

# Noise Monitoring Report for the Western Renewal Project

Covering the period 19 June to 31 July, 2020

## Overview

Prior to commencement of the Western Renewal Project the Sydney Opera House commissioned Hibbs and Associates to develop a *Construction Noise and Vibration Management Sub Plan*. The plan outlines the following construction noise limits:

*SOH's Noise Impact Assessment (NIA) conducted noise surveys at the nearest NSRs and calculated NMLs from these in accordance with the ICNG. The Construction Management Plan sets out work patterns as:*

- *1030 hours to 1800 hours – General construction / no major noise generating activities*
- *18:00 hours to 2330 hours – Planning and quiet activities which are compatible with the live performances occurring in other venues within the site*
- *2330 hours to 1030 hours – Works which will otherwise be disruptive to Opera House operations but not audible outside of the building*

*Based on this, only the NMLs for standard daytime working hours apply as follows:*

PASR	Kirribilli	Bennelong Apartments	Potts Point
Warning level, $L_{Aeq,15m}$ (dB)	61	65	58
Maximum Level, $L_{Aeq,15m}$ (dB)	64	68	61

## Unattended Noise Monitoring

In order to monitor construction noise levels from the Western Renewal site at the nearest receiver, an unattended noise logger was installed on the fourth floor balcony of the northern most apartment of the Bennelong Apartments.

There was an issue with the initial noise logger provider which only became apparent in late July when SOH was advised a report was unable to be issued. A new provider was contracted from 1 August. The data available for the period 19 June to 31 July is the exceedences of the above maximum levels which was sent as an alert to the mobile phone of the designated SOH employee. This data is captured below in Table.A.

It can be inferred from data later collected from attended noise monitoring sessions that any of the following may have been responsible for maximum level breaches:

- Vehicle movement on Macquarie Street
- Vessel movement and horns on the harbour
- Helicopter fly overs
- Cleaning scrubber in close proximity
- General pedestrian activity

In addition, between 19 and 30 June, maintenance works were being carried out on balconies immediately adjacent to the noise logger.

Table.A.

DATE	TIME	READING	NOTES
Saturday 20/6	08:16	LEQ 71 dB>68 dB	
Monday 22/6	09:34	LEQ 71 dB>68 dB	
	09:49	LEQ 71 dB>68 dB	
	10:04	LEQ 73 dB>68 dB	
Wednesday 24/6	11:48	LEQ 68 dB>68 dB	
Friday 3/7	11:58	LEQ 72 dB>68 dB	
	18:58	LEQ 68 dB>68 dB	
	19:28	LEQ 78 dB>68 dB	
	19:43	LEQ 77 dB>68 dB	
Saturday 4/7	18:58	LEQ 69 dB>68 dB	SOH Construction Contractor was not working
Wednesday 8/7	15:04	LEQ 71 dB>68 dB	
Tuesday 21/7	08:08	LEQ 70 dB>68 dB	

As no noise complaints were received at the time, and construction activities were within the SOH building, it is assumed that the above measured exceedances are associated with external environmental noise and not with construction activities.

Glossary:

NML – Noise Management Level

NSR – Noise Sensitive Receiver

ICNG – Interim Construction Noise Guideline