

Vibration Monitoring Data-Monthly Summary

Month and Year:	Jan-21					
Project:	Central Station Main Works					
EPL Licence Number:	21148					
EPL Web link:	https://centralstationmetro.com/documents/					
Specific EPL Monitoring Condition:	M7.2- Vibration Monitoring					
Monitoring Location:	Number of Monitoring Events during the Month	Attended/Continuous Monitoring	Event Based Monitoring? (Y/N)	Measured Parameter: Peak Particle Velocity (PPV) (mm/s)	Predicted Parameter: Peak Particle Velocity (PPV) (mm/s)	Comment
TCAC AKA. CEB (Central Electric Building)	1	Continuous	Y	27/12/20 Max 17.59mm/s due to construction.	Project Screening criteria <25mm/s Target <25mm/s (based on activity)	Intermittent breaking occurring in the lower northern concourse throughout the month of January. Typical vibration below cited 12.5 mm/s level corresponding to a near-zero probability of damage. No vibration levels above the BS 7385 criteria for reinforced or framed structures for industrial and heavy commercial buildings of 50mm/s observed.
Sydney Dental Hospital (Northern Stairwell)	1 (6-8 January 2021) 2 (14-20 January 2021)	Continuous	Y	During the period of measure the Max PPV was 3mm/s Typical vibration in the presence of construction was elevated above ~0.2mm/s	Target <2mm/s during breaking	Location of monitoring: Northern Stairwell is next to the habitable office space in the dental hospital and next door to the Eastern Entrance work site. At the time of measure, the vibration levels at the dental hospital were noticeable (between 0.35mm/s to 1mm/s) during breaking activity. respite periods provided, appropriate additional mitigation measures in place.
Gou Sushi 38 Chalmers St	1 (11- 14 January 2021)	Continuous	Y	0.4mm/s	Target <2mm/s during breaking	At the time of measure, the vibration levels at the 38 Chalmers St were noticeable (up to 0.4mm/s) during breaking activity. Respite periods provided, appropriate additional mitigation measures in place.
20-28 Chalmers St	1	Continuous	Y	Max due to construction 3.64mm/s	Project Screening criteria <25mm/s Target <7.5mm/s (based on activity)	Predominant vibration generating activity at Eastern Entrance was due to excavation works including breaking. observed over 11 days throughout the month. Typical vibration below cited 12.5 mm/s level corresponding to a near-zero probability of damage.

Definitions

Attended: Operator attended measure at either the façade of sensitive receiver, internal dwelling of a sensitive receiver or at a location of interest, typically in anticipation of an event.

Continuous: Real time vibration data recording the peak within a 1 min intervals, 24/7.

Event: The peak particle velocity (PPV) measured in mm/s of any measuring interval either during attended monitoring or a period of interest reviewed from the continuous data. The period is typically selected to monitor works as the works occur, or to validate predictions of planned works, or in response to a complaint, or due to an unexplained elevated PPV in the continuous data noise trace.