


MONTHLY NOISE AND VIBRATION REPORT CITY & SOUTHWEST ACOUSTICS ADVISOR

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

EMM Consulting Pty Limited (EMM) presents the December 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.

Acoustics Advisor Activity

- Review and/or endorsement of:
 - Barangaroo Station Fitout CNVIS Rev 6;
 - CNISD CNVIS Rev M;
 - CNISD CNVMP Rev 2;
 - CSM Construction Noise and Vibration Monitoring Program Report Feb to Jul 2022 Rev 01;
 - LWW CSSI 7400 C16 & CSSI 8256 C14 CMR March to August 2022;
 - LWW SMCSW1SSJ CMR 008 March to August 2022 Rev C;
 - PSISD CMR July to Sept 2022 Rev 2; and
 - VCISD NVMR January to June 2022 Rev B.
- Review and/or endorsement of out of hours work applications (OOHWA) and extensions for:
 - Barangaroo OOHWA 12 High Voltage Works Rev 1 (review only);
 - Barangaroo OOHWA 13 Pod Cranage Works Rev 1;
 - Barangaroo OOHWA 2.6 Extension from January to April 2023 Rev 1;
 - CNISD OOHWA 25 Extended Work Hours New Rev 2;
 - CNISD OOHWA Concrete Pour Oxley Street Rev 1 (review only);
 - CNISD OOHWA Ultegra Stage 1B Rev 1 (review only);
 - LWW OOHWA 264 Northern Connection WE19 MTS OHW Replacement Northern Scope (review only);
 - MPISD OOHWA 92 Utilities Investigations Rev 4;
 - MPISD OOHWA 93 Deliveries January to June 2023;
 - MPISD OOHWA 96 Ausgrid Connection Works Rev 4a;
 - PSISD OOHWA 50 Project Works January to March 2023 Rev 5;
 - PSISD OOHWA 53 Façade Installation PSN Rev 0, Rev 1 (review only);
 - VCISD OOHWA 11 Cavern Works South;
 - VCISD OOHWA 15 Victoria Cross North OOHWA;

- VCISD OOHWA 17 Victoria Cross South OOHWA;
- VCISD OOHWA 20 North Site Weekend;
- VCISD OOHWA 24 North Site Utilities Investigation;
- WISD OOHWA 46 Botany Road Hydrant Works Rev 01;
- WISD OOHWA 47 Botany Road Lighting Install Rev C;
- WISD OOHWA 48 December, January and February (Utilities) Rev C; and
- WISD OOHWA 49 Ausgrid Outage 4 Rev A (review only).
- Attendance at Sydney Metro and DPE monthly meeting, and ongoing meetings with CNISD, VCISD, Barangaroo Station, LWW, PSISD, MPISD, CSM and WISD contractors.

Inspections, audits and site visits

The following was complete:

- VCISD inspection with ER on 7 December 2022;
- Barangaroo inspection with ER on 7 December 2022;
- WISD inspection with ER on 15 December 2022;
- PSISD inspection with ER on 20 December 2022;
- MPISD inspection with ER on 20 December 2022; and
- CSM inspection with ER on 21 December 2022;.

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).

Noise and vibration complaints

Complaints from CNISD (x3), PSISD (x2) and VCISD (x1) were received. Most complaints were classified as unavoidable (5 of 6). The avoidable complaint was in relation to jack hammering at PSISD south site within the agreed respite hours. An incident report was completed by the Contractor and referenced a potential non-compliance with condition E33 with the following action taken:

- At the next site toolbox, the Environment Advisor will reiterate to all CPB Supervisors, sub-contractors and employees of the standard construction hours, agree respite hours and their obligations to limit noise outside of the standard construction hours. The outside of work hours controls and approval process will also be discussed.
- Pitt Street South Project Manager, Environment and Community teams will meet with Pitt Street South Team to inform them of the complaint and remind them of their obligations to work within the agreed respite hours.
- Ensure Pitt Street South Team contacts are up to date for text and email alert notification from the unattended noise monitor.

Discussions are ongoing with the Contractor, ER and Sydney Metro in relation to a potential non-compliance.

Initiatives, continual improvement and feedback

- CNISD has recently updated its CNVIS (Rev M) to support OOHWA 25 Extended Works Hours New which now supersedes OOHWA 10 Extended Works Hours that has been active since mid-2021. The OOHWA proposed in OOHWA 25 is scaled back significantly compared to OOHWA 10. This update was initiated due to prolonged noise complaints which is indicating potential construction fatigue, changing risk profile due to noise and vibration generated by ongoing public domain works, works now being well outside of the station box with line of sight to nearest noise sensitive receivers, and increased shielding to Pacific Highway provided by the emerging site structure and solid materials which is reducing ambient and background noise levels (and therefore increasing construction noise emergence above background), most notable at the nearest residential receiver 22-26 Clarke Street. EMM has been working with Sydney Metro, ER and the Principal Contractor to pursue opportunities where OOHWA can be undertaken whilst remaining compliant with the conditions of approval, mainly under E44 (d), E48 (d) and (e). Activities that were presented in OOHWA 10 that are no longer supported by a strong justification and/or do not directly satisfy the conditions of approval have been largely discontinued in OOHWA 25. OOHWA 25 has been approved and will be active from 3 January 2023.
- In addition to CNISD, a general scaling back of OOH activities across most ISD has been possible with a concerted push back from AA's and ER's and sites moving on to either lower noise generating works and NML compliance. Changes in scheduling of activities and work crew locations has also enabled previously OOH works to be conducted during standard hours, or shifted from OOH evening and night, to OOH day to minimise noise impacts.
- 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.
- 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 November and December 2022. Furthermore, careful planning of work locations and timing is being implemented, with a two-week calendar look ahead advocated by AA and ER and being implemented by the contractor to provide greater visibility of times and locations of OOHWA to the AA and ER.

Non-compliances, incidents and events

Nothing to report.

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. There is anticipated to be no more long running concrete pours for PSISD and WISD. Limited OSOM deliveries are anticipated for PSISD or WISD except for façade panels and large mechanical and electrical items for plantroom fitout.
- A significant phase of utilities works will continue at PSISD and WISD. OOHWA is required due to ROL requirements and footpath permits from Council.

- Public domain works have started at CNISD and will continue for several months. This will require a substantial scope of utilities works of which some will be required OOH to facilitate utility service provider requirements.
- 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. 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.

Recommendations (incl auditing):

Nothing to report.

Acronyms

<i>CMR</i>	<i>Construction Monitoring 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>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>