



Roads and Maritime Services

7 Ashford Road Howlong
Noise monitoring

October 2018

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1. Introduction

The Noise Abatement Program (NAP) targets locations or lengths of existing roadways where road traffic noise levels are very high and are considered excessive for noise-sensitive land uses such as residences, schools, churches and health care institutions.

The purpose of this assessment is to conduct noise monitoring at 7 Ashford Road Howlong.

1. Noise monitoring methodology

Noise monitoring was undertaken from 21 September to 1 October 2018 at the dwelling located at 7 Ashford Road Howlong (shown in Figure 1) during a typical traffic flow period.

Noise monitoring was undertaken using a Svan SV979 sound level meter programmed to accumulate L_{Amax} , L_{Aeq} and L_{A90} noise descriptors continuously over the entire monitoring period. Details of the noise monitoring equipment are provided in Table 1. The sound level meter conforms to the requirements of Australian Standard AS 1259.2 *Sound Level Meters* and carries current NATA calibration. Calibration certificates of the noise monitoring equipment are shown in Appendix B.

Prior to deployment, a calibration check was performed on the noise monitoring equipment using a sound level calibrator with a sound pressure level of 94 dB(A) at 1 kHz. At completion of the measurements, the meter's calibration was re-checked to ensure the sensitivity of the noise monitoring equipment had not varied. The noise loggers were found to be within the acceptable tolerance of ± 0.5 dB(A).

The data collected by the logger was downloaded and analysed, and any invalid data removed. Invalid data generally refers to periods of time where average wind speeds were greater than 5 m/s (adjusted for noise logger height), or when rainfall occurred. Meteorological data was sourced from the Bureau of Meteorology weather station located at Rutherglen AWS.

All noise monitoring activities were undertaken and processed in accordance with AS 2702 *Acoustics – Methods for the Measurement of Road Traffic Noise*.

Table 1 Noise monitoring details

Noise Logger	Location
Monitoring location	7 Ashford Road Howlong
Resident (client)	Mr Leigh Ashford,
Logger Type/ Serial No.	Svan SV979 Serial 27100
Measurement started	12:30 hours, 21 September 2018
Measurement ceased	12:30 hours, 1 October 2018
Pre/Post calibration	94.00 / 94.01 dB @ 1 kHz
Freq. weighting	A
Time response	Fast
Microphone height	1.5 m from the ground
Microphone location	Free-field
Photograph 1	
Photograph 2	

Noise Logger	Location
Photograph 3 	
Photograph 4 	

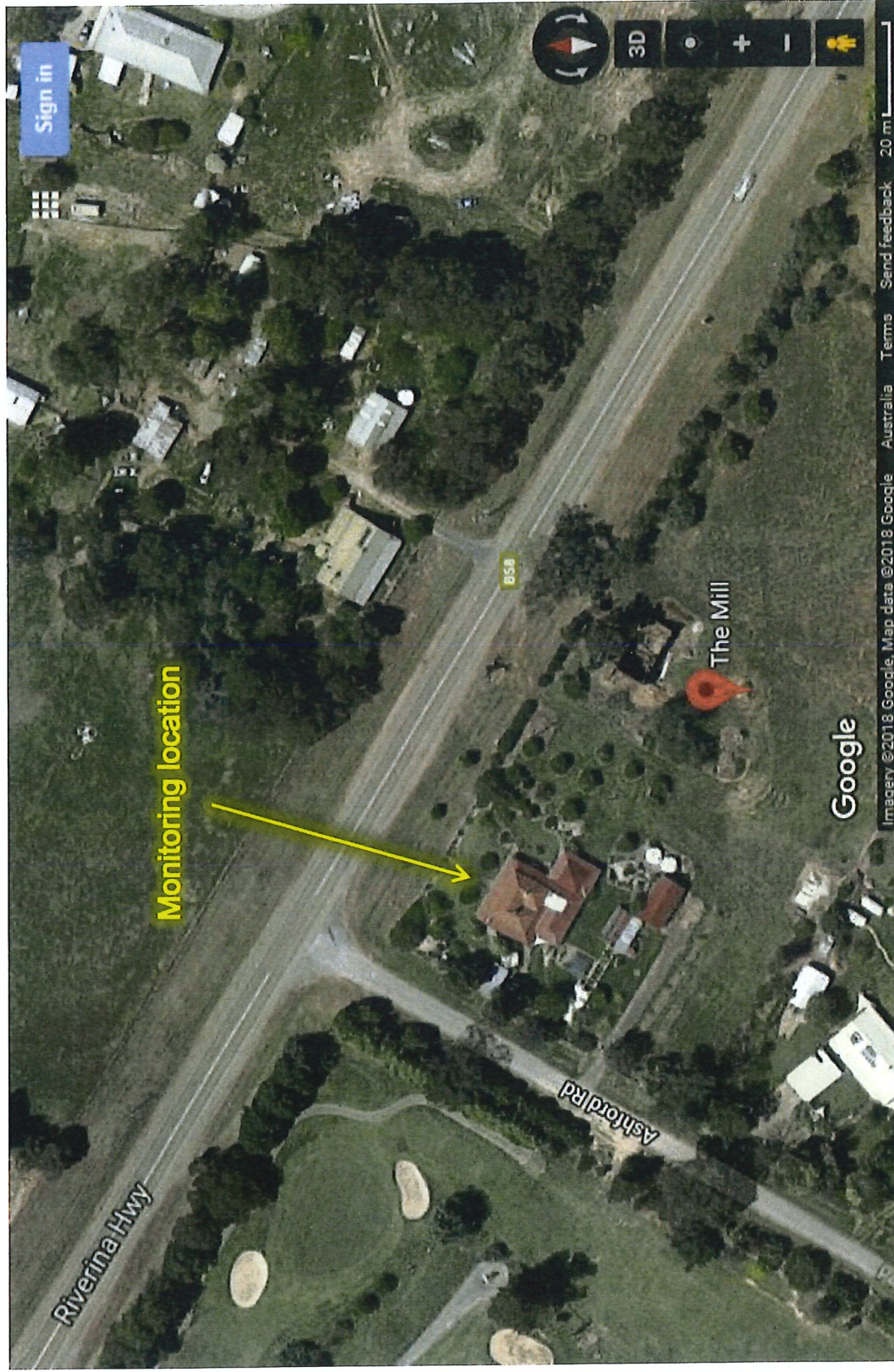


Figure 1 Locality map and noise monitoring location

2. Noise monitoring results

Noise parameters are summarised in Table 2 with monitoring charts of noise parameters presented in Appendix A (free-field). Note the noise monitoring parameters in Table 2 include a façade correction. Detailed descriptions of the acoustic terms can be found in Appendix C.

Table 2 Noise monitoring results, dBA

Date	Noise parameters ¹		
	L _{Aeq} (15hr)	L _{Aeq} (9hr)	L _{Aeq} (24hr)
	7 am to 10 pm	10 pm to 7 am	12 am to 12 am
Friday-21-Sep-18	61	55	60
Saturday-22-Sep-18	60	55	58
Sunday-23-Sep-18	62	54	61
Monday-24-Sep-18	61	56	59
Tuesday-25-Sep-18	61	55	60
Wednesday-26-Sep-18	61	57	60
Thursday-27-Sep-18	62	56	61
Friday-28-Sep-18	62	53	60
Saturday-29-Sep-18	60	53	58
Sunday-30-Sep-18	61	55	59
Monday-1-Oct-18	61		59
Overall	61	55	60

Note 1: Includes façade correction of 2.5 dBA

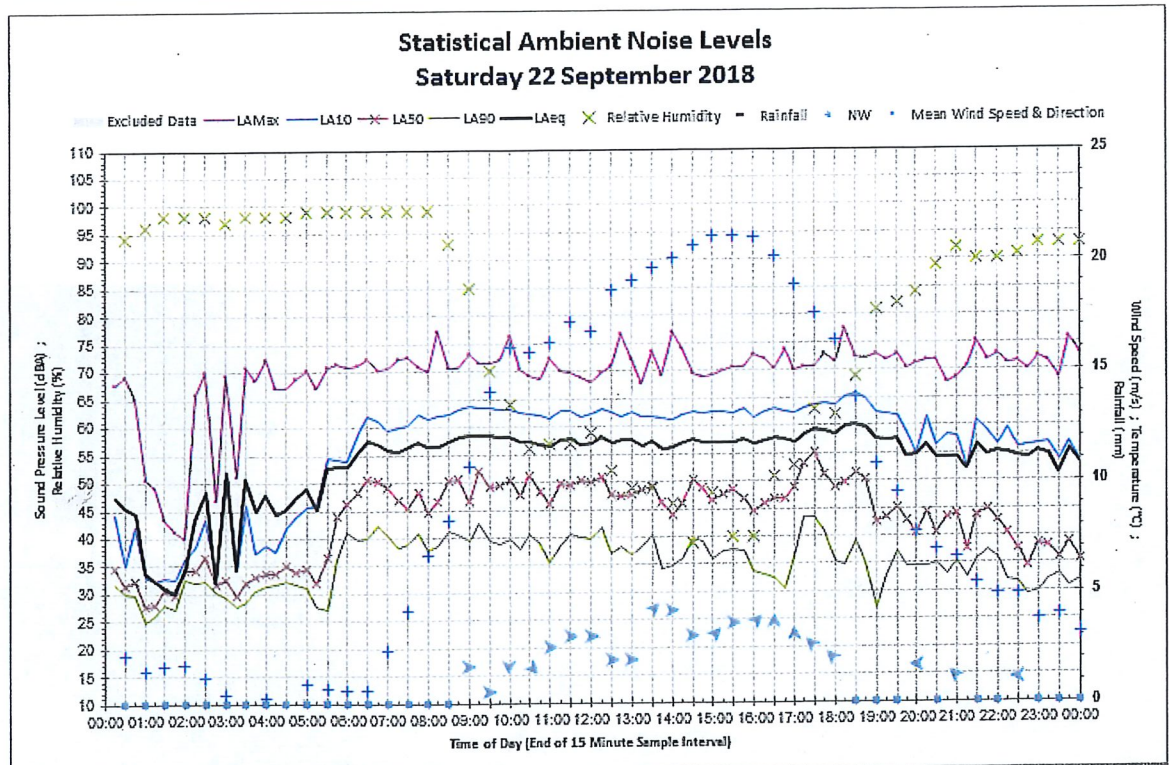
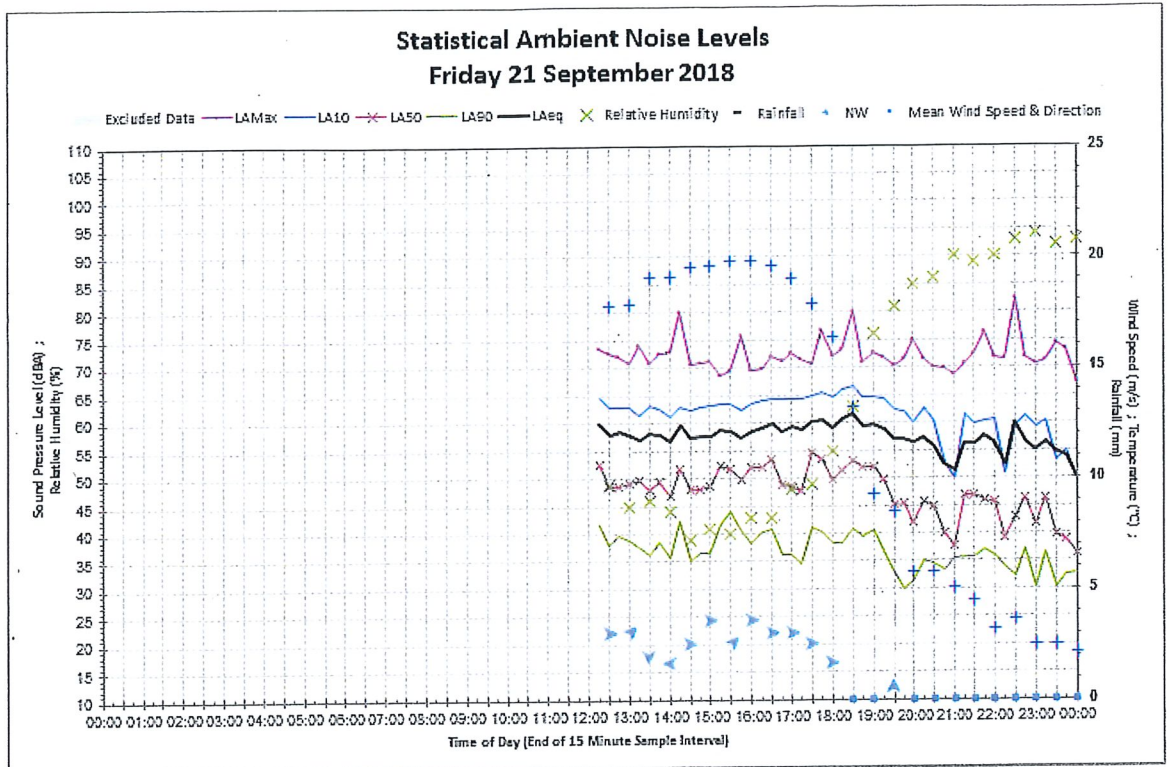
3. Conclusion

This noise monitoring assessment presents the results of the road traffic noise monitoring undertaken at the residential dwelling located at 7 Ashford Road Howlong.

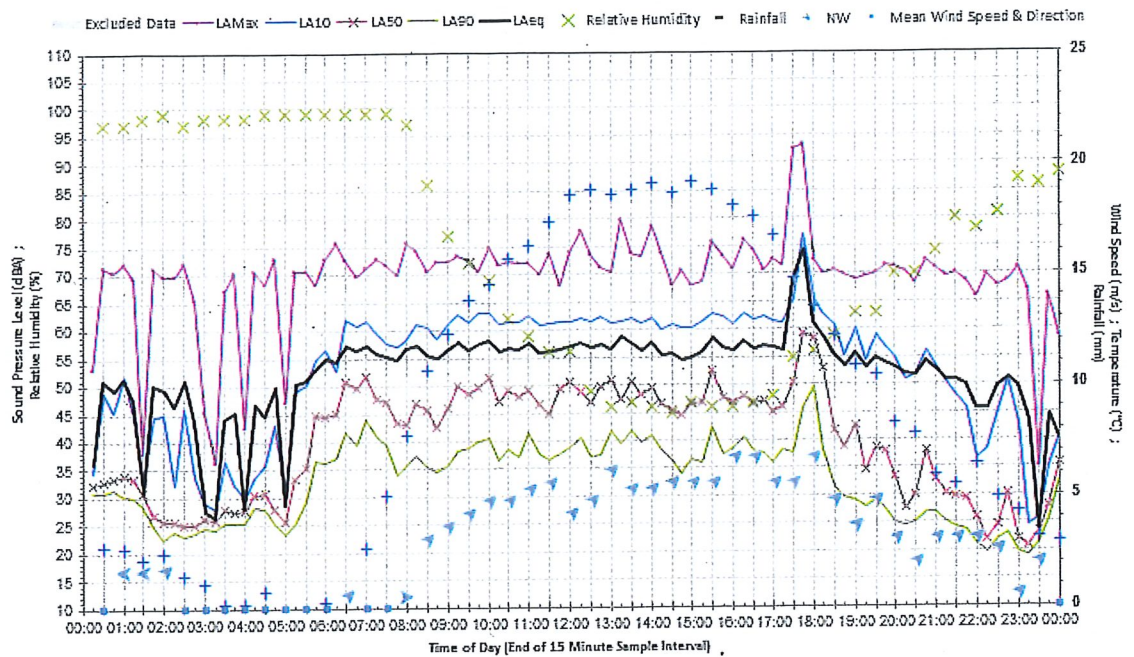
The road traffic noise results include $L_{Aeq}(15hr)$, $L_{Aeq}(9hr)$ and $L_{Aeq}(24hr)$ noise parameters and the results are summarised in the report.

Appendices

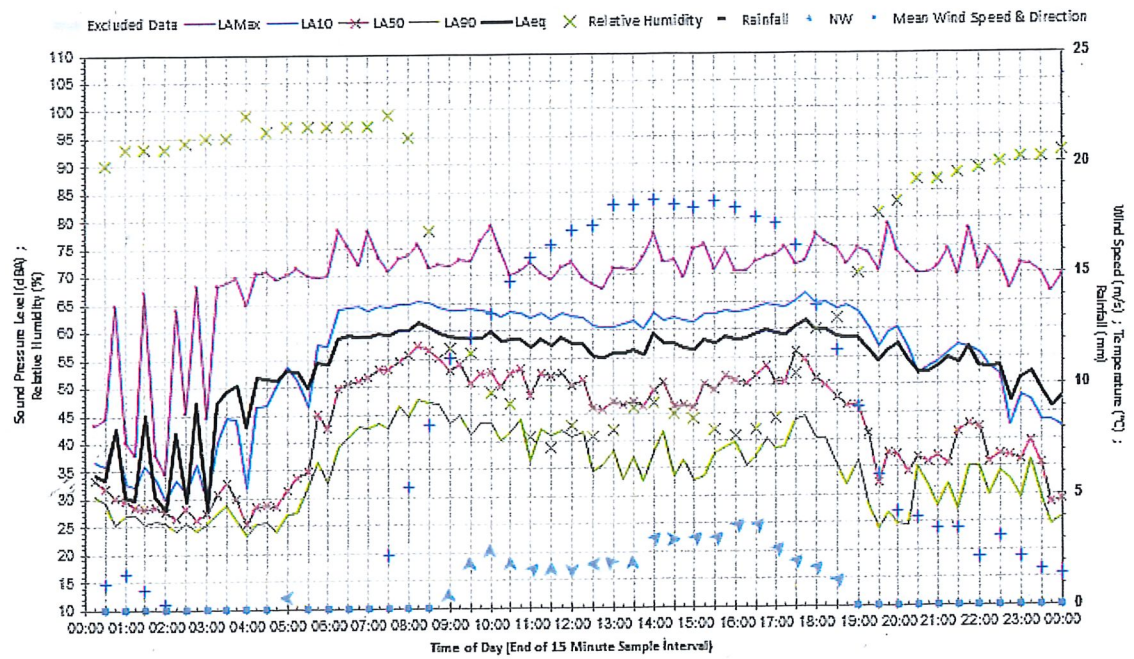
Appendix A – Noise monitoring charts



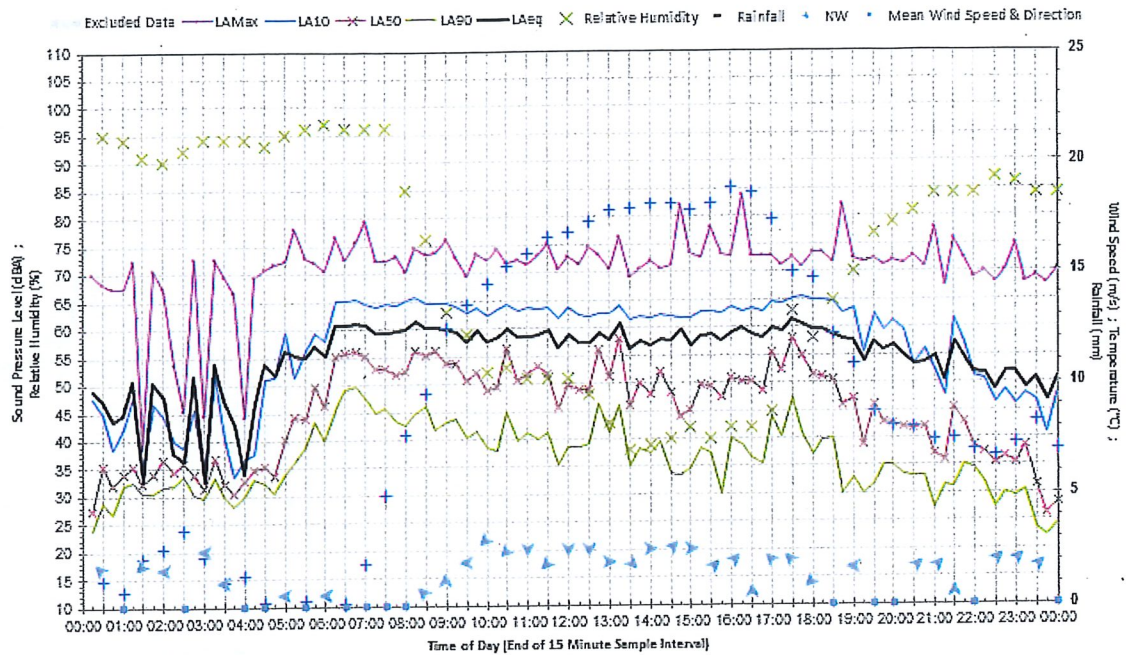
Statistical Ambient Noise Levels Sunday 23 September 2018



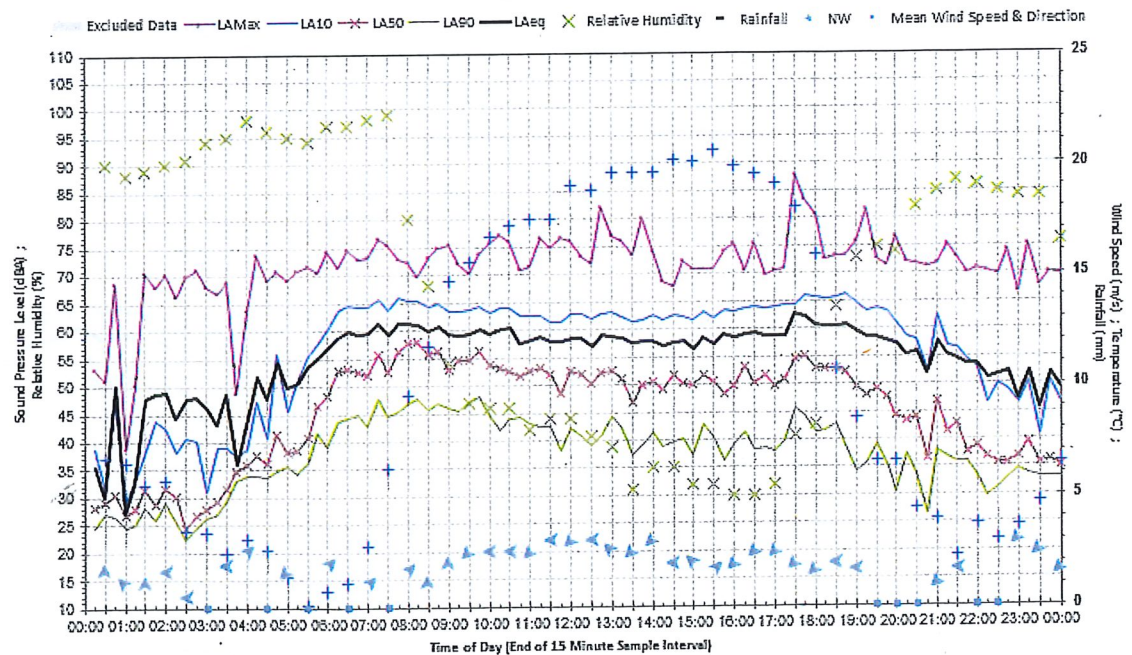
Statistical Ambient Noise Levels Monday 24 September 2018



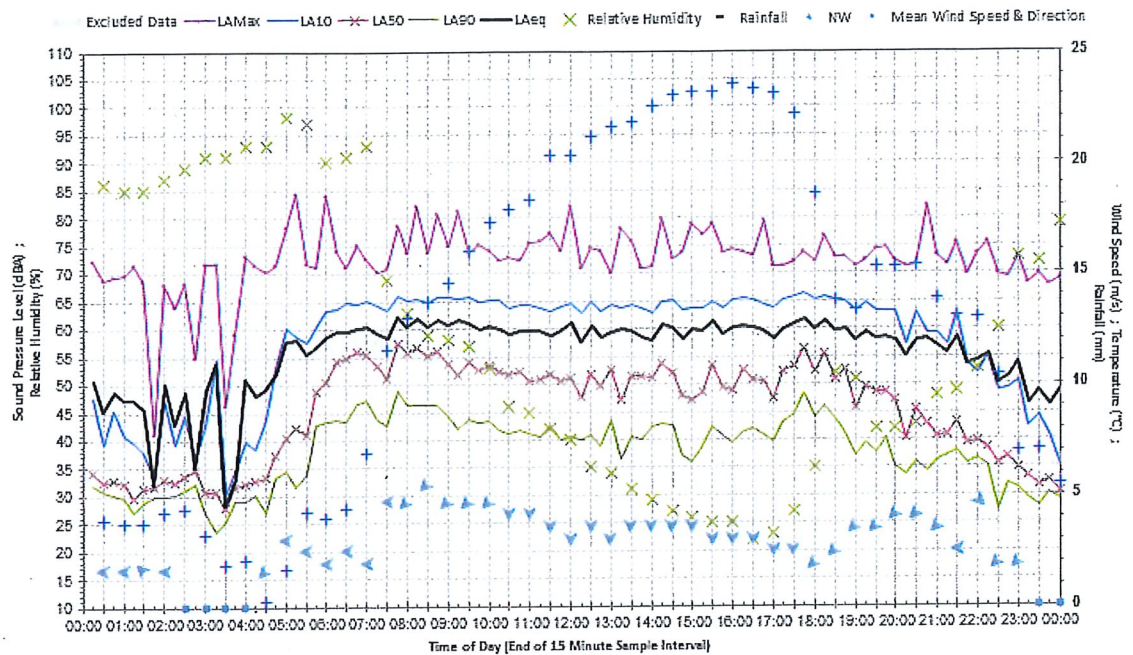
Statistical Ambient Noise Levels Tuesday 25 September 2018



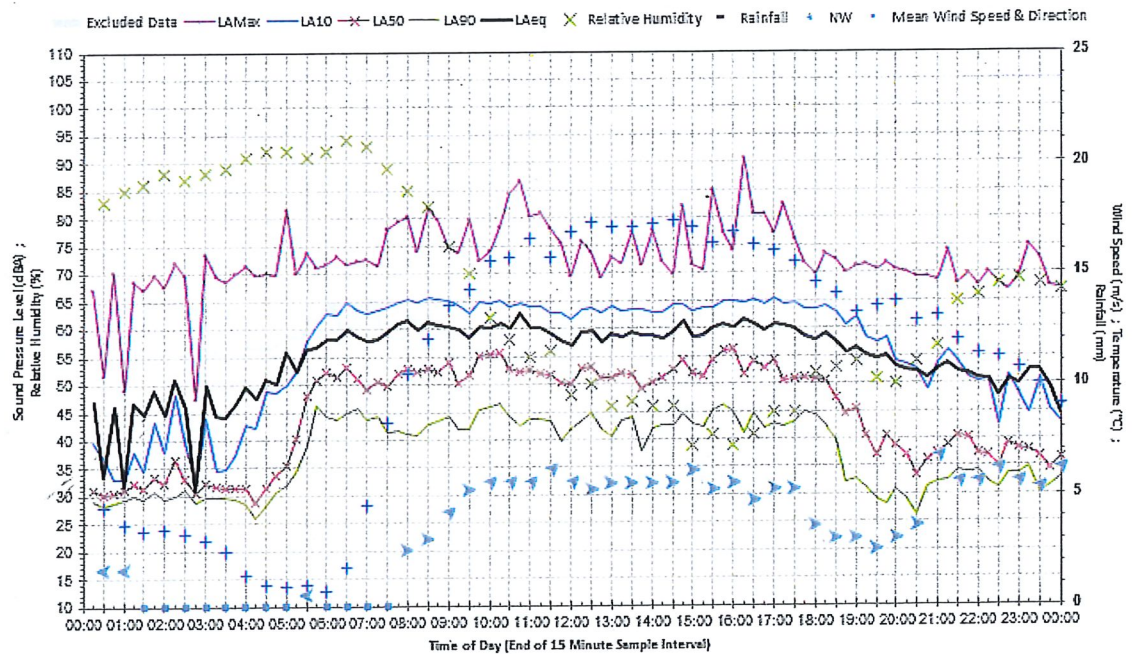
Statistical Ambient Noise Levels Wednesday 26 September 2018



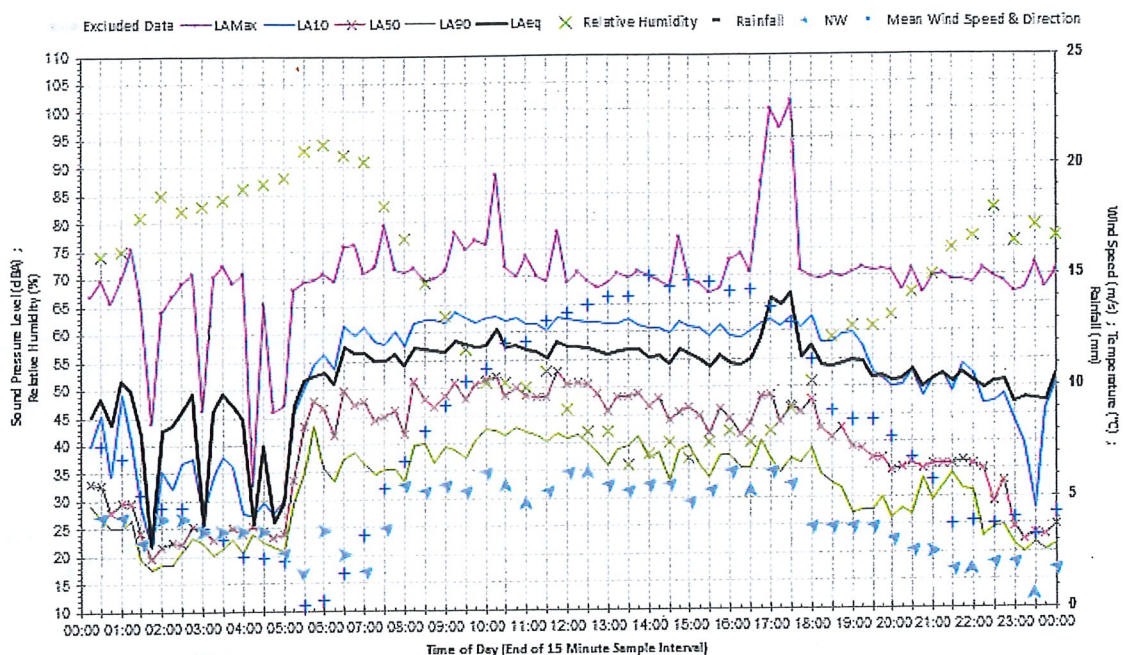
Statistical Ambient Noise Levels Thursday 27 September 2018



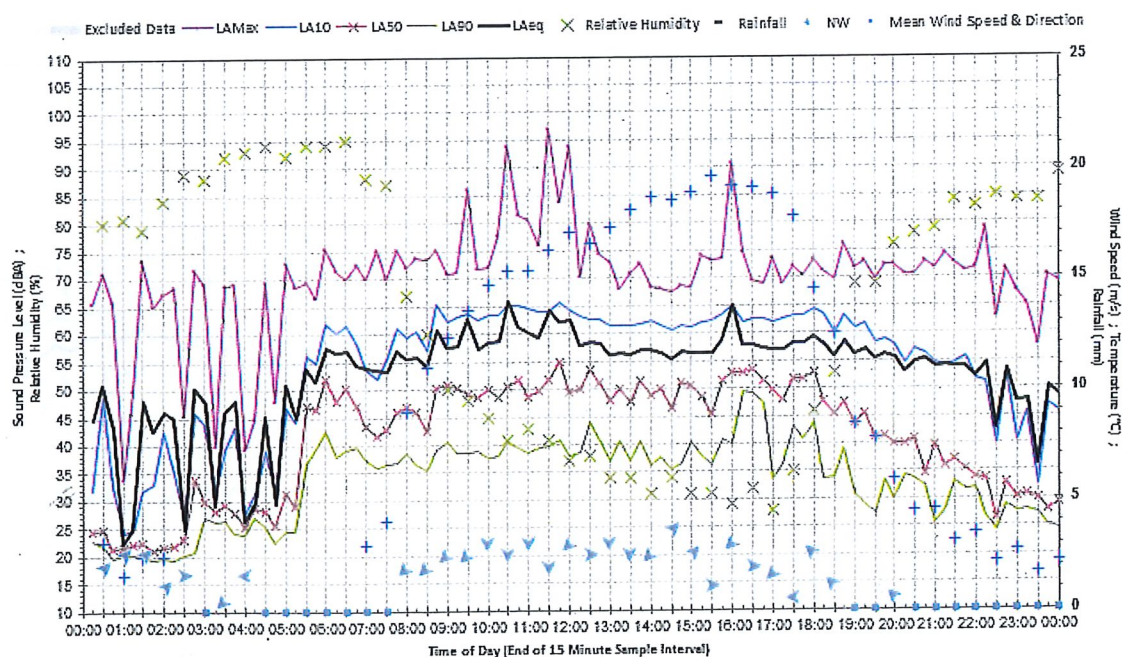
Statistical Ambient Noise Levels Friday 28 September 2018



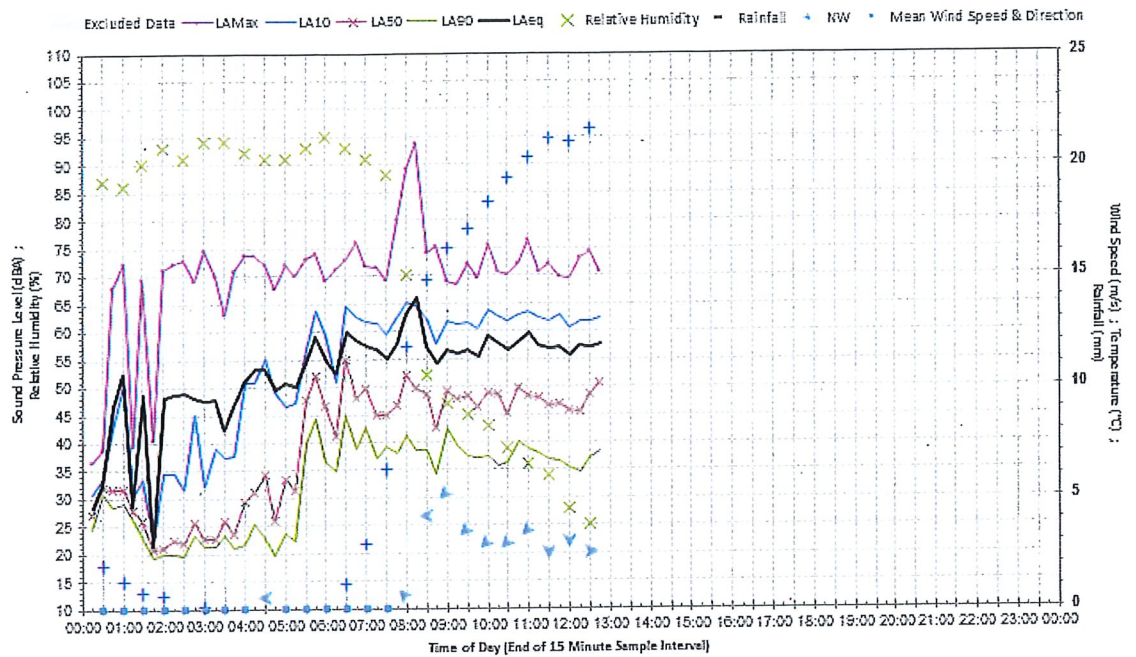
Statistical Ambient Noise Levels Saturday 29 September 2018



Statistical Ambient Noise Levels Sunday 30 September 2018



Statistical Ambient Noise Levels Monday 1 October 2018



Appendix B – Calibration certificate

**CERTIFICATE OF
CALIBRATION**

CERTIFICATE NO.: SLM 22431 & FILT 4575

Equipment Description: Sound & Vibration Analyzer

Manufacturer: Svantek

Model No: Svan-979 **Serial No:** 27100

Microphone Type: 40 AE **Serial No:** 137942

Filter Type: 1/3 Octave **Serial No:** 27100

Comments: All tests passed for class 1.
(See over for details)

Owner: GHD Pty Ltd
Level 15, 133 Castle Street
Sydney, NSW 2000

Ambient Pressure: 1000 hPa ± 1.5 hPa

Temperature: 24 °C ± 2 °C **Relative Humidity:** 60% ± 5 %

Date of Calibration: 29/03/2018 **Issue Date:** 03/04/2018

Acu-Vib Test Procedure: AVP10 (SLM) & AVF00 (Filters)

CHECKED BY: *[Signature]* **AUTHORISED SIGNATURE:** *[Signature]*

Accredited for compliance with ISO/IEC 17025 - Calibration
The results of the tests, calibration and/or measurements included in this document are traceable to
Australian/national standards



NATA
ACCREDITATION



ACU-VIB
ELECTRONICS

HEAD OFFICE
Unit 14, 22 Hudson Ave. Castle Hill NSW 2154
Tel: (02) 9608133 Fax: (02) 9608233
Mobile: 0413 809800
web site: www.acu-vib.com.au

Accredited Lab. No. 9262
Acoustic and Vibration
Measurements

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Appendix C – Glossary of acoustic terms

Abbreviation	Definition
dB	Decibel is the logarithmic unit used for expressing the sound pressure level (SPL) or power level (SWL) in acoustics.
dB(A)	Frequency weighting filter used to measure 'A-weighted' sound pressure levels, which conforms approximately to the human ear response, as our hearing is less sensitive at very low and very high frequencies.
L _{Amax}	The A-weighted maximum sound level recorded during the measurement period.
L _{Aeq(15hr)}	The A-weighted equivalent continuous (energy average) L _{Aeq} noise level for the period 7 am to 10 pm.
L _{Aeq(9hr)}	The A-weighted equivalent continuous (energy average) L _{Aeq} noise level for the period 10 pm to 7 am.
L _{A90(period)}	The A-weighted sound pressure level exceeded for 90 per cent of the time over which a given sound is measured. This is considered to represent the background noise.

GHD

Level 15

133 Castlereagh Street

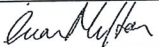
T: 61 2 9239 7100 F: 61 2 9239 7199 E: sydmail@ghd.com

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Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	E Milton	V Lau		E Milton		8/10/18

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