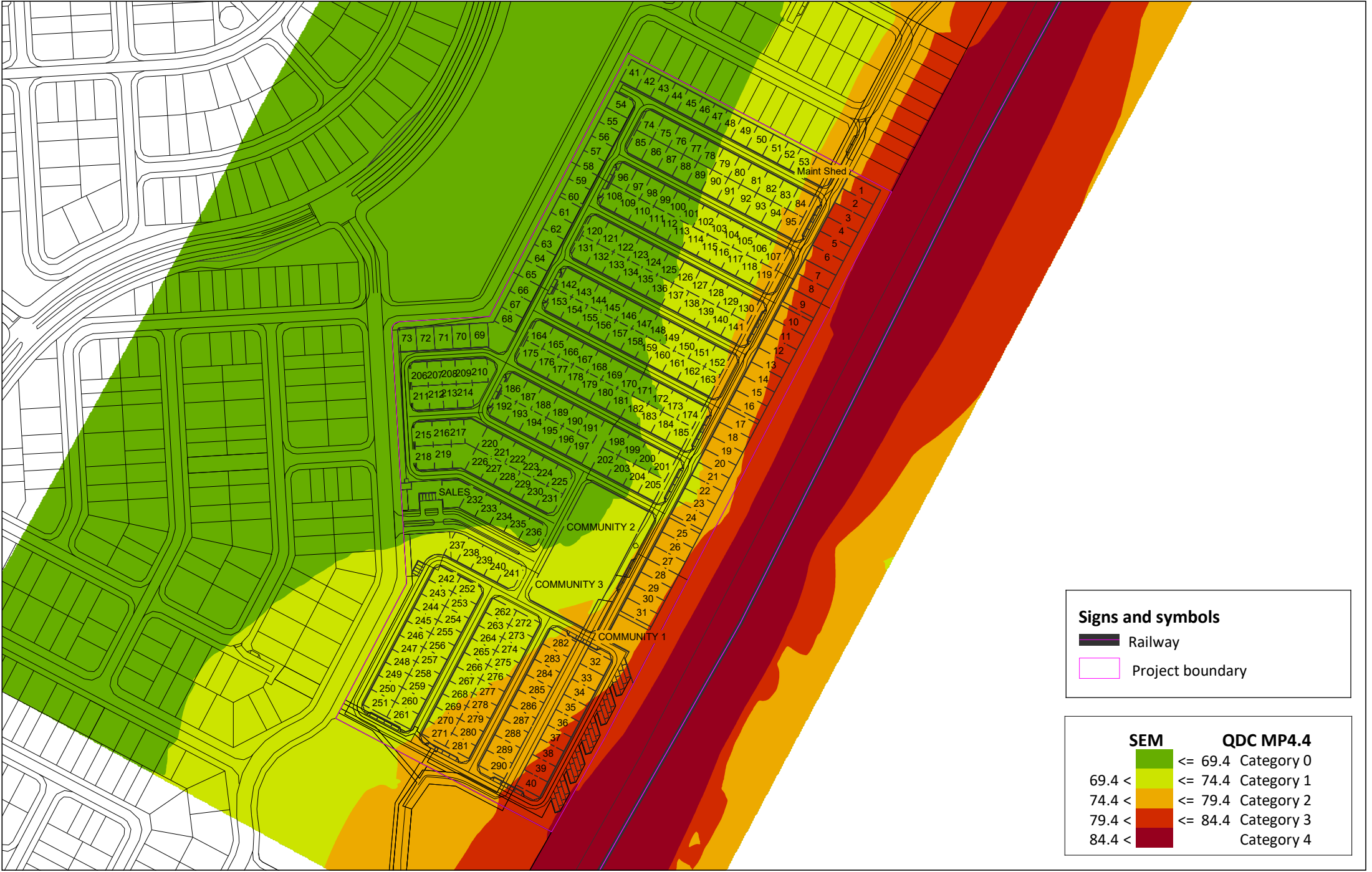
Table 7 Transportation Noise Predictions on Lots With and Without Recommended Noise Barriers

Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)		Elevation at Top of Barrier (mid span), m	Approximate Elevation of Road/Railway in Front of Lot, m	Lot in Cut /Fill
		Easting	Northing	Ground elevation, m	No Mitigation	With Noise Barrier	No Mitigation	With Noise Barrier	No Mitigation	With Noise Barrier			
1	GF	495534.99	6925817.51	48.7	0	N.A.	3	2	3	2	51.8	45.3	Fill
1	FF	495534.99	6925817.51	48.7	0	N.A.	3	3	3	3	51.8	45.3	Fill
2	GF	495530.4	6925807.42	49.2	0	N.A.	3	1	3	1	52.0	45.3	Fill
2	FF	495530.4	6925807.42	49.2	0	N.A.	3	3	3	3	52.0	45.3	Fill
3	GF	495525.13	6925796.64	49.7	0	N.A.	3	1	3	1	52.1	45.6	Fill
3	FF	495525.13	6925796.64	49.7	0	N.A.	3	3	3	3	52.1	45.6	Fill
4	GF	495520.08	6925787	50.0	0	N.A.	3	2	3	2	52.4	45.7	Fill
4	FF	495520.08	6925787	50.0	0	N.A.	3	3	3	3	52.4	45.7	Fill
5	GF	495514.8	6925777.6	50.4	0	N.A.	3	2	3	2	52.6	46.0	Fill
5	FF	495514.8	6925777.6	50.4	0	N.A.	3	3	3	3	52.6	46.0	Fill
6	GF	495509.3	6925767.05	50.7	0	N.A.	3	2	3	2	52.7	46.1	Fill
6	FF	495509.3	6925767.05	50.7	0	N.A.	3	3	3	3	52.7	46.1	Fill
7	GF	495502.42	6925753.28	51.2	0	N.A.	3	2	3	2	52.9	46.3	Fill
7	FF	495502.42	6925753.28	51.2	0	N.A.	3	3	3	3	52.9	46.3	Fill
8	GF	495497.6	6925743.42	51.5	0	N.A.	3	2	3	2	53.2	46.6	Fill
8	FF	495497.6	6925743.42	51.5	0	N.A.	3	3	3	3	53.2	46.6	Fill
9	GF	495490.95	6925731.95	51.8	0	N.A.	3	2	3	2	53.5	46.7	Fill
9	FF	495490.95	6925731.95	51.8	0	N.A.	3	3	3	3	53.5	46.7	Fill
10	GF	495486.82	6925722.54	52.2	0	N.A.	3	2	3	2	53.8	46.9	Fill
10	FF	495486.82	6925722.54	52.2	0	N.A.	3	3	3	3	53.8	46.9	Fill
11	GF	495480.85	6925711.76	52.5	0	N.A.	3	2	3	2	54.1	47.2	Fill
11	FF	495480.85	6925711.76	52.5	0	N.A.	3	3	3	3	54.1	47.2	Fill
12	GF	495475.58	6925701.21	52.8	0	N.A.	3	2	3	2	54.6	47.3	Fill
12	FF	495475.58	6925701.21	52.8	0	N.A.	3	3	3	3	54.6	47.3	Fill
13	GF	495469.84	6925690.42	53.1	0	N.A.	3	2	3	2	54.9	47.4	Fill
13	FF	495469.84	6925690.42	53.1	0	N.A.	3	3	3	3	54.9	47.4	Fill
14	GF	495462.73	6925678.04	53.5	0	N.A.	3	2	3	2	55.3	47.5	Fill
14	FF	495462.73	6925678.04	53.5	0	N.A.	3	3	3	3	55.3	47.5	Fill
15	GF	495457.68	6925668.4	53.8	0	N.A.	3	2	3	2	55.5	47.6	Fill
15	FF	495457.68	6925668.4	53.8	0	N.A.	3	3	3	3	55.5	47.6	Fill
16	GF	495452.18	6925658.31	54.1	0	N.A.	3	2	3	2	56.0	47.7	Fill
16	FF	495452.18	6925658.31	54.1	0	N.A.	3	3	3	3	56.0	47.7	Fill
17	GF	495447.13	6925648.44	54.4	0	N.A.	3	2	3	2	56.3	47.8	Fill
17	FF	495447.13	6925648.44	54.4	0	N.A.	3	3	3	3	56.3	47.8	Fill
18	GF	495441.39	6925638.35	54.8	0	N.A.	3	1	3	1	56.8	48.1	Fill
18	FF	495441.39	6925638.35	54.8	0	N.A.	3	3	3	3	56.8	48.1	Fill
19	GF	495436.58	6925628.26	55.1	0	N.A.	2	1	2	1	57.3	48.5	Fill
19	FF	495436.58	6925628.26	55.1	0	N.A.	3	3	3	3	57.3	48.5	Fill
20	GF	495431.76	6925619.08	55.5	0	N.A.	2	1	2	1	57.7	48.7	Fill
20	FF	495431.76	6925619.08	55.5	0	N.A.	3	3	3	3	57.7	48.7	Fill
21	GF	495426.71	6925609.45	55.8	0	N.A.	2	1	2	1	58.2	49.0	Fill
21	FF	495426.71	6925609.45	55.8	0	N.A.	3	3	3	3	58.2	49.0	Fill
22	GF	495418.91	6925596.6	56.5	0	N.A.	2	1	2	1	59.1	49.2	Fill
22	FF	495418.91	6925596.6	56.5	0	N.A.	3	3	3	3	59.1	49.2	Fill
23	GF	495414.55	6925585.13	57.0	0	N.A.	2	1	2	1	59.5	49.7	Fill
23	FF	495414.55	6925585.13	57.0	0	N.A.	3	3	3	3	59.5	49.7	Fill
24	GF	495409.97	6925575.03	57.5	0	N.A.	2	1	2	1	60.2	50.2	Fill
24	FF	495409.97	6925575.03	57.5	0	N.A.	3	3	3	3	60.2	50.2	Fill



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)		Elevation at Top of Barrier (mid span), m	Approximate Elevation of Road/Railway in Front of Lot, m	Lot in Cut /Fill
		Easting	Northing	Ground elevation, m	No Mitigation	With Noise Barrier	No Mitigation	With Noise Barrier	No Mitigation	With Noise Barrier			
25	GF	495403.31	6925563.79	57.9	0	N.A.	2	1	2	1	60.8	50.0	Fill
25	FF	495403.31	6925563.79	57.9	0	N.A.	3	3	3	3	60.8	50.0	Fill
26	GF	495397.82	6925553.47	58.0	0	N.A.	2	1	2	1	60.8	49.7	Fill
26	FF	495397.82	6925553.47	58.0	0	N.A.	3	3	3	3	60.8	49.7	Fill
27	GF	495392.52	6925542.65	58.1	0	N.A.	2	1	2	1	60.7	50.0	Fill
27	FF	495392.52	6925542.65	58.1	0	N.A.	3	3	3	3	60.7	50.0	Fill
28	GF	495386.77	6925532.06	58.2	0	N.A.	2	1	2	1	60.6	50.2	Fill
28	FF	495386.77	6925532.06	58.2	0	N.A.	3	3	3	3	60.6	50.2	Fill
29	GF	495381.25	6925520.79	58.0	0	N.A.	3	1	3	1	60.3	50.8	Fill
29	FF	495381.25	6925520.79	58.0	0	N.A.	3	3	3	3	60.3	50.8	Fill
30	GF	495375.03	6925510.89	57.6	0	N.A.	3	1	3	1	60.2	50.7	Fill
30	FF	495375.03	6925510.89	57.6	0	N.A.	3	3	3	3	60.2	50.7	Fill
31	GF	495370.43	6925500.99	57.2	0	N.A.	3	1	3	1	59.8	50.6	Fill
31	FF	495370.43	6925500.99	57.2	0	N.A.	3	3	3	3	59.8	50.6	Fill
32	GF	495335.44	6925463.93	54.8	0	N.A.	2	1	2	1	57.1	49.8	Fill
32	FF	495335.44	6925463.93	54.8	0	N.A.	2	2	2	2	57.1	49.8	Fill
33	GF	495329	6925451.74	54.3	0	N.A.	2	1	2	1	56.7	49.7	Fill
33	FF	495329	6925451.74	54.3	0	N.A.	3	2	3	2	56.7	49.7	Fill
34	GF	495323.47	6925440.92	53.8	0	N.A.	3	1	3	1	56.1	49.9	Fill
34	FF	495323.47	6925440.92	53.8	0	N.A.	3	2	3	2	56.1	49.9	Fill
35	GF	495316.8	6925429.64	53.2	0	N.A.	3	1	3	1	55.6	50.0	Fill
35	FF	495316.8	6925429.64	53.2	0	N.A.	3	2	3	2	55.6	50.0	Fill
36	GF	495311.04	6925418.13	52.6	0	N.A.	3	1	3	1	55.2	49.8	Fill
36	FF	495311.04	6925418.13	52.6	0	N.A.	3	3	3	3	55.2	49.8	Fill
37	GF	495305.52	6925406.85	52.1	0	N.A.	3	2	3	2	54.6	49.8	Fill
37	FF	495305.52	6925406.85	52.1	0	N.A.	3	3	3	3	54.6	49.8	Fill
38	GF	495300	6925395.34	51.6	0	N.A.	3	2	3	2	54.1	49.8	Fill
38	FF	495300	6925395.34	51.6	0	N.A.	3	3	3	3	54.1	49.8	Fill
39	GF	495294.7	6925383.84	51.0	0	N.A.	3	2	3	2	53.4	49.7	Fill
39	FF	495294.7	6925383.84	51.0	0	N.A.	3	3	3	3	53.4	49.7	Fill
40	GF	495287.34	6925372.56	50.4	0	N.A.	3	2	3	2	52.7	49.5	Fill
40	FF	495287.34	6925372.56	50.4	0	N.A.	3	3	3	3	52.7	49.5	Fill
COMM 1	GF	495363.23	6925482.51	56.6	0	N.A.	3	2	3	2	58.2	50.0	Fill





Signs and symbols

-  Railway
-  Project boundary

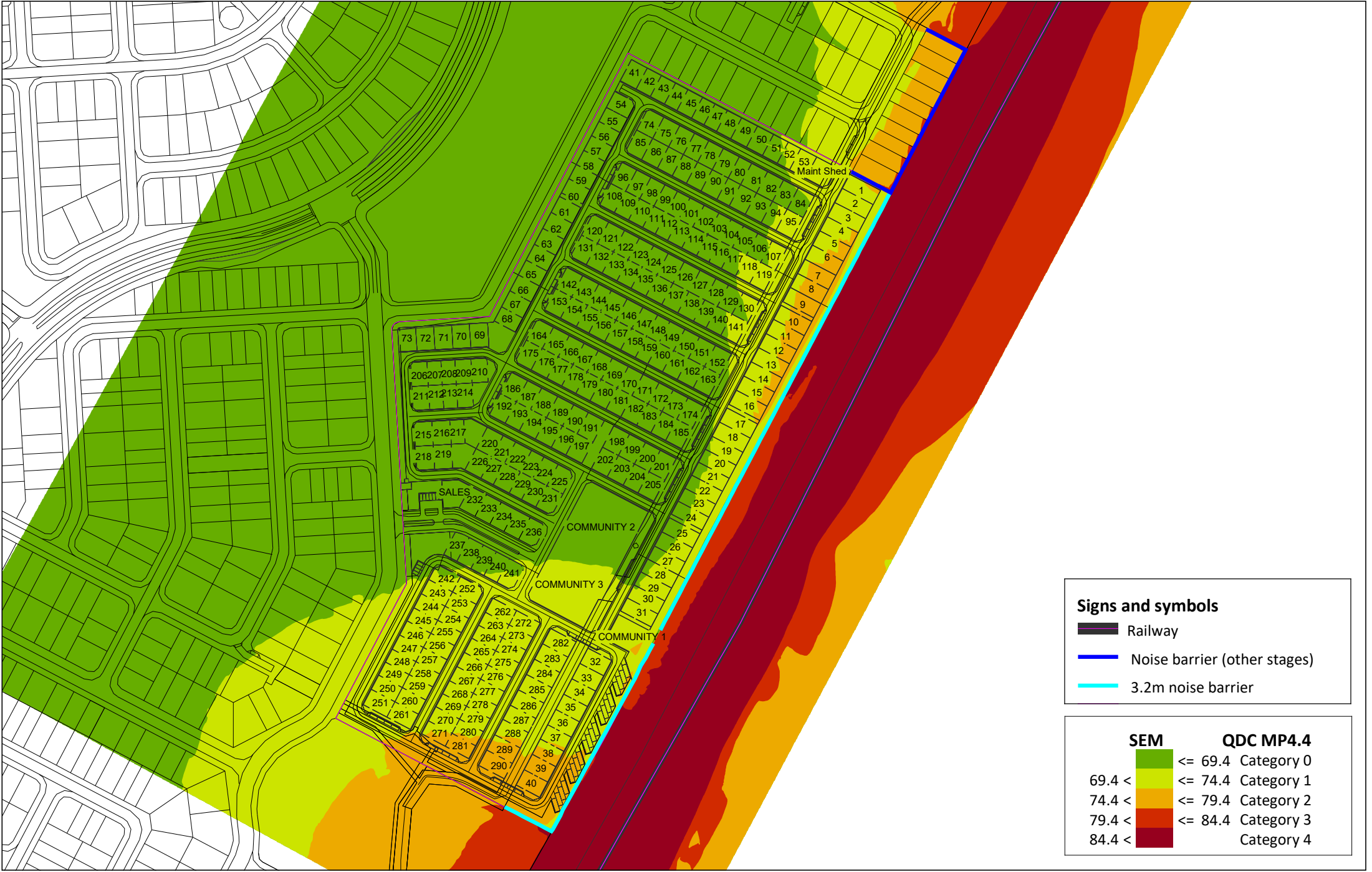
SEM	QDC MP4.4
	<= 69.4 Category 0
	69.4 < <= 74.4 Category 1
	74.4 < <= 79.4 Category 2
	79.4 < <= 84.4 Category 3
	84.4 < Category 4



PROJECT	Flagstone Land Lease Community
CLIENT	Lodge Management Platform Pty Ltd
DESCRIPTION	Ground Floor Facade Corrected SEM at 1.8m Above the Ground Without Noise Mitigation

Date: 8/10/2024
Project No.: 620.10512.00205
Report No.: 620.10512.00205-R14-v3.0
Prediction Method: Kilde
Prepared By: RO
Prediction Height: 1.8 m

Figure 3

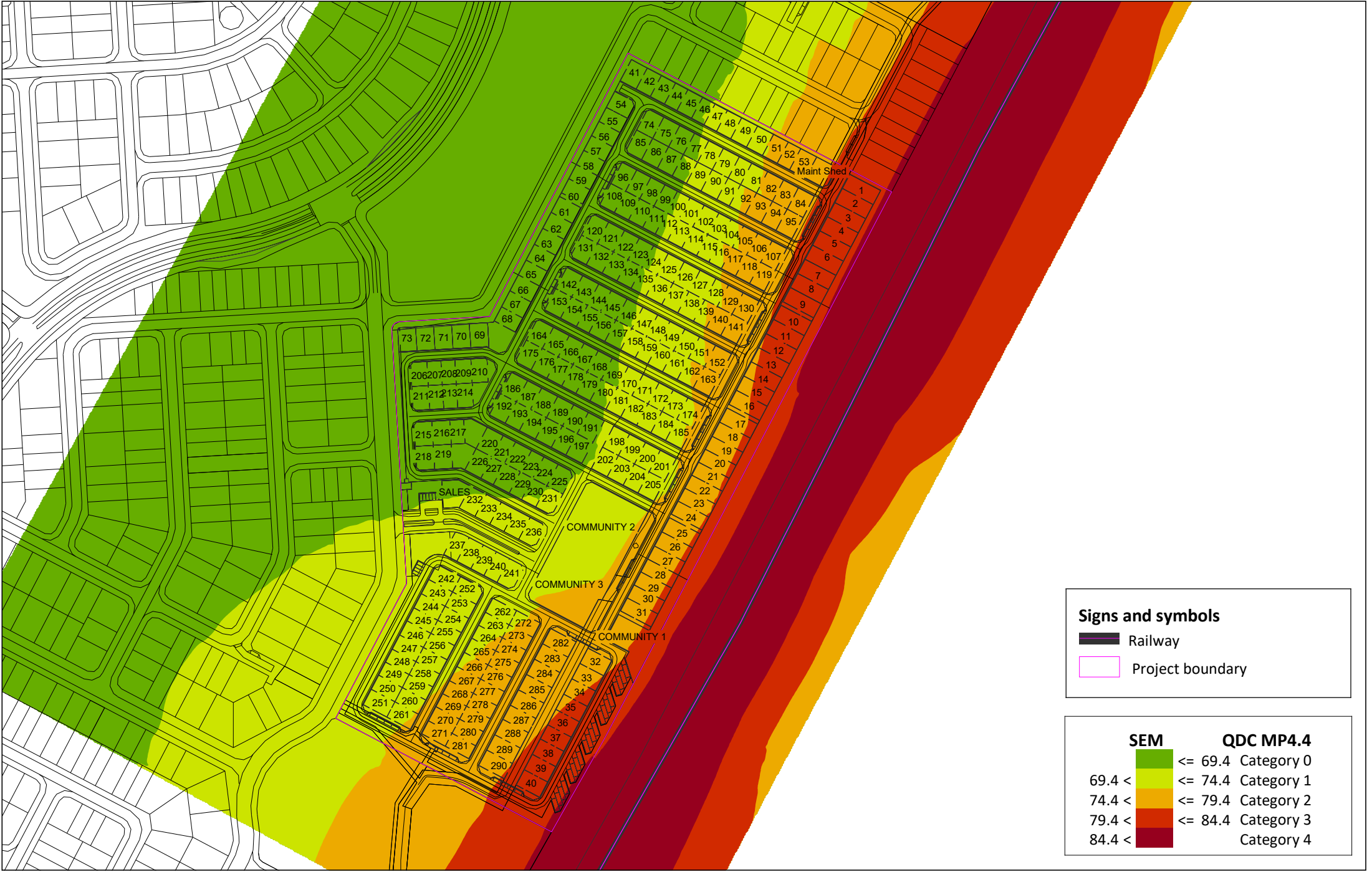


Signs and symbols

- Railway
- Noise barrier (other stages)
- 3.2m noise barrier

SEM	QDC MP4.4
	<= 69.4 Category 0
69.4 <	<= 74.4 Category 1
74.4 <	<= 79.4 Category 2
79.4 <	<= 84.4 Category 3
84.4 <	Category 4

Figure 4



Signs and symbols

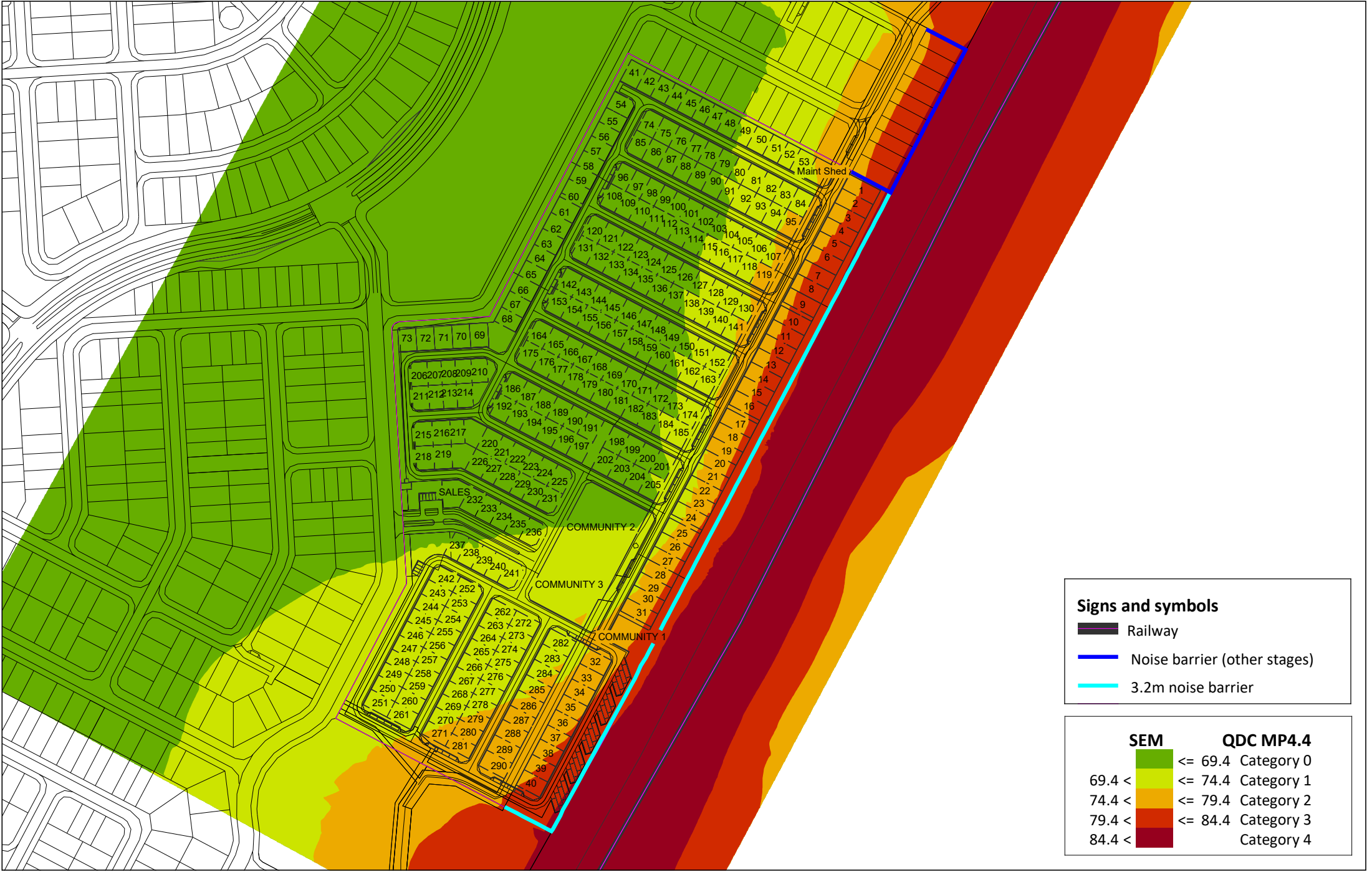
 Railway

 Project boundary

SEM	QDC MP4.4
	<= 69.4 Category 0
69.4 < 	<= 74.4 Category 1
74.4 < 	<= 79.4 Category 2
79.4 < 	<= 84.4 Category 3
84.4 < 	Category 4



Figure 5



Signs and symbols

-  Railway
-  Noise barrier (other stages)
-  3.2m noise barrier

SEM	QDC MP4.4
	<= 69.4 Category 0
	69.4 < <= 74.4 Category 1
	74.4 < <= 79.4 Category 2
	79.4 < <= 84.4 Category 3
	84.4 < Category 4



PROJECT	Flagstone Land Lease Community
CLIENT	Lodge Management Platform Pty Ltd
DESCRIPTION	First Floor Facade Corrected SEM at 4.6m Above the Ground With Noise Barrier

Date: 8/10/2024
Project No.: 620.10512.00205
Report No.: 620.10512.00205-R14-v3.0
Prediction Method: Kilde
Prepared By: RO
Prediction Height: 4.6 m

Figure 6



Signs and symbols

-  Roads
-  Project boundary

LA10,18hr	QDC MP4.4
	<= 57.4 Category 0
	57.4 < <= 62.4 Category 1
	62.4 < <= 67.4 Category 2
	67.4 < <= 72.4 Category 3
	72.4 < Category 4



Signs and symbols

— Roads

□ Project boundary

LA10,18hr	QDC MP4.4
	<= 57.4 Category 0
57.4 <	<= 62.4 Category 1
62.4 <	<= 67.4 Category 2
67.4 <	<= 72.4 Category 3
72.4 <	Category 4



PROJECT	Flagstone Land Lease Community
CLIENT	Lodge Management Platform Pty Ltd
DESCRIPTION	First Floor Facade Corrected LA10,18hr at 4.6m Above the Ground Without Noise Mitigation

Date: 8/10/2024
Project No.: 620.10512.00205
Report No.: 620.10512.00205-R14-v3.0
Prediction Method: CoRTN
Prepared By: RO
Prediction Height: 4.6 m

Figure 8

5.0 Recommendations

5.1 Recommended Noise Barriers

For the external noise levels to meet the lowest predicted noise categories detailed in **Section 4.1**, noise barriers are to be built as follows:

- The location of the noise barrier is shown in **Figure 2**.
The noise barrier can be made of an earth mound, acoustic fence, retaining wall, or a combination thereof. **Table 7** above presents the approximate elevation at the top of the barrier for the section of the barrier at mid span in front of the respective lot fronting the noise source, the ground elevation at the approximate centre of the lot and the approximate elevation of the closest road/railway section in front.
- Acoustic fences are to be built on top of any retaining walls and/or earth mounds, to the top of barrier elevation indicated in **Table 7**. This applies regardless of whether the lot is in a cut or in fill (i.e. a lot at a lower elevation than the assessed transportation source immediately adjoining, and vice versa).
- Acoustic fences must generally be installed without gaps between panels and posts. Small gaps between the bottom of the panels are permissible if required for drainage. However, these must be minimised.
- Acoustic fences must have a minimum surface density of 12.5 kg/m² (excluding structural components):
 - Overlapped timber barriers are suitable. Brisbane City Council drawings [BSD-7021](#) and Moreton Bay Regional Council drawings [SF-1520](#) are provided for reference (also reproduced in **Appendix F**). Note the noise barriers must be built to the minimum heights indicated in **Figure 2**.
 - Other construction materials are also suitable where the panels (structural components excluded) meet the minimum surface density.
- The design life of the noise barriers is to be 40 years unless otherwise agreed upon in writing with MEDQ.



5.2 QDC MP4.4 Noise Category requirements

The minimum QDC MP4.4 noise categories applicable to the construction of a dwelling with a noise barrier in front are presented in **Section 4.1**. The relevant categories with and without the implementation of the recommended noise barriers are presented.

A full list of QDC MP4.4 Noise Categories applicable to all lots within Flagstone MHE is provided in **Appendix E**. The highest Noise Category for road and railway (last column in the tables applies for the residual noise after the implementation of the assessed noise barriers).

It is acknowledged that QDC MP4.4 only applies to residential development. However, a Noise Category has been nominated and is recommended for the Community Facility and sales buildings to provide a suitable internal amenity.

The applicable QDC MP4.4 categories on the lots after the implementation of the noise barriers will vary between Noise Category 0 and Noise Category 2 for ground floor level and Noise Category 0 to Noise Category 3 for First Floor level. The Noise Category will depend on distance from the noise source, number of storeys of the dwelling and whether the dwelling will have a direct view of the noise source (e.g. when built in a fill).

The Rw rating applicable to the dwelling facade elements for each of QDC MP4.4 Noise Category are presented in **Table 2**. Acceptable forms of construction are reproduced from Schedule 2 of QDC MP4.4 in **Appendix C**, noting that other forms of construction are acceptable where they meet the required Rw rating.

The noise attenuation provided by the dwelling facades will be largely controlled by the window elements; therefore, it is recommended that facade glazing systems (window + frame + seals) required to achieve a minimum Rw performance are supplied with an acoustic test report conducted in Australia by a qualified consultant who is a member of the Australian Acoustical Society (AAS), or an acoustic consultant who works for a member firm of the Association of Australasian Acoustical Consultants (AAAC). The acoustic test report should address the requirements in the following standards:

- AS 1191-2002 *Acoustics - Method for laboratory measurement of airborne sound transmission insulation of building elements*
- ISO 717-1:2013 *Acoustics - Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation*

It should be noted that as stated in QDC MP4.4, *“the part applies to building work for the construction or renovation of a residential building in a designated transport noise corridor”*; therefore, it is only relevant at the Building Application stage of the individual lots.

A lower Noise Category should be acceptable at specific facades of the future dwellings depending on the layout of these within the lots, pending demonstration of the railway or road traffic noise levels onto specific habitable spaces within a dwelling via a lot specific noise assessment based on architectural drawings.



6.0 Conclusion

SLR Consulting Pty Ltd (SLR) have completed a transportation (i.e. road and rail traffic) noise assessment addressing the noise intrusion onto the Flagstone Land Lease Community.

The assessment was conducted following guidance from the Queensland Department of Transport and Main Roads (DTMR) – Transport Noise Management: Code of Practice Volume 1 - Road Traffic Noise, dated November 2013 (CoP Vol 1) and the Code of Practice Volume 3 - Operational railway noise and vibration (CoP Vol 3) (Interim Guideline).

A computational noise model was used to predict the noise levels from the future roads to be built as part of the development, as well as future railway noise levels.

Noise monitoring previously conducted in 2022 as part of the Flagstone City Centre Masterplan noise assessment was used to verify the railway noise model.

For the external noise levels to meet the lowest predicted noise categories detailed in this report, noise barriers are recommended to be built as follows:

- The location of the recommended noise barrier is shown in **Figure 2**.
The noise barrier can be made of an earth mound, acoustic fence, retaining wall, or a combination thereof. **Table 7** above present the approximate elevation at the top of the barrier for the section of the barrier at mid span in front of the respective lot fronting the noise source, the ground elevation at the approximate centre of the lot and the approximate elevation of the closest road/railway section in front.
- Acoustic fences are to be built on top of any retaining walls and/or earth mounds, to the top of barrier elevation indicated in **Table 7**. This applies regardless of whether the lot is in a cut or in fill (i.e. a lot at a lower elevation than the assessed transportation source immediately adjoining, and vice versa).
- Acoustic fences must generally be installed without gaps between panels and posts. Small gaps between the bottom of the panels are permissible if required for drainage. However, these must be minimised.
- Acoustic fences must have a minimum surface density of 12.5 kg/m² (excluding structural components):
 - Overlapped timber barriers are suitable. Brisbane City Council drawings [BSD-7021](#) and Moreton Bay Regional Council drawings [SF-1520](#) are provided for reference (also reproduced in **Appendix F**). Note the noise barriers must be built to the minimum heights indicated in **Figure 2**.
- The design life of the noise barriers is to be 40 years unless otherwise agreed upon in writing with MEDQ.

Other construction materials are also suitable where the panels (structural components excluded) meet the minimum surface density. The residual noise levels after the implementation of noise barriers were assessed against noise criteria derived from the Queensland Development Code Mandatory Part 4.4 (QDC MP4.4). QDC MP4.4 Noise Categories applicable to all the lots pertaining the assessed Flagstone LLC are presented in **Appendix E**.

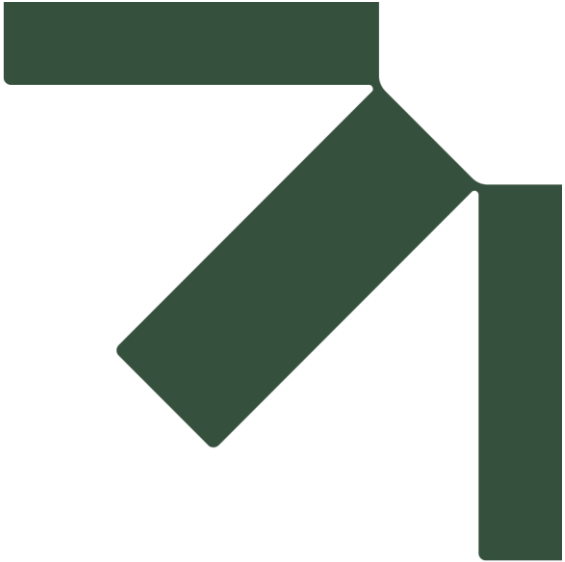
The Rw rating applicable to the dwelling facade elements are presented in **Table 2**. Acceptable forms of construction are reproduced from Schedule 2 of QDC MP4.4 in **Appendix C**, noting that other forms of construction are acceptable where they meet the required Rw rating.



The predicted QDC MP4.4 Noise Categories presented in this report represent the highest Noise Category for any part of the Lot (rather than only the building envelope). A lower Noise Category may be applicable depending on the position and layout of the building on the Lot. Buildings may also screen road and railway noise. For these reasons, the Noise Categories predicted in this report are considered a conservative assessment of transportation noise.

A lower Noise Category should be acceptable at specific facades of the future dwellings depending on the layout of these within the lots, pending demonstration of the road traffic noise levels onto specific habitable spaces within a dwelling via a lot-specific noise assessment based on architectural drawings.





Appendix A Glossary of terms

Flagstone Land Lease Community

Transport Noise Intrusion Assessment

Lodge Management Platform Pty Ltd

SLR Project No.: 620.10512.00205

3 February 2025

Sound Level (or Noise Level)

The terms sound and noise are almost interchangeable, except that in common usage noise is often used to refer to unwanted sound.

Sound (or noise) consists of minute fluctuations in atmospheric pressure capable of evoking the sense of hearing. The human ear (and those of other species) responds to changes in sound pressure over a very wide range. The loudest sound pressure to which the human ear responds is ten million times greater than the softest. The decibel (dB or dBL) scale reduces this ratio to a more manageable size by the use of logarithms.

A-weighted Sound Pressure Level

The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an 'A-weighting' filter. This is an electronic filter having a frequency response corresponding approximately to human hearing.

Change in Sound Pressure Levels

For human perception, a change of 2 dBA in the level of a sound is considered to be indiscernible, while a 3 dBA to 5 dBA change corresponds to a small but noticeable change in loudness. A 10 dBA change corresponds to an approximate doubling or halving in loudness. As noted in Section 2.4 of the TMR CoP Vol 1, while the above noted changes in sound pressure level are *not precisely verifiable for road traffic noise, it is useful in understanding the significance of change in environmental noise exposure*.

Additional facts about road traffic noise as stated in Section 2.4 of the TMR CoP Vol 1:

- A 3 dBA change in noise level is equivalent to halving or doubling the traffic volumes.
- A 10 dBA change in noise level is equivalent to halving or doubling the subjective or perceived loudness or a tenfold increase or decrease in traffic volume.
- A 10 km/h increase in speed will increase the noise level by approximately 1 dBA.
- A 3.5% compound annual growth rate in traffic will increase the noise level by approximately 1.5 dBA over a 10-year horizon.
- An 8% compound annual growth rate in traffic will increase the noise level by approximately 3.0 dBA over a 10-year horizon.

Typical Sound Pressure Levels

The table below lists examples of typical sound pressure levels.

Table A-1 Examples of Perceived Sound Pressure Levels

Sound pressure level (dBA)	Typical Example
130	Threshold of pain
120	Metal hammering
110	Grinding on steel
100	Loud car horn at 3 metres (m)
90	Dog bark at 1 m
80	Cicadas at 1 m
70	Noise level directly adjacent to a busy main road
60	Ambient noise level in urban area close to main roads



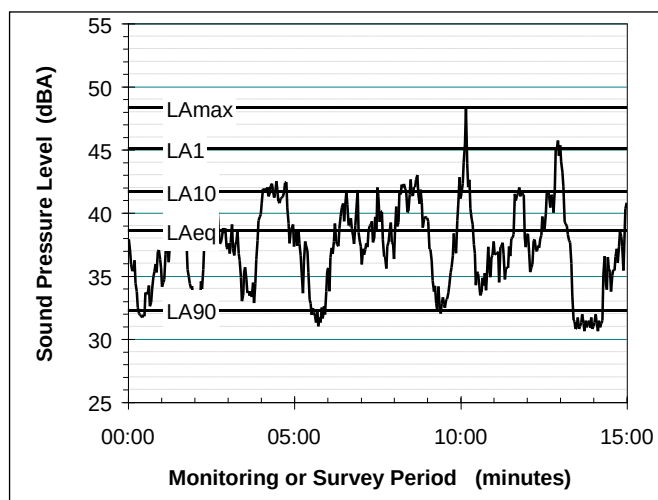
Sound pressure level (dBA)	Typical Example
50	Day time in a quiet suburban environment with background or distant road traffic noise
40	Night-time in a quiet suburban environment with background or distant road traffic noise Ambient noise level in rural to semi-rural environments with light breezes and some noise from insects, birds and distant traffic
30	Ambient noise level in a typical rural noise environment in the absence of insect noise and wind. Inside bedroom
20	Ambient noise level in remote rural environment away from main roads with no wind and no insect noise

Statistical Noise Levels

Sounds that vary in level over time, such as road traffic noise and most community noise, are commonly described in terms of the statistical exceedance levels (LAN), where LAN is the A-weighted sound pressure level exceeded for N% of a given measurement period. For example, the LA1 is the noise level exceeded for 1% of the time and LA10 the noise exceeded for 10% of the time.

Figure A-1 below presents a hypothetical 15-minute noise measurement, illustrating various common statistical indices of interest.

Figure A-1 Hypothetical 15-minute Noise Measurement



Of particular relevance to this study, are:

- LA10: The A-weighted noise level exceeded for 10% during any given measurement period. This is commonly referred to as the average maximum noise level.

Additionally;

- LA10(18hour) Road Traffic Noise Level: the level exceeded for 10% of any measurement period; the usual period of measurement is 1 hour. The hourly LA10 level, therefore, is the traffic noise level exceeded for 6 minutes in the hour. The 18-hour LA10 level



(LA_{10(18hour)}) is the arithmetic average oFF8, hourly LA₁₀ traffic noise levels measured in consecutive hours between 6:00 am and 12:00 midnight.

- LA_{10(12hour)} Road Traffic Noise Level – is the arithmetic average oFF2 hourly LA₁₀ traffic noise levels measured in consecutive hours between 6:00 am and 6:00 pm.
- LA_{1(1hour)} Road Traffic Noise Level – the level exceeded for n% of a 1-hour period.

Noise Propagation

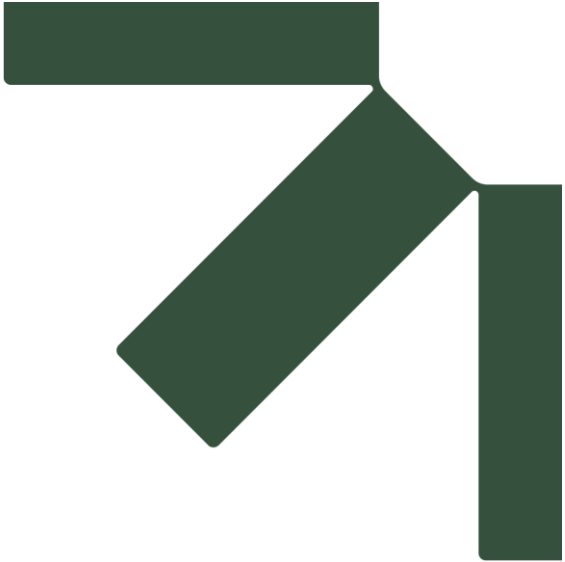
Provided the receptor is in the far-field of the noise source, noise levels will reduce as a receptor moves further away from the source. This is due to spreading of the noise source energy over distance. For a simple point source (for example, a motor) the theoretical reduction in noise levels is 6 dBA per doubling of distance. For a line source (for example, a busy road) the theoretical reduction is 3 dBA per doubling of distance. In reality however other factors affect noise propagation. These include ground absorption, air absorption, acoustic screening, and meteorological effects.

Facade Corrected versus Free field

A 'facade corrected' measurement/monitoring location is a location which is influenced by facade reflections. Measurements at facades are typically taken at a distance oFF m away and the measured noise level generally regarded as being +2.5 dB higher than in the 'free field'.

A 'free field' measurement/monitoring location is a location where the microphone is positioned sufficiently far from nearby surfaces for the measured data to not be influenced by reflected noise. This is typically regarded as a position 3.5 m or greater from a reflective surface.





Appendix B Flagstone MHE Concept Layout

Flagstone Land Lease Community

Transport Noise Intrusion Assessment

Lodge Management Platform Pty Ltd

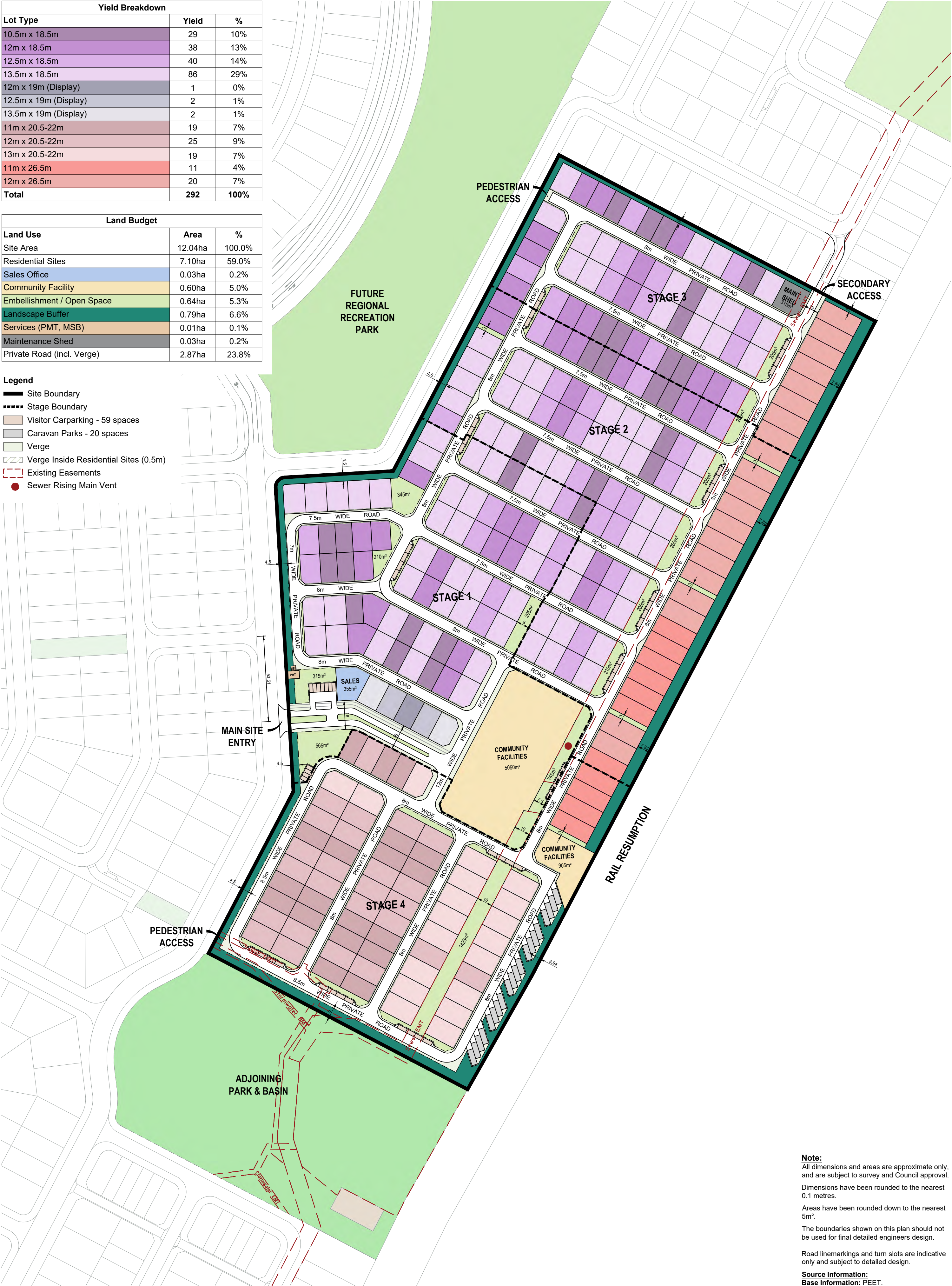
SLR Project No.: 620.10512.00205

3 February 2025

Yield Breakdown		
Lot Type	Yield	%
10.5m x 18.5m	29	10%
12m x 18.5m	38	13%
12.5m x 18.5m	40	14%
13.5m x 18.5m	86	29%
12m x 19m (Display)	1	0%
12.5m x 19m (Display)	2	1%
13.5m x 19m (Display)	2	1%
11m x 20.5-22m	19	7%
12m x 20.5-22m	25	9%
13m x 20.5-22m	19	7%
11m x 26.5m	11	4%
12m x 26.5m	20	7%
Total	292	100%

Land Budget		
Land Use	Area	%
Site Area	12.04ha	100.0%
Residential Sites	7.10ha	59.0%
Sales Office	0.03ha	0.2%
Community Facility	0.60ha	5.0%
Embellishment / Open Space	0.64ha	5.3%
Landscape Buffer	0.79ha	6.6%
Services (PMT, MSB)	0.01ha	0.1%
Maintenance Shed	0.03ha	0.2%
Private Road (incl. Verge)	2.87ha	23.8%

- Legend**
- Site Boundary
 - Stage Boundary
 - Visitor Carparking - 59 spaces
 - Caravan Parks - 20 spaces
 - Verge
 - Verge Inside Residential Sites (0.5m)
 - Existing Easements
 - Sewer Rising Main Vent



Note:
All dimensions and areas are approximate only, and are subject to survey and Council approval. Dimensions have been rounded to the nearest 0.1 metres. Areas have been rounded down to the nearest 5m². The boundaries shown on this plan should not be used for final detailed engineers design. Road linemarkings and turn slots are indicative only and subject to detailed design.

Source Information:
Base Information: PEET.

PLAN REF: AU14602-05H
DATE: 02 OCTOBER 2024
CLIENT: LAND LEASE PROPERTY
DRAWN BY: MD
CHECKED BY: MD

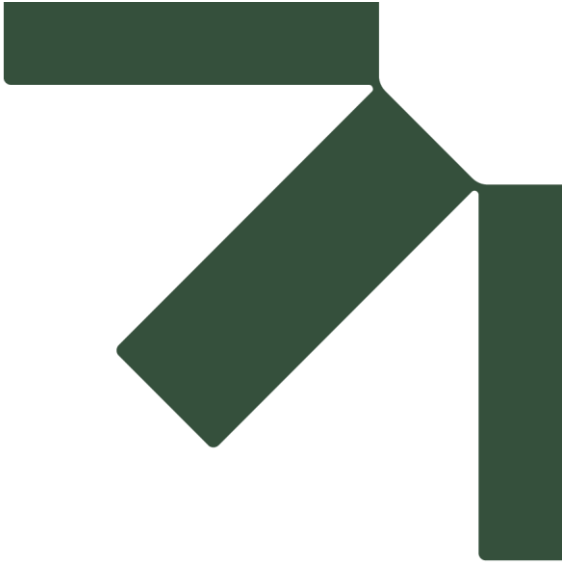
FLAGSTONE LAND LEASE COMMUNITY CONCEPT MASTERPLAN

URBAN DESIGN
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Fortitude Valley QLD 4006
T +61 7 3539 9500
W rpsgroup.com



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Appendix C Schedule 2 of QDC MP4.4

Flagstone Land Lease Community

Transport Noise Intrusion Assessment

Lodge Management Platform Pty Ltd

SLR Project No.: 620.10512.00205

3 February 2025

Table C-1 Schedule 2 of QDC MP4.4

Component of Building's External Envelope	Minimum R_w	Acceptable Forms of Construction
Glazing	43	Double glazing consisting of two panes of minimum 5mm thick glass with at least 100mm air gap and full perimeter <i>acoustically rated seals</i> .
	38	Minimum 14.38mm thick laminated glass, with full perimeter <i>acoustically rated seals</i> ; or Double glazing consisting of one pane of minimum 5mm thick glass and one pane of minimum 6mm thick glass with at least 44mm air gap, and full perimeter <i>acoustically rated seals</i>
	35	Minimum 10.38mm thick laminated glass, with full perimeter <i>acoustically rated seals</i> .
	32	Minimum 6.38mm thick laminated glass with full perimeter <i>acoustically rated seals</i> .
	27	Minimum 4mm thick glass with full perimeter <i>acoustically rated seals</i>
	24	Minimum 4mm thick glass with standard weather seals
External Walls	52	Two leaves of clay brick masonry, at least 270mm in total, with subfloor vents fitted with noise attenuators.
	47	Two leaves of clay brick masonry at least 110mm thick with: (i) cavity not less than 50mm between leaves; and (ii) 50mm thick mineral insulation or 50mm thick glass wool insulation with a density of 1kg/m ³ or 50mm thick polyester insulation with a density of 20kg/m ³ in the cavity. or Two leaves of clay brick masonry at least 110mm thick with: (i) cavity not less than 50mm between leaves; and (ii) at least 13mm thick cement render on each face or Single leaf of clay brick masonry at least 110mm thick with: (i) a row of at least 70mm x 35mm timber studs or 64mm steel studs at 600mm centres, spaced at least 20mm from the masonry wall; and (ii) Mineral insulation or glass wool insulation at least 50mm thick with a density of at least 11 kg/m ³ positioned between studs; and (iii) One layer of plasterboard at least 13mm thick fixed to outside face of studs. or Single leaf of minimum 150mm thick masonry of hollow, dense concrete blocks, with mortar joints laid to prevent moisture bridging.
	41	Two leaves of clay brick masonry at least 110mm thick with cavity not less than 50mm between leaves



Component of Building's External Envelope	Minimum R_w	Acceptable Forms of Construction
		or Single leaf of clay brick masonry at least 110mm thick with: (i) a row of at least 70mm x 35mm timber studs or 64mm steel studs at 600mm centres, spaced at least 20mm from the masonry wall; and (ii) mineral insulation or glass wool insulation at least 50mm thick with a density of at least 11 kg/m³ positioned between studs; and (iii) One layer of plasterboard at least 10mm thick fixed to outside face of studs or Single leaf of brick masonry at least 110mm thick with at least 13mm thick render on each face or Concrete brickwork at least 110mm thick or In-situ concrete at least 100mm thick or Precast concrete at least 100mm thick and without joints.
	35	Single leaf of clay brick masonry at least 110mm thick with: (i) a row of at least 70mm x 35mm timber studs or 64mm steel studs at 600mm centres, spaced at least 20mm from the masonry wall; and (ii) One layer of plasterboard at least 10mm thick fixed to outside face of studs or Minimum 6mm thick fibre cement sheeting or weatherboards or plank cladding externally, minimum 90mm deep timber stud or 92mm metal stud, standard plasterboard at least 13mm thick internally.
Roof	45	Concrete or terracotta tile or sheet metal roof with sarking, <i>acoustically rated plasterboard</i> ceiling at least 13mm thick fixed to ceiling joists, cellulose fibre insulation at least 100mm thick with a density of at least 45kg/m³ in the cavity. or Concrete or terracotta tile or sheet metal roof with sarking, 2 layers of <i>acoustically rated plasterboard</i> at least 16mm thick fixed to ceiling joists, glass wool insulation at least 50mm thick with a density of at least 11kg/m³ or polyester insulation at least 50mm thick with a density of at least 20kg/m³ in the cavity.
	41	Concrete or terracotta tile or metal sheet roof with sarking, plasterboard ceiling at least 10mm thick fixed to ceiling joists, glass wool insulation at least 50mm thick with a density of at least 11kg/m³ or polyester insulation at least 50mm thick with a density of at least 20kg/m³ in the cavity. or Concrete suspended slab at least 100mm thick.



Component of Building's External Envelope	Minimum R_w	Acceptable Forms of Construction
	38	Concrete or terracotta tile or metal sheet roof with sarking, plasterboard ceiling at least 10mm thick fixed to ceiling cavity, mineral insulation or glass wool insulation at least 50mm thick with a density of at least 11 kg/m ³ .
	35	Concrete or terracotta tile or metal sheet roof with sarking, plasterboard ceiling at least 10mm thick fixed to ceiling cavity.
Floors	51	Concrete slab at least 150mm thick.
	45	Concrete slab at least 100mm thick or Tongued and grooved boards at least 19mm thick with: (i) timber joists not less than 175mm x 50mm; and (ii) mineral insulation or glass wool insulation at least 75mm thick with a density of at least 11kg/m ³ positioned between joists and laid on plasterboard at least 10mm thick fixed to underside of joists; and (iii) mineral insulation or glass wool insulation at least 25mm thick with a density of at least 11kg/m ³ laid over entire floor, including tops of joists before flooring is laid; and (iv) secured to battens at least 75mm x 50mm; and (v) the assembled flooring laid over the joists, but not fixed to them, with battens lying between the joists.
Entry Doors	35	Solid core timber not less than 45mm thick, fixed so as to overlap the frame or rebate of the frame by not less than 10mm, with full perimeter acoustically rated seals.
	33	Fixed so as to overlap the frame or rebate of the frame by not less than 10mm, fitted with full perimeter acoustically rated seals and constructed of - (i) solid core, wood, particleboard or blockboard not less than 45mm thick; and/or (ii) acoustically laminated glass not less than 10.38mm thick.
	28	Fixed so as to overlap the frame or rebate of the frame, constructed of - (i) Wood, particleboard or blockboard not less than 33mm thick; or (ii) Compressed fibre reinforced sheeting not less than 9mm thick; or (iii) Other suitable material with a mass per unit area not less than 24.4kg/m ² ; or (iv) Solid core timber door not less than 35mm thick fitted with full perimeter <i>acoustically rated seals</i> .





Appendix D Noise Monitoring Results

Flagstone Land Lease Community

Transport Noise Intrusion Assessment

Lodge Management Platform Pty Ltd

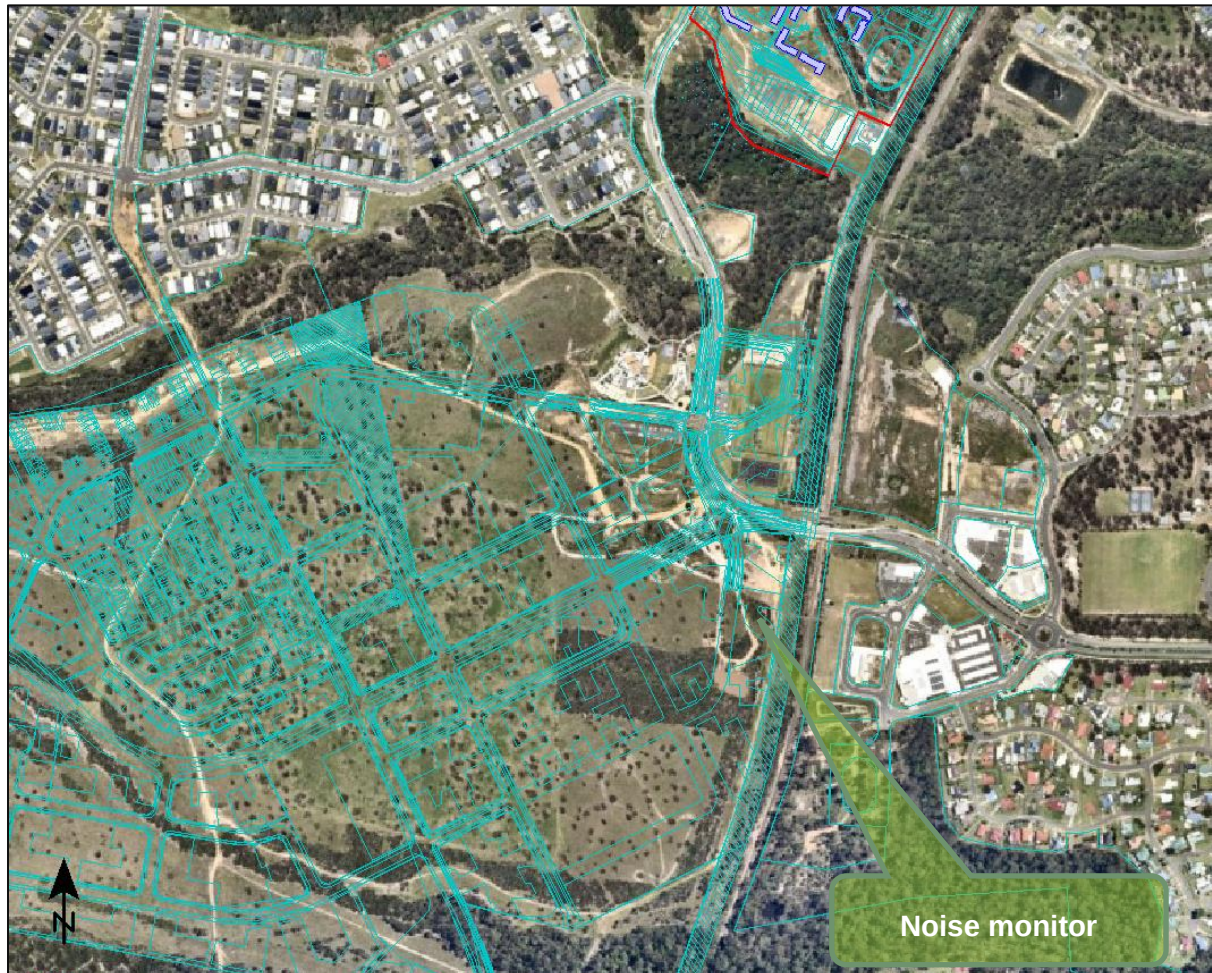
SLR Project No.: 620.10512.00205

3 February 2025

Unattended noise logging was conducted as part of the Flagstone City Centre Masterplan noise assessment. Noise monitoring was conducted to verify the railway noise model.

Monitoring was undertaken between 30th March and 6th April 2022 at the location shown in **Figure D-1**. The noise logger was placed in the free-field with a microphone height of 5 m above the existing ground level.

Figure D-1 Noise Monitoring Location



The instrumentation used is detailed in **Table C-1**. At the time of measurement, all the instrumentation used held a current calibration certificate issued by a National Association of Testing Authorities (NATA) accredited laboratory.

Table D-1 Schedule 2 of QDC MP4.4

Equipment Type	Manufacturer & Type	Serial Number	Pre-Calibration	Post-Calibration
Noise Logger	ARL Ngara	8781CD	94.0 dBA	94.0 dBA
Acoustic calibrator	Svan SV30A	24513	N/A	N/A

The noise loggers were configured to record A-weighted Fast-response statistical noise levels, including the LA10, LA90, LAeq and L_{Amax} noise levels at 15-minute intervals with 1 second resolution. Calibration of the instrument was checked before and after the monitoring, with the instruments exhibiting a drift less than ±1.0 dB during the course of



monitoring; therefore, measurements are considered valid according to the TMR CoP Vol 3 and AS 1055.

Detailed monitoring results are presented in **Table D-2** and noise level time traces are presented in **Figure D-2**.

A summary of railway noise events captured by the monitor are presented in **Table D-3**.

A summary of weather observations by the Bureau of Meteorology (BoM) during the monitoring period are presented in **Table D-4**. Brief periods of rain were recorded during the monitoring period. The noise data captured during these periods has been excluded from analysis in accordance with CoP Vol 3. However, the overall values were largely unaffected.

Table D-2 Summary of Environmental Noise Levels

Descriptor	Wed 30 Mar 2022	Thu 31 Mar 2022	Fri 1 Apr 2022	Sat 2 Apr 2022	Sun 3 Apr 2022	Mon 4 Apr 2022	Tue 5 Apr 2022	Wed 6 Apr 2022
LA10(18hour)	-	47	46	44	45	46	48	-
LAeq,Day(7am-6pm)	-	46	47	46	46	50	48	-
LAeq,Evening(6pm-10pm)	46	54	50	53	52	52	53	-
LAeq,Night (10pm-7am)	40	50	49	49	47	50	46	-
Max LAeq(1hour)(7am-6pm)	-	50	53	53	51	56	53	-
Max LAeq(1hour)(6pm-10pm)	49	57	55	55	55	55	56	-
Max LAeq(1hour)(10pm-7am)	45	57	56	56	54	55	54	-
LA90,Day(7am-6pm)	-	41	40	36	38	40	41	-
LA90,Evening(6pm-10pm)	41	40	39	41	39	41	42	-
LA90,Night (10pm-7am)	36	36	32	33	35	34	35	-

Figure D-2 Noise Level Time Traces

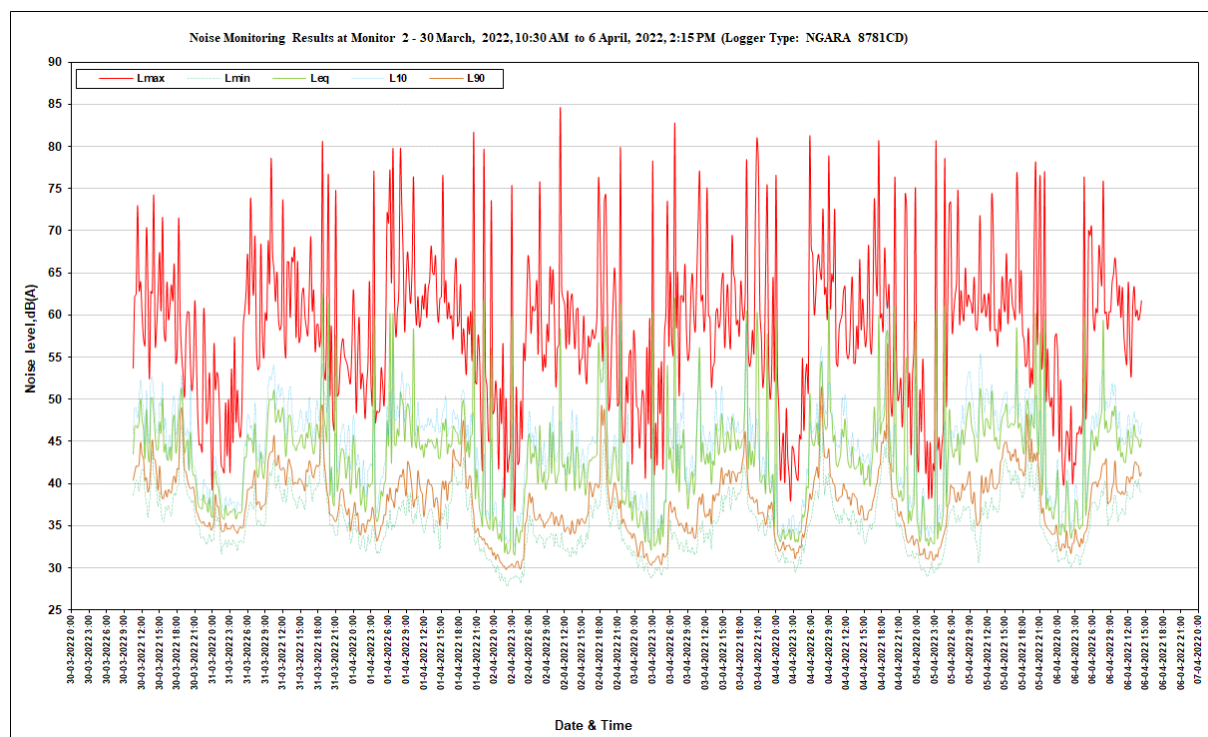


Table D-3 BoM Observations During Monitoring (March 2022)

Date & time	LAeq,T dBA / duration	LAmix dBA
3/04/2022 06:43	72 dBA / 90 sec	83 dBA
1/04/2022 20:18	71 dBA / 76 sec	82 dBA
03-04-2022 20:45	71 dBA / 86 sec	81 dBA
04-04-2022 17:16	72 dBA / 60 sec	81 dBA
05-04-2022 03:06	72 dBA / 64 sec	81 dBA
31-03-2022 18:38	70 dBA / 147 sec	81 dBA
02-04-2022 21:22	71 dBA / 104 sec	80 dBA
01-04-2022 06:35	70 dBA / 81 sec	80 dBA
01-04-2022 22:03	73 dBA / 76 sec	80 dBA
04-04-2022 08:51	71 dBA / 79 sec	79 dBA
05-04-2022 04:40	72 dBA / 74 sec	79 dBA
03-04-2022 18:48	70 dBA / 83 sec	78 dBA
03-04-2022 02:55	71 dBA / 86 sec	78 dBA
05-04-2022 20:13	70 dBA / 83 sec	78 dBA
01-04-2022 03:24	70 dBA / 86 sec	77 dBA
Average	71 dBA / 85 sec	80 dBA

Table D-3 BoM Observations During Monitoring (March 2022)

Greenbank (Defence), Queensland
March 2022 Daily Weather Observations

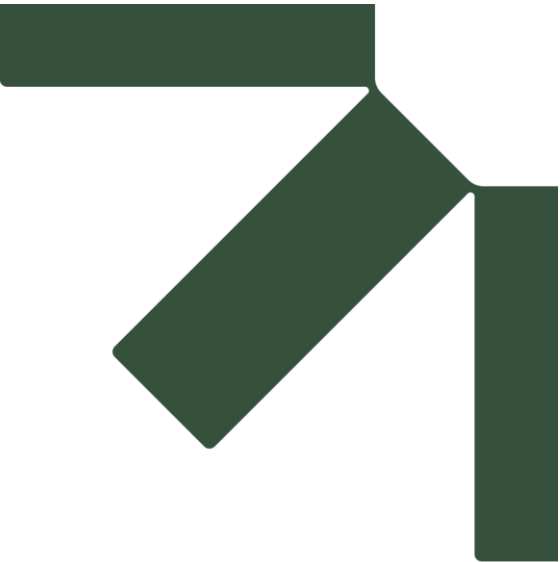


Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am						3pm												
		Min °C	Max °C				Dirn	Spd km/h	Time local	Temp °C	RH %	Cld eighths	Dirn	Spd km/h	MSLP hPa	Temp °C	RH %	Cld eighths	Dirn	Spd km/h	MSLP hPa							
1	Tu	18.9	29.8	2.8			E	22	14:08	26.0	75		SSW	6		28.1	67		ESE	9								
2	We	19.6	32.8	0			E	24	17:15	26.4	74		SW	6		30.0	64		ENE	6								
3	Th	19.0	27.7	29.0			SSW	41	06:49	19.5	100		NNW	4		26.4	65		ENE	7								
4	Fr	19.3	27.5	2.4			ENE	15	12:15	23.4	87		SW	6		23.4	96				Calm							
5	Sa	18.0	32.1	29.2			N	19	16:09	25.3	78		W	4		31.6	49		WNW	4								
6	Su	20.7	30.8	0			SSW	35	16:53	27.9	75		NNE	4		30.3	71		NNE	13								
7	Mo	18.7	31.8	20.0			NNE	19	14:58	22.8	87		SSW	4		29.0	49		NE	9								
8	Tu	19.9	34.4	0.2			WSW	28	13:20	26.4	74		NW	4		33.8	38		W	9								
9	We	22.3	35.1	0			NW	22	10:42	27.0	72		NW	6		34.1	44		WNW	9								
10	Th	21.3	27.5	0			ESE	20	15:12	24.1	74		SSW	4		25.2	73		ESE	9								
11	Fr	19.5	26.4	0						23.4	76		SE	6		23.3	75		SE	9								
12	Sa	17.7	26.7	1.4			E	24	14:42	23.4	69		SSW	9		25.0	59		ESE	6								
13	Su	15.8	28.2	0			ESE	30	15:19	23.6	65		SSW	7		25.1	60		SE	11								
14	Mo	16.0	28.5	0.4			SSE	19	11:11	23.9	69		SSE	6		26.4	58		SE	4								
15	Tu	14.8	27.7	0			SSW	24	09:43	23.9	71		SSW	11		25.6	61		SE	7								
16	We	16.2	29.2	0.4			SE	26	15:04	23.3	73		SW	6		28.8	55		ESE	6								
17	Th	15.7	30.5	0.2			SE	22	11:25	24.9	67		S	7		29.7	49		S	6								
18	Fr	17.3	30.1	0			ESE	30	16:15	24.8	69		SSE	9		27.9	57		ESE	9								
19	Sa	15.3	29.4	0			S	26	12:34	24.5	65		S	7		28.5	45		SE	7								
20	Su	17.9	29.2	0			NNE	20	16:46	23.9	61		S	6		28.5	42		ESE	4								
21	Mo	13.3	29.7	0			SSW	20	09:10	22.8	67		SSW	11		28.7	37		S	7								
22	Tu	14.5	30.6	0			NE	20	16:19	24.5	64		S	4		29.3	37		ESE	4								
23	We	14.5	32.4	0			WNW	20	09:18	24.2	70		W	7		31.2	42		W	6								
24	Th	19.3	32.0	0			N	22	15:15	26.0	70		SSW	6		31.0	42		NNE	11								
25	Fr	17.6	31.5	0			SSW	30	16:56	24.6	72		S	4		28.1	62		ESE	9								
26	Sa	17.9	28.4	3.0			S	24	15:25	23.9	76		SW	7		27.8	53		SSW	9								
27	Su	18.9	28.1	0.2			NNE	20	15:57	24.2	74		SSW	6		27.1	58		ENE	7								
28	Mo	19.9	21.9	15.2			SSE	43	22:49	21.2	98			Calm		20.8	98		SE	4								
29	Tu	17.9	24.3	63.0			SSW	30	01:02	21.3	96		S	7		22.9	86		S	6								
30	We	19.3	27.4	2.8			WNW	33	12:58	20.9	91		WNW	9		26.4	64		SW	13								
31	Th	17.7	28.4	0.8			S	41	10:40	25.8	65		WSW	6		26.7	58		SSW	11								
Statistics for March 2022																												
Mean		17.9	29.4							24.1	74				6		27.8	58									7	
Lowest		13.3	21.9							19.5	61				Calm		20.8	37								Calm		
Highest		22.3	35.1	63.0			SSE	43		27.9	100		SSW	11		34.1	98		#	13								
Total				171.0																								

Observations were drawn from Greenbank (Defence) (station 140009)

IDCJW4156.202203 Prepared at 13:02 UTC on 21 Apr 2022
Copyright © 2022 Bureau of Meteorology
Users of this product are deemed to have read the information and
accepted the conditions described in the notes at
<http://www.bom.gov.au/climate/dwo/IDCJW0000.pdf>





Appendix E Predicted QDC MP4.4 Noise Categories

Flagstone Land Lease Community

Transport Noise Intrusion Assessment

Lodge Management Platform Pty Ltd

SLR Project No.: 620.10512.00205

3 February 2025

Table E-2 QDC MP4.4 Noise Categories

Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
1	GF	495534.99	6925817.51	48.7	0	Not applicable	3	2	3	2
1	FF	495534.99	6925817.51	48.7	0	Not applicable	3	3	3	3
2	GF	495530.4	6925807.42	49.2	0	Not applicable	3	1	3	1
2	FF	495530.4	6925807.42	49.2	0	Not applicable	3	3	3	3
3	GF	495525.13	6925796.64	49.7	0	Not applicable	3	1	3	1
3	FF	495525.13	6925796.64	49.7	0	Not applicable	3	3	3	3
4	GF	495520.08	6925787	50.0	0	Not applicable	3	2	3	2
4	FF	495520.08	6925787	50.0	0	Not applicable	3	3	3	3
5	GF	495514.8	6925777.6	50.4	0	Not applicable	3	2	3	2
5	FF	495514.8	6925777.6	50.4	0	Not applicable	3	3	3	3
6	GF	495509.3	6925767.05	50.7	0	Not applicable	3	2	3	2
6	FF	495509.3	6925767.05	50.7	0	Not applicable	3	3	3	3
7	GF	495502.42	6925753.28	51.2	0	Not applicable	3	2	3	2
7	FF	495502.42	6925753.28	51.2	0	Not applicable	3	3	3	3
8	GF	495497.6	6925743.42	51.5	0	Not applicable	3	2	3	2
8	FF	495497.6	6925743.42	51.5	0	Not applicable	3	3	3	3
9	GF	495490.95	6925731.95	51.8	0	Not applicable	3	2	3	2
9	FF	495490.95	6925731.95	51.8	0	Not applicable	3	3	3	3
10	GF	495486.82	6925722.54	52.2	0	Not applicable	3	2	3	2
10	FF	495486.82	6925722.54	52.2	0	Not applicable	3	3	3	3
11	GF	495480.85	6925711.76	52.5	0	Not applicable	3	2	3	2
11	FF	495480.85	6925711.76	52.5	0	Not applicable	3	3	3	3
12	GF	495475.58	6925701.21	52.8	0	Not applicable	3	2	3	2
12	FF	495475.58	6925701.21	52.8	0	Not applicable	3	3	3	3
13	GF	495469.84	6925690.42	53.1	0	Not applicable	3	2	3	2
13	FF	495469.84	6925690.42	53.1	0	Not applicable	3	3	3	3
14	GF	495462.73	6925678.04	53.5	0	Not applicable	3	2	3	2
14	FF	495462.73	6925678.04	53.5	0	Not applicable	3	3	3	3
15	GF	495457.68	6925668.4	53.8	0	Not applicable	3	2	3	2
15	FF	495457.68	6925668.4	53.8	0	Not applicable	3	3	3	3
16	GF	495452.18	6925658.31	54.1	0	Not applicable	3	2	3	2
16	FF	495452.18	6925658.31	54.1	0	Not applicable	3	3	3	3
17	GF	495447.13	6925648.44	54.4	0	Not applicable	3	2	3	2
17	FF	495447.13	6925648.44	54.4	0	Not applicable	3	3	3	3
18	GF	495441.39	6925638.35	54.8	0	Not applicable	3	1	3	1
18	FF	495441.39	6925638.35	54.8	0	Not applicable	3	3	3	3
19	GF	495436.58	6925628.26	55.1	0	Not applicable	2	1	2	1
19	FF	495436.58	6925628.26	55.1	0	Not applicable	3	3	3	3
20	GF	495431.76	6925619.08	55.5	0	Not applicable	2	1	2	1
20	FF	495431.76	6925619.08	55.5	0	Not applicable	3	3	3	3
21	GF	495426.71	6925609.45	55.8	0	Not applicable	2	1	2	1
21	FF	495426.71	6925609.45	55.8	0	Not applicable	3	3	3	3
22	GF	495418.91	6925596.6	56.5	0	Not applicable	2	1	2	1
22	FF	495418.91	6925596.6	56.5	0	Not applicable	3	3	3	3
23	GF	495414.55	6925585.13	57.0	0	Not applicable	2	1	2	1
23	FF	495414.55	6925585.13	57.0	0	Not applicable	3	3	3	3
24	GF	495409.97	6925575.03	57.5	0	Not applicable	2	1	2	1
24	FF	495409.97	6925575.03	57.5	0	Not applicable	3	3	3	3
25	GF	495403.31	6925563.79	57.9	0	Not applicable	2	1	2	1
25	FF	495403.31	6925563.79	57.9	0	Not applicable	3	3	3	3



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
26	GF	495397.82	6925553.47	58.0	0	Not applicable	2	1	2	1
26	FF	495397.82	6925553.47	58.0	0	Not applicable	3	3	3	3
27	GF	495392.52	6925542.65	58.1	0	Not applicable	2	1	2	1
27	FF	495392.52	6925542.65	58.1	0	Not applicable	3	3	3	3
28	GF	495386.77	6925532.06	58.2	0	Not applicable	2	1	2	1
28	FF	495386.77	6925532.06	58.2	0	Not applicable	3	3	3	3
29	GF	495381.25	6925520.79	58.0	0	Not applicable	3	1	3	1
29	FF	495381.25	6925520.79	58.0	0	Not applicable	3	3	3	3
30	GF	495375.03	6925510.89	57.6	0	Not applicable	3	1	3	1
30	FF	495375.03	6925510.89	57.6	0	Not applicable	3	3	3	3
31	GF	495370.43	6925500.99	57.2	0	Not applicable	3	1	3	1
31	FF	495370.43	6925500.99	57.2	0	Not applicable	3	3	3	3
32	GF	495335.44	6925463.93	54.8	0	Not applicable	2	1	2	1
32	FF	495335.44	6925463.93	54.8	0	Not applicable	2	2	2	2
33	GF	495329	6925451.74	54.3	0	Not applicable	2	1	2	1
33	FF	495329	6925451.74	54.3	0	Not applicable	3	2	3	2
34	GF	495323.47	6925440.92	53.8	0	Not applicable	3	1	3	1
34	FF	495323.47	6925440.92	53.8	0	Not applicable	3	2	3	2
35	GF	495316.8	6925429.64	53.2	0	Not applicable	3	1	3	1
35	FF	495316.8	6925429.64	53.2	0	Not applicable	3	2	3	2
36	GF	495311.04	6925418.13	52.6	0	Not applicable	3	1	3	1
36	FF	495311.04	6925418.13	52.6	0	Not applicable	3	3	3	3
37	GF	495305.52	6925406.85	52.1	0	Not applicable	3	2	3	2
37	FF	495305.52	6925406.85	52.1	0	Not applicable	3	3	3	3
38	GF	495300	6925395.34	51.6	0	Not applicable	3	2	3	2
38	FF	495300	6925395.34	51.6	0	Not applicable	3	3	3	3
39	GF	495294.7	6925383.84	51.0	0	Not applicable	3	2	3	2
39	FF	495294.7	6925383.84	51.0	0	Not applicable	3	3	3	3
40	GF	495287.34	6925372.56	50.4	0	Not applicable	3	2	3	2
40	FF	495287.34	6925372.56	50.4	0	Not applicable	3	3	3	3
41	GF	495364.8	6925905.88	47.9	1	Not applicable	0	0	1	0
41	FF	495364.8	6925905.88	47.9	1	Not applicable	0	0	1	0
42	GF	495376.1	6925898.96	48.3	1	Not applicable	0	0	1	0
42	FF	495376.1	6925898.96	48.3	1	Not applicable	0	0	1	0
43	GF	495386.68	6925893.85	48.6	0	Not applicable	0	0	0	0
43	FF	495386.68	6925893.85	48.6	1	Not applicable	0	0	1	0
44	GF	495396.85	6925888.58	48.9	0	Not applicable	0	0	0	0
44	FF	495396.85	6925888.58	48.9	1	Not applicable	0	0	1	0
45	GF	495407.31	6925883	49.1	0	Not applicable	0	0	0	0
45	FF	495407.31	6925883	49.1	0	Not applicable	0	0	0	0
46	GF	495417.59	6925877.95	49.4	0	Not applicable	0	0	0	0
46	FF	495417.59	6925877.95	49.4	0	Not applicable	1	0	1	0
47	GF	495427.18	6925872.89	49.6	0	Not applicable	0	0	0	0
47	FF	495427.18	6925872.89	49.6	0	Not applicable	1	0	1	0
48	GF	495436.59	6925868.01	49.9	0	Not applicable	1	0	1	0
48	FF	495436.59	6925868.01	49.9	0	Not applicable	1	0	1	0
49	GF	495448.1	6925862.08	50.2	0	Not applicable	1	0	1	0
49	FF	495448.1	6925862.08	50.2	0	Not applicable	1	1	1	1
50	GF	495460.13	6925855.81	50.4	0	Not applicable	1	0	1	0
50	FF	495460.13	6925855.81	50.4	0	Not applicable	1	1	1	1
51	GF	495471.63	6925849.18	50.2	0	Not applicable	1	1	1	1
51	FF	495471.63	6925849.18	50.2	0	Not applicable	2	1	2	1



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
52	GF	495481.22	6925844.3	50.0	0	Not applicable	1	1	1	1
52	FF	495481.22	6925844.3	50.0	0	Not applicable	2	1	2	1
53	GF	495492.03	6925838.72	49.8	0	Not applicable	2	1	2	1
53	FF	495492.03	6925838.72	49.8	0	Not applicable	2	1	2	1
54	GF	495354.83	6925881.78	48.7	1	Not applicable	2	0	2	0
54	FF	495354.83	6925881.78	48.7	1	Not applicable	0	0	1	0
55	GF	495348.21	6925869.4	49.0	1	Not applicable	0	0	1	0
55	FF	495348.21	6925869.4	49.0	1	Not applicable	0	0	1	0
56	GF	495341.93	6925857.73	49.2	1	Not applicable	0	0	1	0
56	FF	495341.93	6925857.73	49.2	1	Not applicable	0	0	1	0
57	GF	495336.01	6925846.57	49.6	1	Not applicable	0	0	1	0
57	FF	495336.01	6925846.57	49.6	1	Not applicable	0	0	1	0
58	GF	495330.25	6925835.59	49.8	1	Not applicable	0	0	1	0
58	FF	495330.25	6925835.59	49.8	1	Not applicable	0	0	1	0
59	GF	495324.85	6925824.78	50.1	1	Not applicable	0	0	1	0
59	FF	495324.85	6925824.78	50.1	1	Not applicable	0	0	1	0
60	GF	495319.27	6925812.92	50.4	1	Not applicable	0	0	1	0
60	FF	495319.27	6925812.92	50.4	1	Not applicable	0	0	1	0
61	GF	495312.3	6925800.72	50.6	1	Not applicable	0	0	1	0
61	FF	495312.3	6925800.72	50.6	1	Not applicable	0	0	1	0
62	GF	495306.02	6925788.34	50.7	1	Not applicable	0	0	1	0
62	FF	495306.02	6925788.34	50.7	1	Not applicable	0	0	1	0
63	GF	495299.05	6925777.27	50.8	1	Not applicable	0	0	1	0
63	FF	495299.05	6925777.27	50.8	1	Not applicable	0	0	1	0
64	GF	495293.96	6925766.21	51.1	1	Not applicable	0	0	1	0
64	FF	495293.96	6925766.21	51.1	1	Not applicable	0	0	1	0
65	GF	495287.28	6925754.27	51.4	1	Not applicable	0	0	1	0
65	FF	495287.28	6925754.27	51.4	1	Not applicable	0	0	1	0
66	GF	495281.31	6925742.68	51.7	1	Not applicable	0	0	1	0
66	FF	495281.31	6925742.68	51.7	1	Not applicable	0	0	1	0
67	GF	495275.51	6925731.99	51.9	1	Not applicable	0	0	1	0
67	FF	495275.51	6925731.99	51.9	1	Not applicable	0	0	1	0
68	GF	495269.4	6925721.01	52.1	1	Not applicable	0	0	1	0
68	FF	495269.4	6925721.01	52.1	1	Not applicable	0	0	1	0
69	GF	495248.66	6925708.8	52.3	1	Not applicable	0	0	1	0
69	FF	495248.66	6925708.8	52.3	1	Not applicable	0	0	1	0
70	GF	495234.93	6925707.89	52.2	1	Not applicable	0	0	1	0
70	FF	495234.93	6925707.89	52.2	1	Not applicable	0	0	1	0
71	GF	495221.82	6925706.97	52.1	1	Not applicable	0	0	1	0
71	FF	495221.82	6925706.97	52.1	1	Not applicable	0	0	1	0
72	GF	495208.09	6925706.67	52.0	1	Not applicable	0	0	1	0
72	FF	495208.09	6925706.67	52.0	1	Not applicable	0	0	1	0
73	GF	495194.06	6925706.67	52.0	1	Not applicable	0	0	1	0
73	FF	495194.06	6925706.67	52.0	2	Not applicable	0	0	2	0
74	GF	495375.73	6925866.29	48.7	0	Not applicable	0	0	0	0
74	FF	495375.73	6925866.29	48.7	1	Not applicable	0	0	1	0
75	GF	495388.13	6925860.19	49.0	0	Not applicable	0	0	0	0
75	FF	495388.13	6925860.19	49.0	0	Not applicable	0	0	0	0
76	GF	495399.88	6925854.53	49.3	0	Not applicable	0	0	0	0
76	FF	495399.88	6925854.53	49.3	0	Not applicable	0	0	0	0
77	GF	495411.2	6925848.88	49.6	0	Not applicable	0	0	0	0
77	FF	495411.2	6925848.88	49.6	0	Not applicable	1	0	1	0



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
78	GF	495421.42	6925843.65	49.9	0	Not applicable	1	0	1	0
78	FF	495421.42	6925843.65	49.9	0	Not applicable	1	0	1	0
79	GF	495432.52	6925837.34	50.1	0	Not applicable	1	0	1	0
79	FF	495432.52	6925837.34	50.1	0	Not applicable	1	0	1	0
80	GF	495443.84	6925831.03	50.4	0	Not applicable	1	0	1	0
80	FF	495443.84	6925831.03	50.4	0	Not applicable	1	1	1	1
81	GF	495456.24	6925824.94	50.2	0	Not applicable	1	0	1	0
81	FF	495456.24	6925824.94	50.2	0	Not applicable	2	1	2	1
82	GF	495467.34	6925818.85	50.0	0	Not applicable	1	0	1	0
82	FF	495467.34	6925818.85	50.0	0	Not applicable	2	1	2	1
83	GF	495478	6925814.28	49.8	0	Not applicable	1	0	1	0
83	FF	495478	6925814.28	49.8	0	Not applicable	2	1	2	1
84	GF	495489.32	6925807.31	49.6	0	Not applicable	2	1	2	1
84	FF	495489.32	6925807.31	49.6	0	Not applicable	2	1	2	1
85	GF	495369.41	6925853.23	49.6	0	Not applicable	0	0	0	0
85	FF	495369.41	6925853.23	49.6	1	Not applicable	0	0	1	0
86	GF	495380.95	6925846.48	49.9	0	Not applicable	0	0	0	0
86	FF	495380.95	6925846.48	49.9	1	Not applicable	0	0	1	0
87	GF	495392.48	6925840.61	50.2	0	Not applicable	0	0	0	0
87	FF	495392.48	6925840.61	50.2	0	Not applicable	0	0	0	0
88	GF	495403.15	6925835.38	50.5	0	Not applicable	0	0	0	0
88	FF	495403.15	6925835.38	50.5	0	Not applicable	1	0	1	0
89	GF	495414.03	6925829.07	50.7	0	Not applicable	0	0	0	0
89	FF	495414.03	6925829.07	50.7	0	Not applicable	1	0	1	0
90	GF	495425.78	6925824.07	51.0	0	Not applicable	0	0	0	0
90	FF	495425.78	6925824.07	51.0	0	Not applicable	1	1	1	1
91	GF	495436.44	6925817.1	51.3	0	Not applicable	0	0	0	0
91	FF	495436.44	6925817.1	51.3	0	Not applicable	1	1	1	1
92	GF	495448.41	6925811.45	51.3	0	Not applicable	0	0	0	0
92	FF	495448.41	6925811.45	51.3	0	Not applicable	2	1	2	1
93	GF	495459.51	6925805.79	51.3	0	Not applicable	0	0	0	0
93	FF	495459.51	6925805.79	51.3	0	Not applicable	2	1	2	1
94	GF	495470.82	6925800.35	51.2	0	Not applicable	2	1	2	1
94	FF	495470.82	6925800.35	51.2	0	Not applicable	2	1	2	1
95	GF	495482.14	6925794.04	51.1	0	Not applicable	2	1	2	1
95	FF	495482.14	6925794.04	51.1	0	Not applicable	2	2	2	2
96	GF	495356.36	6925827.12	49.7	0	Not applicable	0	0	0	0
96	FF	495356.36	6925827.12	49.7	1	Not applicable	0	0	1	0
97	GF	495367.67	6925820.15	49.9	0	Not applicable	0	0	0	0
97	FF	495367.67	6925820.15	49.9	1	Not applicable	0	0	1	0
98	GF	495378.12	6925815.36	50.2	0	Not applicable	0	0	0	0
98	FF	495378.12	6925815.36	50.2	0	Not applicable	0	0	0	0
99	GF	495387.91	6925810.36	50.4	0	Not applicable	0	0	0	0
99	FF	495387.91	6925810.36	50.4	0	Not applicable	0	0	0	0
100	GF	495397.27	6925805.35	50.7	0	Not applicable	0	0	0	0
100	FF	495397.27	6925805.35	50.7	0	Not applicable	1	0	1	0
101	GF	495407.28	6925800.13	50.9	0	Not applicable	0	0	0	0
101	FF	495407.28	6925800.13	50.9	0	Not applicable	1	0	1	0
102	GF	495418.16	6925794.26	51.2	0	Not applicable	0	0	0	0
102	FF	495418.16	6925794.26	51.2	0	Not applicable	1	0	1	0
103	GF	495428.17	6925789.03	51.3	0	Not applicable	0	0	0	0
103	FF	495428.17	6925789.03	51.3	0	Not applicable	1	1	1	1



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
104	GF	495437.53	6925784.03	51.3	0	Not applicable	0	0	0	0
104	FF	495437.53	6925784.03	51.3	0	Not applicable	2	1	2	1
105	GF	495447.54	6925779.68	51.2	0	Not applicable	0	0	0	0
105	FF	495447.54	6925779.68	51.2	0	Not applicable	2	1	2	1
106	GF	495458.2	6925773.8	51.2	0	Not applicable	0	0	0	0
106	FF	495458.2	6925773.8	51.2	0	Not applicable	2	1	2	1
107	GF	495468.86	6925767.92	51.1	0	Not applicable	2	1	2	1
107	FF	495468.86	6925767.92	51.1	0	Not applicable	2	2	2	2
108	GF	495349.61	6925813.19	50.7	0	Not applicable	0	0	0	0
108	FF	495349.61	6925813.19	50.7	1	Not applicable	0	0	1	0
109	GF	495359.62	6925807.75	51.0	0	Not applicable	0	0	0	0
109	FF	495359.62	6925807.75	51.0	1	Not applicable	0	0	1	0
110	GF	495370.5	6925802.09	51.3	0	Not applicable	0	0	0	0
110	FF	495370.5	6925802.09	51.3	0	Not applicable	0	0	0	0
111	GF	495381.38	6925796.43	51.6	0	Not applicable	0	0	0	0
111	FF	495381.38	6925796.43	51.6	0	Not applicable	0	0	0	0
112	GF	495390.96	6925792.51	51.9	0	Not applicable	0	0	0	0
112	FF	495390.96	6925792.51	51.9	0	Not applicable	1	0	1	0
113	GF	495400.1	6925786.86	52.1	0	Not applicable	1	0	1	0
113	FF	495400.1	6925786.86	52.1	0	Not applicable	1	0	1	0
114	GF	495410.76	6925780.76	52.4	0	Not applicable	1	0	1	0
114	FF	495410.76	6925780.76	52.4	0	Not applicable	1	0	1	0
115	GF	495421.21	6925775.32	52.6	0	Not applicable	1	0	1	0
115	FF	495421.21	6925775.32	52.6	0	Not applicable	1	1	1	1
116	GF	495429.69	6925770.97	52.5	0	Not applicable	1	0	1	0
116	FF	495429.69	6925770.97	52.5	0	Not applicable	2	1	2	1
117	GF	495440.36	6925765.97	52.4	0	Not applicable	1	1	1	1
117	FF	495440.36	6925765.97	52.4	0	Not applicable	2	1	2	1
118	GF	495451.02	6925760.09	52.4	0	Not applicable	1	1	1	1
118	FF	495451.02	6925760.09	52.4	0	Not applicable	2	1	2	1
119	GF	495461.9	6925754.21	52.3	0	Not applicable	2	1	2	1
119	FF	495461.9	6925754.21	52.3	0	Not applicable	2	2	2	2
120	GF	495334.81	6925787.07	50.7	0	Not applicable	0	0	0	0
120	FF	495334.81	6925787.07	50.7	1	Not applicable	0	0	1	0
121	GF	495346.78	6925781.42	51.0	0	Not applicable	0	0	0	0
121	FF	495346.78	6925781.42	51.0	1	Not applicable	0	0	1	0
122	GF	495358.1	6925774.89	51.4	0	Not applicable	0	0	0	0
122	FF	495358.1	6925774.89	51.4	0	Not applicable	0	0	0	0
123	GF	495369.2	6925769.01	51.7	0	Not applicable	0	0	0	0
123	FF	495369.2	6925769.01	51.7	0	Not applicable	0	0	0	0
124	GF	495378.99	6925763.57	52.0	0	Not applicable	0	0	0	0
124	FF	495378.99	6925763.57	52.0	0	Not applicable	1	0	1	0
125	GF	495390.52	6925757.91	52.3	0	Not applicable	1	0	1	0
125	FF	495390.52	6925757.91	52.3	0	Not applicable	1	0	1	0
126	GF	495402.65	6925752.07	52.5	0	Not applicable	1	0	1	0
126	FF	495402.65	6925752.07	52.5	0	Not applicable	1	0	1	0
127	GF	495413.8	6925746.22	52.5	0	Not applicable	1	0	1	0
127	FF	495413.8	6925746.22	52.5	0	Not applicable	1	1	1	1
128	GF	495425.86	6925740.74	52.4	0	Not applicable	1	0	1	0
128	FF	495425.86	6925740.74	52.4	0	Not applicable	2	1	2	1
129	GF	495436.83	6925734.35	52.4	0	Not applicable	1	0	1	0
129	FF	495436.83	6925734.35	52.4	0	Not applicable	2	1	2	1



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
130	GF	495448.52	6925728.86	52.3	0	Not applicable	2	1	2	1
130	FF	495448.52	6925728.86	52.3	0	Not applicable	2	2	2	2
131	GF	495328.27	6925774.37	51.2	0	Not applicable	0	0	0	0
131	FF	495328.27	6925774.37	51.2	1	Not applicable	0	0	1	0
132	GF	495339.6	6925767.79	51.7	0	Not applicable	0	0	0	0
132	FF	495339.6	6925767.79	51.7	1	Not applicable	0	0	1	0
133	GF	495351.11	6925761.94	52.1	0	Not applicable	0	0	0	0
133	FF	495351.11	6925761.94	52.1	0	Not applicable	0	0	0	0
134	GF	495361.9	6925756.09	52.5	0	Not applicable	0	0	0	0
134	FF	495361.9	6925756.09	52.5	0	Not applicable	0	0	0	0
135	GF	495372.86	6925750.98	52.9	0	Not applicable	0	0	0	0
135	FF	495372.86	6925750.98	52.9	0	Not applicable	1	0	1	0
136	GF	495383.64	6925744.03	53.4	0	Not applicable	1	0	1	0
136	FF	495383.64	6925744.03	53.4	0	Not applicable	1	0	1	0
137	GF	495395.71	6925738.73	53.7	0	Not applicable	1	0	1	0
137	FF	495395.71	6925738.73	53.7	0	Not applicable	1	1	1	1
138	GF	495407.59	6925732.52	53.7	0	Not applicable	1	0	1	0
138	FF	495407.59	6925732.52	53.7	0	Not applicable	1	1	1	1
139	GF	495418.37	6925726.67	53.6	0	Not applicable	1	0	1	0
139	FF	495418.37	6925726.67	53.6	0	Not applicable	2	1	2	1
140	GF	495429.15	6925720.64	53.5	0	Not applicable	1	1	1	1
140	FF	495429.15	6925720.64	53.5	0	Not applicable	2	1	2	1
141	GF	495441.03	6925714.79	53.5	0	Not applicable	2	1	2	1
141	FF	495441.03	6925714.79	53.5	0	Not applicable	2	2	2	2
142	GF	495315.47	6925746.96	51.3	0	Not applicable	0	0	0	0
142	FF	495315.47	6925746.96	51.3	1	Not applicable	0	0	1	0
143	GF	495326.8	6925740.92	51.7	0	Not applicable	0	0	0	0
143	FF	495326.8	6925740.92	51.7	0	Not applicable	0	0	0	0
144	GF	495337.95	6925734.89	52.1	0	Not applicable	0	0	0	0
144	FF	495337.95	6925734.89	52.1	0	Not applicable	0	0	0	0
145	GF	495348.01	6925729.41	52.5	0	Not applicable	0	0	0	0
145	FF	495348.01	6925729.41	52.5	0	Not applicable	0	0	0	0
146	GF	495360.43	6925723.56	53.0	0	Not applicable	0	0	0	0
146	FF	495360.43	6925723.56	53.0	0	Not applicable	1	0	1	0
147	GF	495372.13	6925717.35	53.4	0	Not applicable	0	0	0	0
147	FF	495372.13	6925717.35	53.4	0	Not applicable	1	0	1	0
148	GF	495382.36	6925712.41	53.7	0	Not applicable	1	0	1	0
148	FF	495382.36	6925712.41	53.7	0	Not applicable	1	0	1	0
149	GF	495392.42	6925707.11	53.7	0	Not applicable	1	0	1	0
149	FF	495392.42	6925707.11	53.7	0	Not applicable	1	0	1	0
150	GF	495403.93	6925700.72	53.6	0	Not applicable	1	0	1	0
150	FF	495403.93	6925700.72	53.6	0	Not applicable	1	1	1	1
151	GF	495415.26	6925695.6	53.6	0	Not applicable	1	0	1	0
151	FF	495415.26	6925695.6	53.6	0	Not applicable	2	1	2	1
152	GF	495426.78	6925688.47	53.5	0	Not applicable	0	0	0	0
152	FF	495426.78	6925688.47	53.5	0	Not applicable	2	1	2	1
153	GF	495308.35	6925734.35	52.4	0	Not applicable	0	0	0	0
153	FF	495308.35	6925734.35	52.4	1	Not applicable	0	0	1	0
154	GF	495319.86	6925728.13	52.8	0	Not applicable	0	0	0	0
154	FF	495319.86	6925728.13	52.8	0	Not applicable	0	0	0	0
155	GF	495331.19	6925722.1	53.3	0	Not applicable	0	0	0	0
155	FF	495331.19	6925722.1	53.3	0	Not applicable	0	0	0	0



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
156	GF	495341.43	6925716.43	53.7	0	Not applicable	0	0	0	0
156	FF	495341.43	6925716.43	53.7	0	Not applicable	0	0	0	0
157	GF	495353.85	6925710.4	54.2	0	Not applicable	0	0	0	0
157	FF	495353.85	6925710.4	54.2	0	Not applicable	1	0	1	0
158	GF	495365.18	6925704.19	54.6	0	Not applicable	0	0	0	0
158	FF	495365.18	6925704.19	54.6	0	Not applicable	1	0	1	0
159	GF	495375.79	6925699.25	54.9	0	Not applicable	1	0	1	0
159	FF	495375.79	6925699.25	54.9	0	Not applicable	1	0	1	0
160	GF	495385.65	6925693.77	54.9	0	Not applicable	1	0	1	0
160	FF	495385.65	6925693.77	54.9	0	Not applicable	1	0	1	0
161	GF	495396.8	6925687.92	54.8	0	Not applicable	1	0	1	0
161	FF	495396.8	6925687.92	54.8	0	Not applicable	1	1	1	1
162	GF	495407.95	6925681.89	54.8	0	Not applicable	1	0	1	0
162	FF	495407.95	6925681.89	54.8	0	Not applicable	2	1	2	1
163	GF	495419.83	6925675.68	54.7	0	Not applicable	2	0	2	0
163	FF	495419.83	6925675.68	54.7	0	Not applicable	2	1	2	1
164	GF	495293.18	6925708.39	52.3	0	Not applicable	0	0	0	0
164	FF	495293.18	6925708.39	52.3	1	Not applicable	0	0	1	0
165	GF	495305.79	6925702	52.8	0	Not applicable	0	0	0	0
165	FF	495305.79	6925702	52.8	0	Not applicable	0	0	0	0
166	GF	495316.94	6925696.33	53.3	0	Not applicable	0	0	0	0
166	FF	495316.94	6925696.33	53.3	0	Not applicable	0	0	0	0
167	GF	495327.54	6925690.66	53.7	0	Not applicable	0	0	0	0
167	FF	495327.54	6925690.66	53.7	0	Not applicable	0	0	0	0
168	GF	495338.5	6925685	54.1	0	Not applicable	0	0	0	0
168	FF	495338.5	6925685	54.1	0	Not applicable	0	0	0	0
169	GF	495349.65	6925678.97	54.5	0	Not applicable	0	0	0	0
169	FF	495349.65	6925678.97	54.5	0	Not applicable	1	0	1	0
170	GF	495360.8	6925672.57	54.9	0	Not applicable	0	0	0	0
170	FF	495360.8	6925672.57	54.9	0	Not applicable	1	0	1	0
171	GF	495372.5	6925667.45	54.9	0	Not applicable	0	0	0	0
171	FF	495372.5	6925667.45	54.9	0	Not applicable	1	0	1	0
172	GF	495384.19	6925661.24	54.8	0	Not applicable	1	0	1	0
172	FF	495384.19	6925661.24	54.8	0	Not applicable	1	0	1	0
173	GF	495395.34	6925655.76	54.8	0	Not applicable	1	0	1	0
173	FF	495395.34	6925655.76	54.8	0	Not applicable	1	1	1	1
174	GF	495406.49	6925649	54.7	0	Not applicable	1	0	1	0
174	FF	495406.49	6925649	54.7	0	Not applicable	2	1	2	1
175	GF	495286.78	6925695.23	53.0	0	Not applicable	0	0	0	0
175	FF	495286.78	6925695.23	53.0	0	Not applicable	0	0	0	0
176	GF	495298.84	6925689.02	53.6	0	Not applicable	0	0	0	0
176	FF	495298.84	6925689.02	53.6	0	Not applicable	0	0	0	0
177	GF	495308.89	6925683.35	54.2	0	Not applicable	0	0	0	0
177	FF	495308.89	6925683.35	54.2	0	Not applicable	0	0	0	0
178	GF	495320.41	6925677.51	54.7	0	Not applicable	0	0	0	0
178	FF	495320.41	6925677.51	54.7	0	Not applicable	0	0	0	0
179	GF	495331.01	6925672.02	55.3	0	Not applicable	0	0	0	0
179	FF	495331.01	6925672.02	55.3	0	Not applicable	0	0	0	0
180	GF	495342.71	6925665.81	55.8	0	Not applicable	0	0	0	0
180	FF	495342.71	6925665.81	55.8	0	Not applicable	1	0	1	0
181	GF	495354.58	6925659.78	56.2	0	Not applicable	0	0	0	0
181	FF	495354.58	6925659.78	56.2	0	Not applicable	1	0	1	0



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
182	GF	495365.73	6925653.56	56.3	0	Not applicable	1	0	1	0
182	FF	495365.73	6925653.56	56.3	0	Not applicable	1	0	1	0
183	GF	495375.6	6925648.26	56.3	0	Not applicable	1	0	1	0
183	FF	495375.6	6925648.26	56.3	0	Not applicable	1	1	1	1
184	GF	495388.21	6925641.87	56.2	0	Not applicable	1	0	1	0
184	FF	495388.21	6925641.87	56.2	0	Not applicable	1	1	1	1
185	GF	495399.73	6925636.2	56.1	0	Not applicable	1	0	1	0
185	FF	495399.73	6925636.2	56.1	0	Not applicable	2	1	2	1
186	GF	495273.44	6925668.55	53.0	0	Not applicable	0	0	0	0
186	FF	495273.44	6925668.55	53.0	0	Not applicable	0	0	0	0
187	GF	495284.95	6925662.7	53.6	0	Not applicable	0	0	0	0
187	FF	495284.95	6925662.7	53.6	0	Not applicable	0	0	0	0
188	GF	495296.28	6925656.67	54.2	0	Not applicable	0	0	0	0
188	FF	495296.28	6925656.67	54.2	0	Not applicable	0	0	0	0
189	GF	495309.08	6925651.01	54.8	0	Not applicable	0	0	0	0
189	FF	495309.08	6925651.01	54.8	0	Not applicable	0	0	0	0
190	GF	495320.04	6925644.24	55.4	0	Not applicable	0	0	0	0
190	FF	495320.04	6925644.24	55.4	0	Not applicable	0	0	0	0
191	GF	495331.74	6925639.13	55.9	0	Not applicable	0	0	0	0
191	FF	495331.74	6925639.13	55.9	0	Not applicable	0	0	0	0
192	GF	495266.86	6925655.76	54.5	0	Not applicable	0	0	0	0
192	FF	495266.86	6925655.76	54.5	0	Not applicable	0	0	0	0
193	GF	495278.74	6925649.91	55.0	0	Not applicable	0	0	0	0
193	FF	495278.74	6925649.91	55.0	0	Not applicable	0	0	0	0
194	GF	495289.52	6925643.51	55.6	0	Not applicable	0	0	0	0
194	FF	495289.52	6925643.51	55.6	0	Not applicable	0	0	0	0
195	GF	495301.22	6925637.3	56.2	0	Not applicable	0	0	0	0
195	FF	495301.22	6925637.3	56.2	0	Not applicable	0	0	0	0
196	GF	495313.46	6925630.9	56.8	0	Not applicable	0	0	0	0
196	FF	495313.46	6925630.9	56.8	0	Not applicable	0	0	0	0
197	GF	495324.98	6925625.78	57.4	0	Not applicable	0	0	0	0
197	FF	495324.98	6925625.78	57.4	0	Not applicable	0	0	0	0
198	GF	495351.48	6925629.07	56.3	0	Not applicable	0	0	0	0
198	FF	495351.48	6925629.07	56.3	0	Not applicable	1	0	1	0
199	GF	495362.99	6925623.04	56.3	0	Not applicable	0	0	0	0
199	FF	495362.99	6925623.04	56.3	0	Not applicable	1	0	1	0
200	GF	495374.51	6925616.1	56.2	0	Not applicable	1	0	1	0
200	FF	495374.51	6925616.1	56.2	0	Not applicable	1	0	1	0
201	GF	495385.47	6925610.43	56.1	0	Not applicable	1	0	1	0
201	FF	495385.47	6925610.43	56.1	0	Not applicable	1	1	1	1
202	GF	495342.89	6925615.18	57.8	0	Not applicable	0	0	0	0
202	FF	495342.89	6925615.18	57.8	0	Not applicable	1	0	1	0
203	GF	495355.32	6925608.79	57.8	0	Not applicable	1	0	1	0
203	FF	495355.32	6925608.79	57.8	0	Not applicable	1	0	1	0
204	GF	495367.01	6925602.76	57.7	0	Not applicable	1	0	1	0
204	FF	495367.01	6925602.76	57.7	0	Not applicable	1	0	1	0
205	GF	495378.71	6925596.54	57.6	0	Not applicable	1	0	1	0
205	FF	495378.71	6925596.54	57.6	0	Not applicable	1	1	1	1
206	GF	495203.44	6925678.6	52.0	1	Not applicable	0	0	1	0
206	FF	495203.44	6925678.6	52.0	1	Not applicable	0	0	1	0
207	GF	495215.32	6925678.97	52.1	1	Not applicable	0	0	1	0
207	FF	495215.32	6925678.97	52.1	1	Not applicable	0	0	1	0



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
208	GF	495226.1	6925679.7	52.1	0	Not applicable	0	0	0	0
208	FF	495226.1	6925679.7	52.1	1	Not applicable	0	0	1	0
209	GF	495236.52	6925680.25	52.2	0	Not applicable	0	0	0	0
209	FF	495236.52	6925680.25	52.2	1	Not applicable	0	0	1	0
210	GF	495248.58	6925681.53	52.3	0	Not applicable	0	0	0	0
210	FF	495248.58	6925681.53	52.3	1	Not applicable	0	0	1	0
211	GF	495204.72	6925662.89	53.5	1	Not applicable	0	0	1	0
211	FF	495204.72	6925662.89	53.5	1	Not applicable	0	0	1	0
212	GF	495216.23	6925664.53	53.6	1	Not applicable	0	0	1	0
212	FF	495216.23	6925664.53	53.6	1	Not applicable	0	0	1	0
213	GF	495225.92	6925665.44	53.6	0	Not applicable	0	0	0	0
213	FF	495225.92	6925665.44	53.6	1	Not applicable	0	0	1	0
214	GF	495237.8	6925665.63	53.8	0	Not applicable	0	0	0	0
214	FF	495237.8	6925665.63	53.8	1	Not applicable	0	0	1	0
215	GF	495206.36	6925634.01	53.5	1	Not applicable	0	0	1	0
215	FF	495206.36	6925634.01	53.5	1	Not applicable	0	0	1	0
216	GF	495220.25	6925635.47	53.7	0	Not applicable	0	0	0	0
216	FF	495220.25	6925635.47	53.7	1	Not applicable	0	0	1	0
217	GF	495232.68	6925636.2	53.9	0	Not applicable	0	0	0	0
217	FF	495232.68	6925636.2	53.9	0	Not applicable	0	0	0	0
218	GF	495206.55	6925617.93	55.0	1	Not applicable	0	0	1	0
218	FF	495206.55	6925617.93	55.0	1	Not applicable	0	0	1	0
219	GF	495221.35	6925619.57	55.2	0	Not applicable	0	0	0	0
219	FF	495221.35	6925619.57	55.2	1	Not applicable	0	0	1	0
220	GF	495256.26	6925627.61	54.6	0	Not applicable	0	0	0	0
220	FF	495256.26	6925627.61	54.6	0	Not applicable	0	0	0	0
221	GF	495265.58	6925621.22	55.1	0	Not applicable	0	0	0	0
221	FF	495265.58	6925621.22	55.1	0	Not applicable	0	0	0	0
222	GF	495277.28	6925615.73	55.7	0	Not applicable	0	0	0	0
222	FF	495277.28	6925615.73	55.7	0	Not applicable	0	0	0	0
223	GF	495287.15	6925610.43	56.2	0	Not applicable	0	0	0	0
223	FF	495287.15	6925610.43	56.2	0	Not applicable	0	0	0	0
224	GF	495297.56	6925605.68	56.8	0	Not applicable	0	0	0	0
224	FF	495297.56	6925605.68	56.8	0	Not applicable	0	0	0	0
225	GF	495308.71	6925598.92	57.3	0	Not applicable	0	0	0	0
225	FF	495308.71	6925598.92	57.3	0	Not applicable	0	0	0	0
226	GF	495248.95	6925614.09	55.6	0	Not applicable	0	0	0	0
226	FF	495248.95	6925614.09	55.6	0	Not applicable	0	0	0	0
227	GF	495259.37	6925608.97	56.1	0	Not applicable	0	0	0	0
227	FF	495259.37	6925608.97	56.1	0	Not applicable	0	0	0	0
228	GF	495269.6	6925602.76	56.6	0	Not applicable	0	0	0	0
228	FF	495269.6	6925602.76	56.6	0	Not applicable	0	0	0	0
229	GF	495280.93	6925597.09	57.2	0	Not applicable	0	0	0	0
229	FF	495280.93	6925597.09	57.2	0	Not applicable	0	0	0	0
230	GF	495290.44	6925591.61	57.7	0	Not applicable	0	0	0	0
230	FF	495290.44	6925591.61	57.7	0	Not applicable	1	0	1	0
231	GF	495301.4	6925586.12	58.4	0	Not applicable	0	0	0	0
231	FF	495301.4	6925586.12	58.4	0	Not applicable	1	0	1	0
232	GF	495245.11	6925585.58	56.5	0	Not applicable	0	0	0	0
232	FF	495245.11	6925585.58	56.5	0	Not applicable	1	0	1	0
233	GF	495255.71	6925579	56.8	0	Not applicable	0	0	0	0
233	FF	495255.71	6925579	56.8	0	Not applicable	1	0	1	0



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
234	GF	495267.22	6925572.97	57.1	0	Not applicable	0	0	0	0
234	FF	495267.22	6925572.97	57.1	0	Not applicable	1	0	1	0
235	GF	495277.46	6925566.93	57.4	0	Not applicable	0	0	0	0
235	FF	495277.46	6925566.93	57.4	0	Not applicable	1	0	1	0
236	GF	495289.34	6925561.27	57.9	0	Not applicable	0	0	0	0
236	FF	495289.34	6925561.27	57.9	0	Not applicable	1	1	1	1
237	GF	495231.95	6925551.4	56.4	0	Not applicable	1	0	1	0
237	FF	495231.95	6925551.4	56.4	0	Not applicable	1	1	1	1
238	GF	495242.37	6925545.92	56.4	0	Not applicable	1	0	1	0
238	FF	495242.37	6925545.92	56.4	0	Not applicable	1	1	1	1
239	GF	495252.24	6925540.25	56.4	0	Not applicable	1	0	1	0
239	FF	495252.24	6925540.25	56.4	0	Not applicable	1	1	1	1
240	GF	495262.47	6925535.32	56.4	0	Not applicable	1	1	1	1
240	FF	495262.47	6925535.32	56.4	0	Not applicable	1	1	1	1
241	GF	495272.71	6925530.2	56.5	0	Not applicable	1	1	1	1
241	FF	495272.71	6925530.2	56.5	0	Not applicable	1	1	1	1
242	GF	495223.6	6925525.98	55.8	0	Not applicable	1	1	1	1
242	FF	495223.6	6925525.98	55.8	0	Not applicable	1	1	1	1
243	GF	495217.28	6925515.44	55.2	0	Not applicable	1	1	1	1
243	FF	495217.28	6925515.44	55.2	1	Not applicable	1	1	1	1
244	GF	495212.01	6925504.91	54.6	0	Not applicable	1	1	1	1
244	FF	495212.01	6925504.91	54.6	1	Not applicable	1	1	1	1
245	GF	495206.48	6925494.63	54.0	0	Not applicable	1	1	1	1
245	FF	495206.48	6925494.63	54.0	1	Not applicable	1	1	1	1
246	GF	495200.42	6925483.57	53.5	0	Not applicable	1	1	1	1
246	FF	495200.42	6925483.57	53.5	1	Not applicable	1	1	1	1
247	GF	495195.94	6925473.82	52.9	0	Not applicable	1	1	1	1
247	FF	495195.94	6925473.82	52.9	1	Not applicable	1	1	1	1
248	GF	495190.41	6925464.07	52.5	0	Not applicable	1	1	1	1
248	FF	495190.41	6925464.07	52.5	1	Not applicable	1	1	1	1
249	GF	495184.35	6925454.32	52.0	0	Not applicable	1	1	1	1
249	FF	495184.35	6925454.32	52.0	1	Not applicable	1	1	1	1
250	GF	495179.6	6925444.05	51.5	0	Not applicable	1	1	1	1
250	FF	495179.6	6925444.05	51.5	1	Not applicable	1	1	1	1
251	GF	495174.07	6925432.98	51.0	0	Not applicable	1	1	1	1
251	FF	495174.07	6925432.98	51.0	1	Not applicable	1	1	1	1
252	GF	495239.41	6925518.34	56.1	0	Not applicable	1	1	1	1
252	FF	495239.41	6925518.34	56.1	0	Not applicable	1	1	1	1
253	GF	495233.61	6925507.8	55.5	0	Not applicable	1	1	1	1
253	FF	495233.61	6925507.8	55.5	0	Not applicable	1	1	1	1
254	GF	495228.87	6925495.68	54.9	0	Not applicable	1	1	1	1
254	FF	495228.87	6925495.68	54.9	0	Not applicable	1	1	1	1
255	GF	495222.55	6925486.2	54.3	0	Not applicable	1	1	1	1
255	FF	495222.55	6925486.2	54.3	0	Not applicable	1	1	1	1
256	GF	495217.01	6925476.19	53.7	0	Not applicable	1	1	1	1
256	FF	495217.01	6925476.19	53.7	0	Not applicable	1	1	1	1
257	GF	495211.22	6925465.12	53.1	0	Not applicable	1	1	1	1
257	FF	495211.22	6925465.12	53.1	0	Not applicable	1	1	1	1
258	GF	495206.48	6925455.11	52.5	0	Not applicable	1	1	1	1
258	FF	495206.48	6925455.11	52.5	0	Not applicable	1	1	1	1
259	GF	495202	6925445.63	51.9	0	Not applicable	1	1	1	1
259	FF	495202	6925445.63	51.9	0	Not applicable	1	1	1	1



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
260	GF	495196.2	6925434.56	51.3	0	Not applicable	1	1	1	1
260	FF	495196.2	6925434.56	51.3	0	Not applicable	1	1	1	1
261	GF	495190.14	6925424.29	50.6	0	Not applicable	1	1	1	1
261	FF	495190.14	6925424.29	50.6	0	Not applicable	2	1	2	1
262	GF	495266.02	6925501.48	55.9	0	Not applicable	1	1	1	1
262	FF	495266.02	6925501.48	55.9	0	Not applicable	1	1	1	1
263	GF	495260.49	6925490.94	55.4	0	Not applicable	1	1	1	1
263	FF	495260.49	6925490.94	55.4	0	Not applicable	1	1	1	1
264	GF	495255.22	6925481.72	54.8	0	Not applicable	1	1	1	1
264	FF	495255.22	6925481.72	54.8	0	Not applicable	2	1	2	1
265	GF	495249.95	6925471.18	54.3	0	Not applicable	1	1	1	1
265	FF	495249.95	6925471.18	54.3	0	Not applicable	2	1	2	1
266	GF	495244.68	6925459.85	53.7	0	Not applicable	1	1	1	1
266	FF	495244.68	6925459.85	53.7	0	Not applicable	2	1	2	1
267	GF	495238.88	6925449.32	53.0	0	Not applicable	1	1	1	1
267	FF	495238.88	6925449.32	53.0	0	Not applicable	2	1	2	1
268	GF	495233.88	6925439.83	52.4	0	Not applicable	2	1	2	1
268	FF	495233.88	6925439.83	52.4	0	Not applicable	2	1	2	1
269	GF	495228.87	6925430.35	51.9	0	Not applicable	2	1	2	1
269	FF	495228.87	6925430.35	51.9	0	Not applicable	2	1	2	1
270	GF	495223.07	6925420.07	51.2	0	Not applicable	2	1	2	1
270	FF	495223.07	6925420.07	51.2	0	Not applicable	2	2	2	2
271	GF	495218.86	6925410.06	50.6	0	Not applicable	2	2	2	2
271	FF	495218.86	6925410.06	50.6	0	Not applicable	2	2	2	2
272	GF	495281.56	6925492.79	55.7	0	Not applicable	1	1	1	1
272	FF	495281.56	6925492.79	55.7	0	Not applicable	2	1	2	1
273	GF	495276.29	6925483.57	55.1	0	Not applicable	1	1	1	1
273	FF	495276.29	6925483.57	55.1	0	Not applicable	2	1	2	1
274	GF	495271.29	6925473.03	54.4	0	Not applicable	1	1	1	1
274	FF	495271.29	6925473.03	54.4	0	Not applicable	2	1	2	1
275	GF	495266.28	6925463.54	53.8	0	Not applicable	1	1	1	1
275	FF	495266.28	6925463.54	53.8	0	Not applicable	2	1	2	1
276	GF	495260.49	6925452.74	53.0	0	Not applicable	2	1	2	1
276	FF	495260.49	6925452.74	53.0	0	Not applicable	2	1	2	1
277	GF	495254.69	6925441.41	52.5	0	Not applicable	2	1	2	1
277	FF	495254.69	6925441.41	52.5	0	Not applicable	2	1	2	1
278	GF	495249.16	6925431.4	52.0	0	Not applicable	2	1	2	1
278	FF	495249.16	6925431.4	52.0	0	Not applicable	2	2	2	2
279	GF	495245.47	6925420.6	51.5	0	Not applicable	2	1	2	1
279	FF	495245.47	6925420.6	51.5	0	Not applicable	2	2	2	2
280	GF	495240.2	6925410.85	51.0	0	Not applicable	2	2	2	2
280	FF	495240.2	6925410.85	51.0	0	Not applicable	2	2	2	2
281	GF	495234.14	6925400.58	50.5	0	Not applicable	2	2	2	2
281	FF	495234.14	6925400.58	50.5	0	Not applicable	2	2	2	2
282	GF	495309.49	6925477.77	55.6	0	Not applicable	2	1	2	1
282	FF	495309.49	6925477.77	55.6	0	Not applicable	2	1	2	1
283	GF	495303.17	6925466.44	54.9	0	Not applicable	2	1	2	1
283	FF	495303.17	6925466.44	54.9	0	Not applicable	2	1	2	1
284	GF	495297.37	6925454.85	54.2	0	Not applicable	2	1	2	1
284	FF	495297.37	6925454.85	54.2	0	Not applicable	2	2	2	2
285	GF	495291.57	6925442.73	53.4	0	Not applicable	2	1	2	1
285	FF	495291.57	6925442.73	53.4	0	Not applicable	2	2	2	2



Lot	Floor	Approximate coordinates and ground elevation at centre of lot, m			QDC MP4.4 Road Traffic Noise Category		QDC MP4.4 Railway Traffic Noise Category		Applicable QDC MP4.4 Noise Category (Highest of Road and Railway)	
		Easting	Northing	Ground elevation, m	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier	No Mitigation	With Recommended Noise Barrier
286	GF	495285.51	6925430.87	52.7	0	Not applicable	2	1	2	1
286	FF	495285.51	6925430.87	52.7	0	Not applicable	2	2	2	2
287	GF	495279.98	6925420.07	52.2	0	Not applicable	2	1	2	1
287	FF	495279.98	6925420.07	52.2	0	Not applicable	2	2	2	2
288	GF	495273.66	6925410.06	51.6	0	Not applicable	2	2	2	2
288	FF	495273.66	6925410.06	51.6	0	Not applicable	2	2	2	2
289	GF	495267.34	6925397.94	51.1	0	Not applicable	2	2	2	2
289	FF	495267.34	6925397.94	51.1	0	Not applicable	2	2	2	2
290	GF	495263.12	6925385.56	50.6	0	Not applicable	2	2	2	2
290	FF	495263.12	6925385.56	50.6	0	Not applicable	3	2	3	2
COMM 1	GF	495363.23	6925482.51	56.6	0	Not applicable	3	2	3	2
COMM 2	GF	495339.52	6925564.97	58.5	0	Not applicable	1	1	1	1
COMM 3	GF	495315.81	6925521.77	58.5	0	Not applicable	2	1	2	1
SALES	GF	495229.92	6925591.06	56.4	0	Not applicable	0	0	0	0





Appendix F Reference Noise Barrier Designs

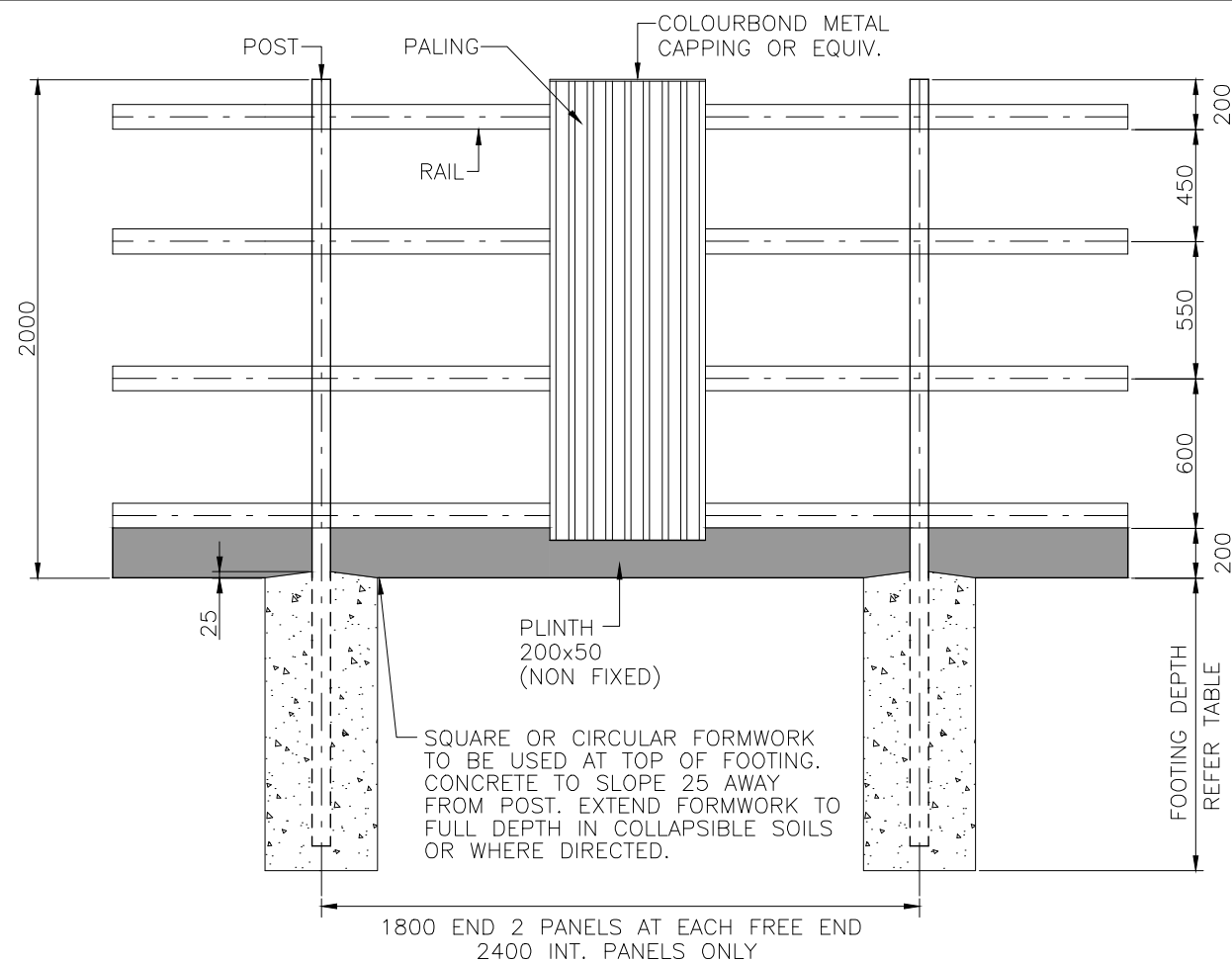
Flagstone Land Lease Community

Transport Noise Intrusion Assessment

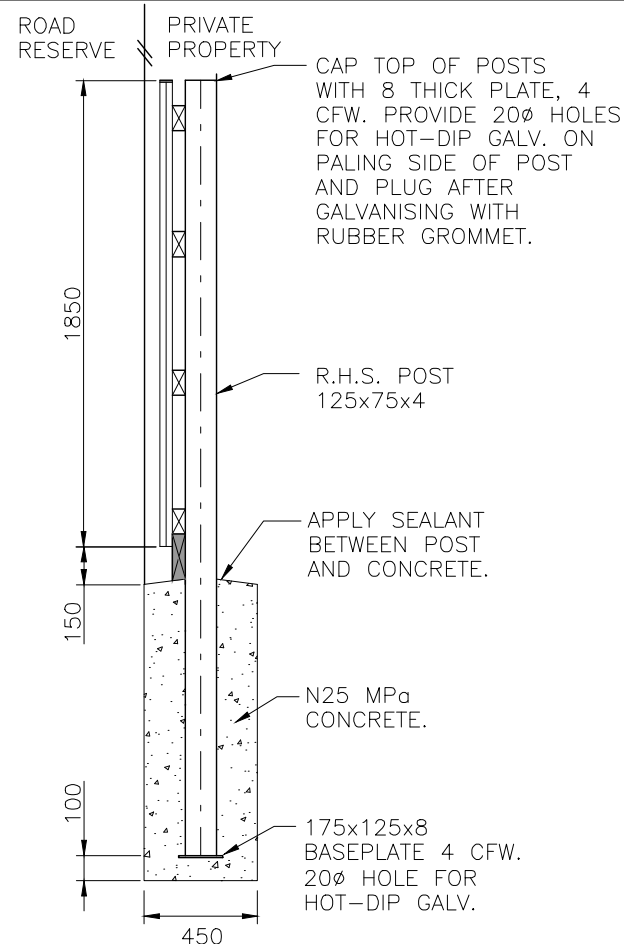
Lodge Management Platform Pty Ltd

SLR Project No.: 620.10512.00205

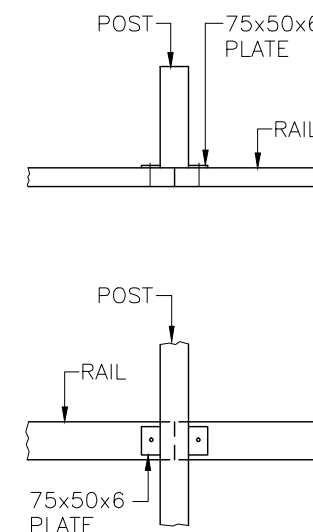
3 February 2025



ELEVATION



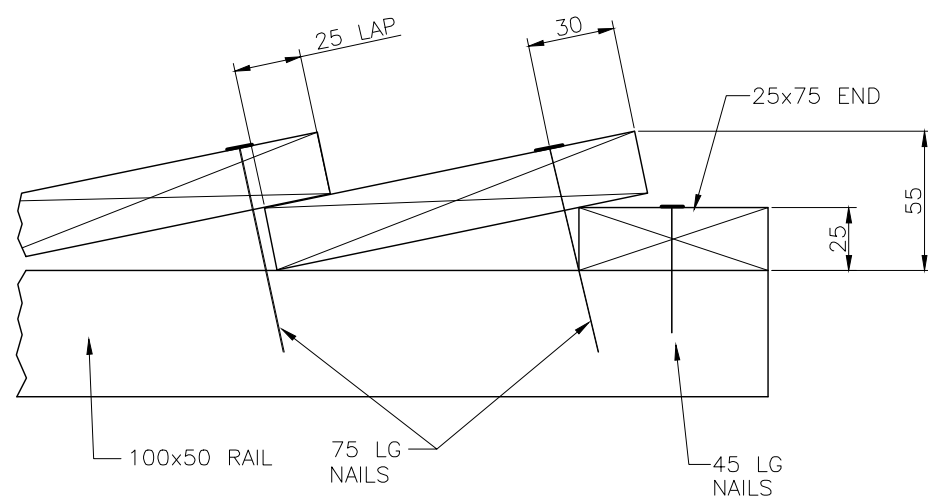
SECTION



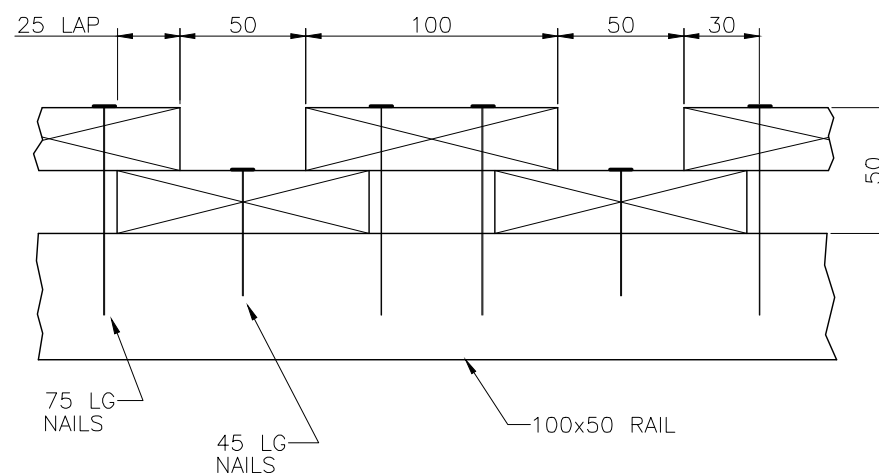
POST & RAIL CONNECTION

NOTES:

- THIS DRAWING DEPICTS A TYPICAL 2000 HIGH ACOUSTIC BARRIER AND DOES NOT NECESSARILY REPRESENT A NOISE ATTENUATION SOLUTION FOR ALL DEVELOPMENTS. NOISE ATTENUATION SOLUTION FOR EACH DEVELOPMENT IS SITE SPECIFIC AND SHALL BE ADDRESSED IN ACCORDANCE WITH THE "NOISE IMPACT ASSESSMENT PLANNING SCHEME POLICY" OF THE BRISBANE CITY PLAN.
- MAXIMUM PERMISSIBLE STRESS DESIGN WIND VELOCITY IS 33m/s (W33) WHICH CORRESPONDS TO A SUBURBAN ENVIRONMENT WITH NO EXPOSURE TO OPEN AREAS AND NOT LOCATED IN CLOSE PROXIMITY TO HILLS, RIDGES OR ESCARPMENTS, AS THE NATURAL SURFACE 2m EITHER SIDE OF THE FENCE IS ASSUMED FLAT FOR DESIGN OF FOOTING. IF THESE CONDITIONS ARE NOT MET AN ALTERNATIVE CERTIFIED ENGINEERING DESIGN MUST BE SUBMITTED FOR APPROVAL.
- FOR NEW SUBDIVISIONS/DEVELOPMENTS, THE ENTIRE FENCE SHALL BE CONTAINED WITHIN THE PRIVATE PROPERTY AND MAINTAINED BY THE PROPERTY OWNER.
- ALL PALINGS, RAILS AND PLINTH SHALL BE C.C.A TREATED PINE TO H5 LEVEL IN ACCORDANCE WITH AS 1604.
- ALL FIXINGS SHALL BE HOT-DIP GALVANISED OR EQUIVALENT.
- CAPPING: COLOURBOND METAL, 30 DEEP WITH OVERFOLDED EDGES. FIX WITH No.10 x 12 LONG GALV. TYPE 17 SCREWS AT 300 CRS AND STAGGERED EACH SIDE. CAPPING TO FIT SNUGLY OVER PALINGS.
- PALINGS: F5 TREATED PINE. REFER PALING DETAILS FOR SIZES. NAILS SHALL BE 2.8Ø HOT-DIP GALVANISED FLAT HEAD CLOUTS (OR SIMILAR GUN-DRIVEN NAILS). STAGGER NAIL PATTERN ALONG LENGTH OF PALING TO AVOID SPLITTING AND DRIVE NAILS SQUARE TO FACE OF BOARD. RING SHANK NAILS TO BE USED.
- RAILS: 100 x 50 F5 TREATED PINE. FIX WITH No.14-10 x 50 GALVANISED HEX HD TYPE 17 SCREW.
- POSTS: 125 x 75 x 4 R.H.S. HOT-DIP GALVANISED AFTER FABRICATION.
- PLINTH: 200 x 50 F5 TREATED PINE (NON FIXED).
- DIMENSIONS IN MILLIMETRES (UNO).



SYSTEM 1 (150x25)

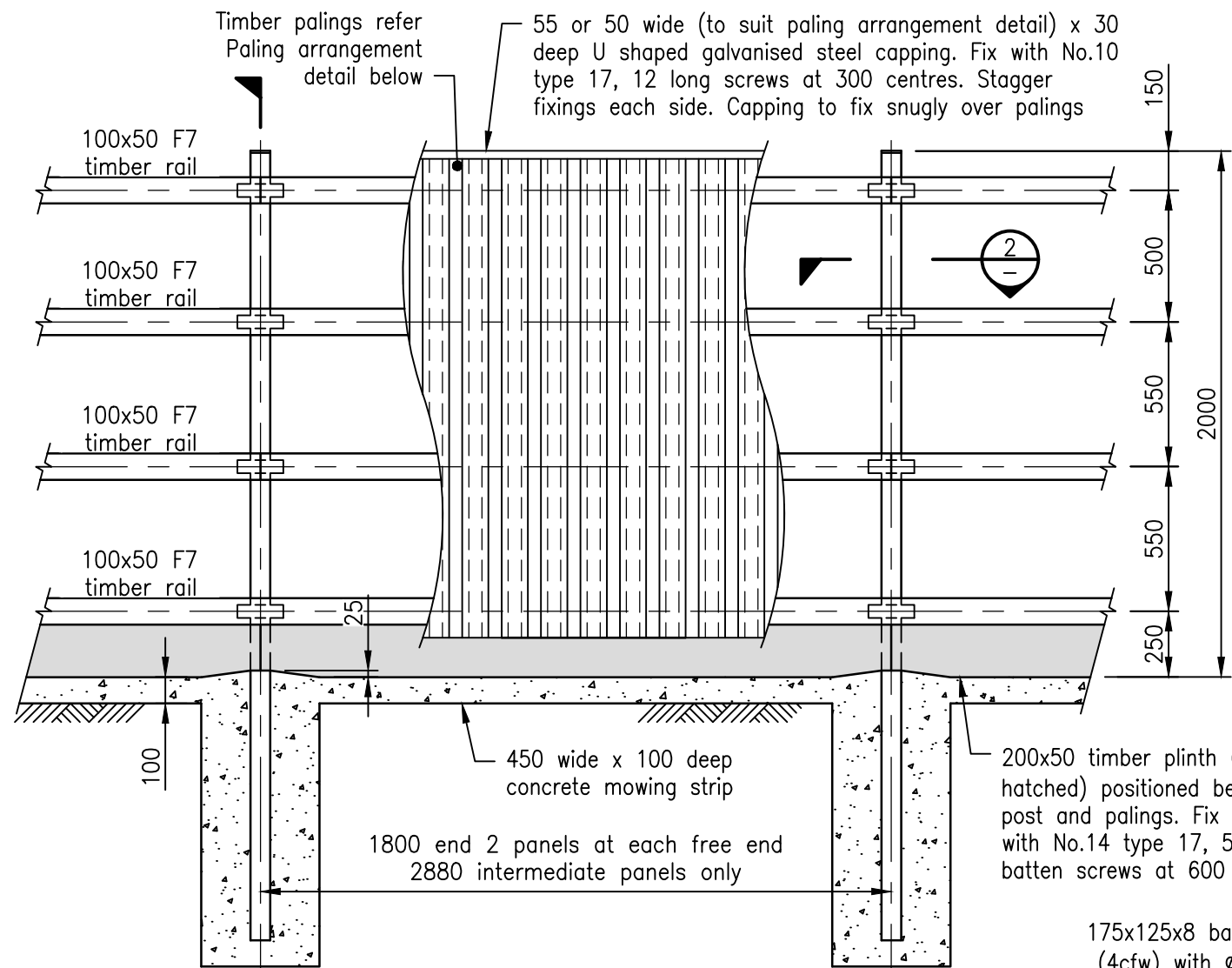


SYSTEM 2 (100x25)

TREATED PINE PALING

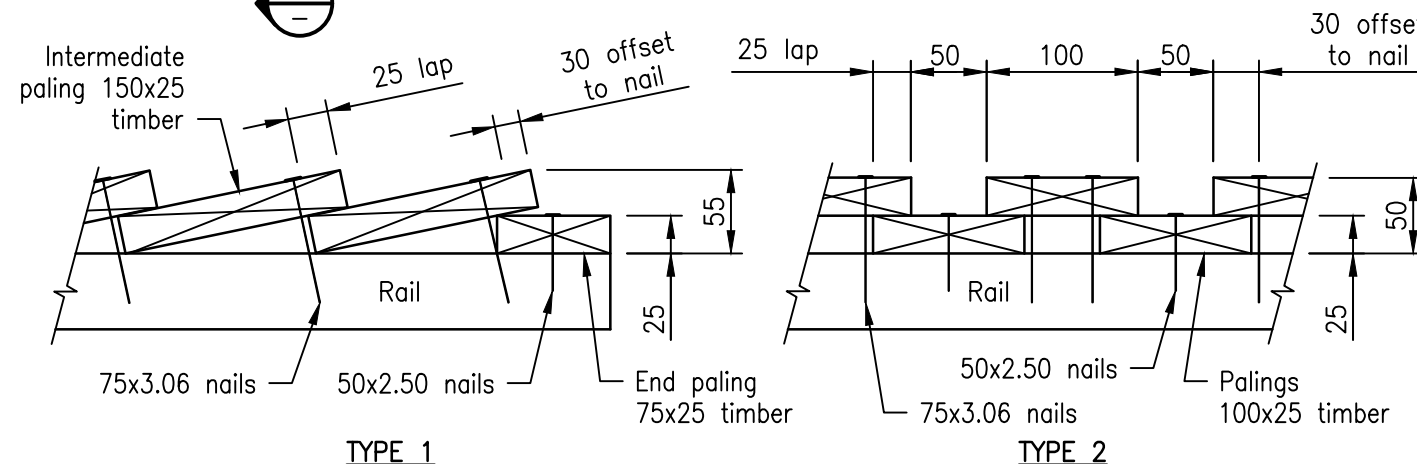
					DRAWING AUTHORISED FOR PUBLICATION B.BALL SIGNATURE ON ORIGINAL DATED 29/06/01 R.P.E.Q. 3852	DESIGN	Std Dwgs Group	DATE	APRIL '01		BRISBANE CITY COUNCIL STANDARD DRAWING				
						DRAWN	CITY DESIGN	DATE	APRIL '01						
						ASSET ENGINEERING MANAGER STRATEGIC ASSET MANAGEMENT	CHECKED	M. STEER	DATE		MAY '01	NOISE BARRIER FENCE 2.0m HIGH POST AND PALING			
B	Drawing Title Amended	FEB'16	JUL '16	JUL '16		DESIGN APPROVED B.HANSEN SIGNATURE ON ORIGINAL DATED 27/06/01	DRAWING FILENAME	BSD-7021 (B) Noise barrier fence 2.0m high - Post and paling.dwg			SCALE			NOT TO SCALE	
A	Drawing Converted from UMS Series April 2014	APR '14	APR '14	APR '14	PRINCIPAL ASSET OFFICER ROADS & DRAINAGE	ASSOCIATED PLANS	SUPERSEDES UMS-245				DWG No.			BSD-7021	
ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE							ORIGINAL SIZE	REVISION			
											A3	B			

BRISBANE CITY COUNCIL STANDARD DRAWING		SCALE NOT TO SCALE	
NOISE BARRIER FENCE 2.0m HIGH POST AND PALING		DWG No. BSD-7021	
		ORIGINAL SIZE A3	REVISION B



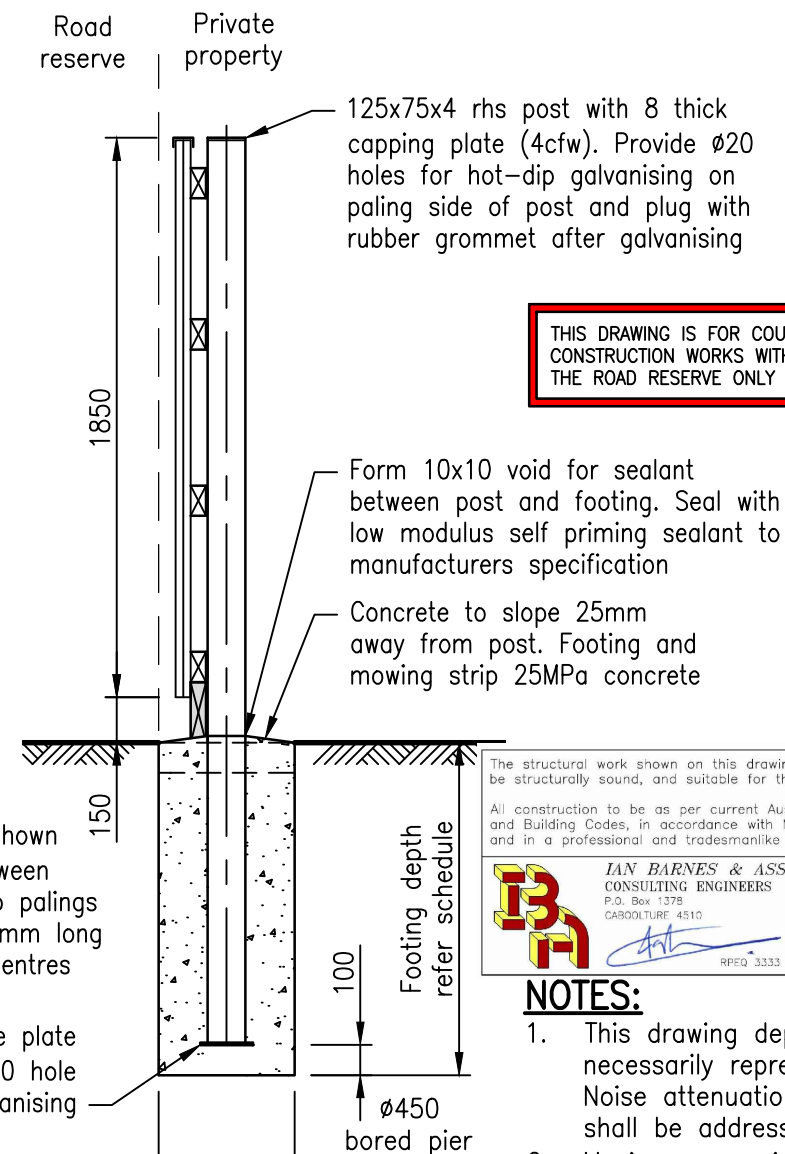
ELEVATION

Scale A



PALING ARRANGEMENT DETAILS

Scale C



THIS DRAWING IS FOR COUNCIL CONSTRUCTION WORKS WITHIN THE ROAD RESERVE ONLY

The structural work shown on this drawing is considered to be structurally sound, and suitable for the design loads.

All construction to be as per current Australian Standards and Building Codes, in accordance with MBRC requirements, and in a professional and tradesmanlike manner

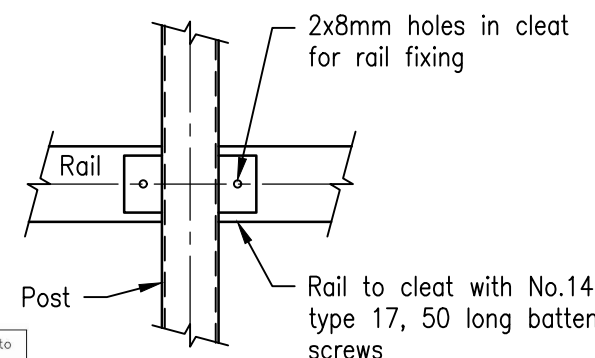
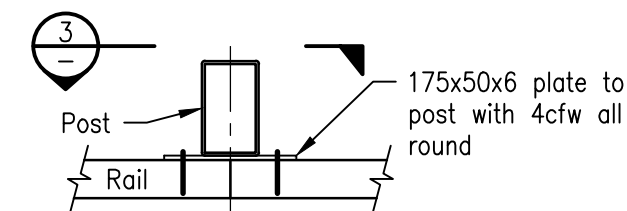
IAN BARNES & ASSOCIATES P/Ltd
CONSULTING ENGINEERS
P.O. Box 1378
CARBODURIE 4510
ABN 70 057802490
Office : 07 5495 8444
Mobile : 0418 873 320
RPEQ 3333 Date : 13/09/2017

NOTES:

1. This drawing depicts a typical 2000 high acoustic barrier and does not necessarily represent a noise attenuation solution for all developments. Noise attenuation solution for each development is site specific and shall be addressed by a qualified acoustic engineer.
2. Maximum permissible stress design wind velocity is 33m/s (w33) which corresponds to a suburban environment with no exposure to open areas and not located in close proximity to hills, ridges or escarpments, as the natural surface 2m either side of the fence is assumed flat for design of footing. If these conditions are not met an alternative certified engineering design must be submitted for approval.
3. For new subdivisions/developments, the entire fence shall be contained within the private property and maintained by the property owner.
4. All palings, rails and plinths shall be ACQ or CCA treated pine to H5 level in accordance with AS 1604. Rails min. F7 Stress Grade.
5. All fixings (apart from nails) shall be 'Zenith-Tufcote' or 'Buildex-Climacoat' or approved equivalent (unless noted otherwise).
6. All nails shall be ring shank type and hot dipped galvanised.
7. Stagger nail pattern along length of paling to avoid splitting and drive nails square to face of board.
8. Posts shall be hot-dip galvanised after fabrication.
9. Noise barrier fence shall be screened with vegetation.
10. Dimensions are in millimetres unless stated otherwise.

FOOTING DEPTH SCHEDULE

SOIL TYPE	FOOTING DEPTH
Soft clay (Cu = 25kPa)	1600
Firm clay (Cu = 50kPa)	1300
Stiff clay (Cu = 100kPa)	1100
Medium dense non-cohesive soil medium	1200



REVISIONS	INIT	DATE
E		
D		
C	Approved by Structural Engineer	TC 7/17
B	Structural Design Note Changed	RH 12/16
A	Add note - For council construction works only, change landscape note	BW 08/16
ORIGINAL ISSUE		BW 07/16

SCALES
A 0mm 100 200 300 400 500 1:25
B 0mm 50 100 150 200 1:10
C 0mm 25 50 75 100 1:5

Drawn	BW	Date	07/16
Coordinator	PP	Date	07/16
AUTHORISED			
SYD JERRAM			
07/07/16			
Manager Integrated Transport Planning & Design			
RPEQ 6872			

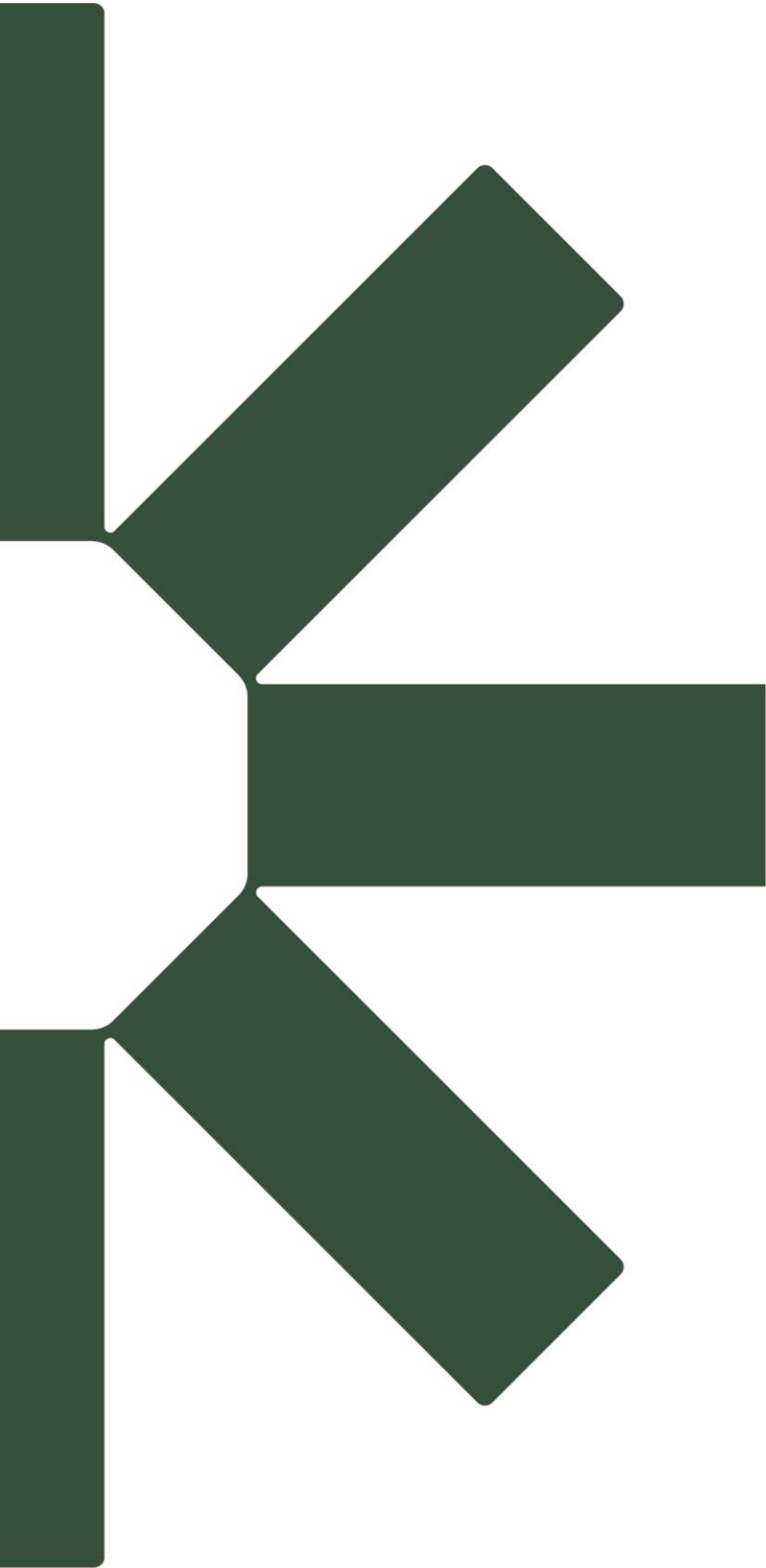
**NOISE BARRIER FENCE
2.0m HIGH POST AND PALING**



DRG No. **SF-1520**

ORIGINAL SIZE **A3**

REVISION **C**



Making Sustainability Happen