


MONTHLY NOISE AND VIBRATION REPORT CITY & SOUTHWEST ACOUSTICS ADVISOR

Project:	Chatswood to Sydenham SSI-7400		
For period:	September 2022	Authorisation:	
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Introduction

EMM Consulting Pty Limited (EMM) presents the September 2022 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.

Acoustic Advisor Activity

- Review and/or endorsement of:
 - CSM Construction Noise and Vibration Management Plan Rev 13 (review only);
 - LWW Construction Noise and Vibration Management Plan Rev 3 (review only);
 - LWW TSOM Works at Sydenham Station CNVIS Rev 4;
 - LWW Addendum to Chatswood CNVIS Rev 4;
 - MPISD Construction Noise and Vibration Management Plan Rev 17 (review only);
 - MPISD Noise and Vibration Monitoring Report January to June 2022 Rev 1; and
 - WISD Consistency Assessment Rev 2 (review only).
- Review and endorsement of out of hours work applications (OOHWA) and extensions for:
 - Barangaroo OOHWA2.5 Station Construction October to December Rev 1;
 - LWW OOHWA239 Waterloo cable pulling Rev 4;
 - LWW OOHWA250 Fire hydrant installation Artarmon Rev 1;
 - LWW OOHWA254 Surry Hills BPS Randle Lane HV cabling Sunday and PH Work Rev B;
 - MPISD OOHWA95 North Site façade works Rev 2;
 - MPISD OOHWA96 Ausgrid works Rev 2;
 - MPSID OOHWA94 North site hoarding works Rev 8;
 - PSISD OOHWA40 Rev 6;
 - PSISD OOHWA41 Rev 5;
 - PSISD OOHWA43 Rev 8;
 - PSISD OOHWA46 Rev 1;
 - PSISD OOHWA47 Long running concrete pour Rev 2;
 - PSISD OOHWA48 Footpath removal and driveway works Rev 2;
 - VCISD OOHWA15 Rev 17;
 - VCISD OOHWA17 Rev 9;
 - VCISD OOHWA20 Rev 9;
 - VCISD OOHWA22 Services investigation Rev 4; and

- WISD OOHWA44 Rev C.
- Attendance at Sydney Metro and DPE monthly meeting, and ongoing meetings with CNISD, VCISD, Barangaroo Station, PSISD, MPISD, CSM and WISD contractors.

Inspections, audits and site visits

The following was complete:

- WLISD inspection with ER on 1 September 2022;
- Barangaroo inspection with ER on 2 September 2022;
- CSM inspection with ER on 7 September 2022;
- PSISD inspection with ER on 13 September; and
- MPISD inspection with ER on 20 September.

Monitoring status

- Real-time noise and vibration monitoring (with real-time access) is ongoing at CNISD, VCISD 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).

Noise and vibration complaints

- Complaints from Chatswood (x1), CNISD (x6), PSISD (x1), VCISD (x3) and WISD (x4) were received. Most complaints were classified as unavoidable (8 of 15), with two under investigation by contractors at the time of writing this report. The avoidable complaints were in relation to:
 - forklift material handling at night (metal on metal noise) at Chatswood Dive. This site operates under EPL#21423. The work ceased promptly after the complaint and corrective actions were put in place to avoid recurrence;
 - a miscommunication with the community around the timing of Pacific Highway OOH utility works at CNISD as approved in OOHWA 17;
 - an excavator with hydraulic hammer was operating at CNSID after 6pm without an OOHWA approval which triggered a complaint;
 - music that was audible from VCISD at the north site; and
 - formwork installation at PSISD that occurred because of the subcontractor utilising the wrong type of drill bit for the plywood. Following receipt of complaint, the night shift supervisor responded by stopping works for the evening. Toolbox talks were implemented for the night shift crew reinforcing their obligations and importance of using correct equipment and provided detail on the importance of minimising work on the site boundary where possible at night.

Initiatives, continual improvement and feedback

- We continue to advocate the use of alternative work practices to rock hammering for the removal of temporary structures. Capping beam removal using a wire saw continued at WISD and commenced at CNISD. VCISD is currently exploring this as an option for the capping beam demolition for the north site.
- PSISD commenced utilities investigations in May 2022 which included the operation of a vacuum truck during the evening and night. The AA and ER under the OOHWA 38 requested attended noise monitoring for the works. On the first night of activities the CPB and their acoustic consultant attended the site and identified that the vacuum truck was noisier than expected under full power, the potential noise impacts of the higher than expected operating levels were able to be mitigated with a reduced power level (1335rpm, 56psi) of the vacuum truck whilst still providing

adequate suction performance for the works. This reduced power level has been adopted for all subsequent utilities investigations and installation works.

- PSISD also recently received some positive feedback from the Kimpton Margot Hotel opposite the PSISD south site, complimenting the CPB team on their consistent communication and advance notice of major activities that help to minimise the impact on their guests.

Non-compliances, incidents and events

The following occurred in relation to noise and vibration matters:

- a concrete pour overrun without an OOHW approval occurred on Saturday 26 March 2022 which resulted in a noise complaint. This was the subject of DPE investigation and resulted in an Official Caution and non-compliance against condition E36.
- it was observed during a regular site inspection that hydraulic hammers with excavators were demolishing temporary structures within the minimum working distance for Hickson Road heritage wall without real-time vibration monitors in place. This is a requirement of the site's CNVMP and CNVIS and therefore a breach against Condition A8. It is noted that the vibration monitoring results from the Hickson Road demolition showed levels well below the screening criteria and this activity was very similar to that observed onsite. It is therefore highly likely that vibration levels were well below the screening criteria, and this was simply a breach against CNVMP and CNVIS procedures. The contractor has since updated the CNVMP and relevant CNVIS to factor in the results from the Hickson Road vibration monitoring and revised the minimum working distances.
- a non-compliance with conditions E36, E44 and E46 was raised for the excavator with hydraulic hammer that operated after 6pm at CNISD without an OOHW approval.

Ongoing and upcoming environmental risks

- OOH works, particularly long running concrete pours and/or oversize deliveries at ISD sites at WISD, PSISD, VCISD and CNISD will continue.
- A significant phase of utilities works will continue at PSISD and WISD. OOHW is required due to ROL requirements and footpath permits from Council.
- Capping beam removal will continue at WISD and CNISD during standard construction hours. 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.
- Most ISDs are now approaching or are at/above ground level with noise levels increasing and works being more visible to the community and nearest noise-sensitive receivers. This increases the risk of noise impacts and complaints and will be monitored closely by the AA.
- Public domain works will be starting at Crows Nest in the coming months. This will require a substantial scope of utilities works of which some will be required OOH to facilitate utility service provider requirements.

Recommendations (incl auditing):

Nil

Acronyms

<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>NVA</i>	<i>Noise and Vibration Assessment</i>
<i>NVMP</i>	<i>Noise and Vibration Monitoring Plan</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>PSISD</i>	<i>Pitt Street Integrated Station Development</i>
<i>ROL</i>	<i>Road Occupancy License</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>