



Environmental Monitoring Data

Project:	Sydney Metro City & Southwest– TSE Works
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01	12/06/2019	D. Windnagel	R. Muir	R. Muir	For publication

Project Summary

The Sydney Metro City and Southwest is the second portion of the new standalone rail network known as the Sydney Metro which is Australia’s largest public transport infrastructure project and a priority rail project for the NSW Government. John Holland CPB Ghella (JHCPBG) have been contracted by Transport for New South Wales to design and construct the Tunnel and Stations Excavation Works Project (TSE Works) of the Sydney Metro City & Southwest between Chatswood and Sydenham. Figure 1 provides an overview of the Project.



Figure 1: Project Overview

Environmental Protection Licence and Reporting Requirements

John Holland Pty Ltd obtained the Environment Protection Licence (EPL No. 20971) from the NSW Environment Protection Authority for the Tunnel and Station Excavation (TSE) Works on behalf of the John Holland CPB Ghella (JHCPBG) Joint Venture. The licence is for construction works relating to Rail Systems Activities and Concrete Works as defined under Schedule 1 of the *Protection of the Environment Operations Act, 1997* (POEO Act).

The licence describes monitoring and reporting requirements for the TSE Works, and specifically provides discharge criteria for water treatment plant and sediment basin water quality. The following report details environmental monitoring undertaken during this reporting month conducted in accordance with the EPL.

The EPL can be found by following the link below to the EPA’s website:

<https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=153426&SYSUID=1&LICID=20971>

Discharge Water Monitoring

Testing and discharge was undertaken during this reporting period. Table 1 contains the discharge monitoring results.

Noise and Vibration Monitoring

Noise and vibration monitoring was undertaken during this reporting period. Table 2 contains the vibration monitoring results, and Table 3 contains the noise monitoring results.

Real-Time Noise and Vibration Monitoring

Real-time noise and vibration monitors were operating at Barangaroo, Crows Nest, Martin Place, Pitt Street, and Victoria Cross during the May reporting period. Table 4.1 and 4.2 contains summarised real-time noise monitoring results and real-time vibration data is displayed in Table 5.

Table 1: Discharge Water Monitoring Data.

Monitoring Point	Identifier ¹	Date Sampled	Event Based Monitoring (Y/N)	Parameter/ Criteria/ Measured Value			Comments
				pH (6.5 - 8.5)	Turbidity (<35 NTU)	Oil & Grease (None Visible)	
2	BL_02	1/05/2019	Y	7.1	5.9	Nil	Discharge permit issued
2	BN_02	1/05/2019	Y	7.46	1.01	Nil	Discharge permit issued
1	MDS_01	5/05/2019	Y	7.5	10.02	Nil	Discharge permit issued
2	CN_02	6/05/2019	Y	7.6	1.5	Nil	Discharge permit issued
3	PS_03	6/05/2019	Y	7.2	4.9	Nil	Discharge permit issued
1	WL_01	6/05/2019	Y	7.4	6.9	Nil	Discharge permit issued
2	CD_02	7/05/2019	Y	7.9	<10	Nil	Discharge permit issued
3	VC_03	16/05/2019	Y	7.3	2.4	Nil	Discharge permit issued

¹ As per discharge point identified in Sydney Metro City and Southwest Temporary Basin and Water Treatment Discharge Point Schedule

Table 2: Vibration Monitoring Data.

Monitoring location	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Measured VDV (m/s ^{1.75})	VDV Target (m/s ^{1.75})	VDV Compliant	Measured PPV (mm/s)	PPV Target (mm/s)	PPV Compliant
Nil									

No attended vibration data was collected during the month of May, 2019.

Table 3: Noise Monitoring Data

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
BP_01, 14-28 Blues Point Road, McMahons Point	01/05/2019	Attended	Y	LAeq 15 mins	52.0	54	TSE works compliant
BP_02, 1 Warung street, McMahons Point	01/05/2019	Attended	Y	LAeq 15 mins	50.7	54	TSE works compliant
CDS_06, 2 Orchard Road, Chatswood	01/05/2019	Attended	Y	LAeq 15 mins	70.9	82	TSE works compliant
BN_03, 10 High Street, Millers Point	02/05/2019	Attended	Y	LAeq 15 mins	49.6	50	TSE works compliant
PS_02, 27 Park Street, Pitt Street (North)	02/05/2019	Attended	Y	LAeq 15 mins	48.5	50	TSE works compliant
PS_02, 27 Park Street, Pitt Street (North)	02/05/2019	Attended	Y	LAeq 15 mins	60.0	60	TSE works compliant
PS_02, 27 Park Street, Pitt Street (North)	02/05/2019	Attended	Y	LAeq 15 mins	65.6	65	TSE works compliant, non-TSE noise sources dominant
CDS_06, 344 Mowbray Road, Chatswood	02/05/2019	Attended	Y	LAeq 15 mins	68.0	95	TSE works compliant
MP_02, 5 Hosking Place, Sydney, Lvl 1, room 104	02/05/2019	Attended	Y	LAeq 15 mins	32.8	35	TSE works compliant
MP_02, 5 Hosking Place, Sydney, Lvl 1, room 104	02/05/2019	Attended	Y	LAeq 15 mins	30.5	35	TSE works compliant
VC_07, 80 Berry Street, North Sydney	06/05/2019	Attended	Y	LAeq 15 mins	58.8	55	TSE works compliant, traffic dominant noise source
BN_03, 8 high street, Millers point	06/05/2019	Attended	Y	LAeq 15 mins	55.0	75	TSE works compliant
BN_03, 30 High Street, Millers Point	08/05/2019	Attended	Y	LAeq 15 mins	60.0	50	TSE works compliant, wind and traffic dominant noise source

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
BN_03, 10 High St, Millers Point	13/05/2019	Attended	Y	LAeq 15 mins	58.3	50	TSE works compliant, traffic dominant noise source
MP_01, 165 Phillip Street, Sydney	13/05/2019	Attended	Y	LAeq 15 mins	72.5	70	TSE works compliant, traffic dominant noise source
MP_01, 165 Phillip Street, Sydney	13/05/2019	Attended	Y	LAeq 15 mins	70.9	70	TSE works compliant, traffic dominant noise source
MP_02, 17 Castlereagh Street, Sydney	13/05/2019	Attended	Y	LAeq 15 mins	61.5	61	TSE works compliant, traffic dominant noise source
PS_01, 339 Pitt Street, Sydney	14/05/2019	Attended	Y	LAeq 15 mins	68.4	77	TSE works compliant
BN_03, 10 High St, Millers Point	15/05/2019	Attended	Y	LAeq 15 mins	61.4	50	TSE works compliant, traffic dominant noise source
WS_04, 62-72 Botany Road, Waterloo	15/05/2019	Attended	Y	LAeq 15 mins	66.4	52	TSE works compliant, traffic dominant noise source
WS_01, 104 Raglan Street, Waterloo	15/05/2019	Attended	Y	LAeq 15 mins	54.2	56	TSE works compliant
WS_04, 62-72 Boatny Road, Waterloo	16/05/2019	Attended	Y	LAeq 15 mins	41.3	45	TSE works compliant
WS_04, 62-72 Boatny Road, Waterloo	16/05/2019	Attended	Y	LAeq 15 mins	71.0	52	TSE works compliant, traffic dominant noise source
CDS_06, 544 Mowbray Rd	20/05/2019	Attended	Y	LAeq 15 mins	65.8	50	TSE works compliant, traffic dominant noise source
CDS_06, 544 Mowbray Rd	20/05/2019	Attended	Y	LAeq 15 mins	59.3	84	TSE works compliant, traffic dominant noise source
CDS_06, 544 Mowbray Rd	21/05/2019	Attended	Y	LAeq 15 mins	62.4	50	TSE works compliant, traffic dominant noise source
CDS_06, 344 Mowbray Rd, Chatswood	21/05/2019	Attended	Y	LAeq 15 mins	57.3	84	TSE works compliant

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
CN_03, Clarke Lane	21/05/2019	Attended	Y	LAeq 15 mins	59.1	65	TSE works compliant, traffic dominant noise source
BN_03, 25 Hickson Rd (level 1)	22/05/2019	Attended	Y	LAeq 15 mins	38.8	50	TSE works compliant
BN_03, 30 High Street, Millers Point	28/05/2019	Attended	Y	LAeq 15 mins	56.4	50	TSE works compliant, traffic dominant noise source
VC_05, 237 Miller Street, Victoria Cross - Inside apartment	29/05/2019	Attended	Y	LAeq 15 mins	38.4	45	TSE works compliant
VC_05, 237 Miller Street, Victoria Cross - Apartment building lower basement	29/05/2019	Attended	Y	LAeq 15 mins	52.2	45	TSE works compliant, ventilation system dominant noise source
VC_05, 237 Miller Street, Victoria Cross - Apartment building ground level foyer	29/05/2019	Attended	Y	LAeq 15 mins	45.6	45	TSE works compliant, building occupants main noise source
VC_05, 237 Miller Street, Victoria Cross - Apartment building level 2 foyer	29/05/2019	Attended	Y	LAeq 15 mins	44.0	45	TSE works compliant
CN_01, 22-26 Clarke Street, Crows Nest	29/05/2019	Attended	Y	LAeq 15 mins	59.1	72	TSE works compliant
BN_04, 30 High Street, Millers Point	30/05/2019	Attended	Y	LAeq 15 mins	57.1	57	TSE works compliant
MP_02, 17 Castlereagh Street, Sydney	30/05/2019	Attended	Y	LAeq 15 mins	61.3	64	TSE works compliant, traffic dominant noise source
WS_04, 62-72 Botany Road, Waterloo	30/05/2019	Attended	Y	LAeq 15 mins	70.1	52	TSE works compliant, traffic dominant noise source.

Table 4-1 Summary Table of Real Time Noise Data Compared Against EPL Condition E1.1.

Location & Noise Goal																		
Date	545 Pacific Hwy		10 to 12 Clarke Street		65 Berry Street		Castlereagh Boutique Hotel		Edinburgh Castle Hotel		50 Martin Place		25A Hickson Road		243 Miller Street		60 Castlereagh Street (Basement)	
	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
01/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
02/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
03/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
04/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
05/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
06/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
07/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
08/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
09/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Location & Noise Goal																		
Date	545 Pacific Hwy		10 to 12 Clarke Street		65 Berry Street		Castlereagh Boutique Hotel		Edinburgh Castle Hotel		50 Martin Place		25A Hickson Road		243 Miller Street		60 Castlereagh Street (Basement)	
	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
16/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
22/05/2019	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
23/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
26/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
27/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
28/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
29/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
30/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
31/05/2019	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 4-2: Real-Time Noise Monitoring Data

Report for Condition E1.1 on 01/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	2	Yes
	Lower	39	13	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	2	Yes
	Lower	39	20	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	25	Yes
	Lower	39	36	Yes
Report for Condition E1.1 on 02/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	5	Yes
	Lower	39	31	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	8	Yes
	Lower	39	24	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	4	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	10	Yes
	Lower	39	14	Yes

Report for Condition E1.1 on 03/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	2	Yes
	Lower	39	29	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	15	Yes
	Lower	39	27	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	2	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	13	Yes
	Lower	39	22	Yes
Report for Condition E1.1 on 04/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	4	Yes
	Lower	39	7	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	5	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	1	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	14	Yes
	Lower	39	17	Yes

Report for Condition E1.1 on 05/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	10	Yes
Report for Condition E1.1 on 06/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	3	Yes
	Lower	39	22	Yes
65 Berry St	Upper	26	1	Yes
	Lower	39	1	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	1	Yes
	Lower	39	27	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	2	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	1	Yes
60 Castlereagh St (Basement)	Upper	26	21	Yes
	Lower	39	30	Yes

Report for Condition E1.1 on 07/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	5	Yes
	Lower	39	22	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	5	Yes
	Lower	39	32	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	1	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	11	Yes
Report for Condition E1.1 on 08/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	12	Yes
	Lower	39	30	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	14	Yes
	Lower	39	30	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	1	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	12	Yes

Report for Condition E1.1 on 09/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	22	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
Edinburgh Castle Hotel	Upper	26	12	Yes
	Lower	39	25	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	14	Yes
	Lower	39	18	Yes
Report for Condition E1.1 on 10/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	6	Yes
	Lower	39	19	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	2	Yes
	Lower	39	3	Yes
Edinburgh Castle Hotel	Upper	26	5	Yes
	Lower	39	37	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	18	Yes
	Lower	39	27	Yes

Report for Condition E1.1 on 11/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	9	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	3	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	11	Yes
	Lower	39	15	Yes
Report for Condition E1.1 on 12/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	10	Yes

Report for Condition E1.1 on 13/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	25	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	17	Yes
	Lower	39	25	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	18	Yes
	Lower	39	25	Yes
Report for Condition E1.1 on 14/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	3	Yes
10 to 12 Clarke Street	Upper	26	8	Yes
	Lower	39	34	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	1	Yes
	Lower	39	4	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	12	Yes
	Lower	39	20	Yes

Report for Condition E1.1 on 15/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	1	Yes
10 to 12 Clarke Street	Upper	26	8	Yes
	Lower	39	32	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	1	Yes
	Lower	39	35	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	9	Yes
	Lower	39	14	Yes
Report for Condition E1.1 on 16/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	14	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	12	Yes
	Lower	39	32	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	13	Yes

Report for Condition E1.1 on 17/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	1	Yes
10 to 12 Clarke Street	Upper	26	2	Yes
	Lower	39	31	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	9	Yes
	Lower	39	47	No
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	13	Yes
Report for Condition E1.1 on 18/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	7	Yes
	Lower	39	17	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	7	Yes
	Lower	39	15	Yes
50 Martin Place	Upper	26	3	Yes
	Lower	39	4	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	12	Yes
	Lower	39	23	Yes

Report for Condition E1.1 on 19/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	11	Yes
Report for Condition E1.1 on 20/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	6	Yes
	Lower	39	30	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	19	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	10	Yes
	Lower	39	23	Yes

Report for Condition E1.1 on 21/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	17	Yes
	Lower	39	37	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	11	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	9	Yes
	Lower	39	13	Yes
Report for Condition E1.1 on 22/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	12	Yes
	Lower	39	42	No
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	8	Yes
	Lower	39	27	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	16	Yes
	Lower	39	28	Yes

Report for Condition E1.1 on 23/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	4	Yes
10 to 12 Clarke Street	Upper	26	9	Yes
	Lower	39	34	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	15	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	23	Yes
	Lower	39	32	Yes
Report for Condition E1.1 on 24/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	3	Yes
	Lower	39	34	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	11	Yes
	Lower	39	42	No
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	12	Yes
	Lower	39	23	Yes

Report for Condition E1.1 on 25/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	2	Yes
	Lower	39	16	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	4	Yes
	Lower	39	16	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	10	Yes
Report for Condition E1.1 on 26/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	8	Yes
	Lower	39	10	Yes

Report for Condition E1.1 on 27/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	2	Yes
	Lower	39	24	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	16	Yes
	Lower	39	29	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	32	No
	Lower	39	37	Yes

Report for Condition E1.1 on 28/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	12	Yes
	Lower	39	35	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	13	Yes
	Lower	39	28	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	15	Yes
	Lower	39	22	Yes

Report for Condition E1.1 on 29/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	7	Yes
	Lower	39	36	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
Edinburgh Castle Hotel	Upper	26	4	Yes
	Lower	39	30	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	14	Yes
	Lower	39	26	Yes
Report for Condition E1.1 on 30/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	34	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	4	Yes
	Lower	39	21	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	15	Yes
	Lower	39	28	Yes

Report for Condition E1.1 on 31/05/2019				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	1	Yes
10 to 12 Clarke Street	Upper	26	2	Yes
	Lower	39	25	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	8	Yes
	Lower	39	31	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	13	Yes
	Lower	39	17	Yes

Real Time Noise Analysis Results Comments:

Edinburgh Castle Hotel, Sydney

At 6:00pm on 17 May 2019 the real-time noise monitor installed adjacent to Pitt Street South site (Edinburgh Castle Hotel) logged 39 logging periods above 50dBA between the working hours of 07:00-20:00 AEDT. As works on site had ceased at 5:45pm any logged periods after this time are not considered to be attributed to construction works. TSE works compliant with condition E1.1.

At 7:15pm on 24 May 2019 the real-time noise monitor installed adjacent to Pitt Street South site (Edinburgh Castle Hotel) logged 39 logging periods above 50dBA between the working hours of 07:00-20:00 AEDT. As works on site had ceased at 6:00 pm any logged periods after this time are not considered to be attributed to construction works. TSE works compliant with condition E1.1.

10-12 Clarke Street, Crows Nest

At 6:00pm on 22 May 2019 the real-time noise monitor installed adjacent to the Crows Nest site (10-12 Clarke Street) logged 39 logging periods at this site above 50dBA.

An investigation was undertaken by the Senior Environmental Coordinator and Site Superintendent, and it was found that works had been completed prior to 6.00pm during this shift. As works on the

surface of the site had ceased prior to 6:00 pm any logged periods after this time are not considered to be attributed to construction works. TSE works compliant with condition E1.1.

60 Castlereagh Street, Sydney.

The 2:15pm on 27 May 2019 the real-time noise monitor installed adjacent to the Martin Place site (60 Castlereagh Street) logged 26 logging periods above 55dBA.

An investigation was undertaken by the site Environmental Coordinator and Community Place Manager. No high noise generating works were being undertaken onsite in the vicinity of 60 Castlereagh Street. The noise monitor is located within the buildings fire control room. It is understood that the property owners were undertaking maintenance work inside the same room as the noise monitor throughout the day of the 27 May 2019. It was therefore concluded that the alarm was not a result of TSE works.

Table 5: Real-Time Vibration Monitoring Data (Maximum recorded value per day)

Day	22 Clarke Street, Crows Nest	10 to 12 Clarke Street, Crows Nest	65 Berry Street, North Sydney	237 Miller Street, North Sydney	243 Miller Street, North Sydney	25A Hickson Road, Millers Point	50 Martin Place, Sydney	60 Castlereagh Street (Basement), Sydney	Castlereagh Boutique Hotel	211-217 Castlereagh Street, Sydney
Criteria (mm/S)	25	25	25	25	7.5	25	7.5	25	7.5	25
01/05/2019	0.61	0.89	0.66	0.46	0.91	0.13	0.5	0.44	0.78	9.33
02/05/2019	0.97	0.64	0.52	0.41	0.76	0.18	1.04	0.77	4.87	25.76
03/05/2019	0.69	0.51	0.86	1.68	1.31	0.15	1.78	0.77	1.49	0.37
04/05/2019	0.7	0.38	0.79	0.43	1.34	0.13	0.32	0.62	11.42	0.4
05/05/2019	0.47	0.28	0.62	1.16	1.26	0.13	0.28	0.15	0.15	0.09
06/05/2019	0.88	0.36	0.85	6.46	1.08	0.11	0.5	1.16	2.18	0.65
07/05/2019	1.11	0.84	0.45	0.54	1.17	0.15	0.9	1.11	1.76	0.27
08/05/2019	0.61	0.36	1.62	0.38	0.94	0.18	0.5	1.08	2.27	0.83
09/05/2019	0.56	0.41	0.84	0.27	0.8	0.95	0.56	0.85	3.11	0.57
10/05/2019	1.04	0.71	0.35	3.27	0.8	0.13	0.4	1	1.89	7.67
11/05/2019	0.76	0.23	0.29	-	0.91	0.13	0.4	0.75	0.68	0.69
12/05/2019	0.84	0.27	1.64	-	0.46	0.33	0.22	0.21	0.08	0.08
13/05/2019	0.64	0.22	0.36	-	0.86	0.08	0.48	1.13	2.75	0.57
14/05/2019	0.61	0.74	0.37	-	0.83	0.78	0.29	0.67	1.44	1.1
15/05/2019	0.54	0.64	0.45	0.78	0.67	0.16	0.42	0.57	1.52	0.4
16/05/2019	0.49	0.33	1.37	0.92	0.49	0.13	0.31	0.51	1.32	1.07
17/05/2019	0.91	1.05	1.78	0.27	0.71	0.28	0.39	0.59	2.08	0.48
18/05/2019	0.51	0.56	0.74	0.16	0.46	0.16	0.42	0.98	1.31	2.47
19/05/2019	1.67	0.49	0.6	0.19	1.26	0.1	0.32	0.18	0.11	0.08
20/05/2019	0.59	0.56	0.78	0.24	0.66	0.32	0.28	0.26	1.86	0.28
21/05/2019	0.58	0.46	1.02	0.46	0.7	0.21	0.29	0.31	1.37	0.36
22/05/2019	0.47	0.74	0.62	0.14	0.69	0.25	0.28	0.71	2.17	0.25
23/05/2019	1.45	0.87	0.53	0.19	1.11	0.15	2.55	0.59	0.94	1.95
24/05/2019	0.54	0.73	0.34	0.14	0.48	0.08	1.36	0.28	4.06	0.74
25/05/2019	0.56	0.33	1.02	0.11	1	0.23	0.32	0.18	0.8	1.7
26/05/2019	0.7	0.15	0.27	0.19	1.2	0.18	0.21	0.15	0.17	0.31
27/05/2019	0.93	0.49	0.7	0.22	0.97	0.13	2.32	0.95	0.98	0.42
28/05/2019	0.49	0.77	2.36	0.14	0.89	0.2	1.99	0.33	3.49	0.27
29/05/2019	0.59	0.82	1.04	0.16	0.57	0.42	0.45	0.25	1.81	0.47
30/05/2019	2.09	0.49	0.51	1.49	2.4	0.23	0.98	0.46	3.16	0.26
31/05/2019	0.74	0.69	0.99	0.22	0.4	0.18	0.53	0.23	1.55	0.26

Real-Time Vibration Results Comments:

211-217 Castlereagh Street, Sydney.

The real-time vibration monitor installed adjacent to the Pitt Street South site (City of Sydney Fire Station) logged vibration figures of 25.76mm/s on 2 May 2019.

An investigation was carried out between the senior environmental coordinator and the site supervisor, and it was found that the exceedance was attributed to by an excavator working to the immediate west of the Fire Station. The excavator was breaking back concrete from a pile using a hammer attachment, when the hammer contacted steel reinforcement inside the pile causing increased vibration. In accordance with the construction noise and vibration management plan works were stopped and plant was substituted, works proceeded using handheld jack hammers.

Castlereagh Boutique Hotel:

The real-time vibration monitor installed adjacent to Pitt Street North site (Castlereagh Boutique Hotel) logged a vibration figure of 11.42mm/s on 4 May 2019.

An investigation was carried out by the senior environmental coordinator, superintendent & supervisor, and it was found that this exceedance may have been attributable to an excavator changing its attachment inside the acoustic shed. The excavator was changing its attachment, when the bucket dropped from a height of approx. one metre, contacting the concrete slab below.

237 Miller Street, North Sydney.

Real-time vibration data was not captured between the 11th and 14th May 2019 due to a faulty transmitter. The transmitter was assessed and repaired on 15th May. Lost data could not be recovered. Tasks being undertaken at the time of the lost data were comparable to the days preceding the event and are therefore likely to have had similar vibration readings well below the designated maximum allowable vibration level.