

ACOUSTICS ADVISOR MONTHLY REPORT

SYDNEY METRO WEST (SSI 10038 and SSI 19238057¹)

For period:	June 2024	Authorisation:	Dave Anderson, Acoustics Advisor
Prepared by:	Dave Anderson		
Date of issue:	5 July 2024		

Acoustics Advisor		Alternate Acoustics Advisor(s)	
Dave Anderson		Larry Clark, David Hanson and Sav Shimada	
Document review			
Document	Reviewed	Endorsed / approved	
Central Tunnelling Package (CTP), AFJV			
Weekly Noise Reports 31/05/24, 7/06/24 and 14/06/24	Y	N/A	
Western Tunnelling Package (WTP), GLC			
DNVIS Westmead to Sydney Olympic Park update	Y	25/6/24	
Noise and Vibration Monitoring Report Jul 2023 to Jan 2024	Y	15/06/24	
Westmead Utilities Relocation (WUR), Quickway			
6-month noise and vibration monitoring report	Y		
Eastern Tunnelling Package (ETP), JCG ¹			
Monitoring reports and data	Y	N/A	

Inspections / site visits		
Date	Location(s)	Details
3 June	Pymont East	Dave Anderson witnessed JCG monitoring of OOH work from surrounding streets, approximately 8pm to 9pm and 1am.
		Gantry crane load testing underway. Crane operation very quiet and no alarms audible. One instance of a noisy hand tool (impact wrench) being used for routine maintenance; JCG confirmed escalation of briefing to workers not to use noisy hand tools OOH unless necessary.
3 June	Five Dock, Burwood North, North Strathfield, Clyde Dive, Westmead	At their request, Dave Anderson accompanied DPHI compliance on a brief inspection of multiple sites.
		<ul style="list-style-type: none"> Five Dock: steady noise audible from both sites (approx. 9.30 to 10pm) Burwood North: witnessed traffic control removing ROL signage, then steady noise (approx. 10.15 to 10.45pm). North Strathfield: no work evident (approx. 11pm) Clyde: no work evident (approx. 11.15pm) Westmead: steady noise audible from compressors, occasionally noise audible from tunnelling work in shed (approx. 11.30pm to midnight)
12 June	Parramatta, Westmead	Larry Clark attended the WTP ER inspection.
		Compressor manifold/relief valve observed open at Westmead, leading to noise from water and air escaping the end of the drain hose. GLC advised that the manifold/relief valve and drain hose is required to safely drain the compressors when there is a build-up of water in the compressed air system and that this is only carried out during daytime hours to purge the system when needed, taking approximately an hour. The hose was subsequently redirected so that outlet is within the compressor enclosure, behind noise blankets. A concern that this might result in the valve being left open because the hose end was out of sight was discussed in the meeting of 12th June. GLC investigated noise mitigation options and the issue was closed out in the meeting on 26 June at which GLC advised that the valve is open during the day for maintenance only, which is reinforced through prestart and toolboxes. The AA noted that there was no audible noise of compressed air release during a subsequent OOHW inspection on 4 July.

¹ Sydney Metro West Concept and Stage 1 (SSI 10038), Sydney Metro West Stage 2: Bays to Sydney CBD (SSI 19238057) shown in italics

27 June	Sydney Olympic Park, Burwood North, Five Dock	Larry Clark attended the CTP ER inspection.
	No noise or vibration issues or actions.	

Meeting

Date	With	Purpose
3, 12, 17, 24 June	AFJV, Sydney Metro, ER	Environment meeting, CTP
3, 17 June	Sydney Metro, GLC, ATC	Fortnightly works status
4, 11, 18, 25 June	Sydney Metro, JCGJV, ER	Weekly environment meeting, ETP
11 June	DPHI, ER	Monthly meeting with DPHI compliance
12, 26 June	Sydney Metro, GLC, ER	Environment meeting, WTP
14, 28 June	Quickway, Metro, ER	Westmead Utilities Scope – Environment meeting
27 June	DPHI, Sydney Metro, ER	Monthly meeting with DPHI post-approvals

Noise and vibration issues, incidents, recommendations

Date	Contract / Location and details
4 June	NCR037 raised by AFJV for proactive AA not being offered to all residences potentially affected by cross passage excavation ground borne noise and vibration, as required by the DNVIS. Note that monitored levels indicate that the 45dBA trigger for Alternate Accommodation may not have been exceeded.
25 June	Evidence provided of ground borne noise levels matching predictions, closing out query on CTP's Queen St residence monitoring report indicating vibration levels higher than predicted for TBM tunnelling.

Examples of good practice in noise and vibration management

Date	Contract / Location and details
June	Pymont East: no gantry tonal alarm audible
June	CTP's ground borne vibration data for TBM tunnelling indicated vibration levels higher than predicted at 2 of 3 locations. The appropriateness of mitigation was questioned. CTP investigated, with no cause readily identifiable, but provided good evidence of ground borne noise levels being closely matched to predictions.

Ongoing and upcoming noise and vibration risks

ETP:	<ul style="list-style-type: none"> Demolition at Hunter Street now closer to street level, leading to higher noise impacts for some nearby receivers. Shaft excavation, including hammering (prior to acoustic shed) at Pymont West Cavern excavation starting soon at Pymont East
CTP:	<ul style="list-style-type: none"> Tunnelling and cross passage ground borne noise and vibration Tunnelling support at Burwood North, including operation of Water Treatment Plant (outside acoustic shed) and Grout plant (inside acoustic shed), and harmonic sub (outside acoustic shed) during TBM operation. Upcoming TBM breakthrough and station box traverse at North Strathfield.
WTP:	<ul style="list-style-type: none"> Tunnelling ground borne noise and vibration
(WUR scope will conclude soon)	

Noise and vibration complaints

20 noise and vibration complaints attributed to Sydney Metro during June:

- 2 from Westmead
- 1 from Burwood North
- 8 from Pyrmont, 7 of which related to OOH noise
- 4 from Hunter St, from businesses about daytime noise and respite hours
- 5 relating to CTP tunnelling activities as TBMs move towards North Strathfield

Note: The chart shows noise and vibration (NV) complaints in standard hours and out of hours (OOH) periods. Some complaints relate to both time periods so the total number of NV complaints may be less than the sum of standard and OOH complaints.

