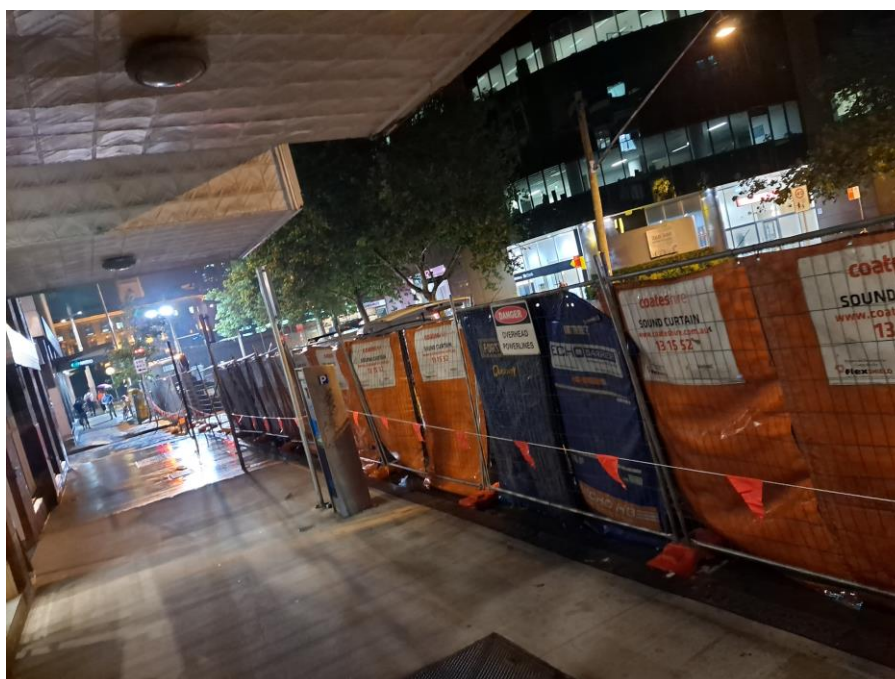


INDEPENDENT ENVIRONMENTAL AUDIT REPORT



Foveaux Street nightworks - behind sound blanket barriers

Proponent:	Sydney Metro
Project:	City & South West, Chatswood to Sydenham
Scope:	Noise, Vibration and Traffic Management - BPS works
Works / Process:	Surry Hills Bulk Power Supply
Auditee:	Systems Connect

Audit Organisation:	QEM Consulting Pty Ltd
Auditor:	Larry Weiss
Registration	Exemplar Global EMS Auditor Accreditation no. 12355
Audit References:	QEM 1803-IEA-023
Audit date:	12 th & 25 th February 2021
Report date:	7 th April 2021

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1.0 AUDIT DETAILS

1.1 Purpose

The purpose of this Independent Environmental Audit was to assess Line-Wide Contractor (Systems Connect) implementation of Management Plan requirements for minimisation of Noise, Vibration, Traffic and Community impacts, especially during Out-of-Hours works, this in the context of compliance with relevant Project Planning & Assessment Approvals.

1.2 Context

Planning Approvals issued by the Department of Planning & Environment require Sydney Metro to develop an Environmental Audit Program for independent annual environmental auditing against the terms the City & Southwest (C&SW) Critical State Significant Infrastructure (CSSI) Project Approvals.

QEM Consulting Pty Ltd have been engaged by Sydney Metro Delivery Office (SMDO) Safety, Sustainability & Environment (SSE) to deliver a program of Independent Environmental Audits. As required by C&SW Planning Approval CSSI 15_7400 (A39) and the associated Environmental Audit Program, an Independent Environmental Audit was undertaken to assess compliance with Planning Approvals requirements relating to noise, vibration, traffic and associated public and community impacts associated with Bulk Power Supply works.

Line-Wide Works (LWW) comprise several operational-enabling works including the provision of Bulk Power Supply. These BPS works involve trenching and conduit laying typically around existing infrastructure including public roads and foot paths, with the potential to impact community and motorists (traffic). Consequently, disruptive components of these works were scheduled outside of busy pedestrian and traffic times, these taking place out-of-hours (OHH). Works at night and over weekends do however have the potential to impact community from a noise and vibration perspective.

1.3 Audit Objectives & Focus

The Audit Objective was to independently assess Planning Approval compliance associated with the minimisation of Noise, Vibration, Traffic and Community impacts during Out-of-Hours works, including supporting performance monitoring and surveillance.

The audit also focussed on the effectiveness of Traffic Control Plans and N&V mitigation measures, plus adjustments resulting from any traffic delays, complaints and N&V exceedances and required corrective actions resulting from community complaints and performance not meeting planned arrangements.

1.4 Audit Scope

The Audit Scope included components of the Construction Noise / Vibration, Traffic Management and Community Plan implementation incl. noise and traffic assessments, out-of-hours work monitoring, community engagement, property access, plus unexpected finds, complaint & corrective action management.

The site component of the audit included supervision and control of the Surry Hills Bulk Power Supply works and traffic interfaces during an approved OOH works weekend.

1.5 Audit Criteria

City & Southwest Project Environmental Planning Approval CSSI 15_7400 including but was not limited to:

- MCoA B1, C3 a) & h), C9 a) and as applicable E19- 59
(Refer to assist criteria detailed in Section 2.1 overleaf)

Revised Environmental Mitigation Measures including:

- NV3, NV5 and T2, T6, T8, T10, T20

Sydney Metro's C&SW Planning Approval obligations, articulated in:

- Sydney Metro C&SW Construction Traffic Management Framework
- Sydney Metro C&SW Construction Noise & Vibration Management Strategy.

1.6 Audit Process and Methodology

The audit comprised an off-site desktop review, preparation of an Audit Checklist, a site inspection on an approved out-of-hours works weekend, a subsequent formal audit, and a post audit assessment of documentation and records. The audit process including scoping and planning was undertaken in accordance with the principals of ISO 19011:2018 – Guidelines for Auditing Management Systems. Refer to Appendix 2 of this report for further details on Auditor credentials, independence and audit disclaimer.

1.7 Auditees and Participation

Refer to full Audit Attendance list in Appendix 3.

1.8 Audit Definitions & Abbreviations

The following abbreviations and definitions apply throughout this report:

Item	Explanation
C&SW	<i>City & Southwest</i>
CEMF	<i>Construction Environmental Management Framework</i>
CNVS	<i>Construction Noise & Vibration Management Strategy</i>
CSSI	<i>Critical State Significant Infrastructure</i>
CNVMP	<i>Construction Noise & Vibration Management Plan</i>
CNVIS	<i>Construction Noise & Vibration Impact Statement</i>
CTMF	<i>Construction Traffic Management Framework</i>
IEA	<i>Independent Environmental Audit</i>
MCoA	<i>Minister's Conditions of Approval</i>
OOHW	<i>Out-of-Hours Works</i>
REMM	<i>Revised Environmental Management Measure</i>
TCP	<i>Traffic Control Plan</i>
Non-compliant Observation	<i>Refer Section 2.1 overleaf</i>
Improvement Opportunity	
Compliant	
Notable Practice	

2.0 AUDIT FINDINGS

2.1 Compliance Summary

This table provides a summary of compliance against audit criteria and area of focus, indicating the number of actions required:

Focus Area	Key Criteria	STATUS			
		Compliant			Non-Compliant
		NP	IO	OBS	NC
Community Engagement & Management	MCoA B1, B2, B7, B15, E29, E41, E42 & E59 REMM B11, T5, T8	Y			1
Traffic Management	MCoA E81, E82 REMM T2, T8, T10, T20 CTMF 8.2, 8.3 & 10.2		1	2	2
Noise & Vibration Management	MCoA C3 (a), C10, E30, E36, E47, E59 REMM NV3, NV5 SM N&V Strategy, 9.2, 9.3, 9.5	Y			
Site Mitigation & Control Measures (public & community impacts)	As above, plus REMM NV1, NV4, T6		2		

* Note: Compliance is limited to demonstrated evidence referenced in Appendix 1 and/or Audit Checklist notations.

Audit Findings are classified as follows:

Status	Explanation
Notable Practice (NP)	Positive observation about a system, process, practice, or performance outcomes for recognition and/or sharing purposes.
Improvement Opportunity (IO)	A suggestion or opportunity to implement a good or better practice to improve efficiency, further reduce exposure to risk or improve information management. When specifically stated as a Recommendation, this requires a formal response as to a considered action, alternative action, or management decision in the negative.
Observation (OBS)	Documented requirement and/or implementation issue which may not strictly affect required performance or compliance outcomes. Also termed a non-conformance (as opposed to non-compliance) in the industry, observations could be an early indication of potential non-compliance and/or an adverse performance outcome.
Non-compliant (NC)	The intent of one or more specific requirements of a condition or obligation have not been met, based on insufficient objective evidence to demonstrate required outcomes or deliverables being achieved and/or complied with.

Note: 'Compliant' status is determined where sufficient verifiable evidence demonstrates that intent, specific requirements or elements of a condition / obligation have been met within the scope of the Independent Audit. As a result, no actions may be required, however actions commensurate with a specific finding classified as an Improvement or Observation above will be needed.

2.2 Summary of Environmental performance

The following provides a summary of the CSSI project environmental performance being a MCoA A39 Independent Environmental Audit requirement. It should be noted that commentary below is limited by audit scope, methodology and duration plus the disclaimer noted further in this report.

2.2.1 CSSI performance & effects on surrounding environment (MCoA 39a & d)

In accordance with Project Approvals, attended or targeted noise and vibration monitoring had been undertaken at representative locations, plus vibration monitoring instrumentation had been used as a control for works potentially impacting structures, especially identified heritage listed buildings. Actual N&V impacts correlated well with Construction Noise & Vibration Statement assessments, and where predicted impacts would exceed Noise Management Levels, so-called Additional Mitigation Measures had been implemented with good community feedback and outcomes. This included respite offers such as dinner vouchers and alternative accommodation.

No traffic, pedestrian, public transport and/or residential access issues were noted, both for day works affecting businesses and out-of-hours / night-works potentially impacting residents.

As a quantifiable measure of CSSI project effects on surrounding environment, there were virtually no complaints relating to the Surrey Hills BPS works, especially from sensitive N&V receivers or those predicted to encounter potentially intolerable noise impacts, typically during high-impact night works.

Proactive engagement with affected residents and businesses by Community Liaison staff was project strength, observed through minimal complaints, a number of formal compliments (or expressions of gratitude) plus site workarounds relating to agreed arrangements to address specific concerns.

Evidence of other mitigation measures were noted included consideration of cumulative effects (including other projects), scheduling arrangements for high impact works, site implementation of respite periods of non-work and use of noise attenuating blankets.

2.2.2 Project Approvals compliance (MCoA 39b)

Required documentation plus noise and vibration impact monitoring and community engagement were assessed as compliant with Planning Approval criteria cited in the Summary Table of section 2.1 earlier in this report.

Audit Findings around traffic arrangement surveillance were raised and classified as **non-compliant** though, details hereof noted as Items nos. 1-2, section 2.3 further in this report. Additionally, the project website did not list all Planning Approval required documents, and in some cases, documentation had been superseded – this also raised as **non-compliant**, being detailed as Item 3 in section 2.3.

Aside from a few observations and improvements, all other assessed MCoAs were deemed compliant on the basis of objective evidence, this detailed in Appendix 1 of this report.

2.2.3 Documentation adequacy (MCoA 39c & d)

MCoA B1, E82 and C3 (a) defined Management Plans referenced in the Tables of Appendix 1 further in this report had been developed and updated, these including Monitoring Programs required by MCoA C10. These documents defined requirements around identified all environment and community impacts, mitigation measures and controls and monitoring parameters, frequency, location and reporting of results.

Noise & Vibration documentation was comprehensive, but practically quite cumbersome and difficult to navigate, with the CNVIS over 100 pages. Otherwise, documentation was adequate and the level of detail commensurate to the works and situation. There was very little "padding" and generic statements which was quite refreshing.

2.2.4 Site compliance (inspection)

A site inspection was conducted at the start of four consecutive 56-hour-weekend shutdown works of trenching, conduit installation and road reinstatement planned for chainage 470 to 520 Foveaux Street, Surrey Hills. The inspection comprised 4-hours attendance and observations of Friday night start-up arrangements and initial saw cutting work in Foveaux Street (intersection with Elizabeth Street, opposite Central Station). The Sydney Metro Environment Manager, independent Acoustic Adviser and Independent Environmental Representative attended, as well as Systems Connect Environment and Community staff.

Prior to works commencement, a pre-start briefing was observed where environment and community related impacts were communicated, as well as mitigation measure requirements. This was observed to be succinctly and assertively delivered, and to the point. Controls and mitigation measures such as noise blankets shielding works was observed, (photograph front of [this](#) report), as were non-tonal reverse quackers fitted to mobile plant, plus attended noise monitoring near identified sensitive receivers.

Traffic Control Plans were implemented as documented, although the approved OOHW Approval was noted as including an outdated **version** (Improvement Opportunity). Whilst saw cutting of the road was relatively noisy, this was "as predicted" however no identified affected residence had taken up respite offers particular night. No significant traffic impacts were apparent over the period, however there was one observation where a Traffic Controller might have released queuing cars being held up by an Excavator struggling to load a couple of empty buckets needed further down the street (Improvement Opportunity) - a pause of less than 1 minute would have enabled several vehicles to move past and obviate further upstream road blockages. Some motorists appeared to be confused by detour signs intended for a very small local audience - the subcontractor concerned was quite inflexible in objectively understanding this, as well as the concurrence by the Independent Environmental Auditor (Improvement Opportunity).

Otherwise, objective evidence of observations, including photographs and site documentation can be found in Appendix 1 further.

2.3 Detailed Audit Findings & Action Plan

Ref	Audit Finding	Status	Agreed Action Plan
	As detailed previously in section 2.2, Surrey Hills BPS works strengths included detailed analysis of minimum safe working distances (vibration damage risk), community engagement and site awareness and implementation of noise and access mitigation measures.	NP	N/A
1.	<p><u>Inspection of traffic control measures</u> Pre-start and pre-closedown, Weekly and Night inspections of short-term and long-term traffic control measures had not been implemented for the Surrey Hills BPS works.</p> <p>It should be noted that the above-mentioned equally applies to all System Connect Line-Wide-Works having potential traffic and other off-site personal safety risks.</p> <p>Planning Approval obligations: <i>MCoA E81 (p) obligations for monitoring of transport and access related impacts, detailed as required by Sydney Metro Construction Traffic Management Framework commitments at section 8.2.1 specifies inspection types / frequency (articulated above) as well as objectives and compliance obligations in CTMF 8.2 below.</i></p>	NC	<p>Systems Connect action commitment:</p> <ul style="list-style-type: none"> a) Review inspection checklists against Traffic Control at Worksites Manual (version 6 October 2020), update and enhance template for use on the project b) Implement for Bulk Power Supply works in the first instance c) Rollout and implement a program for all applicable line wide works <p>Responsible person: Traffic Manager</p> <p>Due date(s): 30 April 21 and beyond</p> <p>POST AUDIT UPDATE (prior to report finalisation): An initial template TCP Checklist Rev 01 in development was provided with audit evidence requested prior to finalisation of <u>this</u> report.</p>
	<p><u>CTMF 8.2 extract:</u> <i>For works longer than one shift, traffic management road inspections to be carried out regularly to ensure the safe movement of traffic, the protection of persons (including traffic controllers) and property through and/or around the worksite. Inspections will ensure that all signs and devices are properly located, oriented and maintained in an effective condition, and that the layout is satisfactory and not confusing to motorists or pedestrians. Records will be maintained by the contractor of all traffic guidance facilities and any adjustments or changes made to such facilities, together with dates and times the facilities were installed, varied and removed. Inspection reports recording dates and times of inspections of the traffic management facilities are to be recorded on suitable pro-forma and made available for inspection.</i></p>		

Ref	Audit Finding	Status	Agreed Action Plan
2.	<p><u>Audits of road safety measures</u> Audits of temporary work or site-specific Construction Traffic Management Plans had not been implemented for the Surrey Hills and other BPS works.</p> <p>It should be noted that the above-mentioned equally applies to all System Connect Line-Wide-Works having public, road worker, public and road user implications and related safety risks.</p> <p>Planning Approval obligations:</p> <ul style="list-style-type: none"> • <i>MCoA E81 (p) obligations for monitoring of transport and access related impacts, detailed as required Sydney Metro Construction Traffic Management Framework commitments at section 10.2.3 with objectives and procedural obligations articulated as per CTMF 10.2.3 & 4 below.</i> • <i>REMM T2 requires Road Safety Audits to be carried out at each construction site (obligation formally allocated to Systems Connect by Sydney Metro). Audits to address vehicular access and egress, and pedestrian, cyclist and public transport safety.</i> 	NC	<p>Systems Connect action commitment:</p> <ol style="list-style-type: none"> Develop a Schedule to facilitate Road Safety Audits for site-specific CTMPs. Procure external Road Safety Auditor services Conduct safety audits of work zones in accordance with Road Safety Audit Schedule and/or identified risks – this additional to the daily inspections by the site staff to ensure all worksite safety arrangements are in place with attention given to WHS guidelines, work areas adjacent to the road, movement of construction traffic, vehicle speeds and warning devices or systems. <p>Responsible person: Traffic Manager</p> <p>Due date(s):</p> <ol style="list-style-type: none"> = 23 April 21 to c) = 30 April 21 and beyond
	<p><u>CTMF 10.2.3 and 10.2.4 extracts:</u> <i>Audits will be additional to daily inspections by the site Staff focusing on work areas adjacent to the road, movement of construction traffic, vehicle speeds and warning devices or systems. Road Safety Audits to undertaken in accordance with the RMS Guidelines for Road Safety Audit Practices.</i></p> <p>Auditor Note: the above-mentioned guideline might include the Transport for NSW Traffic Control at Works Sites (TCAWS) Technical Manual, the objective of which is to improve the safety of road workers and road users as they interact with roadwork sites in NSW. Additionally, auditors should be independent and appropriately qualified/competent depending on the legal classification of the road concerned.</p>		

Ref	Audit Finding	Status	Agreed Action Plan
3.	<p><u>Project website maintenance</u> Timely, current and comprehensive provision of electronic information had not been uploaded onto the project website as required by Planning Approval MCoA B15 and Construction Environmental Management Plan section 1.6.</p> <p><i>Examples of obsolete documentation included but was not limited to:</i></p> <ul style="list-style-type: none"> • <i>Construction Noise & Vibration Impact Statement - Portion 3 SH BPS revision 6 dated 27/4/20 (rev 10 dd 17/11/20 available)</i> • <i>Surry Hills Construction Traffic Management Plan rev 0 dated 31/8/2020 (revision 3 dd 2/12/2020 available)</i> <p><i>Examples of required documentation included but was not limited to:</i></p> <ul style="list-style-type: none"> • <i>6-monthly Construction Noise & Vibration Monitoring Program Report</i> 	NC	<p>Systems Connect action commitment:</p> <ol style="list-style-type: none"> Procure website maintenance services Upload and replace missing and obsolete documents Provide status update of website documentation in Contractor Monthly Reports and/or Environment Coordination Meeting minutes. <p>Responsible person: Community & Stakeholder Engagement Manager, and Environment & Sustainability Manager</p> <p>Due date(s): a) to b) = 30 April 21 c) April'21 and monthly/routine reporting cycle beyond</p>
4.	<p><u>Traffic-incident related procedure</u> Emergency Response Plan PM-PLN-000748 defines Emergency Action Plans for scenarios such as gas main rupture, motor vehicle accident and contact with electricity, however:</p> <ul style="list-style-type: none"> • Incident responses were limited to "traffic diversion" and "contacting" the Emergency Services and Traffic Management provider • Contact details and/or arrangements with Sydney Metro for notifying the TMC was not defined, noting earlier project requirements that the Incident Management Plan for on-road incidents was to be submitted to the TMC Emergency Transport Operation section for review and comment. <p>Planning Approval context: <i>MCoA E81 commitments defined in Sydney Metro C&SW Traffic Management Framework section 8.3 specify details required of an Incident Management Plan covering on-road incidents or incidents that impact the transport network.</i></p>	OBS	<p>Systems Connect action commitment: Review the ERP against the CTMF and update the ERP as and where required to address Section 8.3 of the CTMF</p> <p>Responsible person: SHEQ Manager</p> <p>Due date: 30 April 21</p>

Ref	Audit Finding	Status	Agreed Action Plan
5.	<p><u>Traffic and/or public related incident preparedness</u></p> <ul style="list-style-type: none"> The Master Schedule of Emergency Drills for 2020 had not been updated to reflect BPS sites, or 2021 arrangements. Furthermore, the focus of previous exercises was observed to be System Connect worker safety and/or tunnel related, with no practice drills undertaken regarding a response to a traffic (or public related) road incident required by Planning Approval MCoA E81 (o). 	OBS	<p>Systems Connect action commitment:</p> <ul style="list-style-type: none"> a) Review and update Master Schedule of Emergency Drills for 2021. b) Conduct traffic and/or public related incident training and/or exercises as defined by the schedule or identified risks. <p>Responsible person: SHEQ Manager</p> <p>Due date:</p> <ul style="list-style-type: none"> a) = 30 April 21 b) = Quarterly frequency where required and beyond
6-8	<p>As detailed previously in section 2.2, night works team to be aware of observed and/or potential issues relating to:</p> <ul style="list-style-type: none"> Version control of Traffic Control Plans in use Traffic queuing during works set up Differing interpretation of detour signs by motorists and independent observers. 	IO	Systems Connect noted

Appendix 1: Audit documentation

The following key systems, documents, reports, information and records were reviewed, accessed or sighted during the audit process:

Documentation	Information / Records
1. Community Engagement & Management	
Systems-Connect Business Management Plan document SM-CSW-LWW 002800 vision A01.00 approved 7/4/20	Consultation Manager database entries, incl. Surrey Hills BPS Stakeholder Consultation Report (extract), May 2020 to Feb. 2021
Systems-Connect Community Communications Strategy document SM-CSW-LWC-SYC-1NL-PM-PLN-000027 revision 01 approved 14/4/2020	General communications incl. Consultation Manager entries as above and: <ul style="list-style-type: none"> ○ Various Notifications / fact sheets ○ Newspaper advertisements e.g. Wentworth Courier of 16/12/20 ○ Community update emails, weekly and pre-weekend works
Systems-Connect Communications Strategy Sub plan Surrey Hills Power Upgrade doc. SMCSWLWW-SYC-SWL-CL-PLN-002553 rev. A01.00 approved 18/10/20	Specific traffic, property access and parking comms of 14/12, 27/1 etc.
Surry Hills Residential & Business info Spreadsheet	Business Impact door knock notes of 8/2/2021
	Sydney Dental Hospital presentations incl. meeting minutes of 29/1/2021
	Targeted letters re Dilapidation Surveys and related correspondence
	Property Condition Survey Report e.g. Randall Street of 30/1/2021
56 Hour Respite Tracking spreadsheet	Targeted letters re Alternative Accommodation / Respite Offers and related comms e.g. Commonwealth Street resident dated 20/2/21
	Complaint Reporting Register (spreadsheet output) and related management of complaint ID 210113ROSE dated 13/1/2021
2. Traffic Management	
Sydney Metro City & Southwest Construction Traffic Management Framework (CTMF) v2.5 dated 18/12/2017	Evidence of CTMF and/or CTMP implementation included: <ul style="list-style-type: none"> ○ Meetings with SCO, SM, LORA (cumulative vehicle movement impacts) ○ SM C&SW Traffic Control Group initial meeting minutes e.g. 24/3 ○ Presentation of LWW to TTLG of 25/3/20 and 29/4/20 ○ Information for SCO Workshops re Elizabeth/Foveaux 26-31 December work, dated 22/10/20 and 5/11/20 ○ Email notification to police (incident response planning) ○ Correspondence with TransitSystems, STA, TfNSW & Quickway (bus stop relocation)

Documentation	Information / Records
<p>Systems-Connect Construction Traffic Management Plan Surry Hills 33kV Bulk Power Supply document SMCSWLWC-SYC-CSW-TF-PM-PLN-004180 revision 03 approved 2/12/2020 and, revision 0 dated 31/8/20</p>	<p>Evidence of CTMF and/or site-specific CTMP implementation included:</p> <ul style="list-style-type: none"> ○ Correspondence on TCP's developed by Quickway e.g. 28/1/20 (SC review) ○ Traffic Control Plans developed by Quickway, reviewed by SC and uploaded onto RMS OPLINC portal e.g. Elizabeth/Foveaux Street for December 2020 and February 2021 ○ Foveaux Street TCPs e.g. 3798-TGS 11.1 22/01/21 and 11.2 rev 04/2/21 ○ Elizabeth Street TCPs e.g. 3798-TGS 9 Zone 2, TGS 8 Zone 1, TGS 4 Zone 3 ○ Belmore Street TCPs e.g. 3798-TGS 28 revised 23/2/21 ○ Pedestrian Management Plans, Elizabeth/Foveaux Street, 28/10 and 8/11 ○ Vehicle Management Plans, Foveaux Street ○ Road Occupancy Licence applications e.g. 1561420 ○ Marked-up TCPs e.g. plan 3798-TGS 2.1 (authorised change) ○ Belmore Street local road/access documented arrangements dated 6/10/20 ○ Email correspondence with residents/businesses (parking and access)
<p>Emergency Response Plan document SMCSWLWC-SYC-C1NL-PM-PLN-000748 revision D approved 22/7/2020</p>	<ul style="list-style-type: none"> ○ Email notification to RMS and TMC (re incident response planning)
3. Noise & Vibration Management	
<p>Sydney Metro's C&SW Construction Noise & Vibration Management Strategy v0.4 dated August 2016</p>	<p>Applicable implementation evidence through information below</p>
<p>Renzo Tonin Construction Noise & Vibration Impact Statement - Portion 3 SH BPS rev10 dd 17/11/20 and revision 6 dated 27/4/20</p>	<p>As above</p>
<p>Construction Noise & Vibration Management Plan SMCSWLWC-SYC-1NL-PM-PLN-000032 rev.01 dated 30/10/20</p>	<p>General evidence of NVIS and/or N&VMP implementation included:</p> <ul style="list-style-type: none"> ○ Waterloo BPS Work Pack, CAP-PLN003783 approved 6/1/2021 ○ SC 6-Week Lookahead program and Quickway 6-Week Lookahead schedule ○ Vibration Monitoring Training of 10/12/20 ○ Night Work Pre-start information back for Foveaux Ch470-520 and associated Daily Pre-start Briefing e.g. 12/2/2021 ○ Environment Inspection Reports e.g. 27/12, 29/12, 12/02/21 ○ Corrective Action and Environment Incident Registers

Documentation	Information / Records
	Environment Equipment Audit & Calibration Register
	Acoustic Research Laboratory Calibration Certificate (sound calibrator) dd 17/7/20
	ACU-VIB Calibration Certificate (sound level meter) dd 27/7/20
	NATAcoustic Calibration Certificate (Accelerometer/Vibration Monitor) dd 25/2/21
NOISE:	
	6-monthly Construction Noise & Vibration Monitoring Program Report to August 2020 issued 18/09/2020
	Noise Monitoring Register (summary performance spreadsheet) - 150 entries as at 22/2/2021
	Noise Monitoring Record Sheets e.g. 12/2, 27/12/20 and 2/2, 19/2 /2021 (at 2-5 locations depending)
VIBRATION:	
Renzo Tonin BPS Surry Hills BPS Vibration Monitoring Plan dated 14/12/20	Renzo Tonin BPS Surry Hills BPS Works Vibration Monitoring Report - minimum working distance determination dated 12/2/2021
	Vibration Monitoring Register (summary performance spreadsheet) - 8 entries as at 18/2/2021
	Vibration Monitoring Record Sheet - Surry Hills BPS December 2020 and 8/2/21 (Bellevue Street) and 12/2/21 (Foveaux Street)
BUILDING CONDITION SURVEY:	
	Surrey Hills BPS Building Dilapidation Assessment Planning and Assessment Register (spreadsheet)
	Robert Bird Group, Structural Condition & Trench Impact Assessment (AIM and Dental Hospital) dated 10/12/2020
	AMBS Memo dated 14/12/2023 vibration monitoring of heritage items
OUT-OF-HOURS WORKS:	
Out-of-Hours Work Procedure 1NL-EM-PRO-000807 revision 1 dated 13/2/2020	Out-of-Hours Work Application OOH-068 Surry Hills BPS Foveaux 56Hr Weekend Shutdowns dated 4/2/2021
Site Mitigation & Control Measures (community)	
	Surrey Hills BPS Shift Reports, 12, 13, 14 and 19 February 2021 (demonstrating respite-period scheduling)
	P.T.O site observations of Friday night, 12 February 2021

Site observation (Foveaux Street) - notice of relocated bus stop



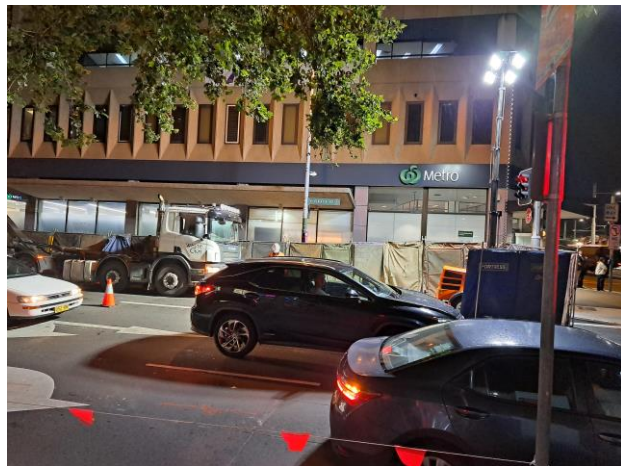
Route marking and minimum safe working distance check



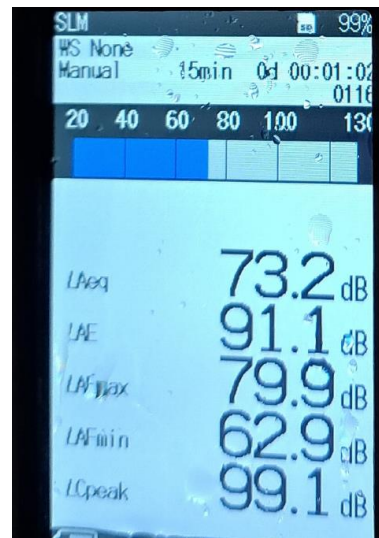
Foveaux Street, set up



Foveaux Street, set up



Site observation (Terry Street) – attended noisemeter being near #19



Site evidence (Elizabeth Street) – cable trench progress photographed by site staff later that night (early morning)



Appendix 2: Audit Credentials

Audit process

This Independent Environment Audit comprised an off-site desktop review, an onsite and office audit and a post audit assessment of documentation and records. The audit assignment was undertaken by the identified QEM Consulting Pty Ltd Auditor below, with the second Auditor not directly involved in the audit conducting a peer review of the report prior to finalising.

The audit process including scoping and planning was undertaken in accordance with the principals of AS / NZS / ISO 19011:2018 – Guidelines for Auditing Management Systems.

Auditor information

Audit Organisation:	QEM Consulting Pty Ltd
Auditor & Report Author:	Larry Weiss
Auditor Qualification:	Exemplar Global EMS Auditor Accreditation no. 12355
Affiliations:	Member, Engineers Australia 938517
Report Reviewer:	Julie Dickson
Auditor Qualification:	Exemplar Global EMS Auditor Accreditation no. 13573
Affiliations:	EIANZ Certified Environmental Practitioner, no. 221

Audit disclaimer

It should be noted that this report is a snapshot in time, based on supplied records and documentation, as well as observations on the day only, and does not purport to be a definitive confirmation of overall or potential compliance or vice-versa.

Furthermore, the audit was conducted under COVID-19 social distancing arrangements which slightly compromised face-to-face interactions and documentation sharing, especially hard copy.

Auditor certification

The abovementioned Auditor certifies as having personally undertaken this Independent Audit and preparing the contents of this Independent Audit Report; and that the findings of the audit are reported truthfully, accurately, and completely; and that he has exercised due diligence and professional judgement in conducting the audit. The signed Statement of Interests and Association in our services agreement with Sydney Metro confirm our Auditor's independence and absence of pecuniary interest in the audited project.

Report Author (& Auditor):

L J Weiss

Larry Weiss

Appendix 3: Audit Attendance Register

QEM AUDIT ATTENDANCE REGISTER

AUDITEE: Systems Connect AUDIT: Independent Environmental Audit (Community Impact Management, BPS) REFERENCE: QEM 1803-023-SM-CSW-LWW-IEA		Site inspection: 12 th February 2021 * Project audit: as below	
SITE(s): BPS Works, Surry Hills		OPENING	EXIT
NAME (print)	POSITION & ORGANIZATION	25 th February	25 th February
Larry Weiss	Independent Environment Auditor QEM	<i>[Signature]</i>	<i>[Signature]</i>
Julia Diamond	Environmental Manager - Sydney Metro Sydney Metro	<i>[Signature]</i>	Y
Grace Illuzzi	Q&S Manager Q&S	<i>[Signature]</i>	
Matthew Billings	E&S Manager SC	<i>[Signature]</i>	<i>[Signature]</i>
Chris Berg		MS Teams Virtual attendance	
George Kollias			Y
MONK SIM	Traffic Engineer SC	<i>[Signature]</i>	
Chris Riley	Environmental Coordinator SC	<i>[Signature]</i>	
CRAIG ROWEN	SHEQ MANAGER Senior Stakeholder and Community Engagement Manager SYSTEMS CONNECT		<i>[Signature]</i>
Svetlana Paunovic	Senior Stakeholder and Community Engagement Manager SC	<i>[Signature]</i>	<i>[Signature]</i>
* SVETLANA PAUNOVIC			
* Safety + work dependent, brief conversations/interviews held with:			
> Conor Butler	Site Engineer	} SC	
> Dean Kellet	Supervisor		
> Scott Brown	Project Manager		
>	Supervisor	Quickway	
> Wee Tee	Senior Project Engineer	SC	
> Grace Illuzzi	Stakeholder Manager	SC	

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