


MONTHLY NOISE AND VIBRATION REPORT CITY & SOUTHWEST ACOUSTICS ADVISOR

Project:	Chatswood to Sydenham SSI-7400		
For period:	June 2023	Authorisation:	
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Introduction

EMM Consulting Pty Limited (EMM) presents the June 2023 AA Noise and Vibration Report for the Sydney Metro City and Southwest project as required by SSI 15_7400 A27 (g) vi.

A reference table for the acronyms used in this report is provided on the last page.

Acoustics Advisor Activity

- Review and/or endorsement of:
 - Barangaroo Southern Shaft CNVIS
 - CNISD CMR April to September 2022
 - CNISD OOHWA 25.2 May Monitoring Report
 - PSISD CNVIS Rev 18
 - VCISD Noise & Vibration Monitoring Report July to December 2022.
- Review and/or endorsement of out of hours work applications (OOHWA) and extensions for:
 - Barangaroo OOHWA 18 Shed Demolition Rev 2
 - Barangaroo OOHWA 21 Hickson Road pod crane Rev 1
 - CNISD OOHWA 34 24-hour fitout and deliveries Rev 1
 - CNISD OOHWA 33 Pacific Hwy Intersection Utilities Rev 0
 - MPISD OOHWA 92 Utility Investigation Rev 5
 - MPISD OOHWA 93 Out of Hours Deliveries (Nth and Sth) Jul-Dec 2023 Rev 4
 - MPISD OOHWA 94 North Site hoarding works Rev 10
 - MPISD OOHWA 100 50MP public domain works Rev 1
 - MPISD OOHWA 101 Rev 0
 - PSISD OOHWA 53 PSN façade installation Rev 6
 - PSISD OOHWA 54 Project Works April to June 2023 Rev 4
 - PSISD OOHWA 56 PSS Gas Works - Bathurst Street Rev 1
 - PSISD OOHWA 57 Project Works July to Sept 2023 Rev 2
 - VCISD OOHWA 11 VCS cavern works Rev 6
 - VCISD OOHWA 15 Victoria Cross North evenings Rev 21
 - VCISD OOHWA 18 Miller St Stormwater Rev 1
 - VCISD OOHWA 20 Victoria Cross North weekends Rev 13
 - VCISD OOHWA 28 South site utilities investigation Rev 0
 - WISD OOHWA 55 private lighting install Rev A

- WISD OOHWA 56 Ausgrid Outage 5 Rev B.
- Attendance at ongoing meetings with CNISD, VCISD, Barangaroo Station, LWW, PSISD, MPISD, CSM and WISD contractors.

Inspections, audits and site visits

The following was completed:

- WISD inspection with ER on 1 June 2023
- CNISD inspection with ER on 14 and 28 June 2023
- MPISD inspection with ER on 19 June 2023.

Monitoring status

Real-time noise and vibration monitoring (with real-time access) is ongoing at CNISD, VCISD (noise only), Barangaroo, PSISD (noise only), MPISD and CSM (noise only).

The WISD contractor is operating real-time noise monitors to assist with site noise management. This is not a requirement of their CNVMP and is optional only. We have access to this data on an as-needs basis only (eg when complaints are received).

Noise and vibration complaints

Complaints from Barangaroo (x1), CNISD (x2), CSM (x1), Tunnels (x1), VCISD (x1) and WISD (x5) were received. Of these:

- four complaints (CNISD x 2, VCISD x 1, Tunnels x 1) are under investigation by the Contractor and/or Sydney Metro.
- one complaint was triggered by a tonal reverse alarm at WISD which was classified as avoidable.
- the remaining were classified as unavoidable.

Initiatives, continual improvement and feedback

- Generally, we are re-emphasizing the need for a strong justification for out of hours applications and that contractors exhaust all options to conduct work during standard hours before they seek an OOHW approval.
- We are encouraging pro-active and wholistic scheduling of work that needs to be undertaken OOH (eg utilities) with the view of prioritising respite nights for the community. This includes scheduling separate OOHW packages on the same night where possible.
- We continue to advocate the use of alternative work practices to rock hammering for the removal of temporary structures, where required.
- The PSISD PC has been receptive to AA ideas and recommendations in further refining and developing a scope of works for gas relocation on Bathurst Street and is resulting in significantly reduced noise impacts. This is ongoing and has been conditioned for PC to provide verification measurements to ER/AA.
- The WISD PC continues to be highly proactive with the community in terms of information sharing and engagement with several events and initiatives being undertaken in 2023. A site open day is planned for July to display archaeological finds for the site. Continued careful planning of work locations and timing is being implemented, with a two-week calendar look ahead

advocated by the AA and ER and being implemented by the contractor to provide greater visibility of times and locations of OOHW to the AA and ER.

Non-compliances, incidents and events

Two non-compliances relating to noise have been raised at CNISD:

- NCR 17 against CoA E44 due to a breach of commitments made in OOHWA 25.2 and operating outside allowable work zones during the OOH evening period. This work generated noise levels above background noise plus 5 dB and triggered a complaint at 22-26 Clarke Street (residential receiver).
- NCR 18 against CoA E44 due to not following commitments made in relation to offers of discretionary alternate accommodation and failing to satisfy AA/ER OOHWA 31 conditions of approval.

Ongoing and upcoming environmental risks

- A significant phase of utility works will continue at PSISD and WISD. OOHW is required due to ROL requirements and footpath permits from Council.
- Public domain works at CNISD will continue for several months. This will require a substantial scope of utility works, of which some will be required OOH to facilitate utility service provider requirements. The PC is scheduling a large portion of this work during standard hours to minimise OOH impacts to residents, however a consequence of this is increased impacts at commercial receivers.
- Capping beam removal will continue at WISD and CNISD during standard construction hours. At WISD, the alternative lower noise method of wire saw and core drilling (consistent with successful removal of capping beam at PSISD) was used where feasible and proved to provide additional benefits in terms of dust suppression and smaller exclusion zones on site. Due to site constraints in some areas at WISD, removal is being completed with excavator and hydraulic hammer during standard hours only. Work practices are being amended to allow a 1-hour respite and RO in the form of vouchers are also being offered to highly impacted receivers. WISD capping beam removal works are almost complete with only a minor section next to the church remaining. The church is a heritage item and both ER and AA are monitoring this closely and have requested evidence of building protection and data from vibration monitoring.
- Alternative methods to capping beam demolition other than using excavators with hydraulic hammers is not possible at CNISD due to space limitations, however the PC is alternating capping beam demolition between Site A and Site B week to week to provide respite to nearest receivers to each site, in addition to the scheduled respite hours that are currently agreed with the community.
- Capping beam removal has started at VCISD North. The alternate method including wire saw and core drilling has been investigated but is not feasible due to space limitations. Capping beam demolition will occur near the north boundary that is shared with the 243 Miller Street residence, hence noise and vibration will be monitored closely by the PC.
- At Barangaroo, OOH demolition of the acoustic shed started Monday 3 July. Several OOH shifts will be required due to space limitations and the need for ROL to demobilise the shed safely. The OOH components of this package of work will take approximately three weeks.
- PSISD South has an upcoming scope of works for the realignment of a gas main in Bathurst Street that they are currently working through. Due to location of works in Bathurst Steet and multiple lane closures, ROLs will be required and works completed at night. This work has progressed further in planning and PC has implemented many of the feasible and reasonable

recommendations of the AA to minimise noise impacts, however, still is a work in progress. It has required multiple reviews and an update to the CNVIS to quantify impacts. Verification monitoring is being conditioned on these works and to be supplied to ER/AA in a timely manner.

Recommendations (incl auditing):

Nothing to report.

Acronyms

<i>AMMs</i>	<i>Additional Mitigation Measures</i>
<i>CMR</i>	<i>Construction Monitoring Report</i>
<i>CTR</i>	<i>Compliance Tracking Report</i>
<i>CNISD</i>	<i>Crows Nest Integrated Station Development</i>
<i>CNVIS</i>	<i>Construction Noise and Vibration Impact Statement</i>
<i>CNVMP</i>	<i>Construction Noise and Vibration Management Plan</i>
<i>CNVMPR</i>	<i>Construction Noise and Vibration Management Program Report</i>
<i>CSM</i>	<i>Central Station Metro</i>
<i>DPE</i>	<i>NSW Department of Planning and Environment</i>
<i>ER</i>	<i>Environmental Representative</i>
<i>ISD</i>	<i>Integrated Station Development</i>
<i>LWW</i>	<i>Line Wide Works</i>
<i>MPISD</i>	<i>Martin Place Integrated Station Development</i>
<i>NCR</i>	<i>Non-Compliance Report</i>
<i>NVA</i>	<i>Noise and Vibration Assessment</i>
<i>NVMP</i>	<i>Noise and Vibration Monitoring Plan</i>
<i>NVMR</i>	<i>Noise and Vibration Monitoring Report</i>
<i>OOH</i>	<i>Out of hours</i>
<i>OOHW</i>	<i>Out of hours work</i>
<i>OOHWA</i>	<i>Out of Hours Work Application</i>
<i>OOHWP</i>	<i>Out of Hours Work Protocol</i>
<i>OSOM</i>	<i>Oversize, overmass</i>
<i>PCB</i>	<i>Precast Beams</i>
<i>PC</i>	<i>Principal Contractor</i>
<i>PSISD</i>	<i>Pitt Street Integrated Station Development</i>
<i>PSN</i>	<i>Pitt Street North</i>
<i>PSS</i>	<i>Pitt Street South</i>
<i>ROL</i>	<i>Road Occupancy License</i>
<i>RTNM</i>	<i>Real Time Noise Monitor</i>
<i>SSJ</i>	<i>Sydenham Station Junction</i>
<i>TSOM</i>	<i>Trains, Systems, Operations and Maintenance</i>
<i>TSS</i>	<i>Traction Substation</i>
<i>VCISD</i>	<i>Victoria Cross Integrated Station Development</i>
<i>WISD</i>	<i>Waterloo Integrated Station Development</i>

