


## MONTHLY NOISE AND VIBRATION REPORT CITY & SOUTHWEST ACOUSTICS ADVISOR

<b>Project:</b>	<b>Chatswood to Sydenham SSI-7400</b>		
<b>For period:</b>	<b>March 2023</b>	<b>Authorisation:</b>	
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### **Introduction**

EMM Consulting Pty Limited (EMM) presents the March 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:
  - CNISD CMR April to September 2022 Rev G;
  - CSM CMR August 22 to January 23 Rev 1;
  - MPISD CNVMP Rev 19;
  - PSISD CTR Q3/Q4; and
  - VCISD NVMR July to December 2022 Rev A.
- Review and/or endorsement of out of hours work applications (OOHWA) and extensions for:
  - Barangaroo OOHWA 14 Shaft Backfilling Rev 1;
  - Barangaroo OOHWA 16 POD Cranage 2 (South) Rev 0;
  - CNISD OOHWA 25.1 Extended Work Hours New Rev 2;
  - CNISD OOHWA 30 OSOM March 2023 Rev 0;
  - CSM OOHWA March 23;
  - MPISD OOHWA 94 North Site hoarding works Rev 9;
  - MPISD OOHWA 96 Ausgrid connection works (Elizabeth St) Rev 5;
  - MPISD OOHWA 99 Stormwater connection works north Rev 1;
  - PSISD OOHWA 50 Rev 10;
  - PSISD OOHWA 54 April to June 2023 Rev 2;
  - VCISD OOHWA 15 North Site Evenings Rev 20;
  - VCISD OOHWA 17 South Site Evening and Weekends Rev 14;
  - VCISD OOHWA 20 North Site Weekends Rev 11;
  - VCISD OOHWA 24 VCN McLaren St Utilities Rev 3;
  - WISD OOHWA 47 Lighting Install Rev 2; and
  - WISD OOHWA 51 March, April and May 2023 (Utilities) Rev C.
- 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:

- MPISD inspection with ER on 2 March 2023;
- WISD inspection with ER on 9 March 2023;
- CNISD inspection with ER on 10 March 2023;
- CSM inspection with ER on 15 March 2023;
- SCLWW inspection with ER on 21 March 2023; and
- Barangaroo inspection with ER on 23 March 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.

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).

The second noise monitor that was at ground level on Chalmers Street at CSM Eastern Entrance (EE) has been removed following the completion of walls to Randle Lane in consultation with AA. The ground level real-time noise monitor (RTNM) on Chalmers Street was redundant. The Randle Lane noise monitor has been relocated to the western roof of the EE building to capture potential noise breakout from EE activities and from platform finishing works at Central for Chalmers Street residences. Laing O'Rourke has committed to attended noise monitoring for Randle Lane residences for any out of hours work at EE or Randle Lane works during standard or OOH.

### ***Noise and vibration complaints***

Complaints from Barangaroo Besix Watpac (x4); Systems Connect (x2), Chatswood Dive (x2), CNISD (x3), CSM (x1), PSISD (x4), WISD (x5) and VCISD (x1). Of these:

- three are under investigation by the Contractors and/or Sydney Metro;
- fifteen were classified as unavoidable; and
- four were classified as avoidable.

Details of the avoidable complaints are as follows:

- One complaint was received in relation to music from the Barangaroo Hickson Road shaft. The radio was turned down once located, a warning was issued to workers and a follow-up tool box talk was delivered to the workforce regarding the use of radios.
- One complaint was received at VCISD south from a resident within Alexander Apartments at 79-81 Berry Street in relation to works starting prior to 7am. A review of activities at the time confirmed that formworkers were active on site prior to 7am. A non-compliance was raised in relation to this event. The previously established work exclusion zone has also been extended to cover a greater portion of the site and to minimise the potential for work where there is line of sight to receivers during the night period.
- One of the avoidable complaints was at WISD in relation to noise and littering. The noise in question was found to be within approved work hours which would typically categorise this event as unavoidable.

- One complaint was received at CNISD in relation to backfilling works within Clarke Lane without noise blankets. There were noise blankets installed on fencing in the vicinity however they did not follow the work front progress. This was rectified, where possible.

### ***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.
- WISD contractors continue to be highly proactive with the community in terms of information sharing and engagement with several events and initiatives being undertaken through February 2023 including Summer on the Green (3/2/23) and Outreach (24/2/23). The Principal Contractor (PC) has just engaged a new Stakeholder and Community Liaison Manager, which based on our observations, is building on the good foundation that the previous Manager built with the community. Furthermore, 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. In addition with the new package of utilities works for March, April and May, ER and AA have also requested confirmation of works completed in the previous two weeks, location of works and RO/AA offered.
- Extension to OOHWA for WISD are largely as a result of delays in the completion of the scheduled OOH utilities works for various construction related reasons, rather than an increased number of activities. WISD has completed limited OOH utilities works in March 2023. Some design changes have also enabled some power pole works that were schedule for OOH to be completed during standard hours.

### ***Non-compliances, incidents and events***

As raised above, one non-compliance was raised at VCISD in relation to formwork activities occurring prior to 7am.

### ***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.
- The CNISD Site B tower crane (TC3) has been approved to operate between 6pm to 10pm. This is a result of a noise control shroud being installed, and further consultation with two residents where residual noise levels above NML were predicted. No objection was received by the two residents. There will be follow-up consultation over the course of April 2023 to seek feedback from the residents, with TC3 operation between 6pm to 10pm revisited if noise levels are found to be unacceptable.
- 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

minimum OOH impacts to residents, however an unfortunate 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) is being used where feasible and has proved to provide additional benefits in terms of dust suppression and smaller exclusion zones on site. The WISD contractor has also demonstrated that capping beam removal with wire saw can occur at discrete locations of the site during the evening hours (NML compliant) with the activities subject to verification measurements. 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 1hr respite and RO in the form of vouchers are also being offered to highly impacted receivers. This method is not possible at CNISD due to space limitations.
- At Barangaroo, backfill of the Hickson Road shaft within the acoustic shed is planned in approximately 4 weeks. This will likely require in the order of 20 shifts of concrete pours. Extended concrete pours will be required into the evening and night (on occasion) to meet required technical specifications.

***Recommendations (incl auditing):***

Nothing to report.

## Acronyms

<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>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>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>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>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>