



NOISE IMPACT ASSESSMENT

PROPOSED FOOD & DRINK OUTLETS
1322 – 1330 WATERFORD-TAMBORINE ROAD

LOGAN VILLAGE

Prepared for:
Banner S&C (Logan Village)
Pty Ltd

Prepared by:
MWA Environmental

18 February 2025

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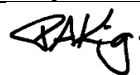
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1.0 INTRODUCTION

1.1 STUDY BRIEF

MWA Environmental has been engaged to prepare a Noise Impact Assessment for the proposed food and drink outlets development at 1322-1330 Waterford-Tamborine Road, Logan Village.

The report has considered the potential noise amenity impact of the proposed development upon nearby sensitive receptors. The assessment is based on previous ambient noise monitoring conducted on site, noise measurements previously conducted on typical sources associated with the proposed uses and detailed noise propagation modelling.

1.2 SITE DESCRIPTION

The subject site is located at 1322-1330 Waterford-Tamborine Road, Logan Village and is formally described as Lots 73 and 74 on RP210268, with a total site area of approximately 26,630m². The site is presently developed with an existing Shell Coles service station with approved trading hours of 24 hour/ 7 days.

The site and surrounding land to the south, north, west and east are zoned Rural Residential under the Logan Planning Scheme. Land to the northwest across Waterford-Tamborine Road (being a four lane State controlled road) is zoned 'Low Density Residential (Village Precinct)'.

The site is bounded by Waterford-Tamborine Road to the west. The nearest residential uses (detached dwellings) are located to the south, to the northeast and east of the site as well as to the northwest of the site beyond Waterford-Tamborine Road.

The site location and surrounding land uses are shown on **Figure 1**, with the Logan Planning Scheme zoning shown on **Figure 2**.

1.3 PROPOSED DEVELOPMENT

This development application seeks a development permit for a Material Change of Use involving two proposed food and drink outlets located on the northern and southern portions of the site.

The two food and drink outlets, one located to the northern end of the site (T1) has a GFA of 265m² with single order point and the other located on the southern end of the site (T2) has a GFA of 287m² with dual order points.

The development provides a total of 50 new carparking spaces throughout the development area. Access to the development is from intersection of Stockleigh Road and Waterford-Tamborine Road with an exit only onto Waterford-Tamborine Road on the southern part of the site.

The proposed hours of operation for the food and drink outlets are 5am to 10pm Monday to Sunday.

The proposed development plans are included as **Attachment 1**.

2.0 EXISTING NOISE ENVIRONMENT

To enable an assessment of the existing noise environment at the subject site, noise measurements have previously been undertaken using a noise datalogger located at the site over a 7-day period from 1 to 8 September 2021. The unattended statistical noise levels recorded by the noise datalogger are listed below in **Table 1**, with the logger location provided on **Figure 3**.

The noise datalogger used was a Norsonic Nor139 with NATA calibration, programmed to provide statistical analysis results based on 15-minute sampling periods. The datalogger was pre-calibrated to 94 dB at 1kHz using a Bruel & Kjaer Sound Level Calibrator, Type 4231, and displayed a deviation of less than ± 0.5 dB from this level at post-calibration. Weather conditions during the monitoring period were generally fine with light to moderate winds. Rainfall was recorded on the 2 September with some minor rainfall on other days. Any data affected by adverse weather conditions was removed from the assessment.

The results of the datalogger noise monitoring are provided in **Table 1**. The recorded noise levels are presented as statistical components, which are described as:

- L₁: Noise level exceeded for 1 percent of the measurement period, referred to as the adjusted maximum sound pressure level.
- L₁₀: Noise level exceeded for 10 percent of the measurement period, referred to as the averaged maximum sound pressure level.
- L₉₀: Noise level exceeded for 90 percent of the measurement period. AS1055-2018¹ notes that the L₉₀ is described as the background sound pressure level.
- L_{eq}: An “average” measurement, and as per AS1055–2018 defined as the value of the sound pressure level of a continuous steady sound state, that within a measurement period, has the same mean square sound pressure as a sound under consideration whose level varies with time.

¹ Australian Standard AS 1055-2018 *Acoustics – Description and measurement of environmental noise*

**Table 1: Ranges of Site Recorded Noise Levels
1 to 8 September 2021**

PARAMETER	PERIOD	RECORDED NOISE LEVELS - dB(A)		
		MINIMUM	MAXIMUM	AVERAGE
L ₁	Daytime (7am-6pm)	57.8	74.1	65.1
	Evening (6pm-10pm)	54.6	69.0	62.1
	Nighttime (10pm-7am)	50.2	72.5	58.5
L ₁₀	Daytime (7am-6pm)	53.9	62.6	58.6
	Evening (6pm-10pm)	51.3	59.7	55.8
	Nighttime (10pm-7am)	39.9	64.6	52.1
L ₉₀	Daytime (7am-6pm)	42.6	54.9	48.3
	Evening (6pm-10pm)	35.4	50.4	44.7
	Nighttime (10pm-7am)	22.6	55.5	37.8
L _{eq}	Daytime (7am-6pm)	50.8	62.2	56.3
	Evening (6pm-10pm)	47.1	58.7	53.2
	Nighttime (10pm-7am)	37.2	62.4	48.9

The datalogger recorded noise levels are included as graphical traces of noise level versus time for the statistical noise level descriptors L₁, L₁₀, L₉₀ and L_{eq} as **Attachment 2**.

Key recorded statistical noise level parameters are presented below.

Monday to Saturday

Rating Background Level – 7am to 6pm	=	46 dB(A)
Rating Background Level – 6pm to 10pm	=	42 dB(A)
Rating Background Level – 10pm to 7am	=	30 dB(A)
Median ABL L _{90,1hr} – Early Morning (5am to 7am)	=	52 dB(A)

Sunday

Rating Background Level – 7am to 6pm	=	46 dB(A)
Rating Background Level – 6pm to 10pm	=	40 dB(A)
Rating Background Level – 10pm to 7am	=	30 dB(A)
Median ABL L _{90,1hr} – Early Morning (5am to 7am)	=	42 dB(A)

3.0 NOISE CRITERIA

3.1 LOGAN CITY PLANNING SCHEME POLICY 3: ENVIRONMENTAL MANAGEMENT

Under the Logan City Council Planning Scheme 2015 (LPS 2015) the subject site and adjacent land surrounding the site are zoned as Rural Residential with land to the northwest zoned Low Density Residential.

The relevant noise criteria for the protection of residential amenity apply as per Table 3.2.1.1 (below) of the *Logan Planning Scheme 2015 Planning Scheme Policy 3 – Environmental Management* at the surrounding Low Density Residential and Rural Residential zones.

Table 3.2.1.1—Noise emission standards for the protection of residential amenity

Noise level at the boundary of premises			
Noise type	Time period	Monday to Saturday	Sunday and public holidays
Non-steady sound*	Day 7:00am – 6:00pm	$L_{Aeq,adj,T} \leq L_{A90} \text{ plus } 5 \text{ dB(A)}$	$L_{Aeq,adj,T} \leq L_{A90} \text{ plus } 5 \text{ dB(A)}$
	Evening 6:00pm to 10:00pm	$L_{Aeq,adj,T} \leq L_{A90} \text{ plus } 5 \text{ dB(A)}$	$L_{Aeq,adj,T} \leq L_{A90} \text{ plus } 5 \text{ dB(A)}$
	Night 10:00 – 7:00am	$L_{Aeq,adj,T} \leq L_{A90} \text{ plus } 0 \text{ dB(A)}$ and $L_{Amax} \leq 60\text{dB(A)}$	$L_{Aeq,adj,T} \leq L_{A90} \text{ plus } 0 \text{ dB(A)}$ and $L_{Amax} \leq 60\text{dB(A)}$
Continuous noise*	Anytime	$L_{A90,T} \text{ plus } 0\text{dB(A)}$	$L_{A90,T} \text{ plus } 0\text{dB(A)}$

Editor's note—* as defined in AS1055.1-1997 Acoustics –Description and measurement of environmental noise

Note—Adjustments for tonality and impulsiveness to be included in accordance with AS1055.1-1997 Acoustics— Description and measurement of environmental noise.

3.2 APPLICABLE NOISE LIMITS

Based upon the measured Rating Background and Median Levels as a conservative approach and applicable Logan Planning Scheme noise criteria, the following noise limits are adopted for this assessment:

Table 2: Relevant Noise Criteria – Monday to Saturday

PARAMETER	PERIOD	Measured RBL (L_{90})	CRITERIA L_{Aeq} 1 hr	CRITERIA (L_{Amax})
Non-steady Noise	Daytime (7am-6pm)	46	51	-
	Evening (6pm-10pm)	42	47	-
	Night-time (10pm-7am)	30	30	60
	Early Morning (5am-7am)	52	52	60
Continuous Noise	Anytime	30	30	-

Table 3: Relevant Noise Criteria – Sunday & Public Holidays

PARAMETER	PERIOD	Measured RBL (L₉₀)	CRITERIA L_{Aeq} 1 hr	CRITERIA (L_{Amax})
Non-steady Noise	Daytime (7am-6pm)	46	51	-
	Evening (6pm-10pm)	40	45	-
	Night-time (10pm-7am)	30	30	60
	Early Morning (5am-7am)	42	42	60
Continuous Noise	Anytime	30	30	-

4.0 NOISE IMPACT ASSESSMENT

4.1 NEAREST NOISE SENSITIVE RECEPTORS

The six (6) nearest sensitive receptors that have been identified and considered for the purposes of this assessment are the following properties:

- R1: Rural Residential zone located to the south of the subject site.
- R2: Rural Residential zone located to the southeast of the subject site.
- R3: Rural Residential zone located to the east of the subject site.
- R4: Rural Residential zone located to the north of the subject site.
- R5: Rural Residential zone located to the north of the subject site.
- R6: Low Density Residential zone located to the northwest of the subject site.

Additional Rural Residential zone land is located to the west of the subject site, across Waterford-Tamborine Road. This land was not included in this noise impact assessment as it is noted that Waterford-Tamborine Road is a state-controlled road and any future noise sensitive development upon this land would be subject to road traffic noise mitigation in the form of noise barriers along the road frontage and acoustic treatment to future dwellings. A similar approach was applied to the residential estate located on the northwestern corner Stockleigh Road and Waterford-Tamborine Road intersection.

The nominated receptors are shown on an aerial image base on **Figure 4**.

4.2 CONTINUOUS NOISE ASSESSMENT

No detailed specification for external mechanical plant associated with the development is available at this stage. The external mechanical plant is likely to include:

- air-conditioning units;
- refrigeration plant; and
- exhaust fans and/or other similar units.

Any air conditioning units and other mechanical plant and equipment associated with the development should be selected, located and acoustically treated and/or shielded to achieve the relevant noise criteria depending upon the operating periods of the equipment.

The most stringent night-time noise criteria of **30 dB(A)** L_{A90} is applicable to the nearest receptors.

Based upon typical requirements for mechanical plant for similar developments, the following indicative plant items have been represented in the SoundPLAN model:

Food and Drink Outlets – Per Outlet

- 2 x package air-conditioning unit - 78 dB(A) SWL
- 1 x package refrigeration unit - 80 dB(A) SWL
- 2 x exhaust fans - 73 dB(A) SWL

The food and drink buildings plant and equipment has been assessed within acoustic screened roof top condenser decks to a nominal height of 1 metre above the tallest mechanical plant noise source.

The predicted noise levels at the nearest noise sensitive boundaries during the night (10pm to 7am) period are summarised in **Table 4** and in **Attachment 3** for assessment of compliance with the adopted noise criteria.

Table 4: Predicted Mechanical Plant Noise Levels at Surrounding Sensitive Receptor Locations (Boundary at 1.8 m AGL)

Receptors	Predicted Noise Level LA90 dB(A)
R1	30
R2	22
R3	24
R4	24
R5	30
R6	20
LA90 Noise Criterion	30 dB(A)

The above demonstrates that mechanical plant noise associated with the development can comply with the adopted noise criteria. Review of mechanical plant noise emissions should be undertaken at the detailed design stage of the project once specific plant items have been selected to ensure compliance with the relevant noise criteria.

4.3 OVERALL NOISE ASSESSMENT

This section addresses potential noise amenity impacts from the intermittent short duration noise sources associated with vehicle movements, servicing, operational noise and carparking at the proposed development using the SoundPLAN computer noise model.

The existing service station vehicle movements and car parking activities has been modelled as part of this assessment.

4.3.1 SERVICING RELATED NOISE IMPACT

The proposed development provides a delivery and refuse collection bay for each food and drink outlet. The layout of the development has been designed to accommodate various light and heavy vehicle swept paths.

The majority of servicing activity for the site would typically occur during the day period. Deliveries by van and SRV do not generate significantly greater noise to normal passenger vehicles and thus may be undertaken during any hour of the trading period.

The assessment has assumed that two servicing events including refuse collection by MRV or larger truck occur every hour at the food and drink loading areas during day period (7am to 6pm) and one servicing event per hour for the evening (6pm to 10pm) and early morning (5am-7am) periods.

No MRV or larger truck services between 10pm and 5am (i.e. limit servicing by MRV or larger truck to the hours between 5am and 10pm Monday to Saturday and 7am to 6pm Sunday and public holidays).

Measured noise levels for various loading areas have been recorded by MWA Environmental and others and can be summarised as follows:

Table 5: Servicing Related Noise Sources

Modelled Noise Source	Modelled Source Type	Sound Power Level – dB(A)	
		L _{eq, 1hr}	L _{max}
MRV Delivery Truck Movement	Line Source	59/m ²	96
Truck unloading and refuse collection	Point Source	83.2 ³	101
Reserving Beeper	Point Source	103 ⁴	103

² SWL based on 1 delivery trip travelling at 5 km.hr with activity rate adjusted as per below.

³ 1 hour Leq for refuse collection or unloading activities.

⁴ Activity rate adjusted for 30 second noise event per truck

The following **noise control measures are recommended** to minimise noise impacts from servicing related activities:

1. No refuse collection is to be conducted before 5am or after 10pm (i.e. limit activity to between 5am and 10pm) Monday to Saturday and between 7am and 6pm on Sunday and Public Holidays.
2. No servicing deliveries by MRV or larger trucks are to be conducted before 5am or after 10pm (i.e. limit activity to between 5am and 10pm) Monday to Saturday and servicing between 7am and 6pm on Sunday and Public Holidays.

The predicted overall development L_{Aeq} noise levels at the nearest sensitive boundaries are summarised in **Section 4.5** for assessment against the adopted noise criteria.

4.3.2 OPERATIONAL, CAR PARKING AND SITE TRAFFIC NOISE

The projected peak hour traffic volumes through the site were based on traffic engineering advice from Urbis. For the existing service station traffic, the peak trips were obtained from the approved acoustic report prepared by Acousticworks⁵. The peak trip generations are presented in **Table 6**.

Table 6: Site Traffic Generation

Land Use	PM Peak Hour (vph)
Food and Drink Outlet (T1)	120
Food and Drink Outlet (T2)	230
Service Station	40

Source noise levels for vehicle movements and car parking activities have been measured by MWA Environmental and others and the sound power levels (SWLs) are summarised in **Table 7**.

⁵ Proposed Service Station, 1330-1346 Waterford Tamborine Road, Logan Village, Ref 2017103 R02L 1332-1346 Waterford Tamborine Road, Logan Village ENV.docx dated 27 August 2020

Table 7: Site Traffic and Carparking Noise Sources

Noise Source	Sound Power Level – dB(A)	
	L _{max}	L _{eq, 1hr}
Slow moving car enter/exit	89	46 dB/metre ⁶
Slow moving car T1 and T2	89	49 dB/metre ⁷
Slow moving car service station	89	47.2 dB/metre ⁸
Drive-thru car	89	52 ⁹
Car Parking (includes car starts / door slams)	89	73 - 82 dB for represented car parking and bowser areas ¹⁰
Order Point	83.1	81.6
Paybooth	82.9	77.9

For the purpose of representing varying activity rates during the day, evening and night periods, the evening and night period peak hour traffic generation volumes were represented as 50 percent and 25 percent of the day period peak, respectively.

The predicted overall development L_{Aeq} and L_{Amax} noise levels at the nearest sensitive receptors are summarised in **Section 4.5** for assessment against the adopted noise criteria.

4.4 RECOMMENDED NOISE CONTROL MEASURES

To achieve noise compliance at the nearest noise sensitive uses, the noise modelling included the following noise control measures:

- Mechanical plant and equipment is to be selected to achieve appropriate source noise levels and acoustically screened if necessary based upon assessment at the detailed design stage
- Limit refuse collection is to between 5am and 10pm Monday to Saturday and to between 7am and 6pm on Sunday and Public Holidays.

⁶ SWL per vehicle movement adjusted based on number of trips as per Table 6 at 20km/hr average.

⁷ SWL per vehicle movement adjusted based on number of trips as per Table 6 at 10km/hr average.

⁸ SWL per vehicle movement adjusted based on number of trips as per Table 6 at 15km/hr average.

⁹ SWL per vehicle movement, based on 70% of trip generation of food and drink outlet using the drive-thru facility during peak hour period which is reduced to 50% as an evening peak and 25% as a night-time peak at average of 5km/hr

¹⁰ SWL per parking area adjusted for parking bay movements per hour based traffic distribution of trips as per Table 6.

- Limit servicing/deliveries by MRV or larger trucks to between 5am and 10pm Monday to Saturday and to between 7am and 6pm on Sunday and Public Holidays.
- A **1.5 metre high acoustic barrier** is to be constructed along part of the northern boundary of the proposed food and drink (T1) with a part return along the eastern edge of the development. The recommended acoustic barrier is located on top of the retaining wall or specified height above adjacent pavement level, whichever is the higher point.
- A **1.5 to 2.0 metre high acoustic barrier** is to be constructed along part of the southern edge of the food and drink (T2) drive-thru lane with a part return along the eastern edge. The recommended acoustic barrier is located on top of the retaining wall or specified height above adjacent pavement level, whichever is the higher point.

The recommended acoustic barriers are presented on **Figure 5**. The acoustic barrier materials are required to be gap-free and achieve a minimum surface density of 12.5kg/m².

The SoundPLAN noise model has utilised the above recommendation to predict the cumulative noise levels as presented in **Section 4.5**.

4.5 PREDICTED OVERALL NOISE LEVELS

The predicted overall cumulative noise levels the proposed development at the nearest noise sensitive receptors are summarised in **Tables 8 and 9** for assessment against the adopted noise criteria for Monday to Saturday and **Table 10** for Sundays and public holidays.

The assessment criteria is based upon the measured Rating Background Levels which is considered a very conservative noise assessment methodology.

Table 8: Predicted Cumulative Noise Levels at Nearest Sensitive Receptors (Boundary at 1.8 m AGL) – Monday to Saturday - dB(A)

Sensitive Receptors	Predicted Noise Level $L_{Aeq,1hr}$ dB(A) Early Morning (5am-7am)	Predicted Noise Level $L_{Aeq,1hr}$ dB(A) Day (7am-6pm)	Predicted Noise Level $L_{Aeq,1hr}$ dB(A) Evening (6pm-10pm)
R1	44	48	46
R2	33	37	35
R3	36	40	37
R4	30	36	33
R5	39	45	42
R6	31	35	32
Noise Criteria Mon-Sat	52 dB(A)	51 dB(A)	47 dB(A)

Table 9: Predicted Cumulative L_{max} Noise Levels at Nearest Sensitive Receptors (Boundary at 1.8 m AGL) – Monday to Saturday - dB(A)

Sensitive Receptors	Predicted Noise Level L_{Amax} dB(A) Night (10pm-7am)
R1	58
R2	45
R3	47
R4	51
R5	53
R6	47
Noise Criterion	60 dB(A) L_{Amax}

The modelling undertaken demonstrates that noise emissions from the proposed development can comply with the relevant noise criteria during day, evening and night-time periods at surrounding sensitive receptors subject to implementation of the noise control measures summarised in **Section 4.4**.

Table 10: Predicted Cumulative Noise Levels at Nearest Sensitive Receptors (Boundary at 1.8 m AGL) – Sunday & Public Holiday - dB(A)

Sensitive Receptors	Predicted Noise Level L _{Aeq,1hr} dB(A) Early Morning (5am -7am) *	Predicted Noise Level L _{Aeq,1hr} dB(A) Day (7am-6pm)	Predicted Noise Level L _{Aeq,1hr} dB(A) Evening (6pm-10pm)	Predicted Noise Level L _{Amax} dB(A) Night (10pm-7am)
R1	41	48	44	53
R2	28	37	32	32
R3	30	40	34	36
R4	29	36	32	51
R5	38	45	42	53
R6	25	35	29	29
Noise Criteria Sunday	42 dB(A)	51 dB(A)	45 dB(A)	60 dB(A) L_{Amax}

* No servicing during this period.

Noise contour maps of the predicted noise levels for Monday to Saturday and Sunday across the model domain are presented in **Attachment 4**.

5.0 CONCLUSION

MWA Environmental has been engaged to prepare a Noise Impact Assessment for the proposed food and drink outlets development at 1322-1330 Waterford-Tamborine Road, Logan Village.

The report has considered the potential noise amenity impact of the proposed development upon nearby sensitive receptors. The assessment is based on previous ambient noise monitoring conducted on site, noise measurements previously conducted on typical sources associated with the proposed uses and detailed noise propagation modelling.

The noise assessment undertaken demonstrates that the proposed development can comply with the relevant Logan Planning Scheme noise criteria with the following recommended noise control measures:

- Trading hours - Food and Drink Use - 5am to 10pm, Monday to Sunday;
- Mechanical plant and equipment is to be selected to achieve appropriate source noise levels and acoustically screened if necessary based upon assessment at the detailed design stage
- Limit refuse collection is to between 5am and 10pm Monday to Saturday and to between 7am and 6pm on Sunday and Public Holidays.
- Limit servicing/deliveries by MRV or larger trucks to between 5am and 10pm Monday to Saturday and to between 7am and 6pm on Sunday and Public Holidays.
- A **1.5 metre high acoustic barrier** is to be constructed along part of the northern boundary of the proposed food and drink (T1) with a part return along the eastern edge of the development.
- A **1.5 to 2.0 metre high acoustic barrier** is to be constructed along part of the southern edge of the food and drink (T2) drive-thru lane with a part return along the eastern edge.

The recommended acoustic barriers are presented on **Figure 5**. The recommended acoustic barrier is located on top of the retaining wall or specified height above adjacent pavement level, whichever is the higher point.

The acoustic barrier materials are required to be gap-free and achieve a minimum surface density of 12.5kg/m².

In summary the assessment undertaken demonstrates that the proposed development can satisfy the relevant noise amenity criteria and is recommended for approval with reasonable and relevant conditions.

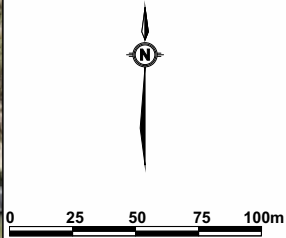
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FIGURES



LEGEND
 SITE LOCATION

DRAWING REFERENCE
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 PROPOSED FOOD
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 1322-1330 WATERFORD-TAMBORINE ROAD
 LOGAN VILLAGE QLD

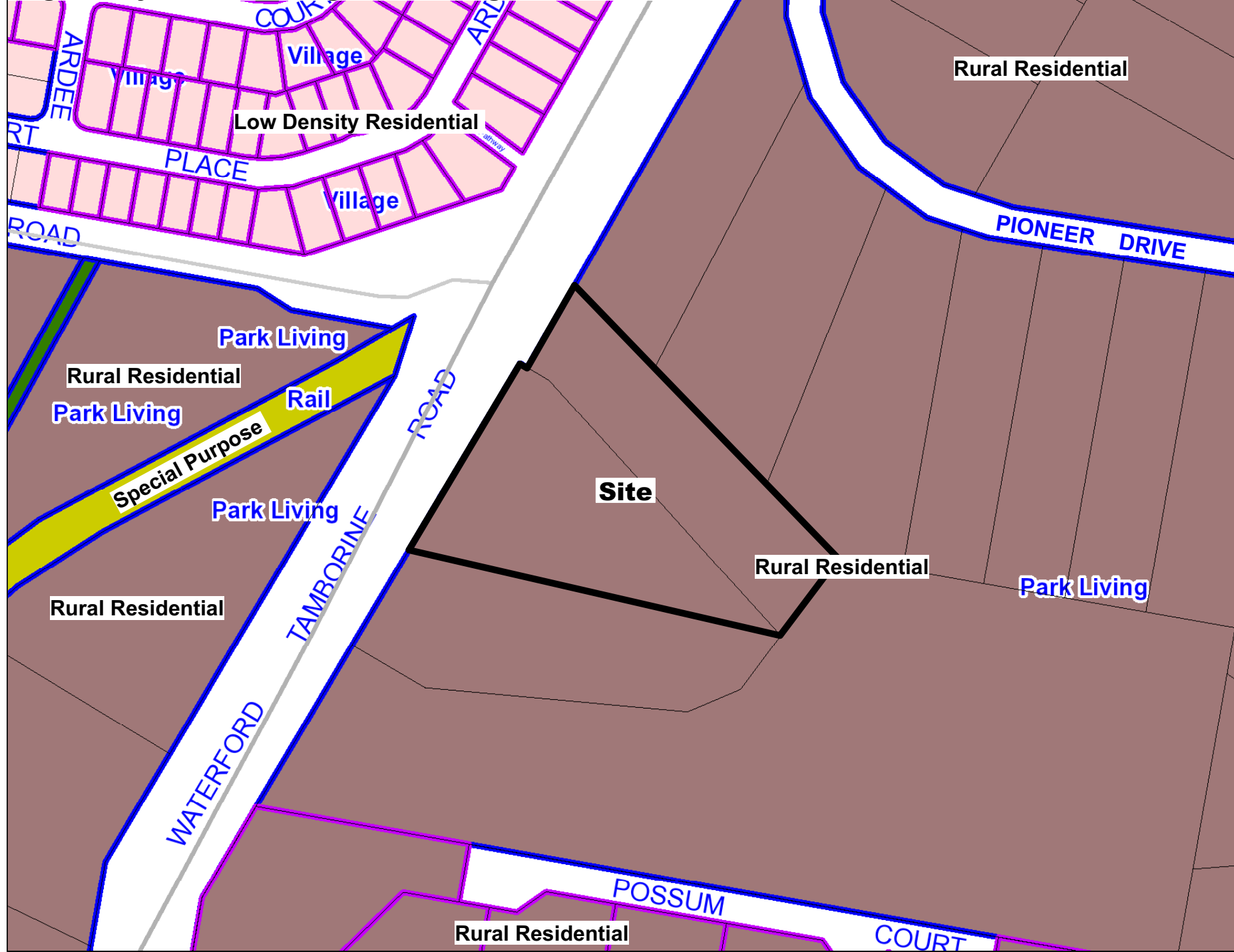
TITLE
**SITE LOCATION
 AND SURROUNDING
 LAND USES**

JOB	LOGAN VILLAGE	FIGURE 1
JOB NO.	21-118	DWG NUMBER
DATE	14/02/25	21-118-1
SCALE	1:3000 (A4)	



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Logan City Council - Logan Planning Scheme 2015



LEGEND

- SITE BOUNDARY
- LOGAN PLANNING SCHEME 2015 ZONES**
- RURAL RESIDENTIAL
- LOW DENSITY RESIDENTIAL
- SPECIAL PURPOSE

DRAWING REFERENCE
 LOGAN CITY COUNCIL PLANNING SCHEME 2015, PD HUB INTERACTIVE MAPPING, PRECINCTS AND ZONES.

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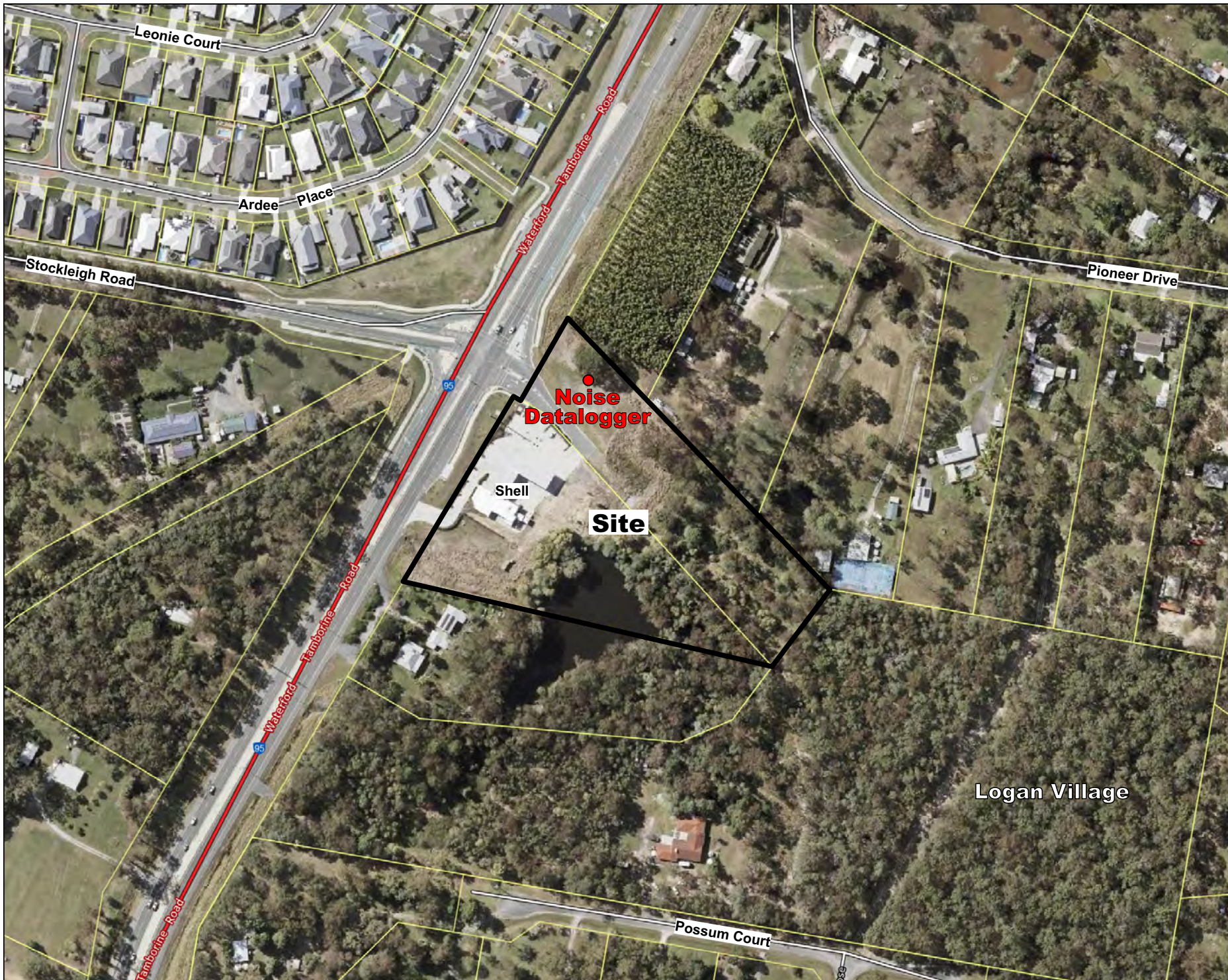
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**NOISE IMPACT ASSESSMENT
 PROPOSED FOOD AND DRINK OUTLETS**
 1322-1330 WATERFORD-TAMBORINE ROAD
 LOGAN VILLAGE QLD

TITLE
ZONING MAP

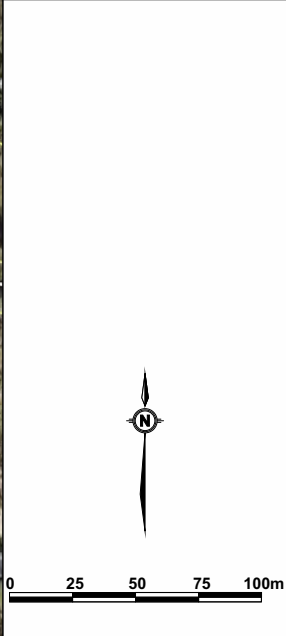
JOB	LOGAN VILLAGE	FIGURE 2
JOB NO.	21-118	DWG NUMBER
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**NOISE IMPACT ASSESSMENT
 PROPOSED FOOD AND DRINK OUTLETS**
 1322-1330 WATERFORD-TAMBORINE ROAD
 LOGAN VILLAGE QLD

TITLE
NOISE MONITORING LOCATION

JOB	LOGAN VILLAGE	FIGURE 3
JOB NO.	21-118	DWG NUMBER
DATE	14/02/25	21-118-3
SCALE	1:3000 (A4)	

mwa
 ENVIRONMENTAL

Max Winders & Associates Pty Ltd t/as MWA Environmental
 Level 15, 241 Adelaide St, Brisbane. GPO BOX 3137, Brisbane Qld 4001
 P 07 3002 5500 F 07 3002 5588 E mail@mwaenviro.com.au
 W www.mwaenviro.com.au
 ABN 94 010 833 084



LEGEND

R6 SITE LOCATION
NEAREST SENSITIVE RECEPTORS (R1-R6)

DRAWING REFERENCE
© THE STATE OF QUEENSLAND
(DEPARTMENT OF RESOURCES)
QLDGLOBE.

N

0 25 50 75 100m

CLIENT
BANNER S+L (LOGAN VILLAGE) PTY LTD ATF
BANNER S+L (LOGAN VILLAGE) SUB TRUST

PROJECT
**NOISE IMPACT ASSESSMENT
PROPOSED FOOD AND DRINK OUTLETS**
1322-1330 WATERFORD-TAMBORINE ROAD
LOGAN VILLAGE QLD

TITLE
SENSITIVE RECEPTOR LOCATIONS

JOB	LOGAN VILLAGE	FIGURE 4
JOB NO.	21-118	DWG NUMBER
DATE	14/02/25	21-118-4
SCALE	1:3000 (A4)	

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W www.mwaenviro.com.au
ABN 94 010 833 084



D.A ISSUE

PROPERTY DESCRIPTION
LOTS 73 & 74 on RP 210268



COUNCIL: LOGAN CITY COUNCIL

DEVELOPMENT ASSESSMENT

- TOTAL SITE AREA - 26,633m²
- LANDSCAPED AREA - 18,024m²
- EXISTING SITE COVER - 3.25%
(INCLUDES ALL ROOFED AREAS)
- PROPOSED SITE COVER - 5.5%
(INCLUDES ALL ROOFED AREAS)

BUILDING AREA - GFA

- EXISTING SERVICE STATION - 347m²
- T1 - FOOD & DRINK OUTLET - 265m²
(INCLUDES INTERNAL REFUSE AREA)
- T2 - FOOD & DRINK OUTLET - 287m²
- TOTAL BUILDING GFA - 899m²

MISCELLANEOUS AREAS

- EXISTING FORECOURT CANOPY - 463m²
- EXIST. SERVICE STN SERVICES - 65m²
- T2 REFUSE/SERVICES - 40m²
- TOTAL MISC. AREAS - 568m²

CAR PARKING

- (EXCLUDES EXISTING SERVICE STATION/FOOD)
- NEW PARKING REQUIRED - 56
 - NEW PARKING PROVIDED - 59
(EXCLUDES T1 & T2 WAITING BAYS)
(EXCLUDES EXISTING SERVICE STATION PARKING)

LEGEND

- DENOTES PROPOSED RETAINING. REFER NOTES AND CIVIL DESIGN DRAWINGS
- - - - - DENOTES PROPOSED ACOUSTIC BARRIER. REFER NOTES OF HEIGHTS, AND ACOUSTIC REPORT
- POTENTIAL KOALA REHABILITATION
- EXTENT OF (HIGH HAZARD) FLOOD MAPPING

LEGEND
 2.0m BARRIER HEIGHT
ACOUSTIC BARRIER



CLIENT
**BANNER S+L (LOGAN VILLAGE) PTY LTD ATF
BANNER S+L (LOGAN VILLAGE) SUB TRUST**

PROJECT
**NOISE IMPACT
ASSESSMENT
PROPOSED FOOD
AND DRINK OUTLETS
1322-1330 WATERFORD-TAMBORINE ROAD
LOGAN VILLAGE QLD**

TITLE
**ACOUSTIC BARRIER
LOCATIONS**

JOB	LOGAN VILLAGE	FIGURE 5
JOB NO.	21-118	DWG NUMBER
DATE	14/02/25	21-118-5
SCALE	1:1500 (A4)	



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commercial / industrial / retail
fast food restaurant design
travel centre / service stations
project concept to completion

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Revised and approved			
Code	Date	By	Description
A	12-02-2025	DN	DA ISSUE

Project Description		Date
PROPOSED FOOD & DRINK OUTLETS 1332-1346 WATERFORD-TAMBORINE ROAD, LOGAN VILLAGE		

Drawing Title		Revision
PROPOSED SITE PLAN		
Scale 1:500 @ A1 / 1:1000 @A3	Approved	Drawing Number 24198-DA02
Drawn	Issued	Revision A

Attachment 1

Proposed Development Plans

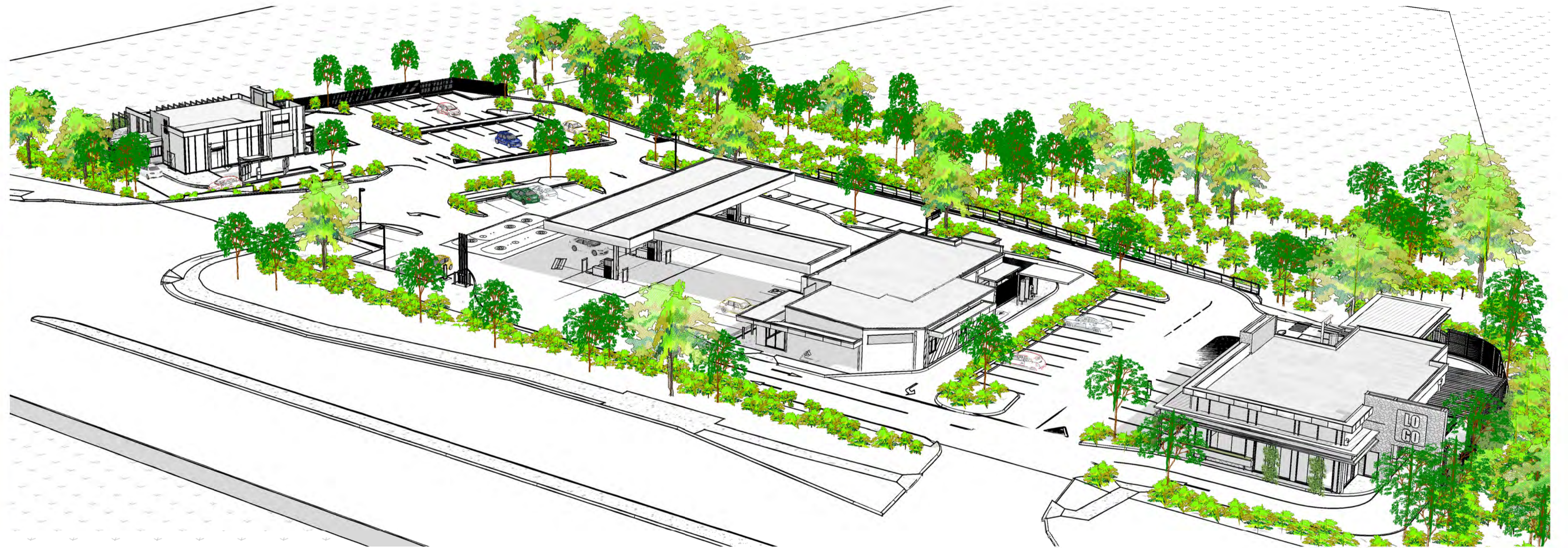
ARCHITECTURAL DRAWINGS

PROPOSED DEVELOPMENT

1332-1346 WATERFORD TAMBORINE RD



LOCATION MAP (NTS)



3D PERSPECTIVE FOR ILLUSTRATION ONLY

ARCHITECTURAL DRAWINGS DA

DRG No.	DRAWING TITLE
DA00	COVER PAGE
DA01	EXISTING SITE PLAN
DA02	PROPOSED SITE PLAN
DA03	BUILDING ELEVATIONS & PERSPECTIVES - T1
DA04	BUILDING ELEVATIONS & PERSPECTIVES - T2
DA05	SITE ELEVATIONS & PERSPECTIVES
DA06	SITE ELEVATIONS & PERSPECTIVES
DA07	PROPOSED RETAINING WALL PLAN

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CONSULTING ENGINEER



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- project concept to completion

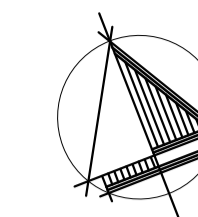
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Revision and approvals				
Rev	Date	Drn	Description	Appr
P1	10.12.2024	JB	PRELIMINARY ISSUE FOR COMMENTS	GN
A	11.02.2025	JB	DA ISSUE	GN
B	13.02.2025	JB	DA ISSUE	GN

Project Description	
PROPOSED DEVELOPMENT	
1332-1346 WATERFORD TAMBORINE RD	
LOGAN VILLAGE	
Scale @A1	Date
Drawn	DEC 2024
JB	Approved By
	GN

Drawing Title		Job Number - Drawing Number		Revision
COVER PAGE		24198 DA00		B

PROPERTY DESCRIPTION
LOTS 73 & 74 on RP 210268



COUNCIL: LOGAN CITY COUNCIL

DEVELOPMENT ASSESSMENT

TOTAL SITE AREA - 26,633m²

LANDSCAPED AREA - 22,242m²

EXISTING SITE COVER - 3.25%
(INCLUDES ALL ROOFED AREAS)

BUILDING AREA - GFA

• EXISTING SERVICE STATION - 347m²

MISCELLANEOUS AREAS

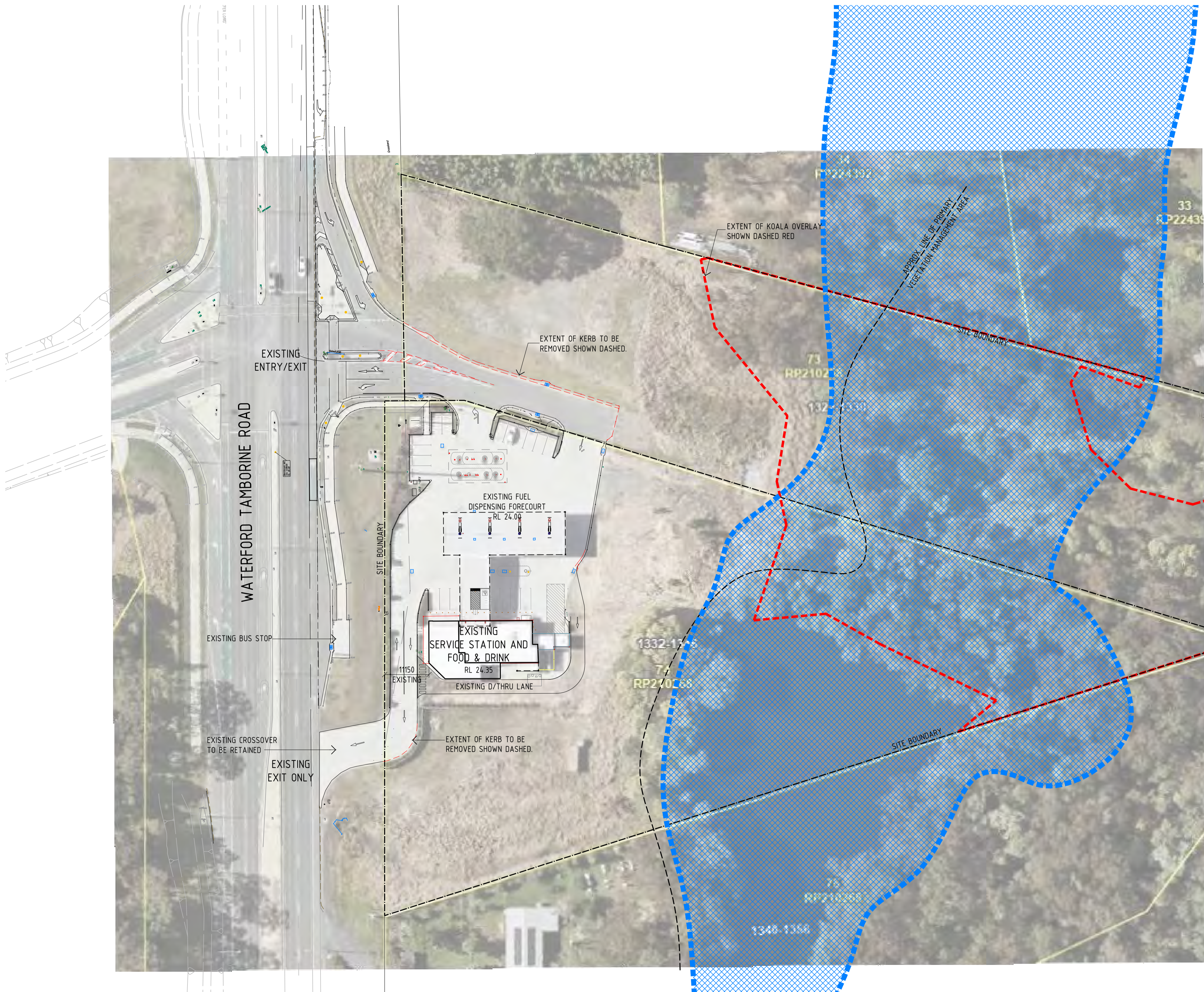
• EXISTING FORECOURT CANOPY - 463m²

• EXIST. SERVICE STN SERVICES - 65m²

TOTAL MISC. AREAS - 528m²

LEGEND

EXTENT OF (HIGH HAZARD) FLOOD MAPPING



Revision and approvals				
Code	Date	By	Description	Drawn
A	12.02.2025	GN	D.A ISSUE	

Project Description	
PROPOSED FOOD & DRINK OUTLETS 1332-1346 WATERFORD-TAMBORINE ROAD, LOGAN VILLAGE	
Scale	Approved
1:500 @ A1 / 1:1000 @A3	
Drawn	Issued

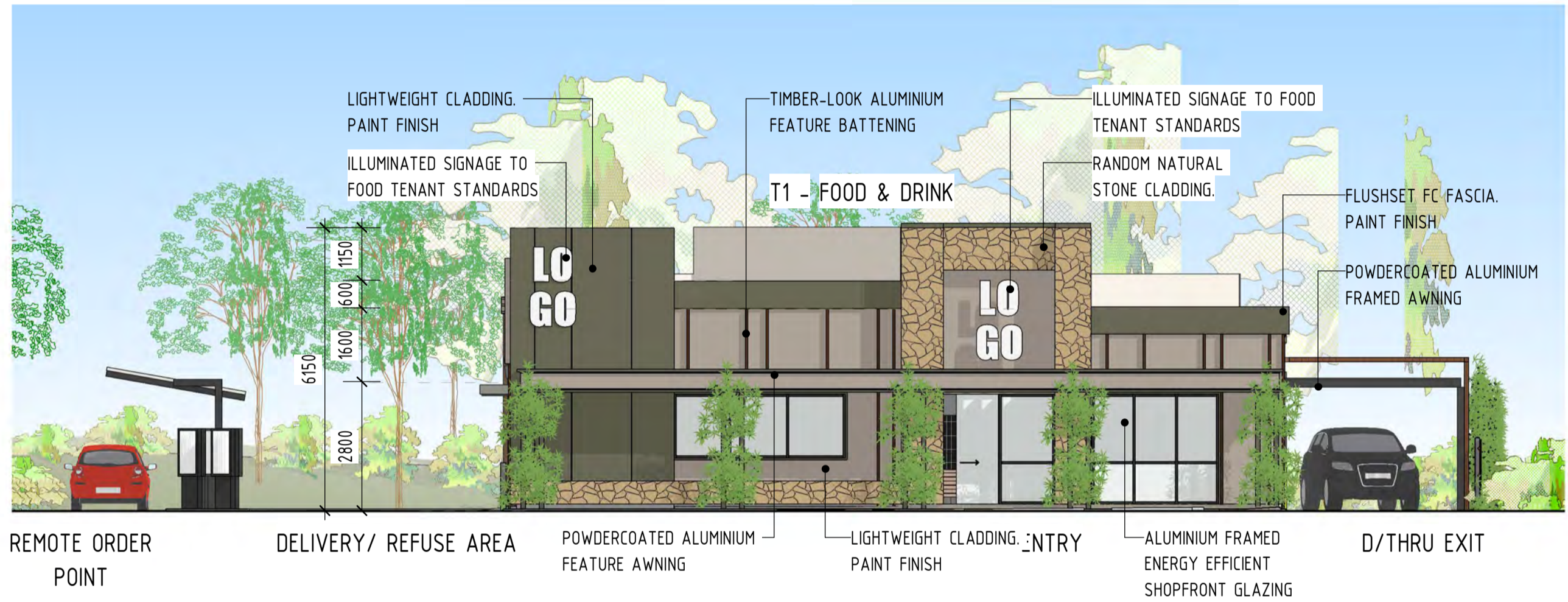
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EXISTING SITE PLAN	
Drawing Number	Revision
24198-DA01	A

NOTE

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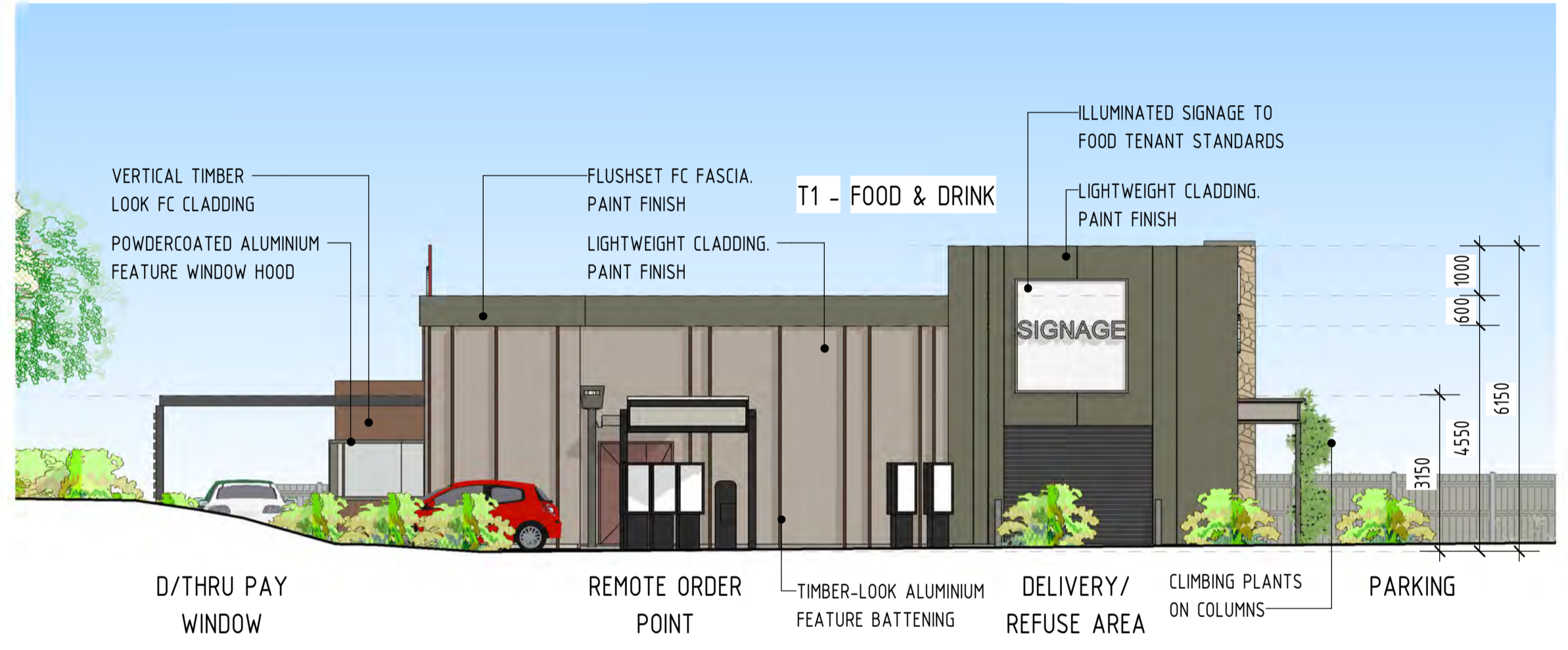


1 T1 - BUILDING PERSPECTIVE



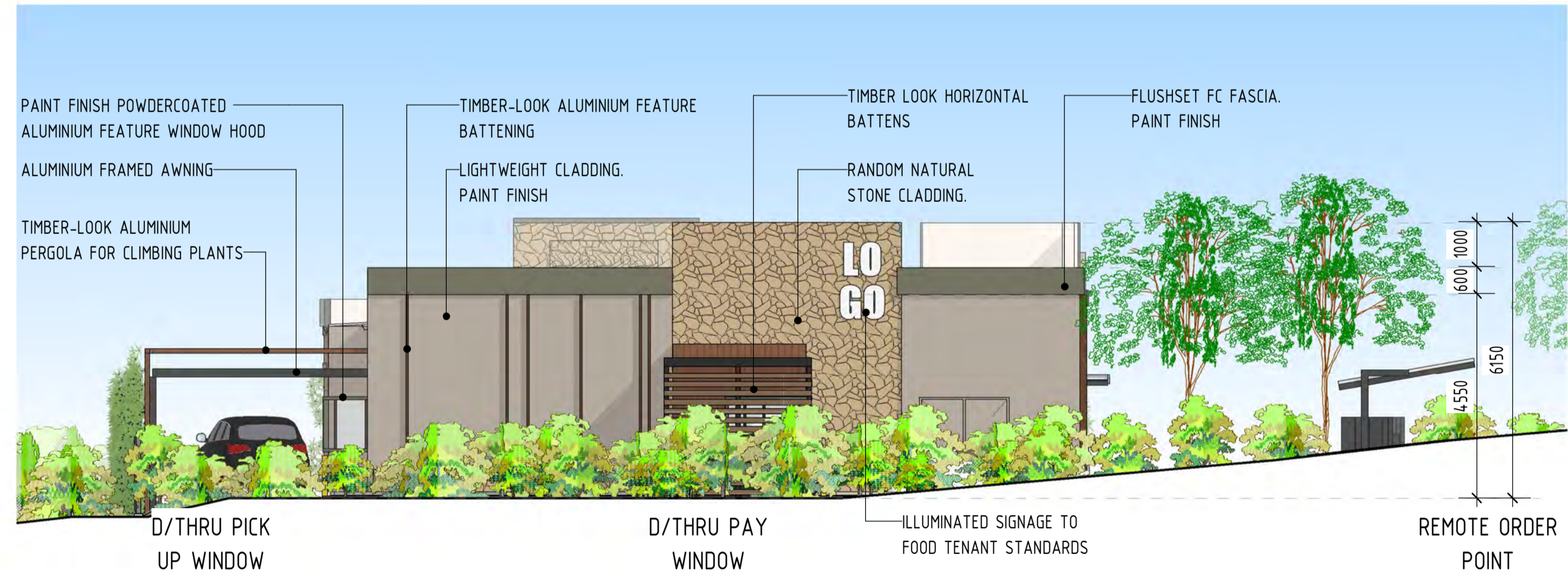
2 T1 - SOUTH-EAST ELEVATION

A100 1:100



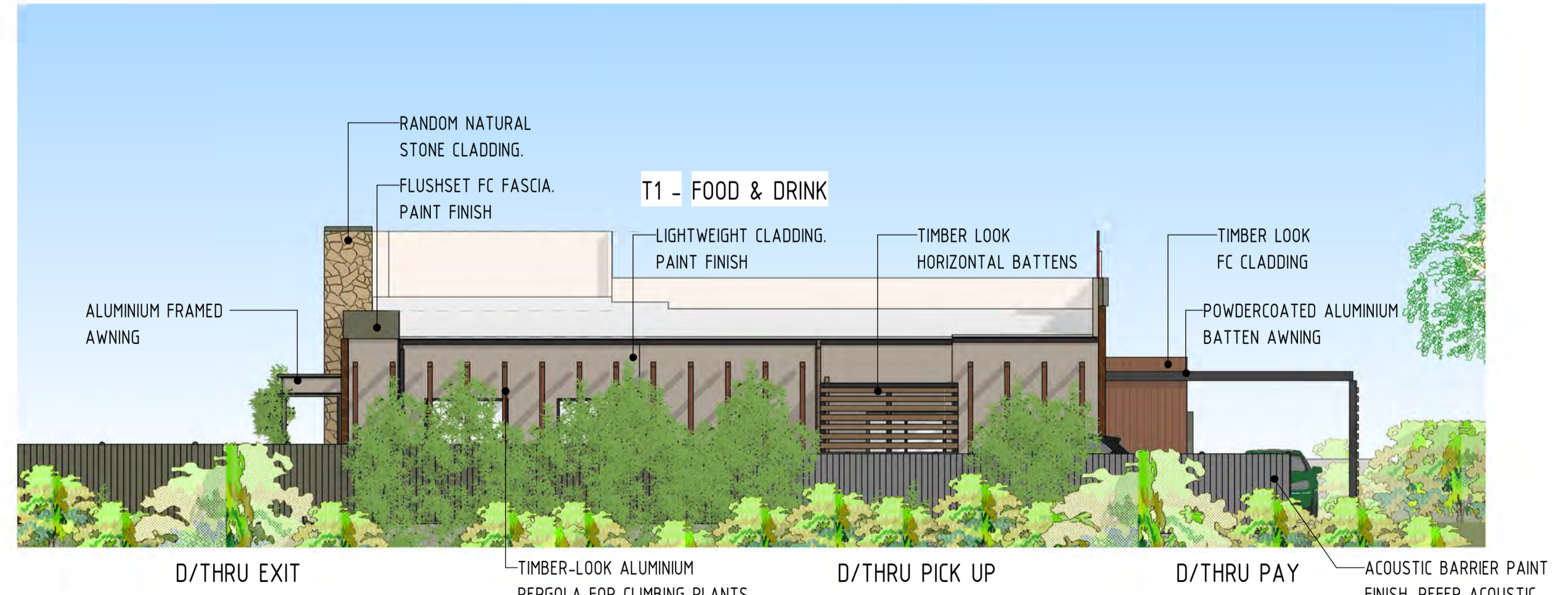
3 T1 - SOUTH-WEST ELEVATION

A100 1:100



4 T1 - PROP. NORTH-WEST ELEVATION

A100 1:100



5 T1 - NORTH-EAST ELEVATION

A100 1:100

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Revision and approvals				
Rev	Date	Drn	Description	Appr
P1	10.12.2024	JB	PRELIMINARY ISSUE FOR COMMENTS	GN
A	11.02.2025	JB	DA ISSUE	GN

Project Description
PROPOSED DEVELOPMENT
 1332-1346 WATERFORD TAMBORINE RD
 LOGAN VILLAGE

Scale @A1
 As indicated

Date
 DEC 2024

Approved By
 GN

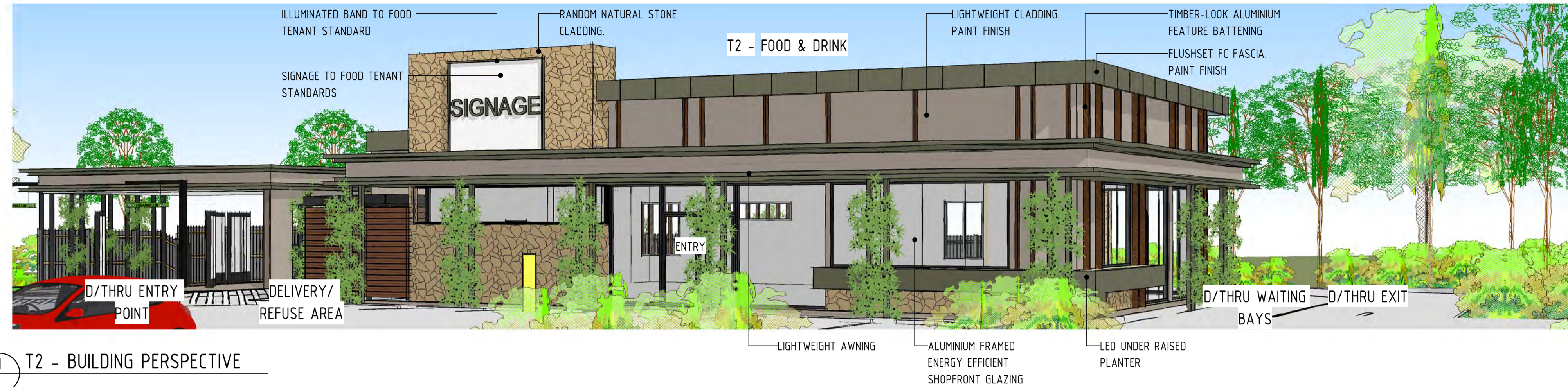
Drawing Title
BUILDING ELEVATIONS & PERSPECTIVES - T1

Job Number - Drawing Number
24198 DA03

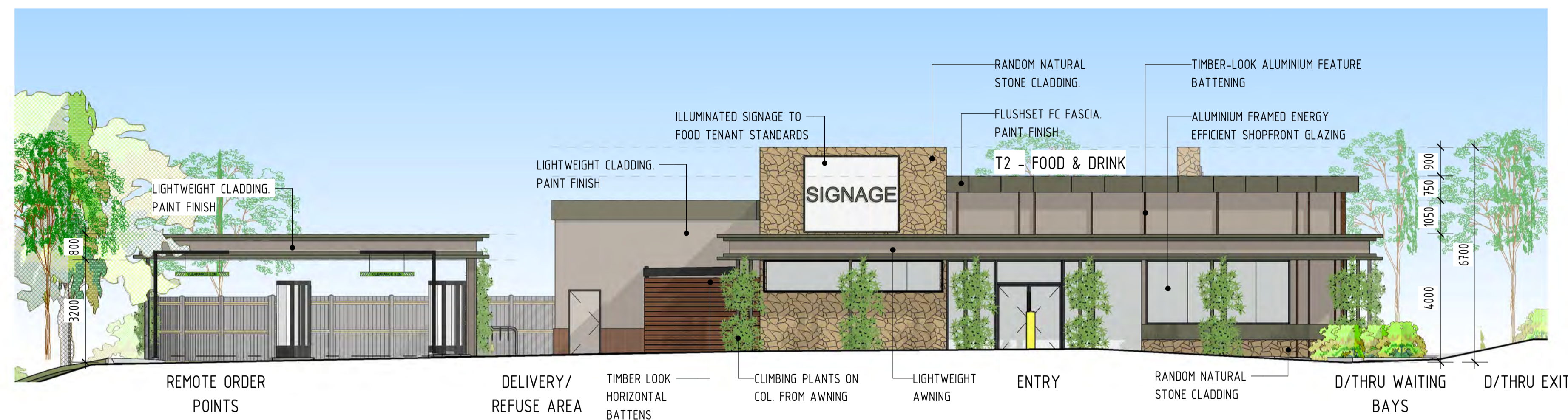
Revision
A

NOTE

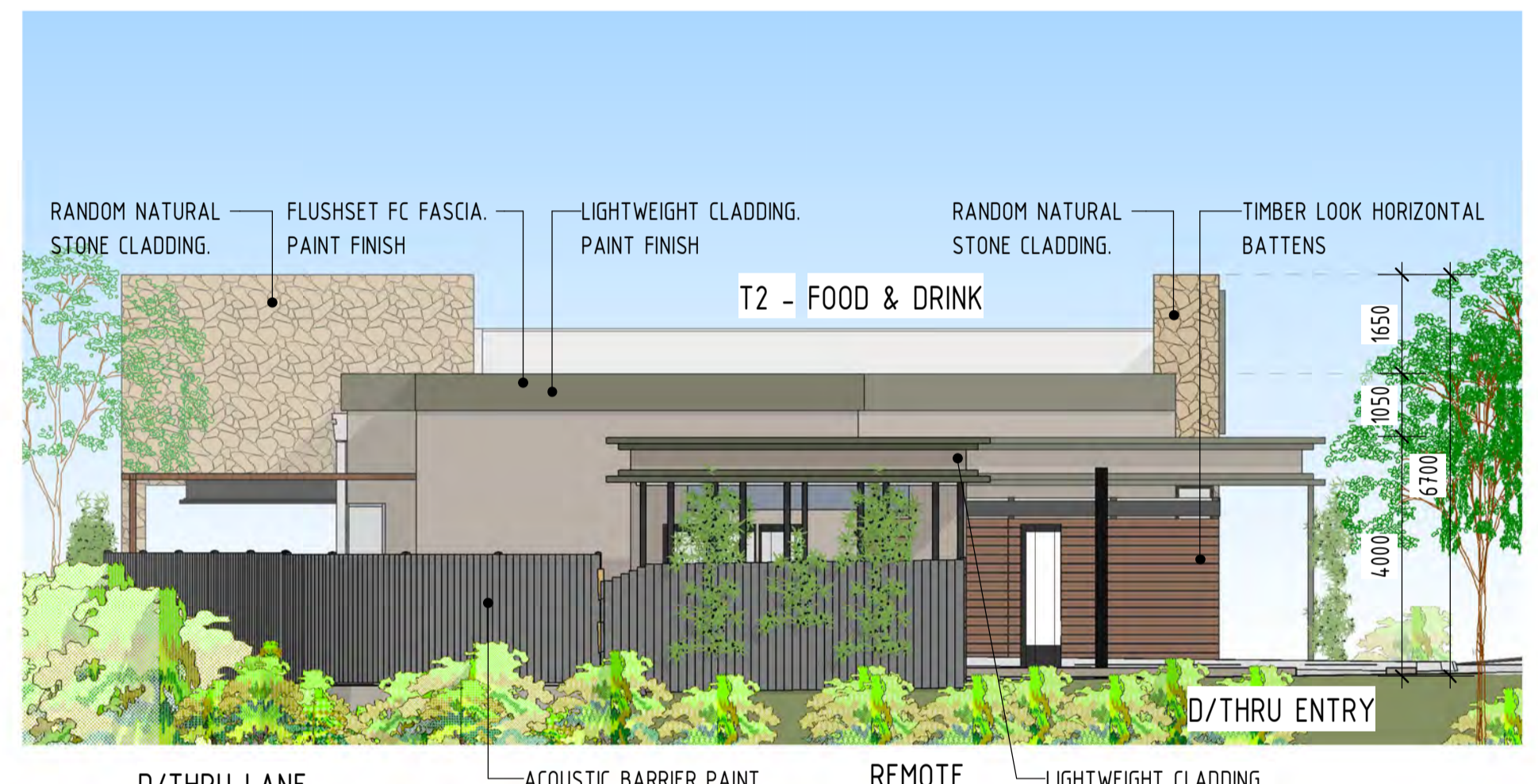
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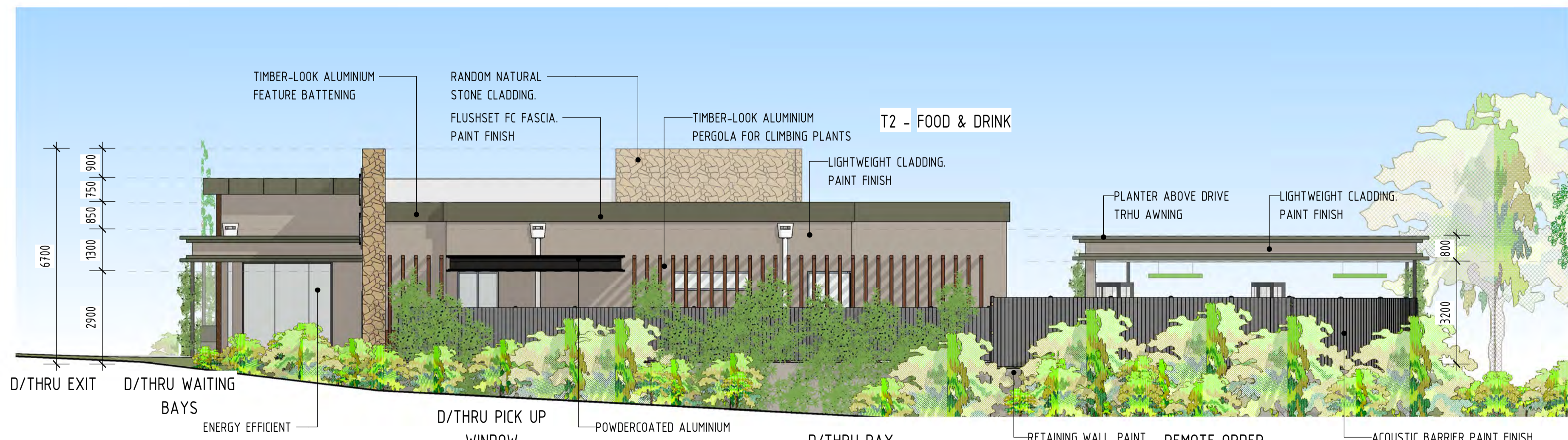
1 T2 - BUILDING PERSPECTIVE



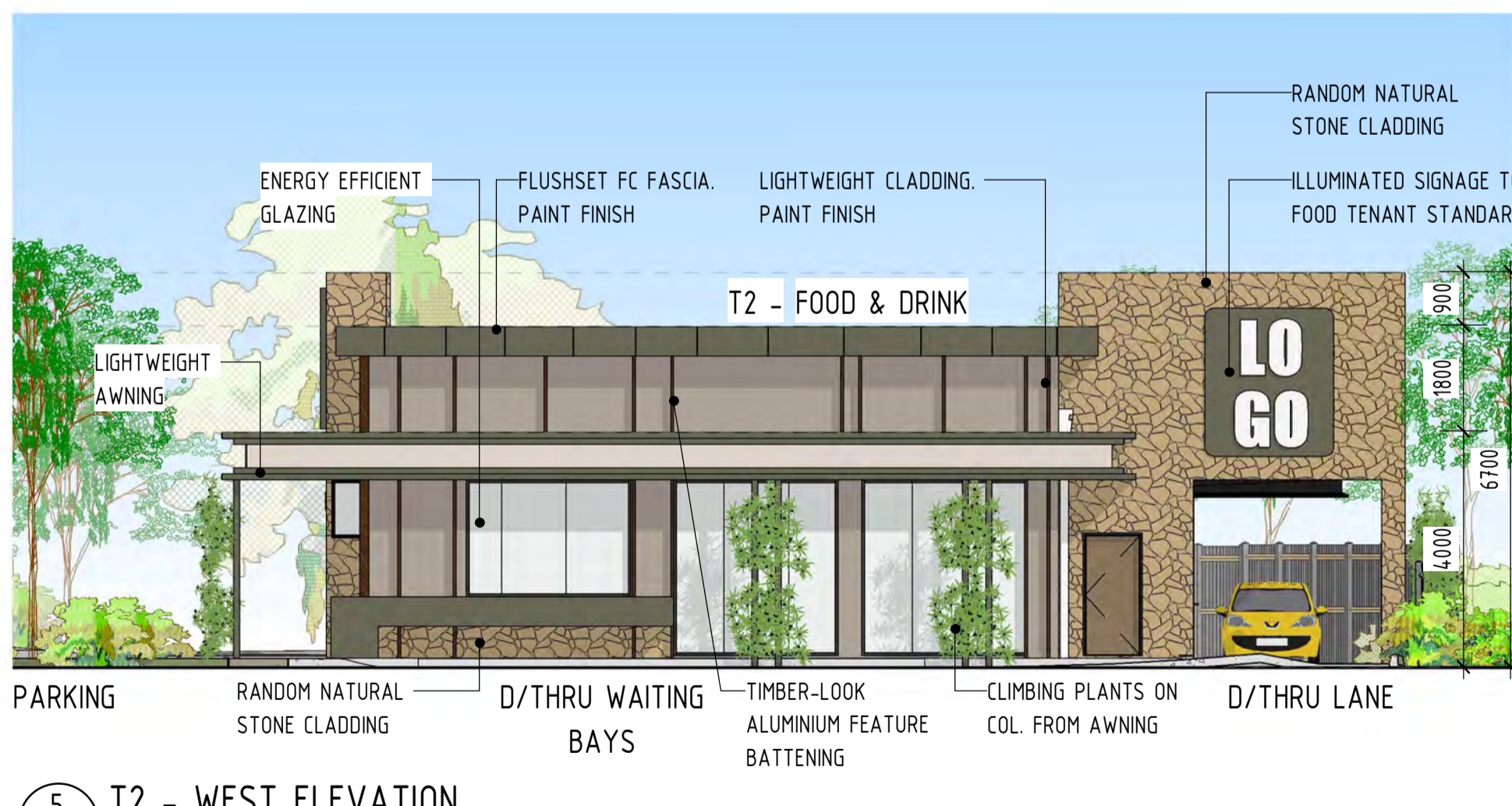
2 T2 - NORTH ELEVATION
A100 1:100



3 T2 - EAST ELEVATION
A100 1:100



4 T2 - SOUTH ELEVATION
A100 1:100



5 T2 - WEST ELEVATION
A100 1:100

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P1	10.12.2024	JB	PRELIMINARY ISSUE FOR COMMENTS	GN
A	11.02.2025	JB	DA ISSUE	GN

Project Description
PROPOSED DEVELOPMENT
 1332-1346 WATERFORD TAMBORINE RD
 LOGAN VILLAGE

Scale @A1
 As indicated

Date
 AUG 2021

Approved By
 GN

Drawing Title
BUILDING ELEVATIONS & PERSPECTIVES - T2

Job Number - Drawing Number
24198 DA04

Revision
A

NOTE

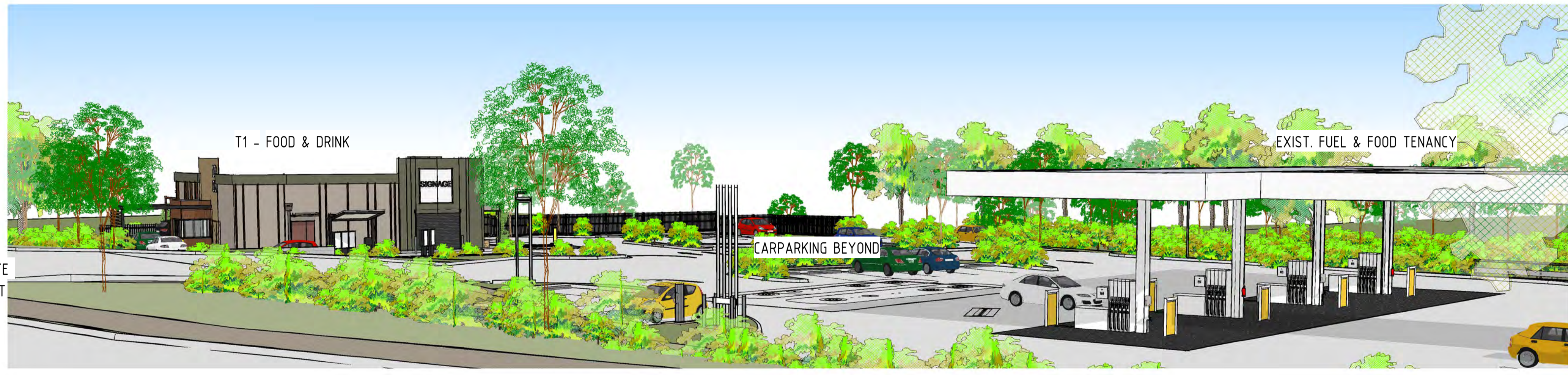
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1 SITE PERSPECTIVE 3



2 SITE PERSPECTIVE 4



3 SITE PERSPECTIVE 5

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Rev	Date	Drn	Description	Appr
P1	10.12.2024	JB	PRELIMINARY ISSUE FOR COMMENTS	GN
A	11.02.2025	JB	DA ISSUE	GN

Project Description
PROPOSED DEVELOPMENT
1332-1346 WATERFORD TAMBORINE RD
LOGAN VILLAGE

Scale @A1
1:1

Date
DEC 2024

Approved By
GN

Drawing Title
SITE ELEVATIONS & PERSPECTIVES

Job Number - Drawing Number
24198 DA05

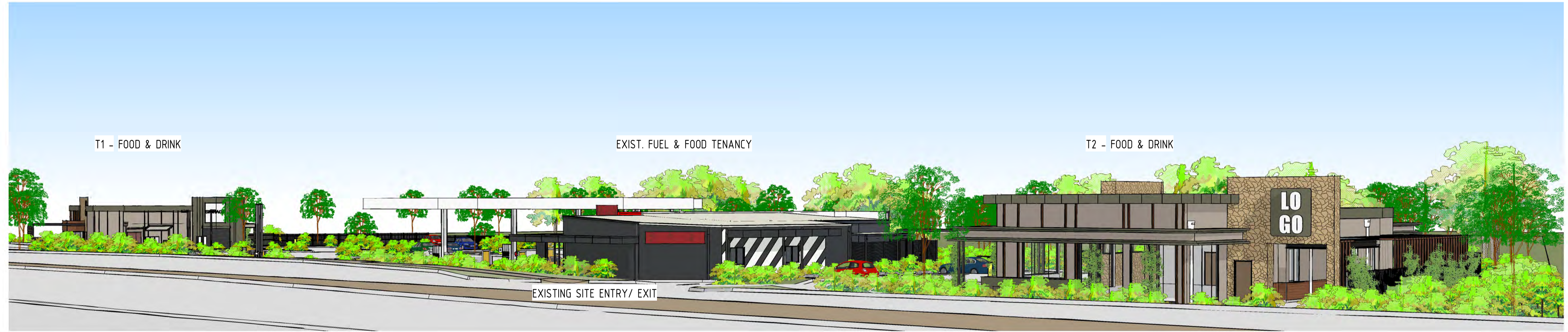
Revision
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NOTE

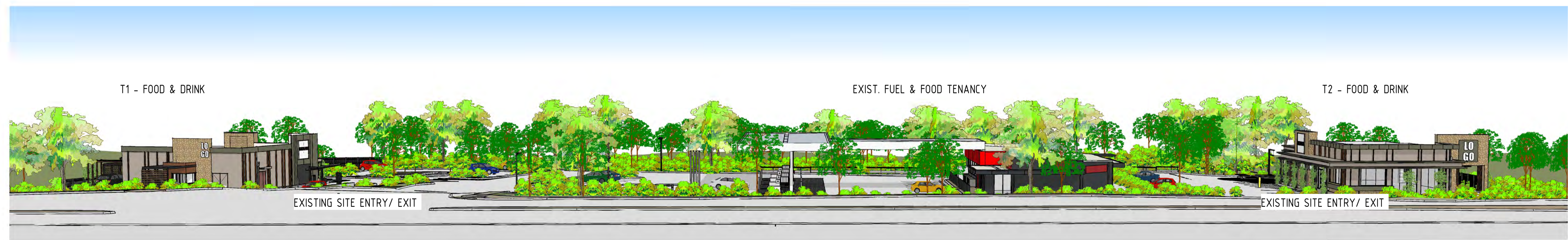
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1 SITE PERSPECTIVE



2 SITE PERSPECTIVE 2



3 STREETSCAPE PERSPECTIVE

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- project concept to completion

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Rev	Date	Drn	Description	Appr
P1	10.12.2024	JB	PRELIMINARY ISSUE FOR COMMENTS	GN
A	11.02.2025	JB	DA ISSUE	GN

Project Description
PROPOSED DEVELOPMENT
1332-1346 WATERFORD TAMBORINE RD
LOGAN VILLAGE

Scale @A1
 1: 1

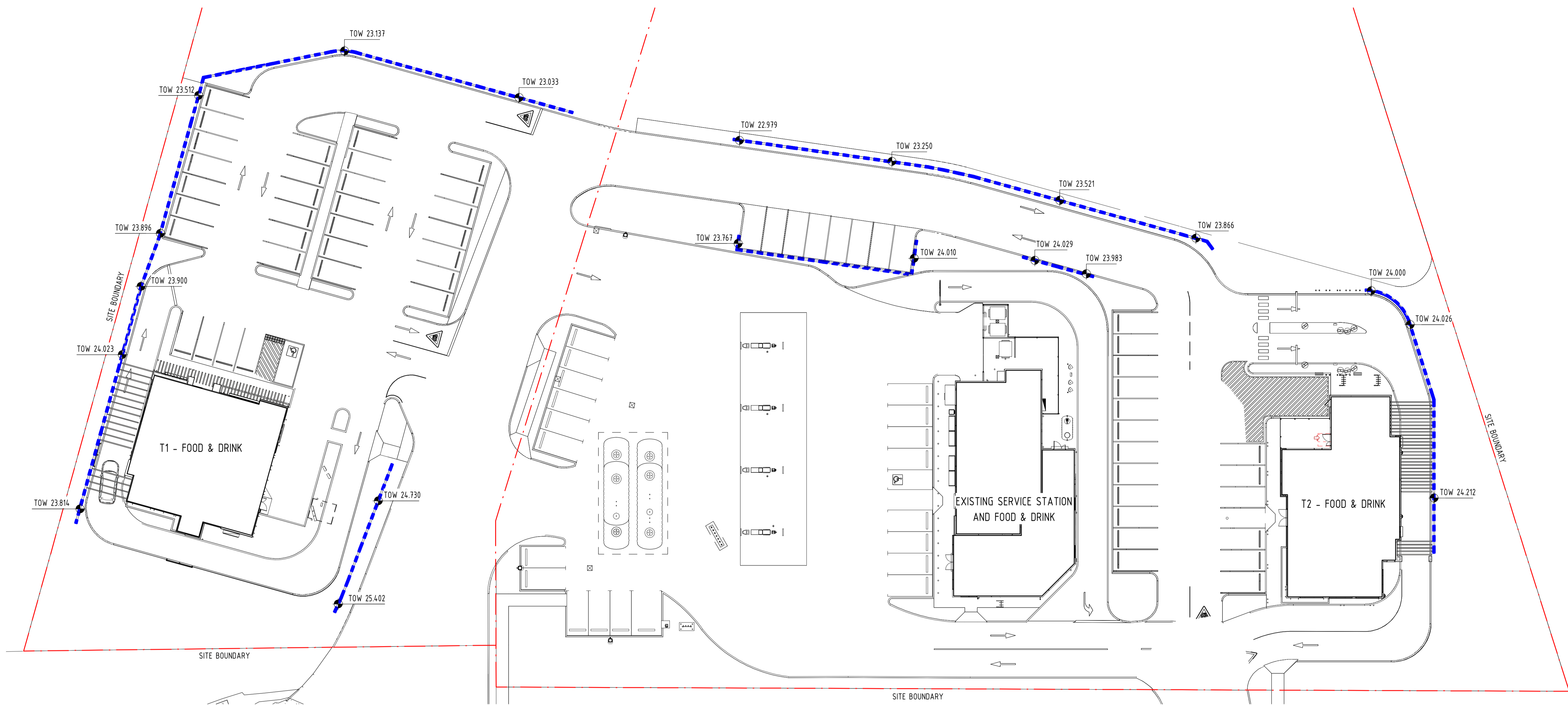
Date
 DEC 2024

Approved By
 GN

Drawing Title
SITE ELEVATIONS & PERSPECTIVES

Job Number - Drawing Number
24198 DA06

Revision
A



1 PROPOSED RETAINING WALL PLAN
 1 : 250

- NOTE**
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CONSULTING ENGINEER



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- fast food restaurant design
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Revision and approvals				
Rev	Date	Drn	Description	Appr
P1	10.12.2024	JB	PRELIMINARY ISSUE FOR COMMENTS	GN
A	11.02.2025	JB	DA ISSUE	GN

Project Description
PROPOSED DEVELOPMENT
1332-1346 WATERFORD TAMBORINE RD
LOGAN VILLAGE

Scale @A1
 As indicated

Date
 DEC 2024

Approved By
 GN

Drawing Title
PROPOSED RETAINING WALL PLAN

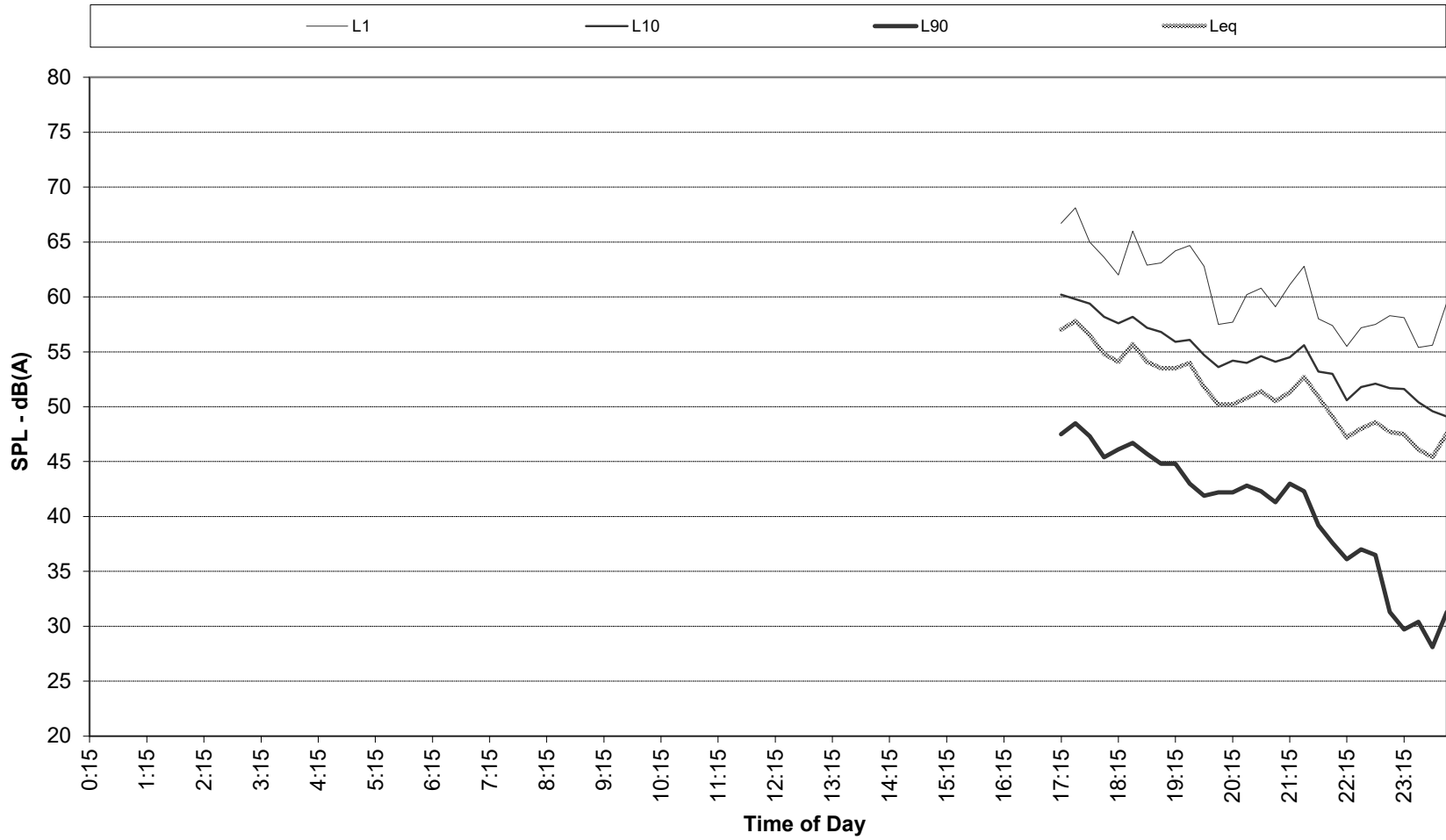
Job Number - Drawing Number
24198 DA07

Revision
A

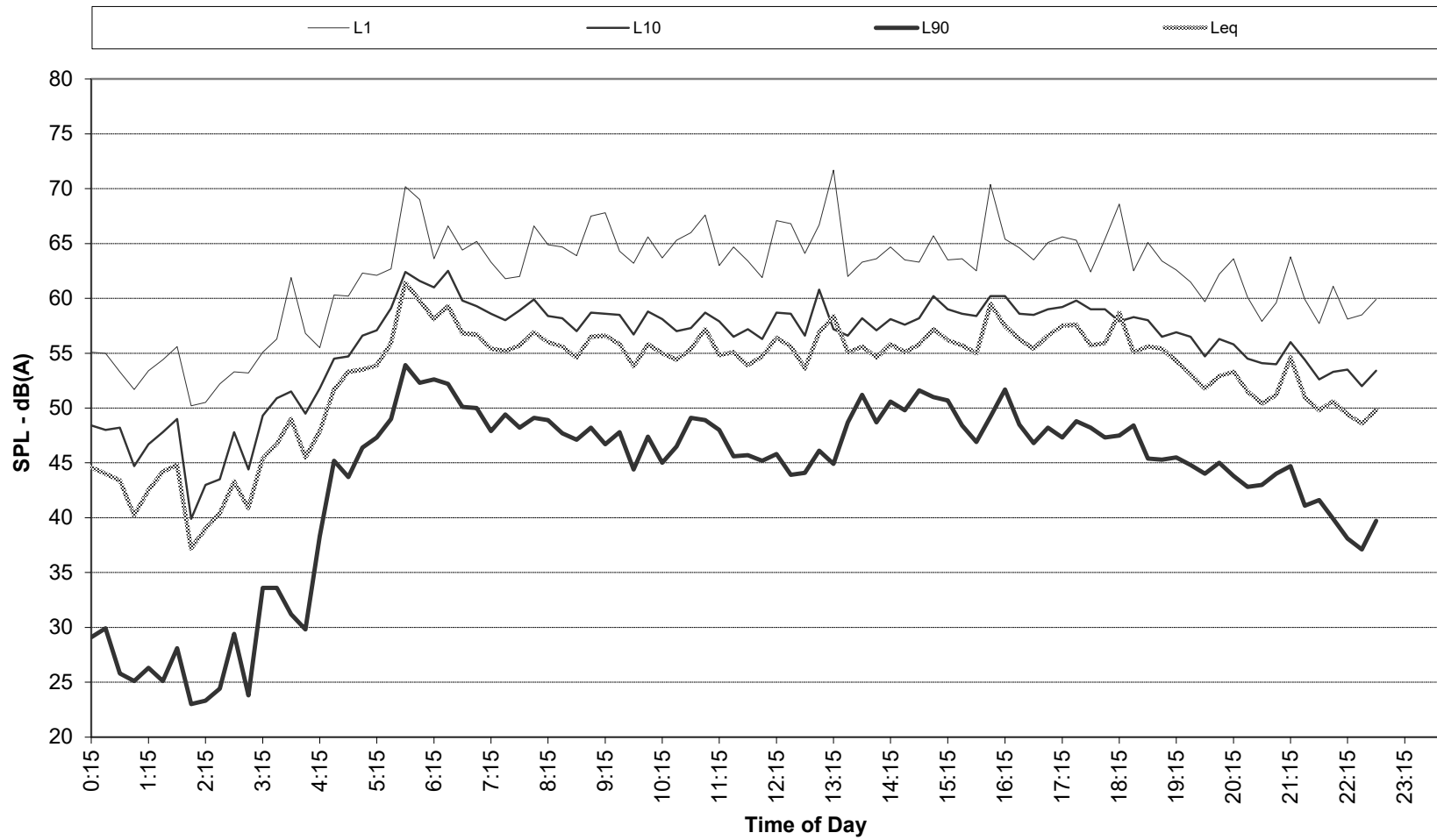
Attachment 2

Data Logger Results

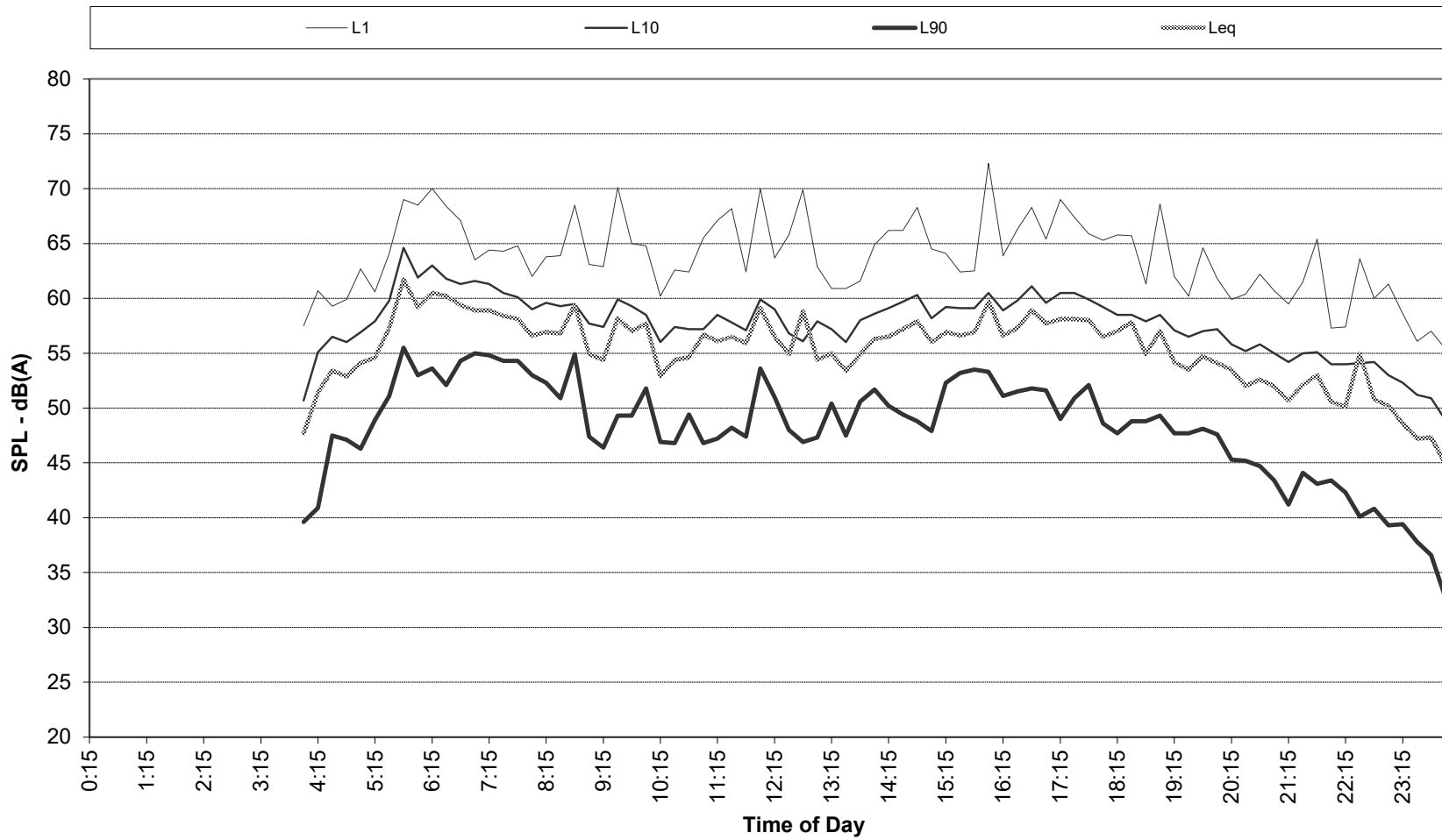
Recorded Statistical Noise Levels for Logan Village 21-118 - - 31-Aug-2021 - Tuesday



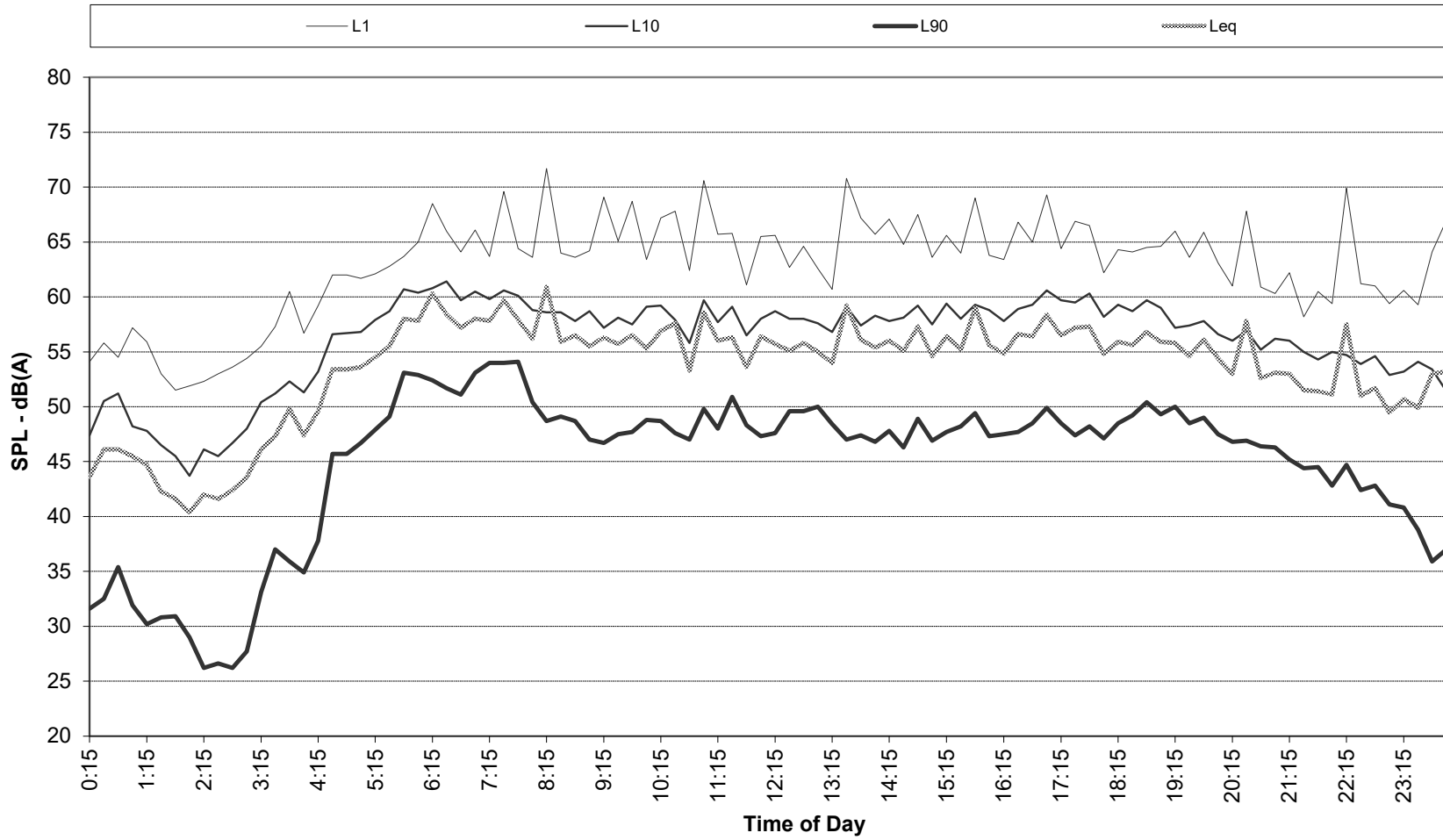
Recorded Statistical Noise Levels for Logan Village 21-118 - - 01-Sep-2021 - Wednesday



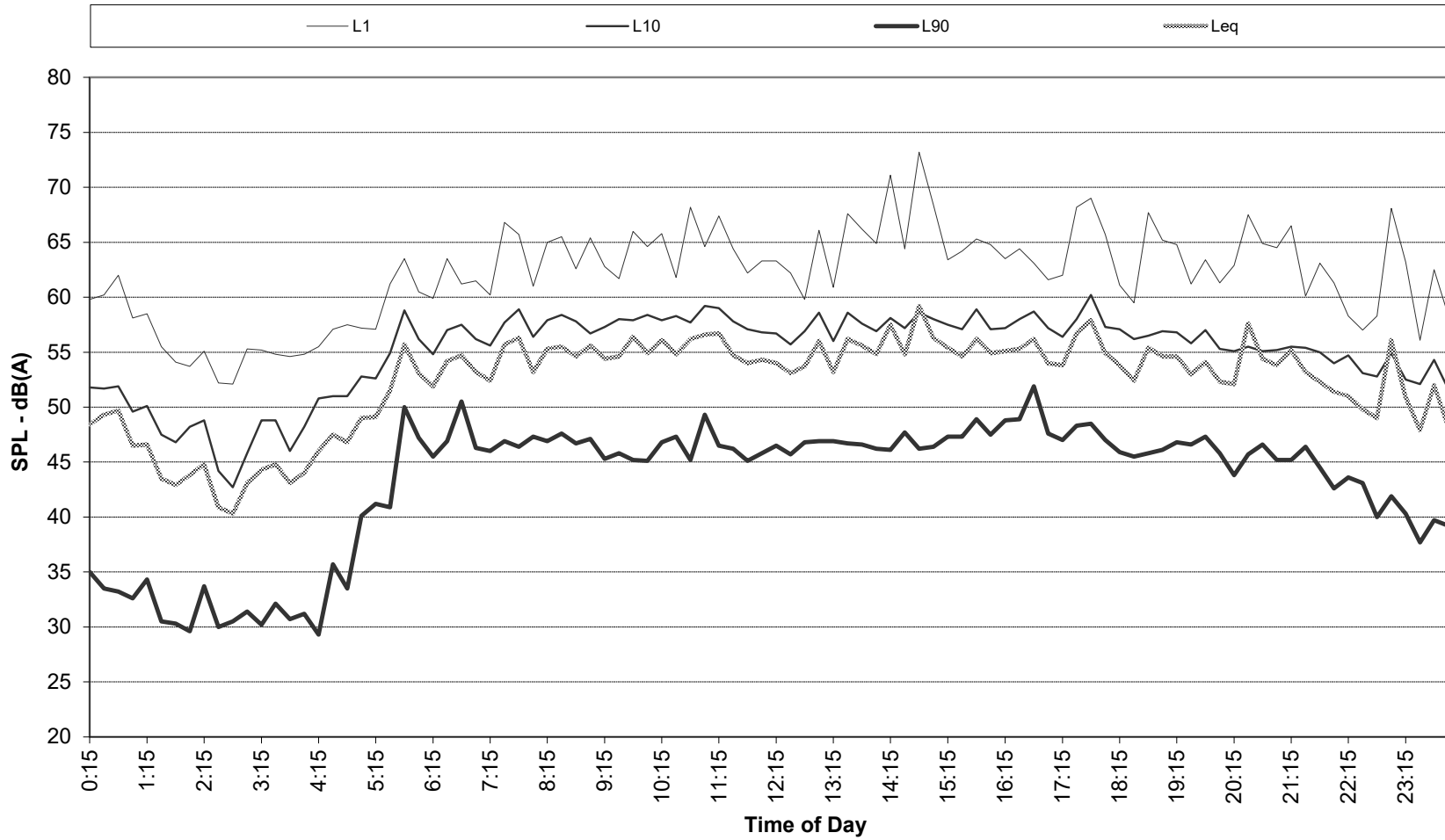
Recorded Statistical Noise Levels for Logan Village 21-118 - - 02-Sep-2021 - Thursday



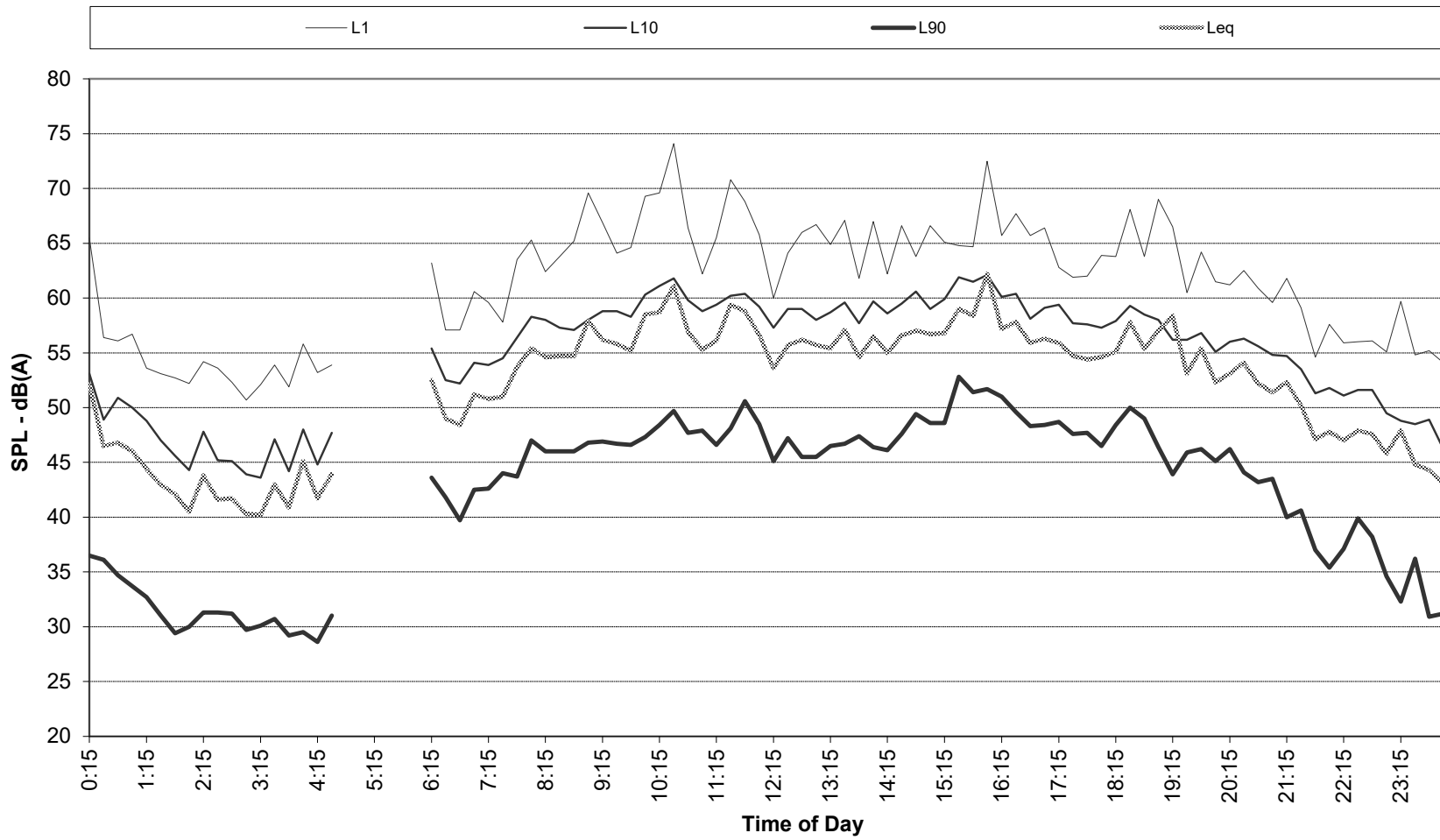
Recorded Statistical Noise Levels for Logan Village 21-118 - - 03-Sep-2021 - Friday



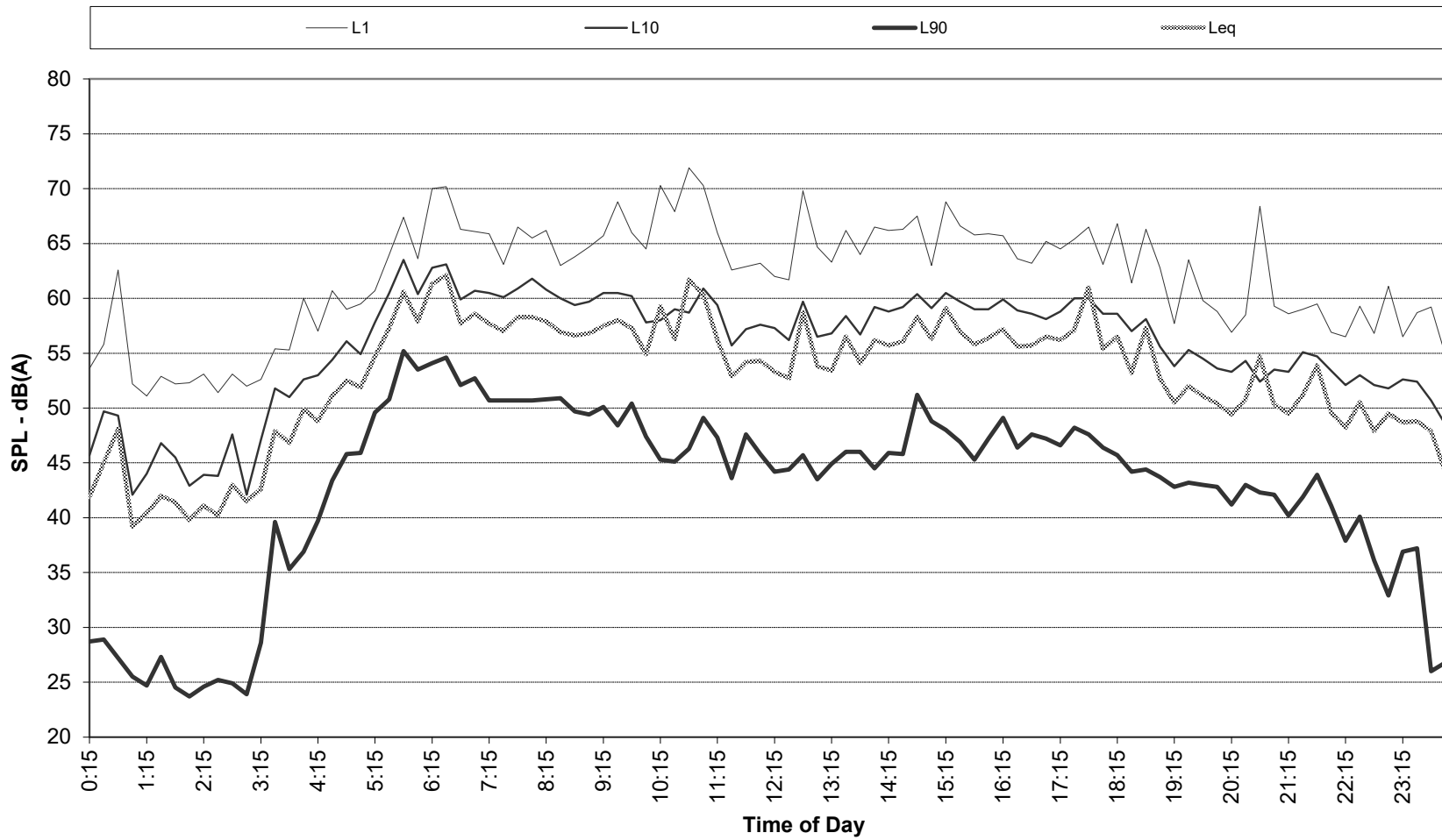
Recorded Statistical Noise Levels for Logan Village 21-118 - - 04-Sep-2021 - Saturday



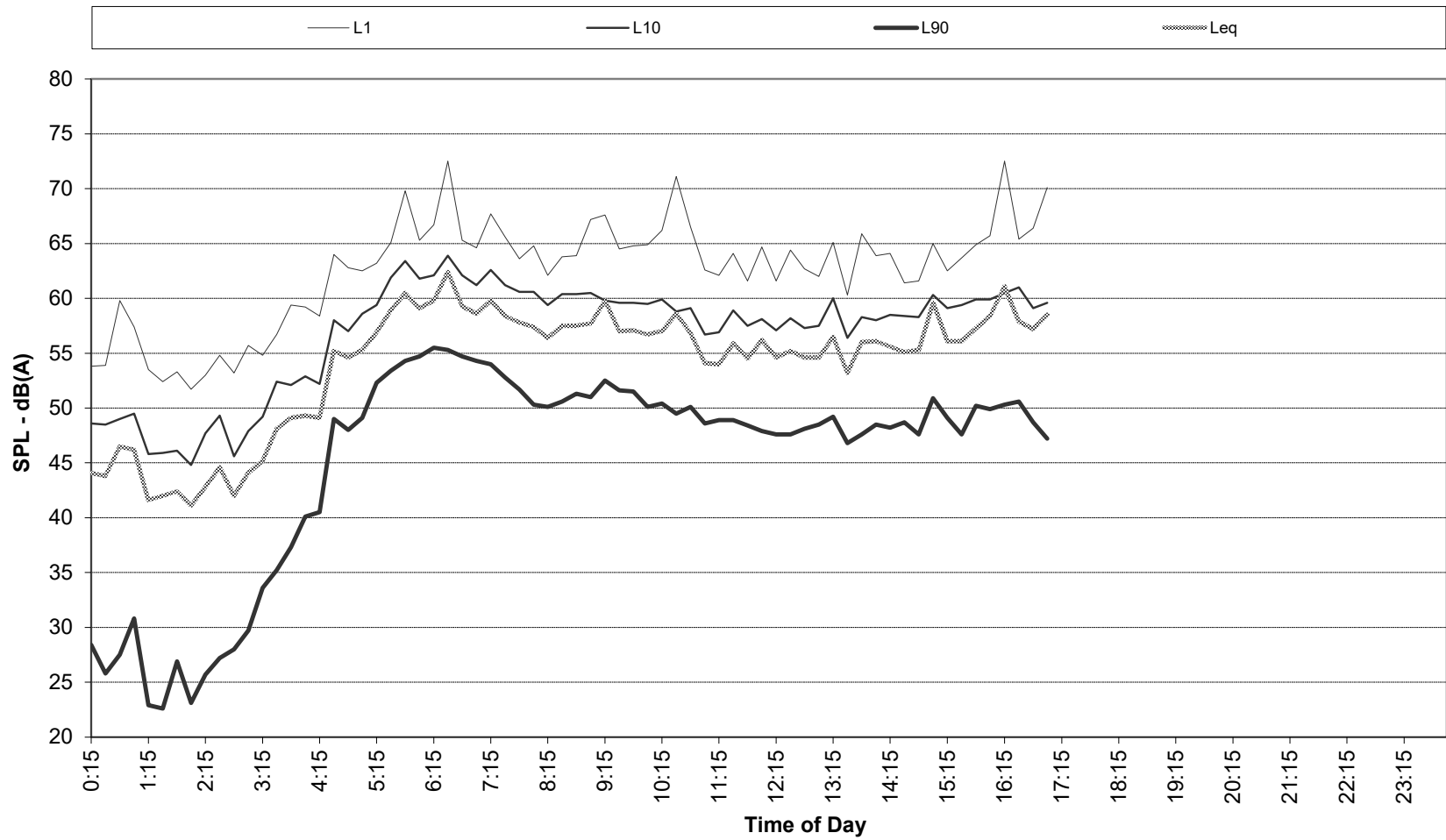
Recorded Statistical Noise Levels for Logan Village 21-118 - - 05-Sep-2021 - Sunday



Recorded Statistical Noise Levels for Logan Village 21-118 - - 06-Sep-2021 - Monday



Recorded Statistical Noise Levels for Logan Village 21-118 - - 07-Sep-2021 - Tuesday



Attachment 3

*SoundPLAN Noise Plot
Mechanical Plant*



Noise level
LA90
in dB(A)

<= 30	<= 30
30 <	<= 33
33 <	<= 36
36 <	<= 39
39 <	<= 42
42 <	<= 45
45 <	<= 48
48 <	<= 51
51 <	<= 51

Legend

- Cadastral
- Line source
- * Point receiver
- Point source
- ▨ Main building
- Barrier/Balustrade
- ▭ Building as Source

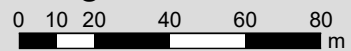
**Logan Village
21-118**

**Service Centre
Mechanical Plant
Noise Impact**

Night-time

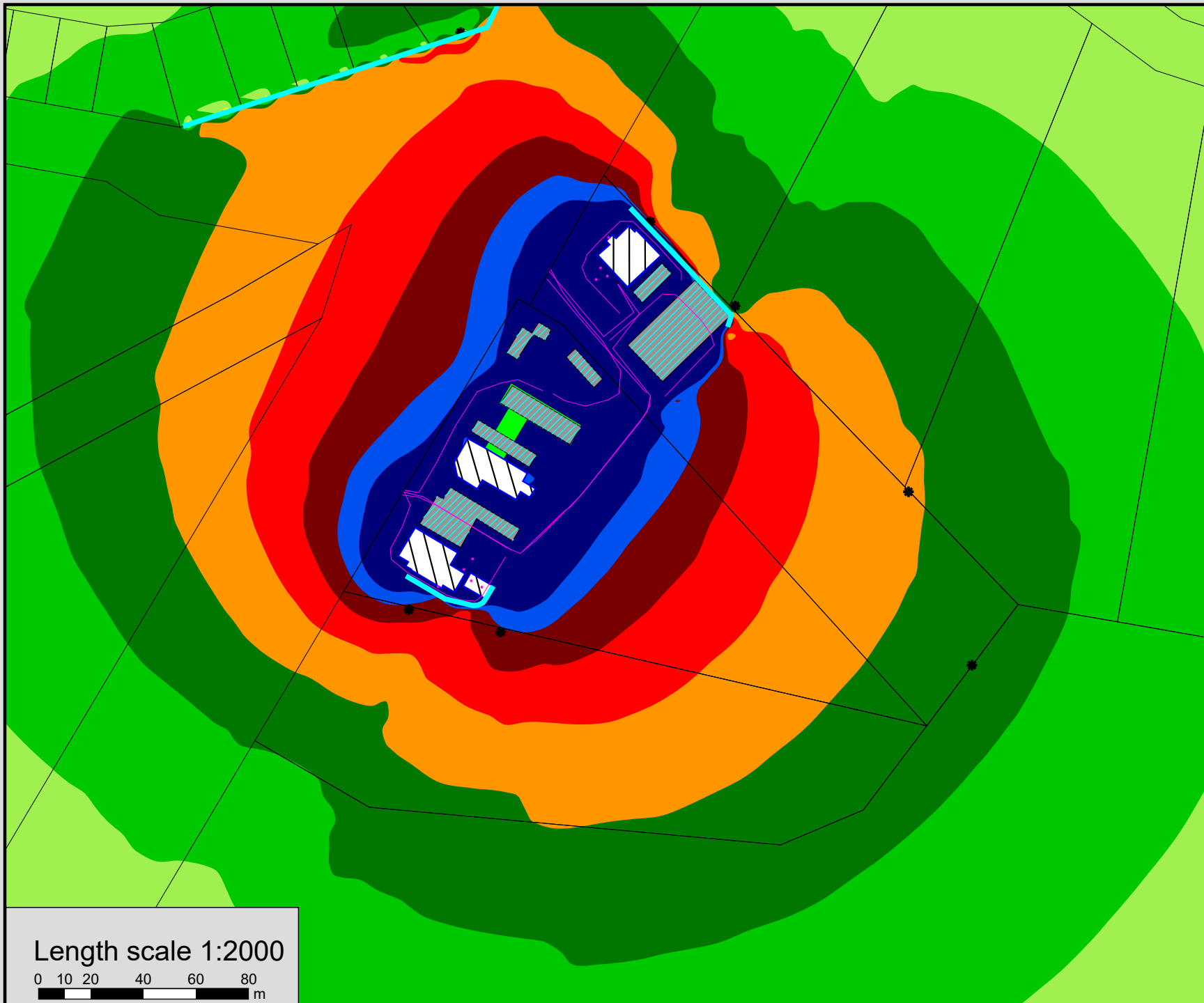
February 2025

Length scale 1:2000



Attachment 4

SoundPLAN Noise Plot
Overall Noise



Noise level
L_{Aeq}(1hr)
in dB(A)

<= 30	<= 33
30 <	<= 36
33 <	<= 39
36 <	<= 42
39 <	<= 45
42 <	<= 48
45 <	<= 51
48 <	
51 <	

Legend

- Cadastral
- Line source
- * Point receiver
- ▨ Parking lot
- Point source
- ▭ Area source
- ▨ Main building
- Barrier/Balustrade
- ▭ Building as source

Logan Village 21-118

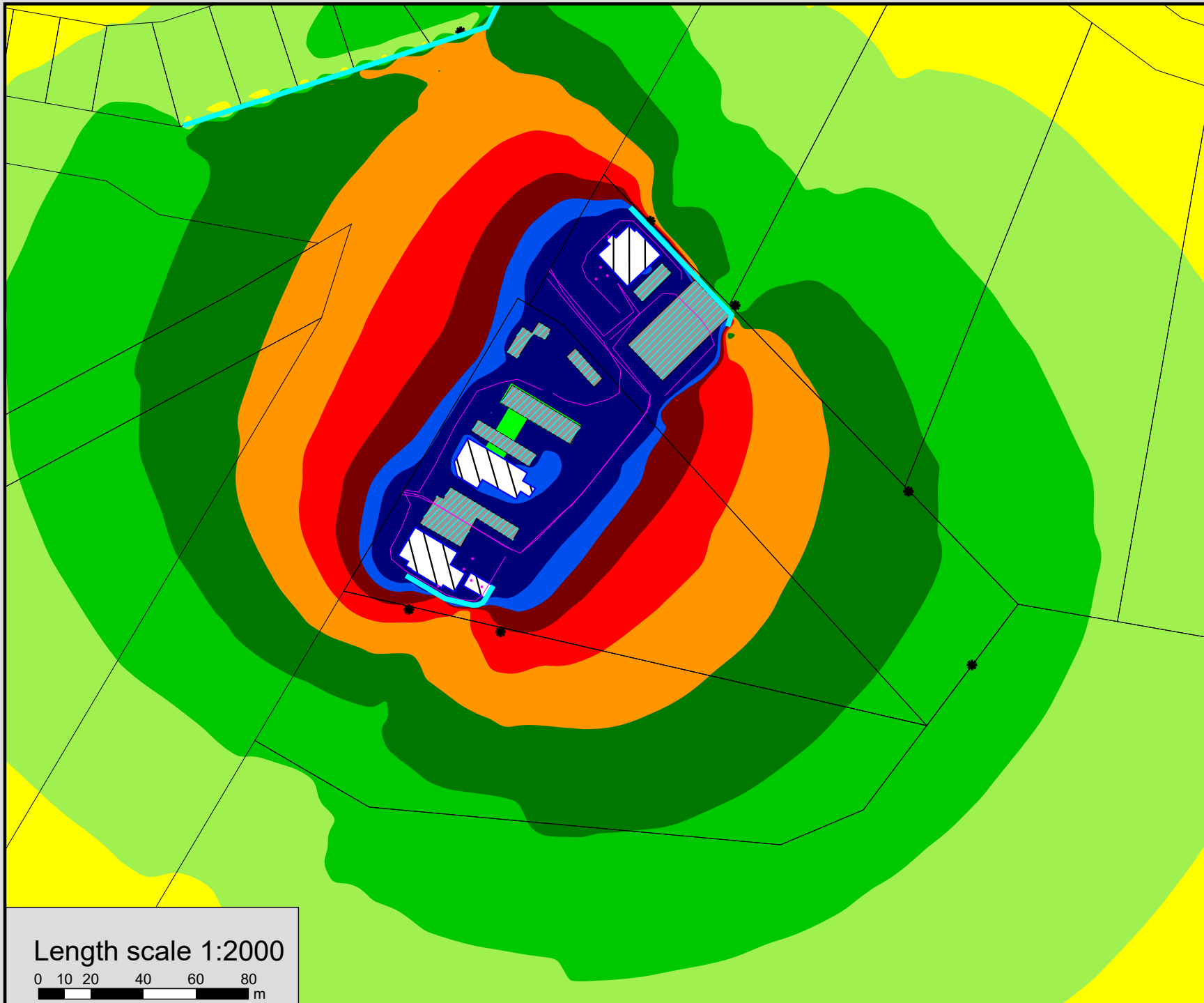
**Service Centre Noise
Impact
Day Period (7am-6pm)**

**5am - 10pm
Monday to Saturday
Trading - All Uses**

February 2025

Length scale 1:2000





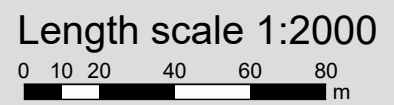
Noise level
LAeq(1hr)
in dB(A)

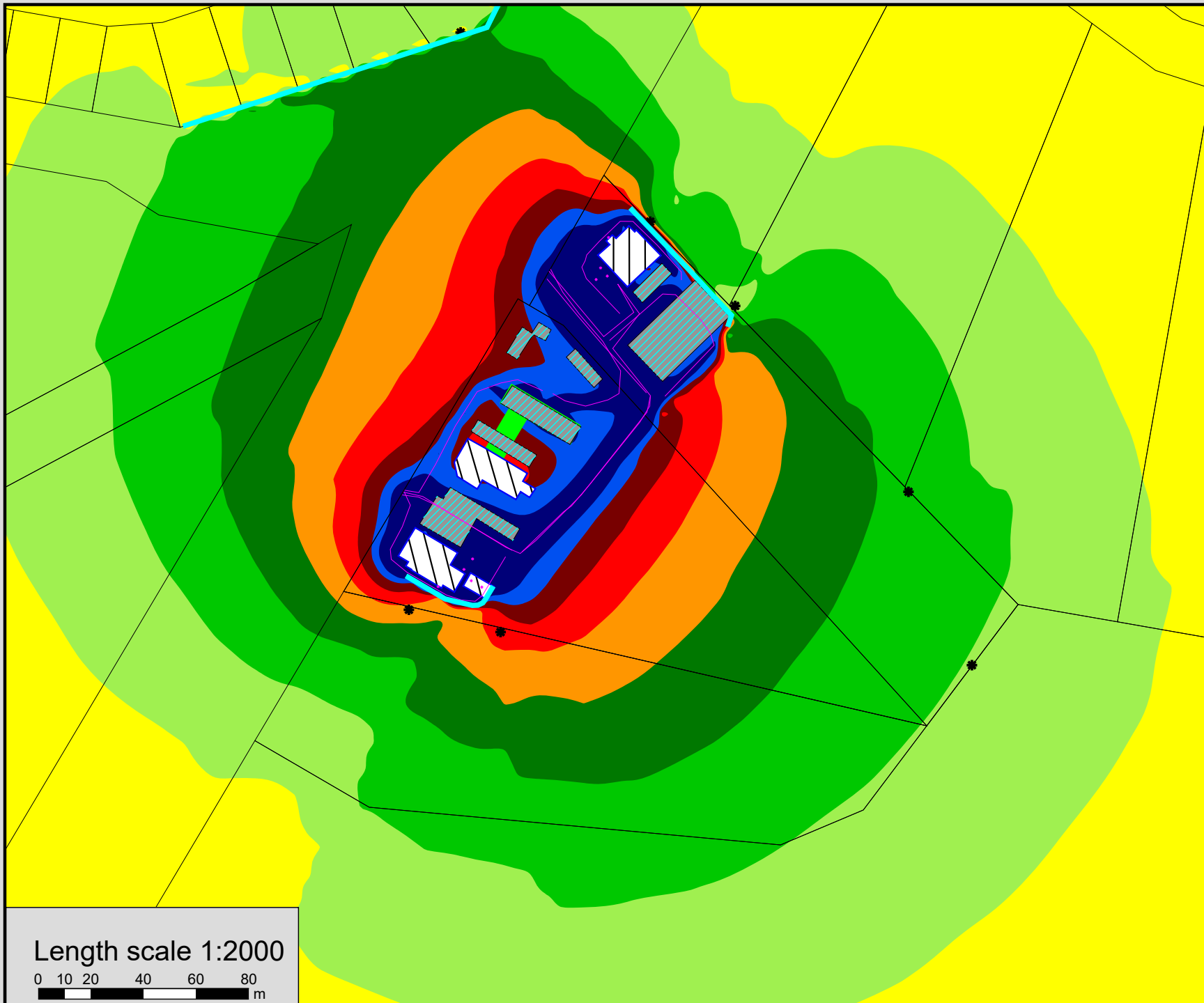
<= 30	Yellow
30 < <= 33	Light Green
33 < <= 36	Green
36 < <= 39	Dark Green
39 < <= 42	Orange
42 < <= 45	Red
45 < <= 48	Dark Red
48 < <= 51	Blue
51 <	Dark Blue

Legend

- Cadastral
- Line source
- * Point receiver
- ▨ Parking lot
- Point source
- ▭ Area source
- ▨ Main building
- Barrier/Balustrade
- ▭ Building as source

Logan Village 21-118
Service Centre
Noise Impact
Evening Period (6pm-10pm)
5am - 10pm Monday to Saturday Trading
All Uses
February 2025





Noise level
LAeq(1hr)
in dB(A)

<= 30	Yellow
30 < <= 33	Light Green
33 < <= 36	Green
36 < <= 39	Dark Green
39 < <= 42	Orange
42 < <= 45	Red
45 < <= 48	Dark Red
48 < <= 51	Blue
51 <	Dark Blue

Legend

- Cadastral
- Line source
- Point receiver
- Parking lot
- Point source
- Area source
- Main building
- Barrier/Balustrade
- Building as source

Logan Village 21-118

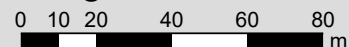
**Service Centre Noise
Impact
Night-time (5am to 7am)**

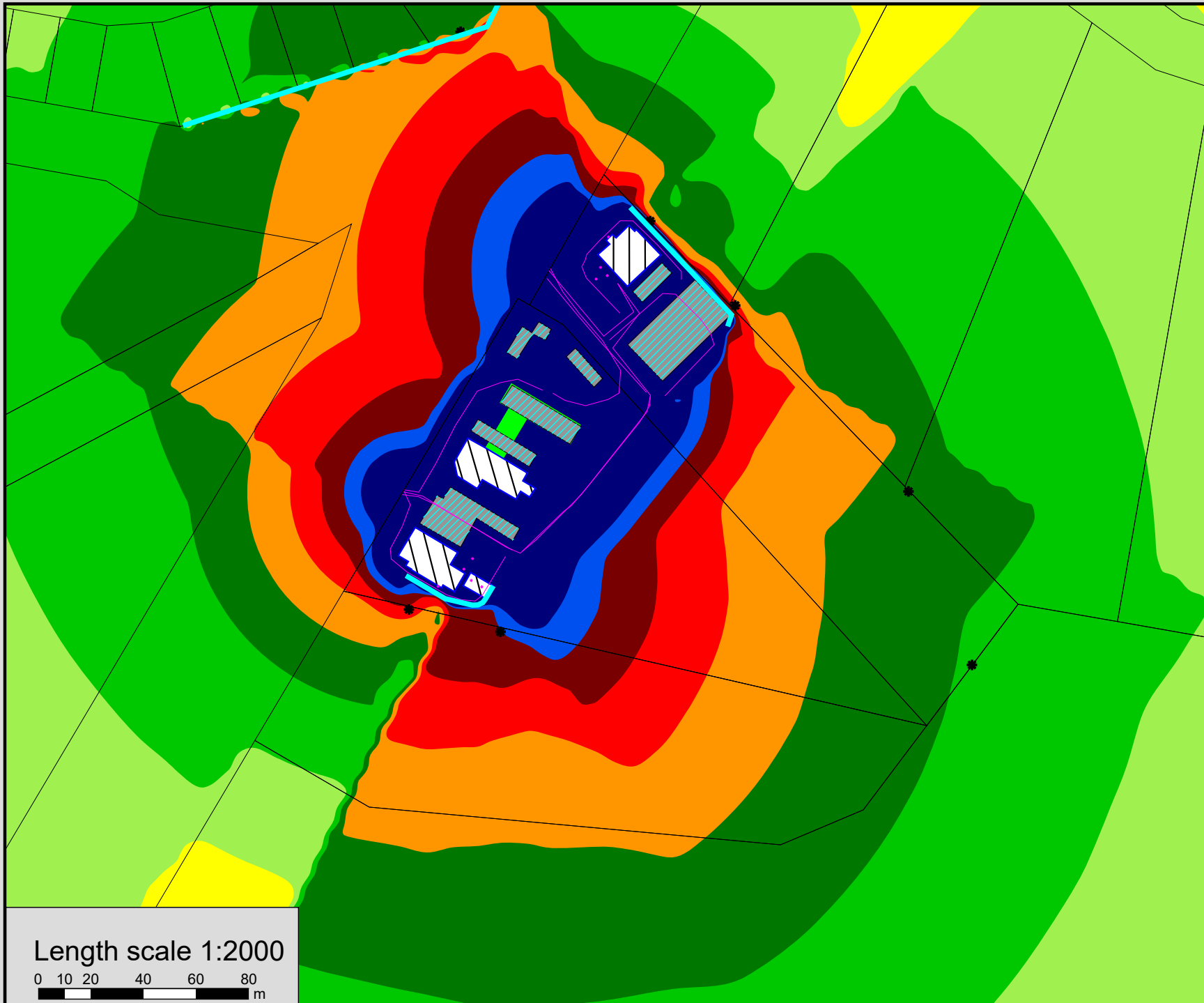
**5am - 10pm Monday to
Saturday Trading
All Uses**

February 2025



Length scale 1:2000





Noise level
L_{Amax}
in dB(A)

<= 39	Yellow
39 < <= 42	Light Green
42 < <= 45	Green
45 < <= 48	Dark Green
48 < <= 51	Orange
51 < <= 54	Red
54 < <= 57	Dark Red
57 < <= 60	Blue
> 60	Dark Blue

Legend

- Cadastral
- Line source
- * Point receiver
- ▨ Parking lot
- Point source
- ▭ Area source
- ▭ Main building
- Barrier/Balustrade
- ▭ Building as source

Logan Village 21-118

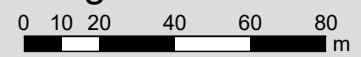
Service Centre Noise
Impact
L_{max} Night-time
(5am to 7am)

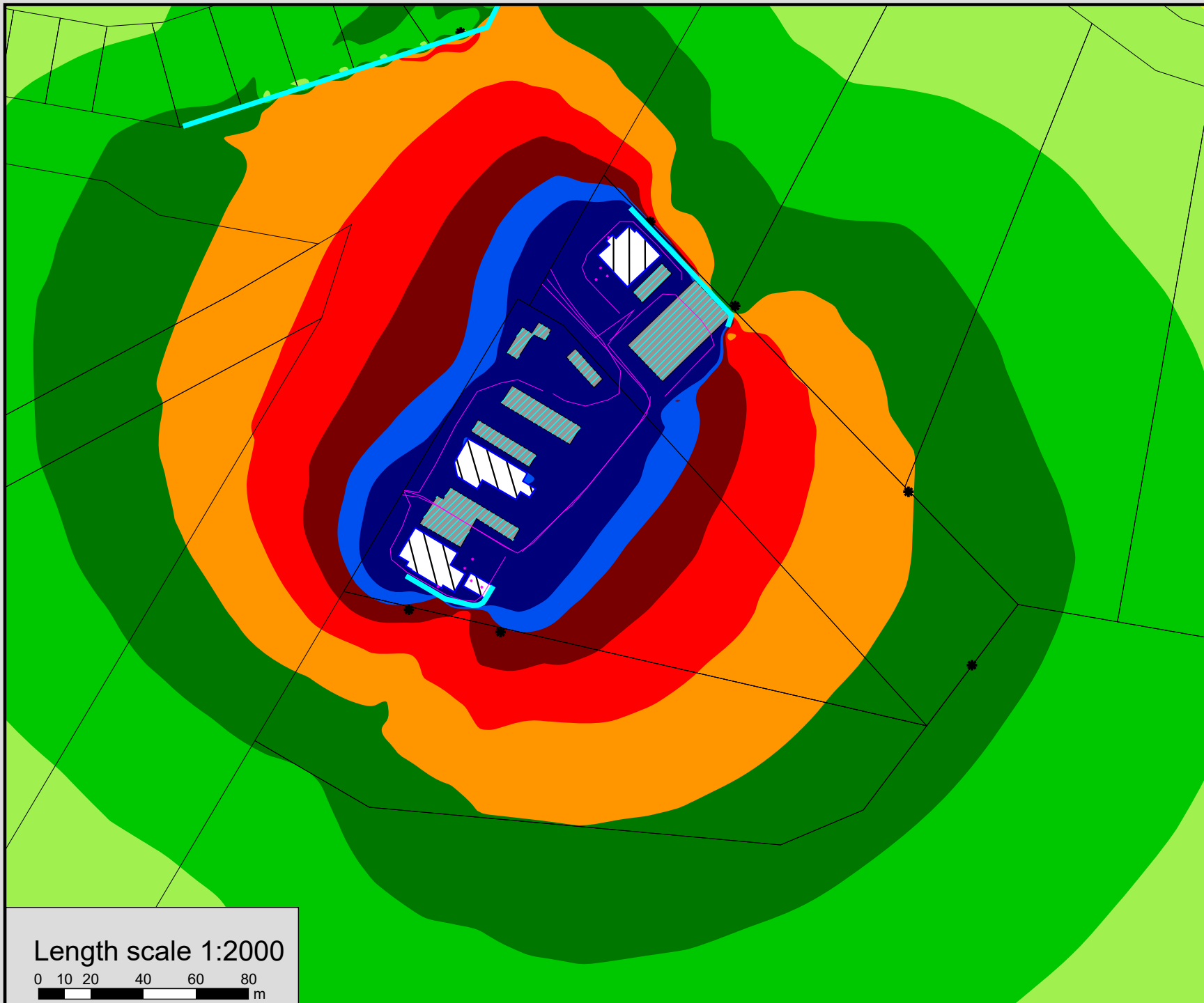
5am - 10pm Monday to
Saturday Trading
All Uses

February 2025



Length scale 1:2000





Noise level
LAeq(1hr)
in dB(A)

<= 30	Yellow
30 <	Light Green
33 <	Green
36 <	Dark Green
39 <	Orange
42 <	Red
45 <	Dark Red
48 <	Blue
51 <	Dark Blue

Legend

- Cadastral
- Line source
- * Point receiver
- ▨ Parking lot
- Point source
- ▭ Area source
- ▨ Main building
- Barrier/Balustrade
- ▭ Building as source

**Logan Village
21-118**

**Service Centre
Noise Impact
Day period**

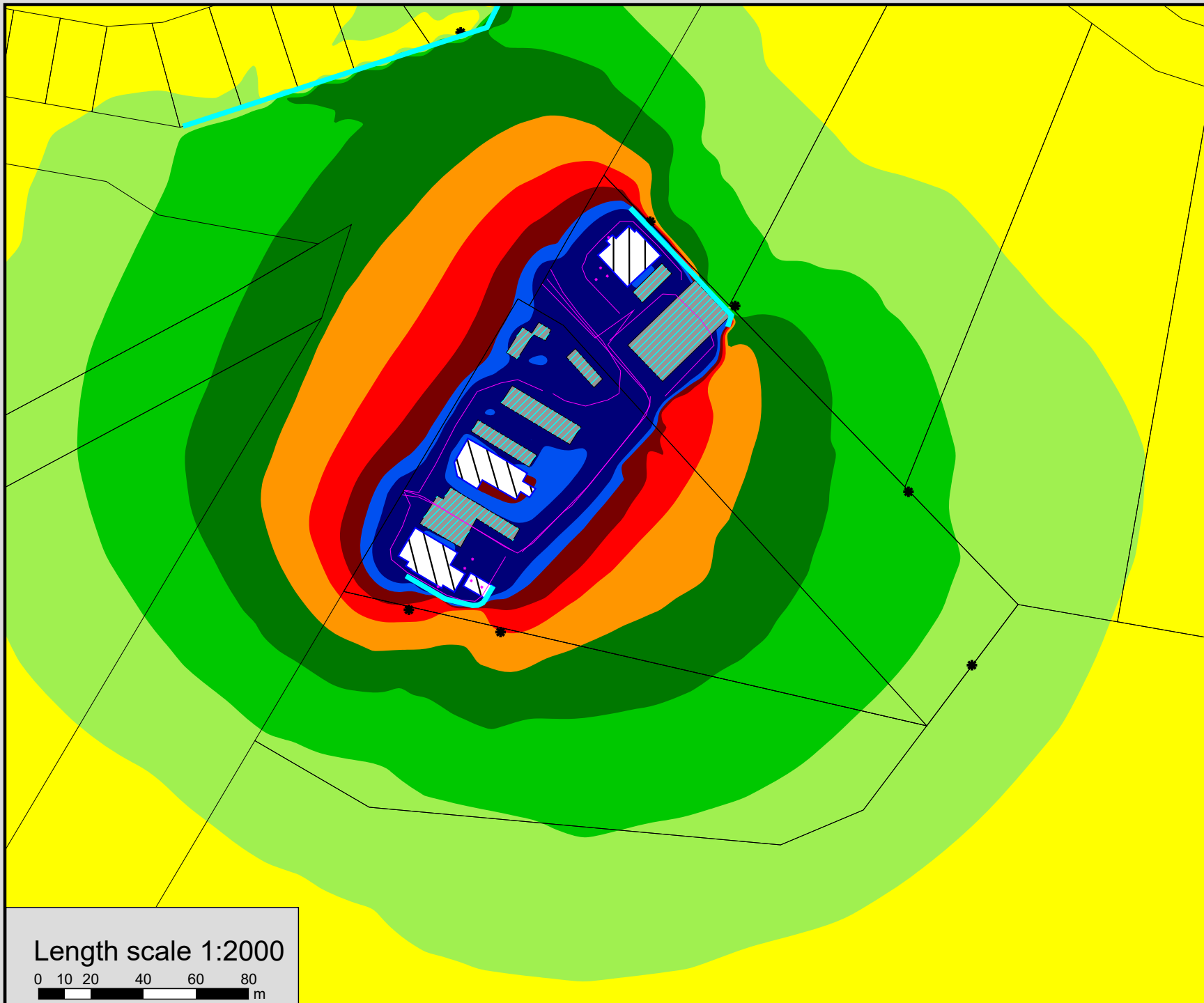
**Sunday Trading
All Uses**

February 2025



Length scale 1:2000





Noise level
L_{Aeq}(1hr)
in dB(A)

<= 30	<= 33
30 <	<= 36
33 <	<= 39
36 <	<= 42
39 <	<= 45
42 <	<= 48
45 <	<= 51
48 <	
51 <	

Legend

- Cadastral
- Line source
- * Point receiver
- ▨ Parking lot
- Point source
- ▭ Area source
- ▨ Main building
- Barrier/Balustrade
- ▭ Building as source

**Logan Village
21-118**

**Service Centre
Noise Impact
Evening period**

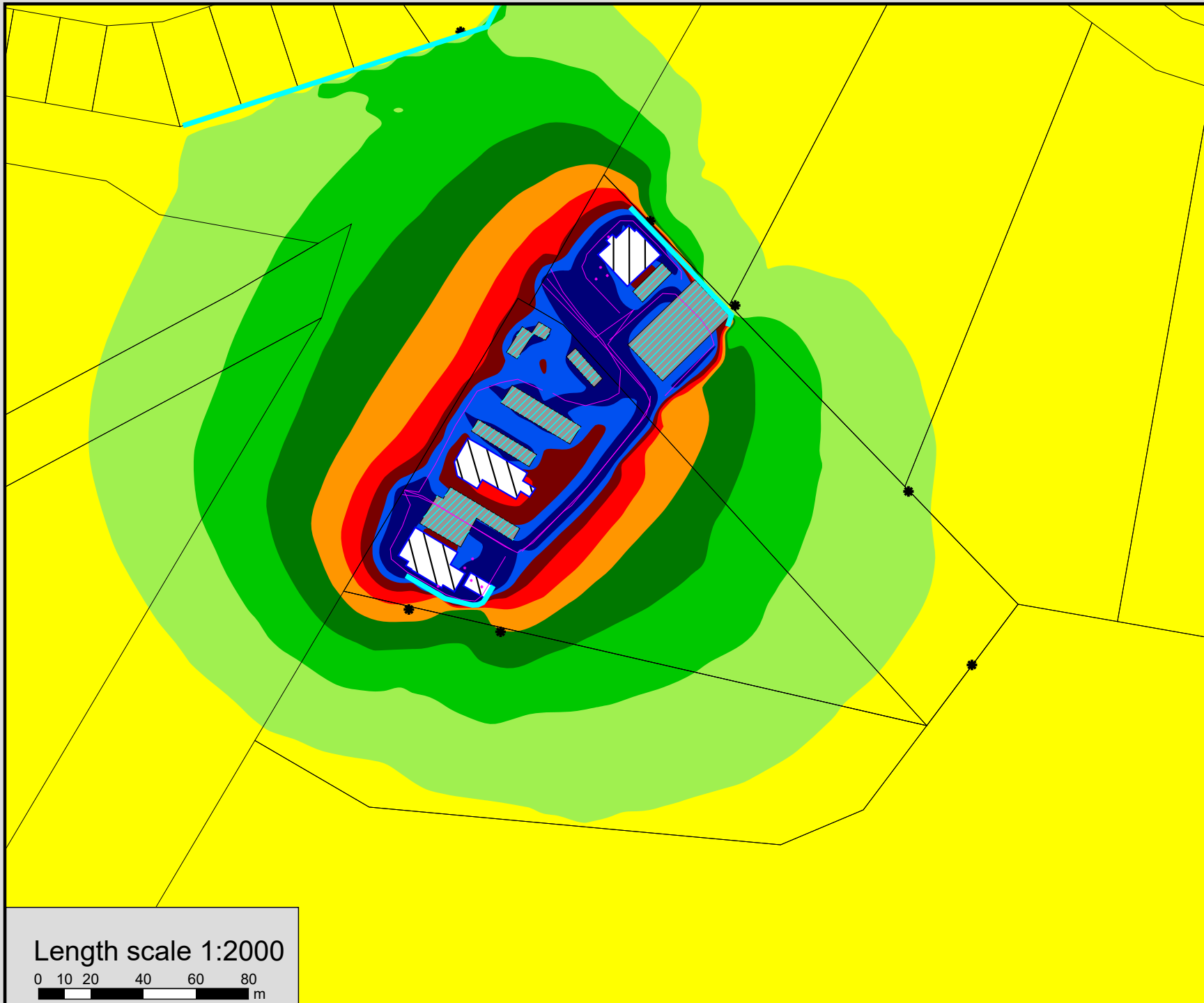
**Sunday Trading
All Uses**

February 2025



Length scale 1:2000





Noise level
LAeq(1hr)
in dB(A)

<= 30	<= 33
30 <	<= 36
33 <	<= 39
36 <	<= 42
39 <	<= 45
42 <	<= 48
45 <	<= 51
48 <	
51 <	

Legend

- Cadastral
- Line source
- * Point receiver
- ▨ Parking lot
- Point source
- ▭ Area source
- ▨ Main building
- Barrier/Balustrade
- ▭ Building as source

**Logan Village
21-118**

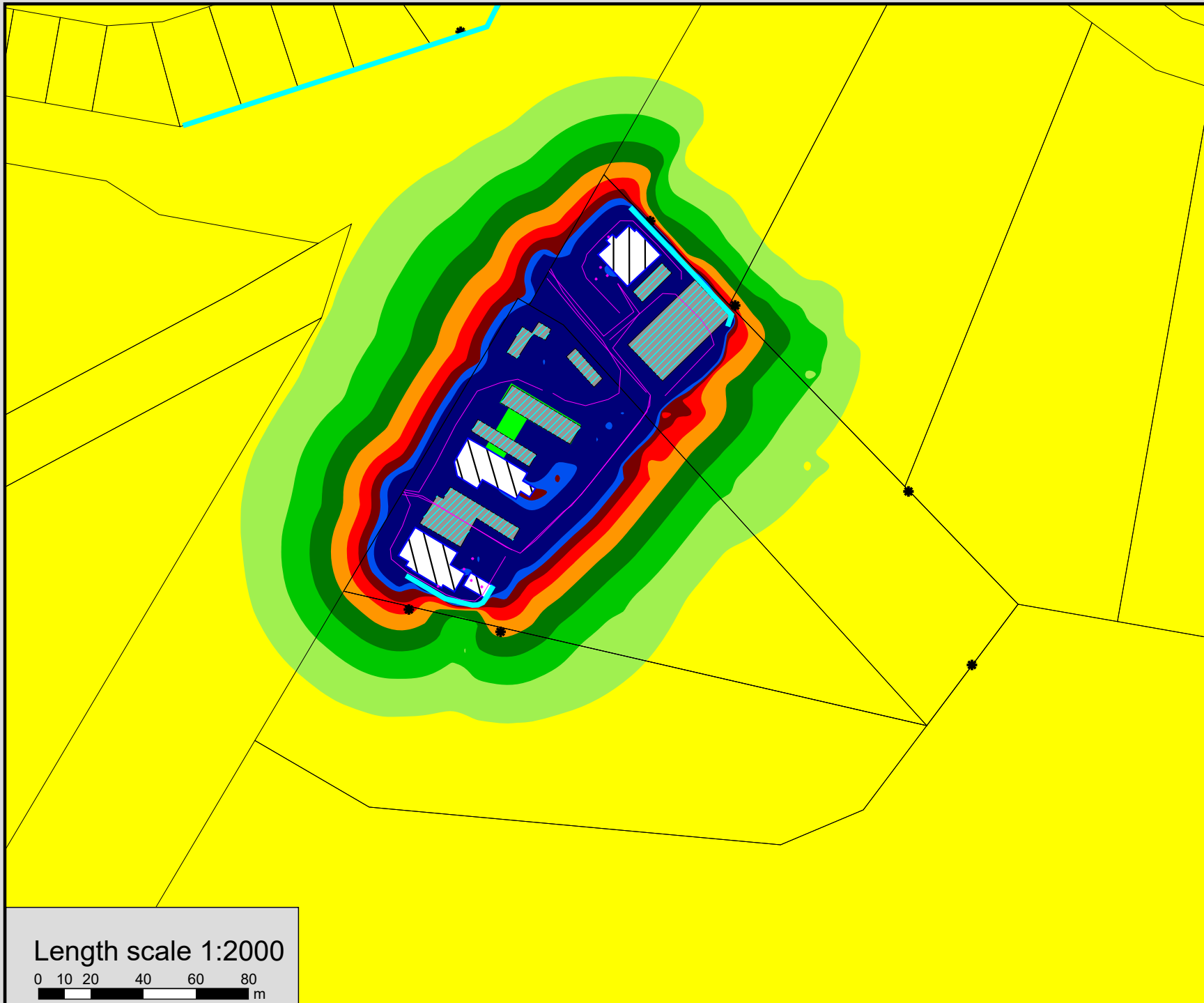
**Service Centre
Noise Impact
Night-time (5am to 7am)**

**Sunday Trading
All Uses**

February 2025

Length scale 1:2000





Noise level
L_{Amax}
in dB(A)

<= 40	Yellow
40 < <= 43	Light Green
43 < <= 46	Green
46 < <= 49	Dark Green
49 < <= 52	Orange
52 < <= 55	Red
55 < <= 58	Dark Red
58 < <= 61	Blue
> 61	Dark Blue

Legend

- Cadastral
- Line source
- * Point receiver
- ▨ Parking lot
- Point source
- ▭ Area source
- ▨ Main building
- Barrier/Balustrade
- ▭ Building as source

**Logan Village
21-118**

**Service Centre
Noise Impact
L_{max} Night-time
(5am to 7am)**

**Sunday Trading
All Uses**

February 2025



Length scale 1:2000

