



Noise & Vibration Monthly Report

Barangaroo Cutaway Cultural Facility
3847.07_R02

NoiseNet Operations Pty Ltd
ABN: 26 624 212 175
noisenet.com.au
P: 1800 266 479

Customer Name: FDC Construction
Report Number: 3847.07_R02
Reporting Period: 12/11/2024 to 26/11/2024
Issue Date: 26/11/2024

Compiled By: Jake Donovan-Parker

Reviewed By: Jonathan South

1 Executive Summary

Noise and vibration associated with construction activities were monitored between 12th and 26th November 2024 (inclusive). There were eight instances where noise levels exceeded the alarm level for high noise emission, with levels reducing significantly after 3 hours of activity. All respite periods were observed.

There were zero instances where vibration levels exceeded established alerting or alarming levels. Therefore, the vibration levels are not expected to pose a potential threat to nearby residential or heritage buildings.

NoiseNet should be informed in advance of any planned activities likely to cause high levels of vibration, such as piling or rock breaking. Key personnel should continue to observe alerting and alarming via email and SMS, as established in installation report reference *3847_Installation_Report_Barangaroo_Cutaway_FDC_Construction_R02*.

2 Noise

Over the reporting period, there were eight instances where noise exceeded the established levels for high emission.

There were extended periods on the 18th and 21st of November where noise levels exceeded the threshold for high noise emissions. On the 18th there were two extended periods where noise levels exceeded the threshold for high emissions: 10:25 am to 12:00 pm and 2:00 pm to 5:00 pm (an appropriate respite period was observed from 12:00 pm to 2:00 pm). On the 21st of November there was one period where noise levels exceeded the threshold for high noise emissions which was between 2:50 and 4:15 pm. Noise was typically observed to be from drilling and/or jackhammering, movement of plant and equipment as well as general construction noise such as reverse beepers and power tools.

Other days only had brief periods above the threshold for high noise emissions which are outlined in Table 1. All respite periods were adhered to.

Noise impacts are primarily to sensitive receivers along Merriman Street, with relatively little impact to commercial receivers near Munn Street. In all cases, noise levels returned to acceptable levels within a reasonable time and all required respite periods were observed.

A selection of notable noises that were observed over the reporting period are showed in Table 1 below, with reference recordings provided.

Filename	Date	Time	Description	Merriman Street Receiver Levels		Munn Street Offices Receiver Levels	
				LA _{eq} (dB)	LA _{max} (dB)	LA _{eq} (dB)	LA _{max} (dB)
2024-11-12T14_14_47.wav	12/11/2024	14:00-15:30	Sandstone drilling into the top of the sandstone.	75	89	63	77
2024-11-13T14_14_47.wav	13/11/2024	14:00-17:00	Sandstone drilling into the top of the sandstone.	75	93	61	80
2024-11-14T12_47_43.wav	14/11/2024	12:30-13:30	Structural steel installation. Metal banging/hammering and heavy machinery.	77	95	-	-
2024-11-18T10_56_38.wav	18/11/2024	10:20-12:00	HCT (skylight S.04) demolition works, heavy machinery and other general plant movement.	79	91	66	76
2024-11-18T14_10_25.wav and 2024-11-18T16_43_34.wav	18/11/2024	14:05-17:00	HCT (skylight S.04) demolition works, heavy machinery and other general plant movement.	76	87	65	89
2024-11-19T09_53_45.wav	19/11/2024	9:20-12:00	HCT (skylight S.04) demolition works, heavy machinery and other general plant movement.	76	92	63	77
2024-11-20T10_20_36.wav	20/11/2024	9:30-12:00	HCT (skylight S.04) demolition works, heavy machinery and other general plant movement.	76	88	-	-
2024-11-21T15_26_51.wav and 2024-11-21T16_02_53.wav	21/11/2024	14:10-16:25	Jackhammering and/or drilling, heavy machinery and other general plant movement.	78	88	-	-

Table 1: Most notable noises during the reporting period.

3 Vibration

Over the reporting period, there were zero instances where vibrations from construction activities at the Barangaroo Cutaway exceeded warning or alarm levels.

NoiseNet should be informed in advance of any planned activities likely to cause high levels of vibration, such as piling or rock breaking.

It should be noted that the site level vibration sensor (1004V) was not online for the entire period covered by this report. We are working with FDC Construction to resolve this.

The most notable vibrations observed are reported in Table 2 below.

Date	Time	Description	Street Level Peak Vibration	Site Ground Level
			Velocity Peak mm/s	Velocity Peak mm/s
12/11/2024	7:19 am	1002V.	0.674	-
19/11/2024	7:09 am	1002V and 1001V.	0.580	-
20/11/2024	9:13 am	1000V.	0.601	-

Table 2: Most notable vibrations during the reporting period.

4 Report Issue Log

Document Title	Reference	Reporting Period	Issue Date
3847_Installation_Report_Barangaroo_Cutaway_FDC_Construction_R01 (Superseded)	3847	13/06/2024	24/06/2024
3847_01_NVMR_Barangaroo_Cutaway_FDC_Construction_R01	3847_01	13/06/2024 to 24/06/2024	24/06/2024
3847_Installation_Report_Barangaroo_Cutaway_FDC_Construction_R02	3847	11/07/2024	25/07/2024
3847_02_NVMR_Barangaroo_Cutaway_FDC_Construction_R01	3847_02	25/06/2024 to 24/07/2024	25/07/2024
3847_03_NVMR_Barangaroo_Cutaway_FDC_Construction_R01 (Superseded)	3847_03	25/07/2024 to 26/08/2024	26/08/2024
3847_03_NVMR_Barangaroo_Cutaway_FDC_Construction_R02	3847_03	25/07/2024 to 26/08/2024	26/08/2024
3847_04_NVMR_Barangaroo_Cutaway_FDC_Construction	3847_04	26/08/2024 to 25/09/2024	25/09/2024
3847_05_NVMR_Barangaroo_Cutaway_FDC_Construction (Superseded)	3847_05	26/09/2024 to 25/10/2024	25/10/2024
3847_05_NVMR_Barangaroo_Cutaway_FDC_Construction_R02	3847_05	26/09/2024 to 25/10/2024	31/10/2024
3847_06_NVMR_Barangaroo_Cutaway_FDC_Construction	3847_06	25/10/2024 to 11/10/2024	12/11/2024

Compiled By:

Jake Donovan-Parker



Reviewed By:

Jonathan South

