

Appendix F

Construction Noise and Vibration Monitoring Program

Supply, Operate and Maintain Contract (ISD-17-6720)

Parramatta Light Rail – Stage 1

PLR1SOM-GLR-ALL-EN-PRG-000001

Revision 1 January 2020

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About this release

Title	Supply, Operate, Maintain Construction Noise and Vibration Monitoring Plan
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Version control

Revision	Date	Description	Approval
Revision A	18/03/2020	Draft for review	-
Revision A.2	27/03/2020	Internal review updates	-
Revision B	24/04/2020	Update for TfNSW comments	-
Revision B.2	----	Update for ER comments	-
Revision C	20/05/2020	Update for TfNSW follow up comments	-
Revision D	12/10/2020	Revised for Stakeholder Consultation and ER Endorsement	
Revision 0	23/10/2020	For DPIE Submission	
Revision 1	11/01/2021	Addressing DPIE Comments	

Glossary / Abbreviations

Abbreviations	Expanded Text
AA	Acoustics Advisor
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CNVIS	Construction Noise and Vibration Impact Statement
CNVMP	Construction Noise and Vibration Management Plan
CoA	Conditions of Approval
dBA	Decibels using the A-weighted scale measured according to the frequency of the human ear.
DPIE	NSW Department of Planning, Industry and Environment (functions of the former Department of Planning and Environment and Office of Environment and Heritage (OEH) are now administered by the Department of Planning, Industry and Environment)
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ER	Environmental Representative
GRCLR	Greater River City Light Rail
ICNG	NSW Interim Construction Noise Guideline (Department of Environment, Climate Change and Water 2011)
LAeq	The A-weighted equivalent continuous (energy average) sound pressure level. For the purpose of assessing or measuring construction noise, this is related to the construction works under consideration over a defined period (such as 15-minutes, shown as LAeq(15 minute)). Note that during verification monitoring the LAeq should exclude other sources such as from industry, road, rail and the community.
LAmx	The “Maximum Noise Level” for an event, used in the assessment of potential sleep disturbance during night-time periods. The subscript “A” indicates that the noise levels are filtered to match normal human hearing characteristics (i.e. A-weighted).
OOHW	Out-of-hours Work

RBL	The Rating Background Level for each period is the medium value of the ABL values for the period over all of the days measured. There is therefore an RBL value for each period (day, evening and night)
CNVMonP	Construction Noise and Vibration Monitoring Plan (this Program)
PLR	Parramatta Light Rail
Project	Construction of the PLR light rail systems, high-voltage power supply and stops above slab level, and the stabling and maintenance facility
SaM Facility	Stabling and Maintenance Facility
SPIR	Parramatta Light Rail (Stage 1) Westmead to Carlingford via Parramatta CBD and Camellia Submissions Report (incorporating Preferred Infrastructure Report) (February 2018)

1 Introduction

1.1 Context

This Construction Noise and Vibration Monitoring Program (Program) describes how Great River City Light Rail (GRCLR) will monitor and compare actual performance for noise and vibration during all construction of the Parramatta Light Rail Supply, Operate and Maintain (SOM) Works (the Project).

1.2 Purpose of this report

This Program has been prepared to address the requirements of the Conditions of Approval (CoA) for the Project Infrastructure Approval. The requirements of the Program related CoA are listed in Table 1-1.

Table 1-1 Conditions applicable to the Noise and Vibration Monitoring Program

CoA No.	Condition requirements	Document reference	How addressed
C6	Any of the CEMP Sub-plans may be submitted along with, or subsequent to, the submission of the CEMP but in any event, no later than one month before construction.	Section 4	This construction noise and vibration monitoring plan (this Program) will be submitted no later than one month prior to commencement of construction.
C8	Construction must not commence until the CEMP and any CEMP Sub-plan specified in Condition C3 have been submitted to or approved by the Secretary. The CEMP and CEMP Sub-plans submitted to or approved by the Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction. Where construction of the CSSI is staged, construction of a stage must not commence until the CEMP and Sub-plans for that stage have been submitted to or approved by the Secretary. <i>Note: the requirement to submit or have a CEMP or CEMP Sub-plan approved is specified in Condition C3.</i>	Section 4	Construction will not commence until this Sub-plan has been submitted to the Secretary and approved. Once approved, it will be implemented for the duration of construction.
C9	The following Construction Monitoring Programs must be prepared in consultation with the relevant government agencies for each to compare actual performance of	This document	The Program has been prepared in consultation with City of Parramatta Council, EPA and Health NSW, as noted in Section 2 by seeking

CoA No.	Condition requirements	Document reference	How addressed
	construction of the CSSI against performance predicted in the documents listed in Conditions A1 or in the CEMP. (b) Noise and Vibration Monitoring Relevant government agencies to be consulted: Relevant Council(s), EPA, NSW Health (as relevant)		feedback on this document from these relevant stakeholders.
C10	The Construction Monitoring Program must provide: (a) details of baseline data available	Section 3.2 and Section 4.2	Details of baseline noise and vibration monitoring provided in Section 3.2 and Section 4.2 respectively.
	(b) details of baseline data to be obtained and when	Section 3.2 and Section 4.2	Baseline noise monitoring presented in CNVMP as noted in Section 3.2. Baseline vibration monitoring identified in the CNVIS and completed prior to construction as noted in Section 4.2.
	(c) details of all monitoring of the project to be undertaken	Section 3 and Section 4	The construction noise and vibration monitoring to be undertaken is outlined in Section 3 and 4 of this Program.
	(d) the parameters of the project to be monitored	Section 3.3.1 and Section 4.3.1	The parameters to be measured during noise and vibration monitoring are noted in Sections 3.3.1 and Section 4.3.1 respectively.
	(e) the frequency of monitoring to be undertaken	Section 3.3 and Section 4.3	Section 3.3 and Section 4.3 outline timing and frequency of the noise and vibration monitoring (respectively).
	(f) the location of monitoring	Section 3.3 and Section 4.3	Section 3.3 and Section 4.3 outline the location of the noise and vibration monitoring (respectively).
	(g) the reporting of monitoring results against relevant criteria	Section 6.1	Section 6.1 details the reporting requirements for

CoA No.	Condition requirements	Document reference	How addressed
C10 (<i>contin.</i>)			noise and vibration monitoring.
	(h) procedures to identify and implement additional mitigation measures where results of monitoring are unsatisfactory; and	Section 6.2	Section 6.2 details the process to implement when the monitored results are not in line with the expected noise levels.
	(i) any consultation to be undertaken in relation to the monitoring programs.	Section 2	The consultation requirements and process are presented in Section 2.
C11	The noise and vibration monitoring data collected during monitoring required by Condition C9 must be available to the Proponent, ER, AA, Relevant Council(s) and the community to inform construction scheduling, the level of impacts and whether additional mitigation is required. The Department must also be provided access to this data if specifically requested.	Section 6.1	A monthly Construction Monitoring Report containing the noise and vibration monitoring data collected during SOM Works will be available to the relevant stakeholders (including the community), as detailed in Section 6.1.
C12	The Construction Monitoring Programs must be developed in consultation with relevant government agencies and Relevant Council(s) as identified in Condition C9 of this approval and must include, information requested by an agency to be included in a Construction Monitoring Programs during such consultation. Details of all information requested by an agency, including copies of all correspondence from those agencies, must be provided with the relevant Construction Monitoring Program.	Section 2	This Program was provided to EPA, Health NSW and City of Parramatta Council for consultation and feedback, as documented in Section 2.
C13	The Construction Monitoring Programs must be endorsed by the ER and submitted to the Secretary for information at least one month before the commencement of construction.	Section 2.1	The Program would be endorsed by the ER and submitted to DPIE for information before commencement of construction.

CoA No.	Condition requirements	Document reference	How addressed
C14	Construction must not commence until the Secretary has received all of the required Construction Monitoring Programs, and all relevant baseline data for the specific construction activity has been collected.	Section 2.1 Section 3.2 Section 4.2	Construction would not commence until the Program has been endorsed by the AA and ER and submitted to DPIE and baseline data relevant for the specific proposed construction activity has been collected.
C15	The Construction Monitoring Programs, as submitted to the Secretary including any minor amendments approved by the ER must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Secretary, whichever is the greater.	Section 2.1	The Program would be implemented for the duration of construction, and for any longer period set out in this monitoring program or specified by the Secretary, whichever is the greater
C16	The results of the Construction Monitoring Programs must be submitted to the Secretary, and relevant regulatory agencies, for information in the form of a Construction Monitoring Report at the frequency identified in the relevant Construction Monitoring Program.	Section 6.1	A monthly Construction Monitoring Report containing the noise and vibration monitoring data collected during SOM Works will be available to the relevant stakeholders, as detailed in Section 6.1.
C17	Where a relevant CEMP Sub-plan exists, the relevant Construction Monitoring Program may be incorporated into that CEMP Sub-plan.	CNVMP This Plan	This plan is included as an Appendix of the CNVMP.
E43	The Proponent must conduct vibration testing before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and monitoring shows that the preferred dose values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional mitigation measures.	Section 4.2.2 Section 5	Baseline vibration monitoring for heritage items potentially impacts by the SOM construction works would be carried out at commencement of construction works. These specific items and the vibration monitoring requirements will be identified in the Construction Noise and Vibration Impact Statements (CNVIS) prepared for the SOM works.

CoA No.	Condition requirements	Document reference	How addressed
E44	The Proponent must seek the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement and noise monitoring of heritage-listed structures.	Section 4.2.2 Section 5	The installation of the monitoring equipment will be reviewed and approved by a heritage specialist.
E45	Before commencement of any construction, and with the agreement of the landowner, a structural engineer must undertake building condition surveys of all buildings identified in the documents listed in Condition A1 as being at risk of damage. The results of the surveys must be documented in a Building Condition Survey Report for each building surveyed. Copies of Building Condition Survey Reports must be provided to the landowners of the buildings surveyed, and if agreed by the landowner, the relevant Council within three weeks of completing the surveys and no later than one month before the commencement of construction.	Section 4.3.2	Building Condition Surveys are to be undertaken prior to construction as per the monitoring protocol for structural damage presented in Figure 4-2 and Section 9.6 of the CNVMP.
E46	After completion of construction and with the agreement of the landowner, Building Condition Surveys of all buildings for which building condition surveys were undertaken in accordance with Condition E45 of this approval must be undertaken by a structural engineer. The results of the surveys must be documented in a Building Condition Survey Report for each building surveyed. Copies of Building Condition Survey Reports must be provided to the landowners of the buildings surveyed, and if agreed by the landowner, the relevant Council within three weeks of completing the surveys and no later than three (3) months following the completion of construction.	Section 4.3.2	Building Condition Survey Reports will be undertaken after construction where required as detailed in Section 9.6 of the CNVMP. Structures at risk of damage requiring pre-construction inspections were identified as per Figure 4-2 and Section 9.6 of the CNVMP.

CoA No.	Condition requirements	Document reference	How addressed
NV-2	The NVMP prepared for the project would include mitigation and management measures for the works with reference to the NSW Interim Construction Noise Guideline (ICNG) and Transport for NSW Construction Noise Strategy (CNS). Mitigation and management measures which would be considered include: ... » Ongoing noise monitoring would be carried out during construction at sensitive receptors during critical periods to identify and assist in managing high risk noise events.	Section 3 and Section 4	Ongoing noise monitoring and verification would be undertaken during construction to manage high risk noise impacts at sensitive receivers as outlined in Section 3 and 4 of this Program.
NV-3	In the event of predicted exceedances of the noise goals, particularly during out-of-hours works, additional noise mitigation and management measures to be considered in the NVMPs as described in the CNS. Additional mitigation and management measures would be determined on a site specific basis and are dependent upon the level of predicted impact. Additional mitigation and management measures which would be considered include: ... » Monitoring – Ongoing noise monitoring during construction at sensitive receptors during critical periods would be used to identify and assist in managing high risk noise events. Monitoring of noise would also be carried out in response to complaints. All noise monitoring would be carried out by an appropriately trained person in the measurement and assessment of construction noise and vibration, who is familiar with the requirements of the relevant standards and procedures.	Section 3 and Section 4	Noise verification monitoring would be undertaken by specifically trained personnel to verify the noise levels that have been predicted at specific potentially impact sensitive receivers as part of the CNVIS process (NV48) or in the response to a complaint as outlined in Section 3 and 4 of this Program.

CoA No.	Condition requirements	Document reference	How addressed
NV-7	If vibration intensive works are required within the safe working distances, vibration monitoring or attended vibration trials would be carried out to ensure that levels remain below the cosmetic damage criterion.	Section 4	Vibration monitoring would be used to verify vibration levels at sensitive buildings/structures as described in Section 4 of this Program.
NV-7	Measurements of existing ambient vibration levels would be carried out at receivers with vibration sensitive equipment during the detailed design. This information would be used to inform the site-specific Construction Noise and Vibration Impact Statements for works near these locations.	Section 4.2	Measurements of existing ambient vibration levels have been carried out at receivers with vibration sensitive equipment during the detailed design as in Section 4.2.
NV-8	Mitigation and management measures to address potential noise and vibration impacts to facilities within the Westmead Research Zone would be implemented during construction. Mitigation and management measures would be determined in consultation with the facility operator / owner and informed by the sensitivity of impacted spaces prior to the commencement of construction. The mitigation and management measures (in addition to those provided in NV-1 to NV-7) could include: ... » Unattended noise and vibration monitoring within the facilities to ensure noise and/or vibration levels are within acceptable levels	Section 4.2.1 and Section 4.3	Unattended noise and vibration monitoring would be used to establish site specific criteria where appropriate and verify noise and vibration impacts for sensitive receivers within the Westmead Research Zone facilities (NV57) as outlined in Section 4.2.1 and Section 4.3

2 Consultation

The following sections summarises the consultation undertaken as part of developing this Program.

2.1 Consultation Requirements under the Conditions of Approval

This monitoring program has been prepared in consultation with relevant Government Agencies and Councils in line with CoA C9(b). Consultation included the following stakeholders:

- NSW Environment Protection Authority
- City of Parramatta Council
- NSW Health.

This Program will be endorsed by the Environmental Representative (ER) as per CoA C13, and then submitted to the Secretary for information no later than one month prior to the commencement of construction. The Program, as submitted to Secretary, including any minor amendments approved by the ER, will be implemented for the duration of construction and for any longer period set out in this monitoring program or specified by the Secretary, whichever is the greater.

In line with CoA A5, evidence of consultation has been recorded in document [PLR1SOM-GLR-ALL-EN-RPT-001004] and includes:

- a) Documentation of the engagement with the parties identified in the relevant condition of approval before submitting the document for approval
- b) Log of the points of engagement or attempted engagement with the identified parties and a summary of the issues raised by the identified parties
- c) Documentation of any follow-up with the identified parties, where feedback has not been provided, to confirm that the identified parties have none or have failed to provide feedback after repeated requests
- d) Outline of the issues raised by the identified parties and how they have been addressed, including evidence that the parties are satisfied the issues have been addressed
- e) Where there are outstanding issues raised by the identified party(ies) that have not been adopted, the reasons why they have not been/could not be adopted must be provided, including evidence of consultation with the relevant party(ies).

3 Noise monitoring

3.1 Relevant standards and guidelines

The main guidelines, specifications and policy documents relevant to this noise monitoring Program include:

- NSW Interim Construction Noise Guideline, Department of Environment and Climate Change 2009
- NSW Industrial Noise Policy, Environment Protection Authority 2000
- NSW Noise Policy for Industry, Environment Protection Authority 2017
- Transport for NSW's Construction Noise and Vibration Strategy (7TP-ST-157/4.0)
- Australian Standard 1055 Acoustics – Description and Measurement of Environmental Noise
- Australian Standard 2659.1 – 1998 Guide to the use of sound measuring equipment – portable sound level meters
- International Standard IEC 61672.1 Electroacoustic – Sound Level Meters – Specifications
- International Standard IEC 60942 'Electroacoustics - Sound calibrators
- ISO 3744 Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane
- ISO 3746 Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane
- ISO 6393 Earth-moving machinery - Determination of sound power level - Stationary test conditions
- ISO 6395 Earth-moving machinery - Determination of sound power level - Dynamic test conditions.
- NATA General Accreditation Guidance - General Equipment - Calibration and Checks, General Equipment Table 2018

3.2 Baseline noise monitoring data

As part of the EIS process, baseline noise monitoring was undertaken in October 2016 at a total of 16 locations. The baseline noise monitoring locations were selected to be representative of the appropriate Noise Catchment Areas (NCAs) within and around the Project, across a mix of existing land uses including residential, commercial, industrial and open space.

An additional monitoring location was adopted to represent NCA12A, which was developed to represent the area in the rail corridor at Clyde Junction and Clyde Station. Monitoring was undertaken in July 2016.

A summary of the locations and results from these long term noise monitoring are presented in **Table 3-1**. For further information regarding baseline noise monitoring refer to Section 5.2 of the CNVMP and Sections 2.3, 2.4 and 2.5 of the Technical Paper 13 – Noise and Vibration Impact Assessment (SLR, document reference: 610.16769-R02, 16 August 2017, Version 1.0).

No further additional baseline monitoring is anticipated. As construction works have now commenced (by other contractors) it is not possible to take further background monitoring, as the background noise environment has fundamentally changed.

Table 3-1: Summary of Rating Background Levels (RBLs) at residential receivers¹

Precinct	NCA	Logger ID	Noise monitoring location	RBL Day	RBL Eve	RBL Ngt
Westmead	NCA01	BG01	8-12 Alexandra Ave, Westmead	49	47	37
	NCA02	BG02	157 Hawkesbury Rd, Westmead	51	48	43
	NCA03	BG02	157 Hawkesbury Rd, Westmead	51	48	43
	NCA04	BG03	199 Hawkesbury Rd, Westmead	49	48	47
	NCA05	BG03	199 Hawkesbury Rd, Westmead	49	48	47
Parramatta North	NCA06	BG04	Cumberland Hospital East	42	41	44
	NCA07	BG06	St Patricks Cemetery, North Parramatta	51	50	39
Parramatta CBD	NCA08	BG07	20 Victoria Rd, Parramatta	59	57	46
	NCA09	BG08	Arthur Phillip Highschool, Parramatta	58	53	43
	NCA10	BG09	9 Noller Pde, Parramatta	43	40	34
Rosehill and Camellia	NCA11	BG09	9 Noller Pde, Parramatta	43	40	34
	NCA12	BG10	5 Hope St, Rosehill	51	48	41
	NCA12A	BG17 ²	10-42 East Street, Granville	43	45	42
	NCA13	BG10	5 Hope St, Rosehill	51	48	41
Carlingford	NCA14	BG11	14 Dudley St, Rydalmere	45	43	38
	NCA15	BG12	Dundas Station	45	43	37
	NCA16	BG13	22 Adderton Rd, Telopea	46	42	34
	NCA17	BG14	Telopea Station	43	40	31
	NCA18	BG15	89 Marshall Rd, Telopea	42	40	32
	NCA19	BG16	Carlingford Station	52	47	39

Notes: 1. Source: *EIS: Technical Paper – Noise and Vibration Impact Assessment*, with the exception of NCA12A

2. Source: *Resonate Acoustics - Acoustic Planning Report: East and Cowper Streets Granville Residential Development (S15235) July 2016*

3.3 Attended and unattended airborne noise monitoring

Attended monitoring of construction noise levels will be undertaken as follows:

- Monitoring will be carried out at the commencement of activities for which a location and activity specific noise and vibration impact assessment has been prepared to confirm that actual noise and vibration levels are consistent with noise and vibration impact predictions and that the management measures that have been implemented are appropriate
- Prior to the applicable construction works, the noise levels of plant and equipment, including rental equipment, would be checked against the levels included in the CNVIS to ensure that equipment will operate at or below the assumed noise levels, noting that they may be below maximum operating Sound Power Levels in Appendix C of the TfNSW CNVS.
- Where a change in methodology, plant or equipment is anticipated to result in a significant increase in construction noise impact
- To verify high noise impact works (above 75 dB(A)) at the nearest sensitive receiver (including the Grey Headed Flying Fox camps noted in the Land Use Survey in the CNVMP to confirm if respite periods are required
- Where appropriate, in response to a noise related complaint(s) (determined on a case-by-case basis) and in accordance with the Out of Hours Works (OOHW) Protocol or Environment Protection Licence (EPL) (EPL only required for commencement of signalling works)
- As otherwise required by the Construction Noise and Vibration Impact Statement (CNVIS), Out of Hours Works (OOHW) Protocol or EPL
- Following the implementation of mitigation measures or noise attenuation as a result of an exceedance of predicted noise levels
- Ongoing spot checks for noise intensive plant and equipment will be undertaken throughout construction to ensure compliance with the maximum noise level goals for construction equipment listed in Appendix C of the Transport for NSW's Construction Noise and Vibration Strategy.

In addition to the above list, noise monitoring can also be undertaken to assist in identifying and/or managing high risk noise events, such as during school examination periods, or as required by an EPL.

Unattended airborne noise monitoring may also be undertaken, with a noise logger(s) deployed to obtain noise results over longer periods. In these instances, noise loggers will record audio to allow for the identification of construction noise contribution and the presence of any extraneous noise, if privacy concerns can be overcome. The use of unattended airborne noise monitoring will be determined on a case-by-case basis, as appropriate by the Environment and Sustainability Manager, and will be subject to any access approvals.

Attended and unattended noise monitoring locations will vary and be determined on a case by case basis by a CNVIS, the Project's noise and vibration management tool, or in response to complaints.

In accordance with the ICNG the duration and amount of noise monitoring will depend on the scale of the construction activities and extent of expected noise impacts. Noise monitoring will cover a representative period of the construction activity.

Where possible, monitoring will be undertaken at the most affected noise sensitive receiver location in proximity to the Project's construction activities. The selection of appropriate noise monitoring locations will consider factors including:

- The location of previous monitoring sites

- The proximity of the receiver to a Project worksite
- The sensitivity of the receiver to noise
- Background noise levels
- The expected duration of the impact.

3.3.1 Parameters to be monitored

All environmental noise monitoring will be taken with the following meter settings:

- Time Constant: Fast (i.e. 125 milliseconds),
- Frequency Weightings: A-weighting, and
- Sample period: 15 minutes.

Environmental noise monitoring (excluding spot checks of plant and equipment) will be recorded over 15 minute sample intervals, excluding periods of extraneous noise until a representative sample of the construction activity being monitored has been obtained. A representative sample will be determined by the operator, who will be competent, suitability trained and experienced in undertaking noise measurements and familiar with the relevant Australian Standards (as detailed in Section 6 of the CNVMP). The minimum range of noise metrics to be stored in the memory for later retrieval include the following A-weighted noise levels: L_{A90} , L_{Aeq} , $L_{A1(1min)}$ and L_{Amax} .

For spot checks of noise intensive plant and equipment, the duration of monitoring will depend on the source of noise being monitored. Sources of continuous noise (such as generators), measurements will be monitored over one-to-two minute intervals. For dynamic plant, such as front-end loaders, spot checks will capture a representative activity, such as one delivery truck load cycle.

3.4 Attended and unattended ground-borne noise monitoring

The majority of vibration intensive activities would be undertaken by the Infrastructure Works contractor, with the exception of the SaM facility. As such, at all locations except for the SaM facility the potential source of ground-borne noise is not present. In the case of the SaM facility, even though there may be vibration intensive activities taking place as part of the SOM works, there are minimal sensitive receivers nearby, and where there is potential for noise impacts, as the construction works are at surface level, nearby sensitive receivers that could be impacted by ground borne noise are likely to be identified for additional mitigation measures due to high airborne noise impacts as well. As such, monitoring for ground-borne noise impacts will not typically be required at the commencement of all works, but will be identified in the CNVIS where required.

Attended monitoring of ground-borne construction noise levels will be undertaken as follows:

- Where appropriate in response to a noise related complaint(s) (determined on a case-by- case basis) and in accordance with the EPL, and
- As otherwise required by the CNVIS, OOHV Protocol or EPL.

Monitoring will be undertaken in the most affected habitable room of the residence or other sensitive building and will be conducted in conjunction with vibration measurements whenever practicable (refer to Section 4). The room selected for noise monitoring should be well shielded from airborne noise intrusions, such as road traffic noise to allow the ground-borne noise to dominate over non-construction generated airborne noise.

There may be instances where the resident does not allow access to monitor in the most suitable habitable room. In these instances, GRCLR will endeavour to monitor at the next most suitable available room or location, noting this in the monitoring form.

Given that ground-borne noise is mostly noticed during the evening or at night, noise loggers may also be left in place over night and picked up at a mutually agreed time with the resident. In these instances, noise loggers will record audio to allow for the identification construction noise contribution and the presence of any extraneous noise, if privacy concerns can be overcome. Where the resident or receiver will not allow the noise logger to record audio, attended noise monitoring will be offered instead.

Measurements will be carried out by an appropriately trained and competent person in the measurement and assessment of construction noise and vibration, who is familiar with the requirements of the relevant standards and procedures.

3.4.1 Parameters to be monitored

Ground-borne noise monitoring will be taken with the following meter settings:

- Time Constant: Fast (i.e. 125 milliseconds),
- Frequency Weightings: A-weighting, and
- Sample period: 15 minutes.

Ground-borne noise monitoring will be recorded over 15 minute sample intervals, where every 15 minutes the data is to be processed statistically and stored in memory. The minimum range of noise metrics to be stored in the memory for later retrieval include the following A-weighted noise levels: L_{A90} , L_{Aeq} , $L_{A1(1\text{ min})}$ and L_{Amax} .

3.5 Calibration, QA and competency

All monitoring will be undertaken by competent personnel, suitably trained and experienced in undertaking noise measurements.

Noise monitoring equipment used will be at least Class 2 instruments and calibrated in accordance with manufacturer specifications or relevant Australian Standards.

All instrumentation should comply with IEC 61672 (parts 1-3) '*Electroacoustics - Sound Level Meters*' and IEC 60942 '*Electroacoustics - Sound calibrators*'.

All noise monitoring equipment used must be checked for accuracy (to manufacturer's specification) at least every two years [reference: NATA General Accreditation Guidance - General Equipment - Calibration and Checks, General Equipment Table (January 2018)] (or if less than 2 years old, manufacturers certification).

The calibration of the monitoring equipment will be checked in the field before and after the noise measurement period.

Records of monitoring equipment calibration will be maintained throughout the delivery of the Project.

All monitoring records will be retained throughout the delivery of the Project. Noise monitoring records will be completed to record the following information:

- Date and time of measurement
- Name of person undertaking the measurement
- Class and model number of monitoring instrumentation
- Results of field calibration checks
- Time of day, length of measurement and any measurement time intervals
- Monitoring location (including a sketched map of area)
- Measurement location details and number of measurements at each location

- Weather conditions during measurements, including wind velocity, wind direction, temperature, relative humidity and cloud cover
- Details of the operation and activities of the noise sources under investigation, with specific details of what occurred during the monitored period
- Estimated contribution of the Project's activities, and
- Noise due to other extraneous and environmental sources (e.g. traffic, aircraft, trains, dogs barking, insects).
- Location of the nearest sensitive receiver to the construction works relative to the monitoring location.
- Details of any adjustments required or applied to the monitored noise data (ie. if noise events were excluded through pausing, adjustments are required due to the proximity of reflective surfaces).

Noise monitoring will be undertaken and recorded in accordance with the relevant noise measurement requirements in the reference standards and documents in Section 3.1.

All outdoor noise measurements will be undertaken with a windscreen over the microphone

Measurements should be undertaken when conditions are suitable, and not be undertaken when there is weather related influence, such when it is raining and/or the wind speed is greater than 5 m/s (18 km/h).

Where high background noise levels obscure construction noise contribution during attended noise measurements, operators will either:

- measure closer to the source and calculate back to the required position, or
- measure with the source noise off and then on (where possible) and calculate the difference or use the 'pause and/or cut' feature on the sound level meter to try to exclude as much of the extraneous noise as possible.

Where possible, noise monitoring is to be carried out at least 3.5 metres from any reflective surface other than the ground and the preferred microphone/measurement height is 1.2-1.5 metres above the ground.

Where it is not possible to measure more than 3.5 m from any reflective structure or wall, adjustments may be required for presence or absence of nearby reflecting surfaces, with any adjustment recorded with justifications considering the site specific circumstances.

Measurements taken inside buildings should be at least one metre from walls or other reflective surface, and about 1.5 metres from windows, where such instrument siting is possible.

4 Vibration monitoring

4.1 Relevant standards and guidelines

The main guidelines, specifications and policy documents relevant to this vibration monitoring Program include:

- NSW Assessing Vibration – a technical guideline (AVTG), Department of Environment and Conservation 2006
- Australian Standard AS 2187.2 Explosives - Storage and use - Part 2 Use of explosives
- Australian Standard AS2436-2010 Guide to noise and vibration control on construction, demolition and maintenance sites Australian Standard 2659.1 – 1998 Guide to the use of sound measuring equipment – portable sound level meters
- Australian Standard 2775 Mechanical Mounting of Accelerometers
- British Standard BS 6472-2008, 'Evaluation of human exposure to vibration in buildings (1-80Hz)
- British Standard 7385: Part 2-1993 'Evaluation and measurement of vibration in buildings'
- German Standard DIN4150-3:2016 Vibration in buildings – Part 3: Effects on structures
- NATA General Accreditation Guidance - General Equipment - Calibration and Checks, General Equipment Table 2018

4.2 Baseline vibration monitoring

4.2.1 HAC community

TfNSW surveyed receivers along the alignment in 2017 to identify businesses and institutions that contain equipment that may be sensitive to noise and vibration. Baseline noise and vibration assessments were completed within these facilities as part of the Health Administration Corporation (HAC) Assessment System (see Section 5.1.3 of the CNVMP). Consultation with businesses and institutions was reviewed during the development of the Land Use Survey completed by the Infrastructure Contractor to satisfy Condition E20.

Data from the baseline vibration monitoring was used to form site specific vibration criteria for each of the identified facilities within the Westmead, Cumberland East and Cumberland West Health Precincts, outlined in the HAC Assessment System and develop the TfNSW Funded HAC Protection and Relocation. Data from the Baseline Study has been provided to the asset HAC and TfNSW by the Infrastructure Contractor.

4.2.2 Heritage-listed structures

As part of the EIS process the project is required to undertake vibration monitoring of heritage listed structures in response to Project Planning Condition of Approval (CoA) E43, which states the following:

“The Proponent must conduct vibration testing before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and monitoring shows that the preferred dose values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional mitigation measures.”

The objective of the 'before' monitoring is to obtain a baseline vibration record for these structures prior to SOM construction works likely to impact on the heritage items. Vibration monitoring requirements will be identified in the Construction Noise and Vibration Impact Statements (CNVIS) prepared for the SOM works.

Vibration monitoring would be carried out at commencement of construction works likely to impact on the heritage item. At all locations, care will be taken to minimise any damage from the installation of the vibration monitoring equipment. The installation of the monitoring equipment will be reviewed and approved by a heritage specialist in accordance with CoA E44. The final installation method at each location will depend upon the measurement surface and connection between the equipment and that surface.

Monitoring will be carried out in accordance with Section 4.3 and 4.4.

4.3 Short term attended and unattended vibration monitoring

Attended vibration monitoring is to be undertaken as follows:

- At the commencement of operation for each plant or activity on site, which has the potential to generate significant vibration levels and where the vibration screening criteria is likely to be exceeded or as determined by a vibration assessment and reported a CNVIS
- At the commencement of vibration generating activities that have the potential to impact on heritage items to confirm/identify the site specific minimum working distances to prevent cosmetic damage
- Where vibration sensitive locations are determined to fall within the 'minimum working distances' established for each item of plant, so to refine the indicative minimum working distances
- Where vibration sensitive locations are determined to fall within the site specific 'minimum working distances' to ensure that levels are managed so as to be below the cosmetic damage criterion during the works
- Where appropriate in response to a vibration related complaint(s) (determined on a case-by-case basis) and in accordance with the OOHV Protocol or EPL (once approved for commencement of signalling works)
- As otherwise required by the CNVIS, OOHV Protocol or EPL.

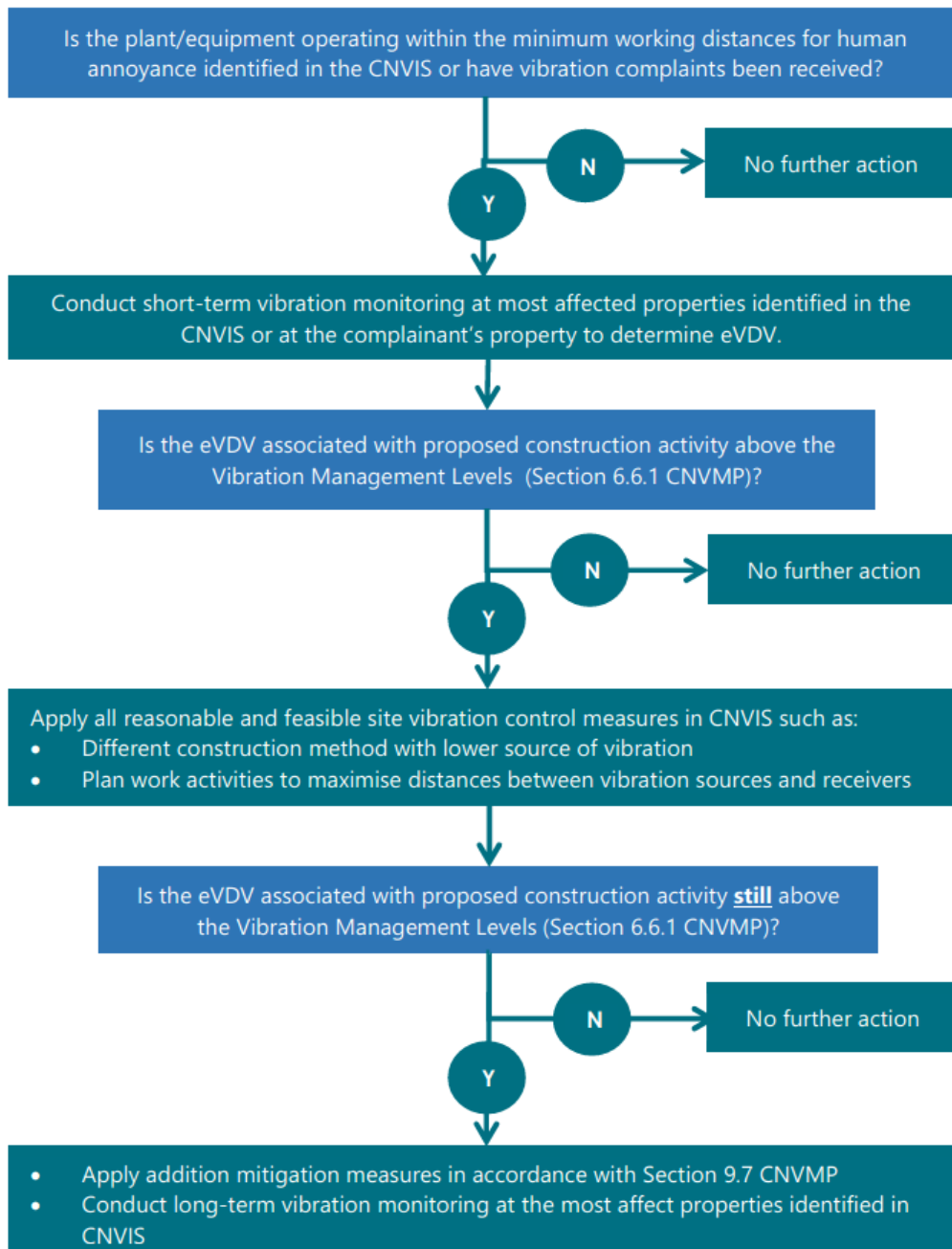
Vibration monitoring will be undertaken in accordance with the relevant vibration measurement requirements in the reference standards and documents in Section 4.1.

4.3.1 Vibration monitoring procedure for human annoyance

Where human comfort is a concern, vibration monitoring results will be assessed and reported against the values set out in Tables 2.2 and 2.4 of the EPA's Assessing Vibration – a technical guideline.

Figure 4-1 below shows the procedure to manage and minimise potential human annoyance vibration impacts through vibration monitoring.

Figure 4-1: Monitoring protocol for human annoyance impact

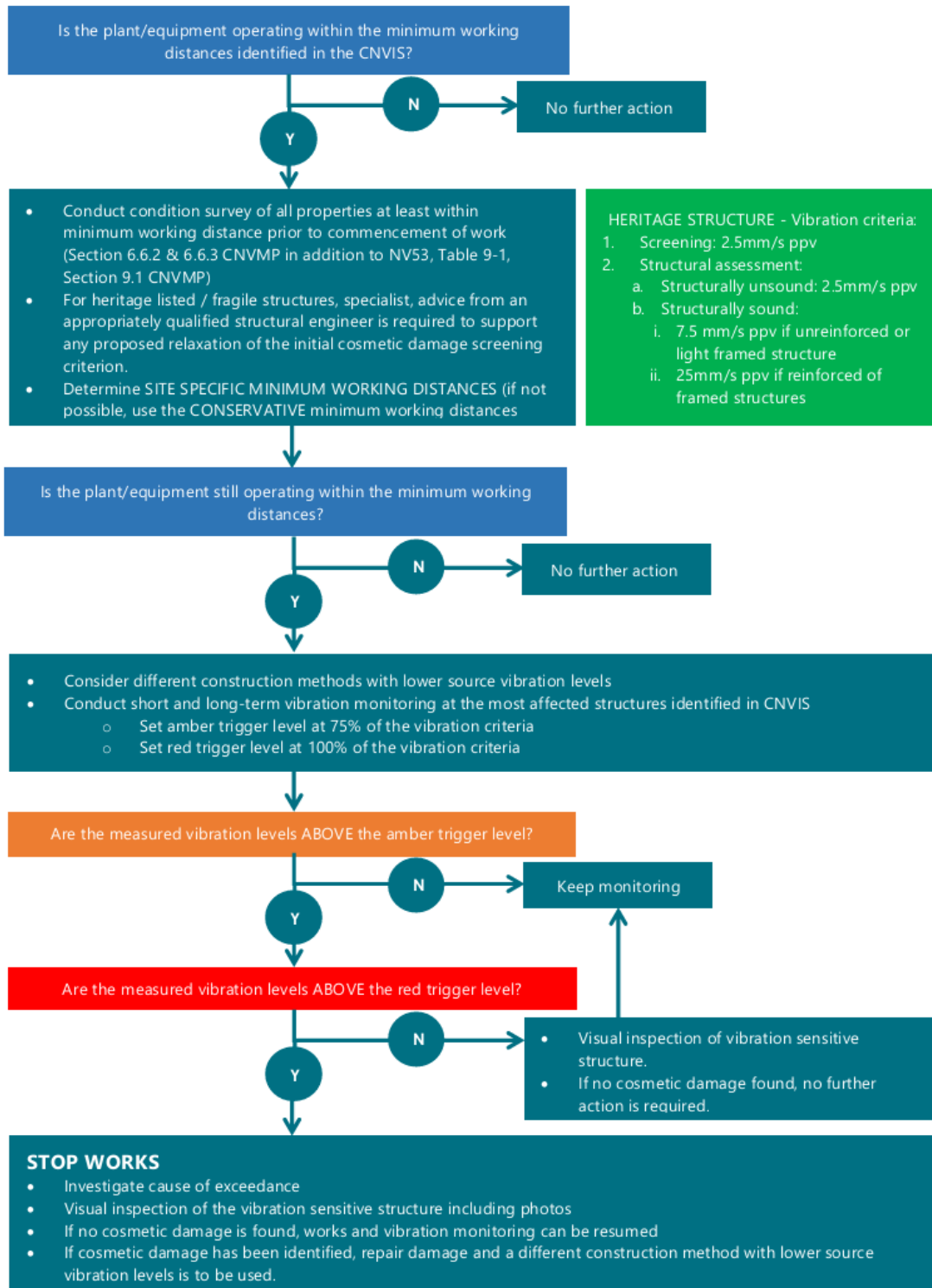


Where vibration monitoring is undertaken to measure tactile vibration levels, vibration monitoring results shall be assessed and reported against the acceptable values of human exposure to vibration set out in Tables 2.2 and 2.4 of the EPA's Assessing Vibration – a technical guideline.

4.3.2 Vibration monitoring procedure for structural damage

Where property damage is a concern, vibration monitoring results will be assessed and reported against the vibration levels from the British Standard 7385, as presented in Section 6.6.2 of the CNVMP. For heritage structures, BS7385-2:1993 does not provide numerical vibration levels to prevent structural damage. The approach that will be adopted for the Project to assess and manage potential vibration impact on heritage structures is outlined in Section 6.6.3 of the CNVMP. The procedure to manage and minimise potential structural damage impacts is presented in Figure 4-2.

Figure 4-2: Monitoring protocol for structural damage



Vibration monitoring shall be undertaken in accordance with the vibration measurement requirements stipulated in the reference standards and documents listed in Section 4.1. The following important notes in regard to vibration monitoring are:

- Vibration monitoring equipment shall be placed outside at the footings or foundations of the building of interest, on the side of the building that is closest to the vibrating plant
- The surface should be solid and rigid to best represent the vibration entering the structure of the building under investigation
- The vibration sensor or transducer shall not be mounted on loose tiles, loose gravel or other resilient surfaces
- The vibration sensor or transducer shall be directly mounted to the vibrating surface using either bees wax or a magnetic mounting plate onto a steel washer, plate or bracket which shall be either mechanically fastened or glued to the surface of interest
- Where a suitable mounting surface is unavailable, then a metal stake of at least 300mm in length shall be driven into solid ground adjacent to the building of interest and the vibration sensor or transducer shall be mounted on that.

Where attended vibration monitoring is not feasible, due to extended periods of vibration intensive works, an unattended vibration monitoring system will be installed where initial monitoring to establish safe buffer zones is insufficient to ensure goal levels are met, due to changing plant or unknown ground conditions. Unattended monitors will warn plant operators (e.g. via flashing light, SMS, etc.) that vibration is approaching levels where there is potential for cosmetic damage to buildings and structures.

Where unattended vibration monitors are left in place on a private property they will be picked up at a mutually agreed time with the resident.

4.3.3 Parameters to be monitored

The device will be set to continuously record vibration levels appropriate to assessing the vibration intensive activity under investigation. If required for human annoyance, the duration of vibration events will also be recorded, either as part of the measurement, or separately for later analysis.

Vibration data will be processed statistically and stored in memory. The minimum range of vibration metrics to be stored in memory for later retrieval is the following:

- Root-Mean-Square acceleration (rms), or
- Vector-sum peak-particle velocity (ppv).

All short term attended vibration monitoring will be recorded over a representative sampling interval where the worst-case vibration levels can be captured. Where unattended vibration monitoring is proposed, monitoring will be undertaken continuously whilst the vibrating plant is operational to capture the worst-case vibration levels within the pre-determined 'minimum working distance' from the potentially affected building. Typical 'minimum working distances' for construction equipment are presented in Attachment A.

4.4 Calibration and QA

All monitoring will be undertaken by competent personnel, suitably trained and experienced in undertaking vibration measurements.

All vibration monitoring equipment used must be checked for accuracy (to manufacturer's specification) at least every two years against a reference vibration transducer that is calibrated at least every three years [reference: NATA General Accreditation Guidance - General Equipment - Calibration and Checks, General Equipment Table (January 2018)].

Records of monitoring equipment calibration and monitoring events will be maintained throughout the delivery of the Project.

All monitoring records will be retained throughout the delivery of the Project by GRCLR. Vibration monitoring records will be completed to record the following:

- Date and time of measurements
- Name of person undertaking the measurements
- Calibration dates of monitoring equipment
- Type and model number of instrumentation
- Time of day, length of measurement and measurement time intervals
- Monitoring location (including a sketched map of area)
- Measurement location details and number of measurements at each location
- Type of measurement (unattended or attended)
- Location details of the vibrating plant under investigation relative to the measurement locations, and the building or facade of interest (if this is at a different location or a range of distances).
- Operation and load conditions of the vibrating plant under investigation
- Possible vibration influences from other sources (e.g. domestic vibrations, other mechanical plant, traffic etc.).

5 Heritage-listed structures

In accordance with CoA E43, the project will conduct vibration testing before (see Section 4.1) and during vibration generating activities that have the potential to impact on heritage items, to identify the site specific minimum working distances to prevent cosmetic damage. Should vibration testing and monitoring show that the preferred values for vibration are likely to be exceeded, the project will follow the process in Section 6.2.

CNVIS prepared for the SOM works under the CNVMP would identify the minimum working distances for heritage buildings/items, noting that these may be item or location specific, during vibration intensive activities and identify where monitoring should be conducted at heritage items.

The project will seek the advice of the heritage and noise and vibration specialists engaged, on methods and locations for installing equipment used for vibration, movement and noise monitoring of heritage-listed structures.

6 Reporting

6.1 Reporting of monitoring results

Data from noise and vibration monitoring will be reported on monthly (during months where construction activities are occurring) assessed against the baseline conditions and performance criteria as required, within a Construction Monitoring Report. The Construction Monitoring Report will be supplied to the AA for review and submitted to the Secretary of the DPIE and relevant regulatory authorities (including relevant council(s)), Transport for NSW and the ER for information.

The monthly Construction Monitoring Report will be provided on the project website (<http://www.parramattalightrail.nsw.gov.au/library/environment/compliance-reports>) for availability by the community.

Separate from the Construction Monitoring Report, additional records relating to noise and vibration training, toolbox talks, monitoring results and audit results are described in Section 5 of the CEMP. The complaints management and reporting procedure is described in Section 6.4 of the CEMP.

6.2 Continual improvement and corrective action

Monitored noise and vibration levels will be analysed against the predictions made in the relevant CNVIS or using the Project's noise and vibration management tools. Where monitored construction noise levels are found to be above modelling predictions or vibration goals are exceeded, the following actions will be undertaken:

- Cease the noise generating source which causes the exceeded predictions
- Confirm the monitored levels are not being impacted by other noise or vibration source
- Confirm if the exceedance is due to an uncharacteristically loud piece of equipment
- Identify if the equipment can be swapped out for another piece of equipment or alternative equipment or plant
- Confirm if the exceedance is due to an uncharacteristically vibratory piece of equipment
- Confirm that the modelling reflects the actual activity being undertaken
- Implement other feasible and reasonable measures which may include reducing plant size or noise/vibration intensity, modifying time of works, changing operational settings (such as turning off the vibratory function of the machine), and utilising alternative construction methodology or a combination of these
- Review work practices to ensure compliance with the ICNG
- Ensure that the learnings from the above are fed back into the noise modelling assessment process for fine-tuning
- Continue work where impacts can be reduced and continue to review until they are consistent with the modelling predictions or vibration goals
- Communicate lessons learnt to relevant personnel.

GRCLR will review the work or activity or combination of simultaneous works or activities and where possible, modify the work or activity to prevent any recurrence. Lessons learnt will be communicated to relevant personnel in toolbox talks.

Where a complaint relating to human comfort is received, the project will review the noise and vibration model. If it is determined from the review that there is insufficient local monitoring to validate the noise and vibration model, the project will offer additional monitoring following the process defined in Section 3.3 and Section 4.3.

Attachment A – Recommended minimum working distances from vibration intensive equipment

Plant item	Approximate Size / Weight / Model	Minimum distance – Cosmetic damage (BS 7385) ²	Minimum distance – Human response (AVTG)
Vibratory roller	1-2 tonne	5 m	15 m
	2-4 tonne	6 m	20 m
	4-6 tonne	12 m	40 m
	7-13 tonne	15 m	100 m
	13-18 tonne	20 m	100 m
	>18 tonne	25 m	100 m
Small Hydraulic Hammer	300 kg (5 to 12 tonne excavator)	2 m	7 m
Medium Hydraulic Hammer	900 kg (12 to 18 tonne excavator)	7 m	23 m
Large Hydraulic Hammer	1600 kg (18 to 34 tonne excavator)	22 m	73 m
Pile Driver – Vibratory	Sheet piles	2 to 20 m	20 m
Piling Rig – Bored	≤ 800 mm	2 m (nominally)	n/a
Piling Rig – Hammer	12 tonne down force	15 m	50 m
Jackhammer	Hand held	1 m (nominal)	Avoid contact with structure

Notes:

1. Table adapted from the Transport for NSW's Construction Noise and Vibration Strategy
2. More stringent conditions may apply to heritage or other sensitive structures

Attachment B – ER and AA Endorsement Letters

Air Noise Environment Pty Ltd

Level 6, 69 Reservoir Road
Surry Hills
NSW 2010
T: 02 8217 0706
E: nsw@ane.com.au

ACN 081 834 513
ABN 13 081 834 513



Attention: Transport for NSW (PLR)

Ref: 5518_PLR-Construction Noise and Vibration Monitoring Program_SOM_AA_Endorsement_21Oct2020
21 October 2020

RE: PLR1SOM-GLR-ALL-EN-PRG-000001 Construction Noise and Vibration Monitoring Program (rD) October 2020 - Adequacy for Submission (AA Review)

Beau Weyers, BEng(Mech), MAAS, RPEQ 09343, appointed Acoustic Advisor (AA), reviewed the following documentation with regard to the PLR – Stage 1 project:

Title:	Document Reference:	Version Status	Review Date
Construction Noise and Vibration Monitoring Program: Supply, Operate and Maintain Contract Parramatta Light Rail – Stage 1, (ISD-17-6720)	PLR1SOM-GLR-ALL-EN-PRG-000001 (Rev D)	Revision D, 12 Oct 2020	21-10-2020

Pursuant to the requirements of the Conditions of Approval for the CSSI-8285, including A29(e), the CNVIS documents identified above have been reviewed by the AA for consistency with the CNVS and requirements of the CoA and EPL (Environmental Protection Licence – 21347, 3-Jan-2020).

The review confirms the documents have incorporated the recommendations and changes requested by the AA, in ensuring the documents meet the acoustic requirements of the Terms of Approval (NSW Government – Infrastructure Approval (Application No.: SSI 8285)), requirements of the EPL, as well as best practice methodologies for acoustics.

Yours sincerely
for Air Noise Environment Pty Ltd
Beau Weyers BE(Mech), MAAS, RPEQ
Senior Environmental Engineer

Note: All professional advice provided by Air Noise Environment, including any information contained in this letter, is subject to the terms of the Disclaimer shown on our website at www.ane.com.au/disclaimer.html





21 October 2020

Transport for NSW

Attention to: **Megan Haberley**
Senior Manager Environment
Parramatta Light Rail
130 George St, Parramatta, NSW 2150

**Review of Appendix F Construction Noise and Vibration Monitoring Program.
Supply, Operate and Maintain Contract - Parramatta Light Rail
(PLR1SOM-GLR-ALL-EN-PRG-000001 Rev D)**

Pursuant to SSI8285 Condition of Approval A23 (d) i), as the approved Environmental Representative, I confirm that I have reviewed the document Appendix F Construction Noise and Vibration Monitoring Program, Supply, Operate and Maintain Contract - Parramatta Light Rail (PLR1SOM-GLR-ALL-EN-PRG-000001 Rev D), dated 12/10/2020, prepared by Great River City Light Rail, for consistency with the requirements of the Conditions of Approval.

In my opinion the aforementioned document is consistent with the requirements included in or required under the terms of the Conditions of Approval for the Parramatta Light Rail (Stage 1) development.

Yours sincerely,

Australian Quality Assurance & Superintendence Pty Ltd (AQUAS)

A handwritten signature in black ink, appearing to read 'G. Lehn', is positioned above the printed name.

Gillian Lehn

Environmental Representative
phone: +61 2 9956 9963 | fax: 02 9954 1951 | mobile: +61 419 253 787 |
email: gillian.lehn@aquas.com.au |

Filename : *AQ1148.05 PLR GLR CNVMonP endorsement 211020*

Attachment C – Consultation Report

CoA A5 Consultation Report – Noise and Vibration Management Plan and Monitoring Program

**Transport for NSW
Stage 3 / Package 5**

**Parramatta Light Rail
October 2020
PLR1SOM-GLR-ALL-EN-RPT-001004 Rev B**

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Construction Noise and Vibration Management Plan and Monitoring Program

Parramatta Light Rail – Stage 1

October 2020

PLR1SOM-GLR-ALL-EN-RPT-001004 Revision
#B

Version control

Revision	Date	Description	Approval
A	12 October 2020	CoA A5 Compliance	
B	21 October 2020	Updated to address ER and TfNSW Comments	

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Glossary/Abbreviations

Abbreviation	Expanded text
CEMP	Construction Environmental Management Plan
CFFMP	Construction Flora and Fauna Management Plan
CFMP	Construction Flood Management Plan
CHMP	Construction Heritage Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CNVMonP	Construction Noise and Vibration Monitoring Program
CTTAMP	Construction Traffic, Transport and Access Management Plan
CWQ(T)MonP	Water Quality (Turbidity) Monitoring Program
CoA	NSW Minister for Planning Conditions of Approval
CoPC	City of Parramatta Council
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
FMDR	Flood Management Design Report
Minister, the	Minister for Planning, Industry and Environment
OEH	Office of Environment and Heritage
ONVR	Operational Noise and Vibration Review
PIRMP	Pollution Incident Response Management Plan
Planning Approval	The Planning Approval includes the Conditions of Approval, the EIS and the Submissions and Preferred Infrastructure Report
Proponent, the	Transport for NSW
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
Project, the	Parramatta Light Rail – Westmead to Carlingford
REMMM	Revised Environmental Mitigation and Management Measure as outlined in the Project SPIR documentation.
ROL	Road occupancy licence
SEMP	Site Establishment Management Plan
SPIR	Submission and Preferred Infrastructure Report

Abbreviation	Expanded text
TfNSW RM	TfNSW Roads and Maritime
UDRR	Urban Design Requirements Report

1 Introduction

1.1 Background

Parramatta Light Rail is one of the NSW Government's major infrastructure projects being delivered to serve a growing Sydney.

Parramatta Light Rail will connect Westmead to Carlingford via Parramatta Central Business District (CBD) and Camellia. PLR 1 is expected to be operational in 2023.

The project will create new communities, connect great places and help both local residents and visitors move around and explore what the region has to offer. The route will link Parramatta's CBD and train station to a number of key locations, including the Westmead Precinct, the Parramatta North Growth Centre, the new Western Sydney Stadium, the Camellia Town Centre, the new Powerhouse Museum and Riverside Theatre arts and cultural precinct, the private and social housing redevelopment at Telopea, the Rosehill Gardens Racecourse and the three Western Sydney University campuses.

In summary, the key features of the project include:

- A new dual track light rail network of approximately twelve (12) kilometres in length, including approximately seven (7) kilometres within the existing road corridor and approximately five (5) kilometres within the existing Carlingford Line and Sandown Line, replacing current heavy rail services
- Sixteen (16) stops that are fully accessible and integrated into the urban environment including a terminus stop at each end of Westmead and Carlingford
- High frequency 'turn-up-and-go' services operating seven days a week from 5am to 1am. Weekday services will operate approximately every 7.5 minutes in the peak period between 7am and 7pm
- Modern and comfortable air-conditioned light rail vehicles, nominally 45 metres long and driver-operated, each carrying up to 300 passengers.
- Intermodal interchanges with existing public transport services at Westmead terminus, Parramatta CBD and the Carlingford terminus
- Creation of two light rail and pedestrian zones (no general vehicle access) within the Parramatta CBD along Church Street (generally between Market Street and Macquarie Street) and along Macquarie Street (generally between Horwood Place and Smith Street)
- A Stabling and Maintenance (SaM) Facility located in Camellia for light rail vehicles to be stabled, cleaned and maintained
- New bridge structures along the alignment including over James Ruse Drive and Clay Cliff Creek, Parramatta River (near the Cumberland Hospital), Kissing Point Road and Vineyard Creek, Rydalmere
- Alterations to the existing road network including line marking, additional traffic lanes and turning lanes, new traffic signals, and changes to traffic flows
- Relocation and protection of existing utilities
- Public domain and urban design works along the corridor and at Stop precincts
- Closure of the heavy rail line between Carlingford and Clyde
- Active transport corridors and additional urban design features along sections of the alignment and within Stop precincts

- Integration with the Opal Electronic Ticketing System (ETS)
- Real time information in light rail vehicles and at Stops via visual displays and audio.

An overview of Parramatta Light Rail Route is shown in Figure 1-1.

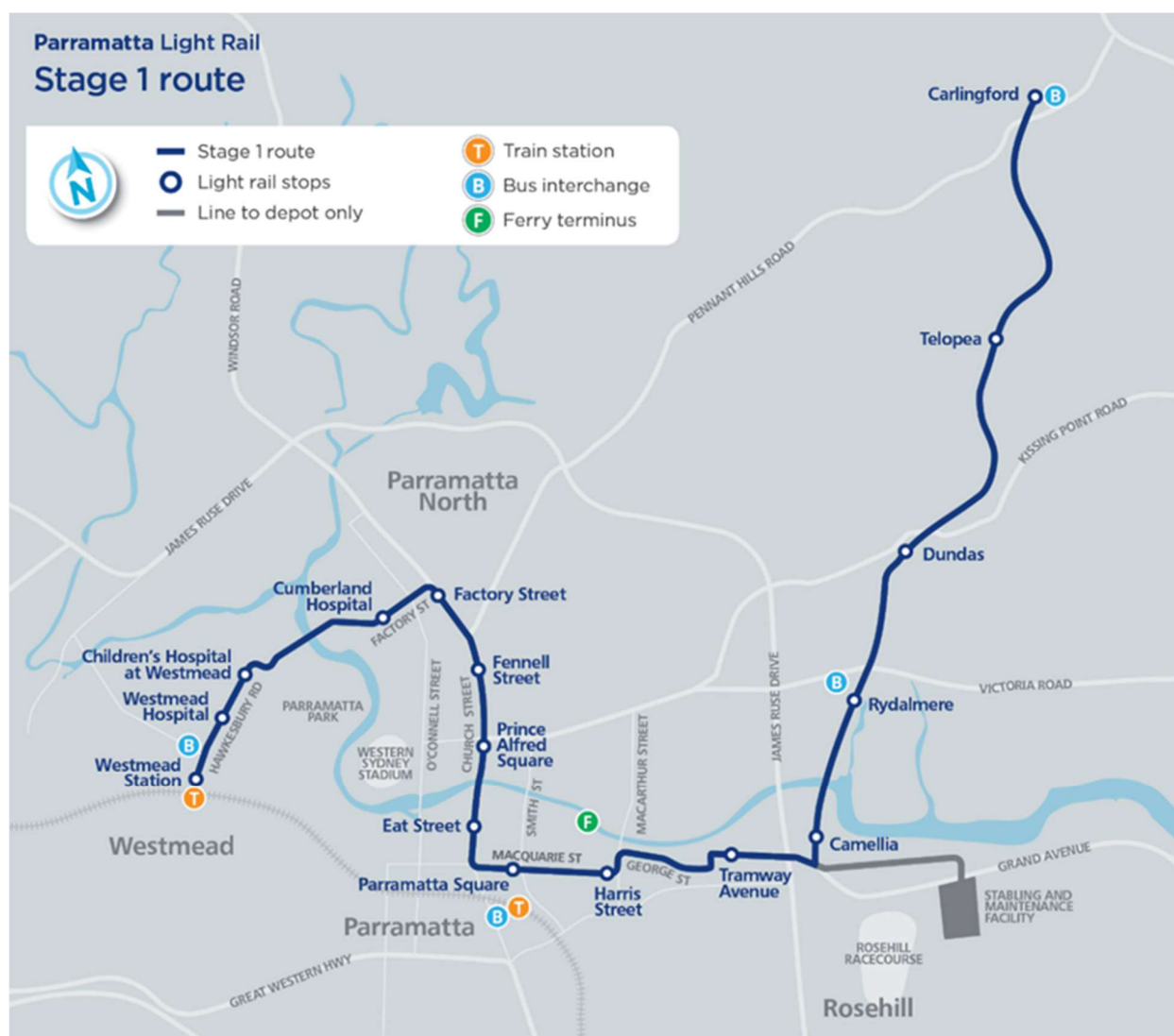


Figure 1-1: Parramatta Light Rail Route

1.1.1 Statutory Context

The Parramatta Light Rail is subject to environmental impact assessment under the *Environmental Planning and Assessment Act 1979* (EP&A Act). It is classified as Critical State Significant Infrastructure (CSSI).

Detailed environmental impact assessments have been carried out and approved by the Minister for Planning. The Planning Approval for the project is described in Section 1.1.2.

1.1.2 Parramatta Light Rail Planning Approval

The Environmental Impact Statement (EIS) assessed impacts for Parramatta Light Rail (Westmead to Carlingford). This covered the light rail and associated works including road enabling work. It was approved by the Minister for Planning on 29 May 2018.

The planning approval (Infrastructure approval SSI 8285) and related environmental assessment documents are located on Department of Planning and Environment's Major Project website:

1.2 Purpose of this Consultation Report

This Consultation Report has been prepared to meet the requirements of the CSSI approval, in particular Condition of Approval (CoA) A5. A5 outlines the requirements for undertaking and documenting consultation undertaken during the preparation of certain plans, programs and reports required under the CoA. Deliverables that GRCLR is responsible (in full or part) for as part of the SOM package, which required to comply with CoA A5 include the following:

- Construction Environmental Management Plan (CoA C1, C2);
- Traffic, Transport and Access Management Plan (CoA C3(a));
- Noise and Vibration Management Plan (CoA C3(b));
- Flood Management Plan (CoA C3(c));
- Heritage Management Plan (CoA C3(d));
- Flora and Fauna Management Plan (CoA C3(e));
- Water Quality (Turbidity) Monitoring Program (CoA C9(a));
- Noise and Vibration Monitoring Program (CoA C9(b));
- Site Establishment Management Plan (CoA C18);
- Pedestrian and Cyclist Network and Facilities Strategy (parts (f) – signage and wayfinding and (g) only – cycle facilities on LRVs) (CoA E14);
- Operational Noise and Vibration Review (CoA E48);
- Heritage Interpretation Strategy (CoA E64) – Implementation Component only;
- Electromagnetic Management Plan (CoA E117);
- Final Hazard Analysis and Construction Safety Study (CoA E132).

This particular Consultation Report has been prepared in support of the Construction Noise and Vibration Management Plan (CNVMP) which is required to be prepared under CoA C3(b) and the Construction Noise and Vibration Monitoring Program which is required to be prepared under CoA C9(b) and for which consultation is required to be undertaken with the following agencies and stakeholders under CoA C5:

- Relevant government agencies (including relevant Council(s)), which for this CNVMP includes:
 - NSW Environment Protection Authority (EPA);
 - NSW Health; and
 - City of Parramatta Council (CoPC).

1.3 Compliance with CoA

This section discusses the compliance of this Consultation Report with the relevant CoA as applicable to consultation required to be undertaken during the development of the Construction Noise and Vibration Management Plan (CNVMP) and Monitoring Program (CNVMonP).

Table 1 lists the applicable CoA, where and how they have been addressed in this Consultation Report.

Table 1: Compliance with Applicable CoA

CoA ID	CoA Detail	Where Addressed	How Addressed
A5	Where the terms of this approval require a document or monitoring program to be prepared or a review to be undertaken in consultation with identified parties, evidence of the consultation undertaken must be submitted to the Secretary with the document or monitoring program or review. The evidence must include:	This Consultation Report.	This consultation report provides identifies of each of the stakeholders and agencies consulted in the preparation of this plan (Section 1.2). Full correspondence and documentation exchanged during consultation is found in Appendix A1 through A3 inclusive.
A5	(a) documentation of the engagement with the party(ies) identified in the relevant condition of approval before submitting the document for approval;	This Consultation Report.	Full correspondence and documentation exchanged during consultation is found in Appendix A1 and A3 inclusive. Each appendix relates to a different stakeholder/ agency, thereby ensuring all evidence for each is consolidated in a single appendix. All correspondence is provided in a chronological order.
A5	(b) log of the points of engagement or attempted engagement with the identified party(ies) and a summary of the issues raised by the identified party(ies);	Section 2 of this Report.	Section 2 includes, by Stakeholder / agency, a log of all points of engagement completed or attempted. It also summarises the issues raised by each stakeholder.
A5	(c) documentation of any follow-up with the identified party(ies), where feedback has not been provided, to confirm that the identified party(ies) has none or has failed to provide feedback after repeated requests;	Section 2 of this Report.	Section 2 includes, by Stakeholder / agency, a log of all points of engagement completed or attempted.
A5	(d) outline of the issues raised by the identified party(ies) and how they have been addressed, including evidence that the party(ies) is satisfied the issues have been addressed; and	Section 2 of this Report and Appendix A1 through A5.	Section 2 identifies all the issues raised during consultation. It provides in tabular format: • Issue raised; • Date raised; • How it was addressed or justification as to why it wasn't addressed; • Details of whether the Stakeholder was satisfied with the outcome.

CoA ID	CoA Detail	Where Addressed	How Addressed
			Section 2 then provides cross-referencing to the relevant Appendix identifying where evidence of the above is documented in full within this Report. <i>Note: Section 2 is broken down into each Stakeholder consulted with, and each has their own table addressing the above.</i>
A5	(e) where there are outstanding issues raised by the identified party(ies) that have not been adopted, the reasons why they have not been/could not be adopted must be provided, including evidence of consultation with the relevant party(ies).	Section 2 of this Report.	Section 2 identifies all the issues raised during consultation. It provides in tabular format: • Issue raised; • Date raised; • How it was addressed or justification as to why it wasn't addressed; • Details of whether the Stakeholder was satisfied with the outcome. <i>Note: Section 2 is broken down into each Stakeholder consulted with, and each has their own table addressing the above.</i>
C5	The CEMP Sub-plans must be developed in consultation with relevant government agencies (including Relevant Council(s)).	This Report.	This Consultation Report has been prepared to address the consultation undertaken on the CNVMP and the CNVMonP for the SOM Works. A summary of the content of this Report is contained in Section 4 of the CNVMP, and Section 2 of the CNVMonP however all the consultation requirements of CoA A5 and C5 are addressed in detail in this Report.
C5	Details of all information requested by an agency to be included in a CEMP Sub-plan as a result of consultation, including all copies of correspondence from those agencies, must be provided to the Secretary with the relevant CEMP Sub-plan.	Other Consultation Reports.	Each CEMP Sub-plan will include a summary of consultation undertaken for that plan. Additionally, each will also have a separate Consultation Report which addresses in detail CoA A5 and C5.

1.4 Consultation Process

Below Figure 2 presents the consultation process that was undertaken for the SOM Construction Noise and Vibration Management Plan and Monitoring Program. It should be noted that consultation was undertaken during COVID-19 lockdown, and as such, was undertaken using non-face to face means, including:

- Formal correspondence; (Team Binder);
- Formal correspondence (standard email);
- Phone Calls; and
- Teams Meetings (only when requested by the stakeholder).

CONSULTATION PROCESS FOR DOCUMENTS REQUIRING CONSULTATION BY THE COA

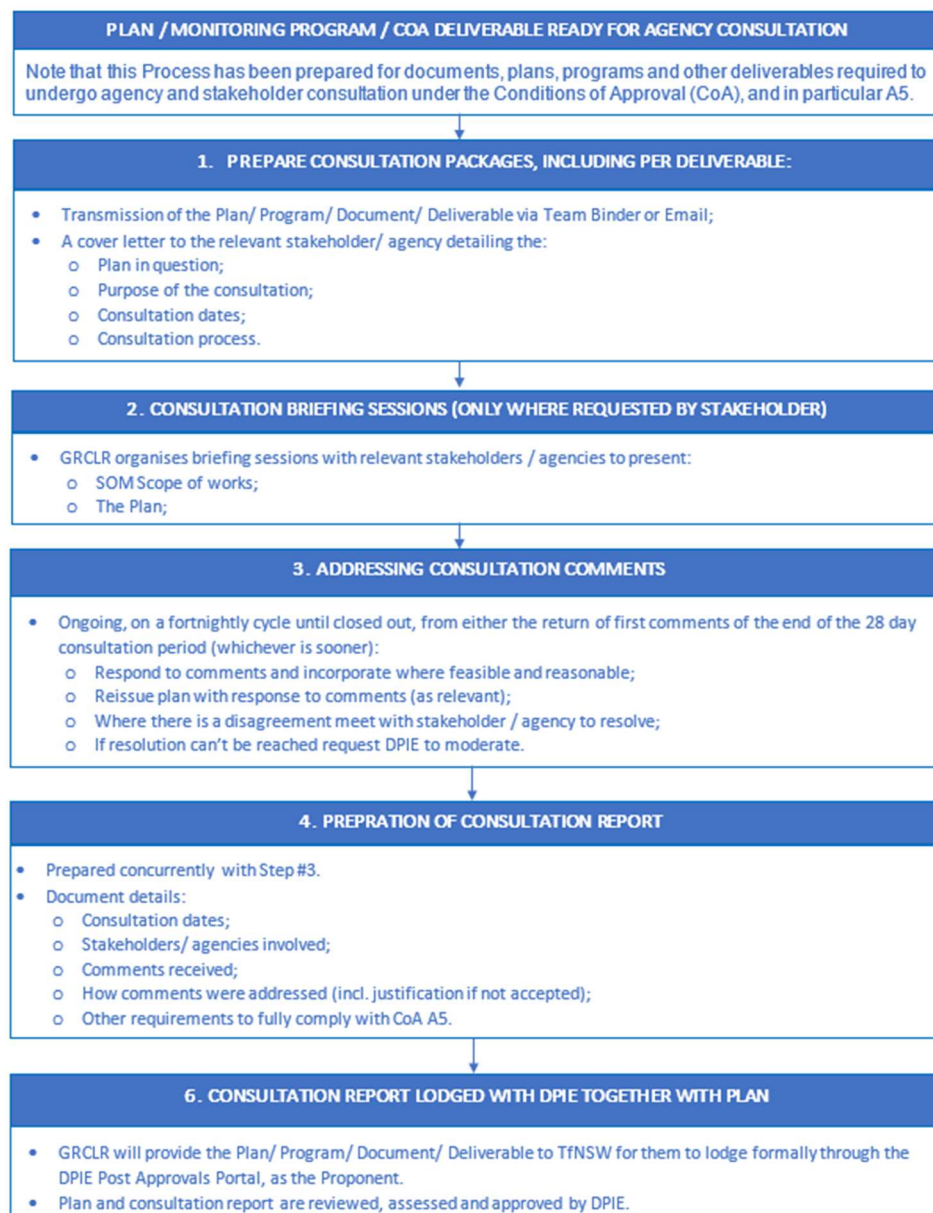


Figure 2: Consultation Process

2 Stakeholder / Agency Consultation

This Section of the Consultation Report provides detail of consultation undertaken with each stakeholder and agency in the preparation of the CNVMP and CNVMonP. In particular it contains:

A consultation log that identifies:

- Consultation dates (actual and attempted);
- Form of consultation;
- Whether responses and / or comments were received;
- Summary of the issues raised, including how they have been addressed;
- Justification for not addressing an issue raised.

Documentary evidence of all the correspondence received and sent through the consultation phase is contained in the Appendices at the end of this Report. The Appendices and this Section are broken down by Stakeholder / Agency not by issue.

2.1 NSW Environment Protection Authority (EPA)

Consultation with NSW EPA commenced on 23 June 2020 and concluded 24 July 2020.

Table 2 below includes the details of engagement between GRCLR and the EPA regarding the CNVMP and CNVMonP. Table 3, following, includes a summary of the issues raised, how those were addressed and closed out. Full evidence of correspondence is in Appendices A1 to this report.

Table 2: Engagement Log – EPA

#	Date	Correspondence		From	Recipient	Consultation Open / Closed
		Form / Type	Purpose			
1	23 June 2020	Email	Initial request for stakeholder review and comment.	GRCLR	EPA	Open.
2	24 July 2020	Email	Response to request for comments – no comments.	EPA	GRCLR	Closed.

Table 3: Summary of Issues – EPA

Aspect	Issue Raised	Date Raised	How Addressed / Justification Why Not Addressed	Stakeholder Satisfied / Issue Closed Out?
Not applicable to EPA as no comments were provided.				

2.2 NSW Health – HAC

Consultation with NSW Health – HAC commenced on 23 June 2020 and concluded 30 July 2020.

Table 4 below includes the details of engagement between GRCLR and NSW Health regarding the CNVMP and CNVMonP. Table 5, following, includes a summary of the issues raised, how those were addressed and closed out. Full evidence of correspondence is in Appendices A2 to this report.

Table 4: Engagement Log – NSW Health

#	Date	Correspondence		From	Recipient	Consultation Open / Closed
		Form / Type	Purpose			
1	23 June 2020	Formal – Team Binder	Initial request for stakeholder review and comment.	GRCLR	HAC – NSW Health	Open.
2	1 July 2020	Email	HAC Issued interim questions to SOM.	HAC – NSW Health	GRCLR	Open.
3	16 July 2020	Presentation – Teams	Explanation of the SOM Scope of Works and Q&A.	GRCLR	HAC – NSW Health	Open.
4	17 July 2020	Formal – Team Binder	Response to Questions Provided.	GRCLR	HAC – NSW Health	Open.
5	30 July 2020	Email	Response to request for comments – no comments.	HAC – NSW Health	GRCLR	Closed.

Table 5: Summary of Issues – NSW Health

Aspect	Issue Raised	Date Raised	How Addressed / Justification Why Not Addressed	Stakeholder Satisfied / Issue Closed Out?
Not applicable to NSW Health – HAC as no comments were provided.				

2.3 City of Parramatta Council

Consultation with the City of Parramatta Council (CoPC) commenced on 7 August 2020 and concluded 9 October 2020.

Table 6 below includes the details of engagement between GRCLR and the CoPC regarding the CNVMP and CNVMonP. Table 7 following includes a summary of the issues raised, how those were addressed and closed out. Full evidence of correspondence is in Appendix A3 to this report.

Table 6: CoPC Engagement Log

#	Date	Correspondence		From	Recipient	Consultation Open / Closed
		Form / Type	Purpose			
1	7 August 2020	Team Binder	Initial request for stakeholder review and comment.	GRCLR	CoPC	Open.
2	3 September 2020	Team Binder	Response to request for comments.	CoPC	GRCLR	Open.
3	8 September 2020	Team Binder	Response to CoPC – two comments made see Table 7 below.	GRCLR	CoPC	Open.
4	23 September 2020	Team Binder	Response to request for comments – no further comments but comments not closed.	CoPC	GRCLR	Open.
5	23 September 2020	Team Binder	Response to CoPC – requesting if comments have been closed.	GRCLR	CoPC	Open.
6	9 October 2020	Team Binder	Response to final request for comments – no comments.	CoPC	GRCLR	Closed.

Table 7: CoPC: Summary of Issues

Aspect	Issue Raised	Date Raised	How Addressed / Justification Why Not Addressed	Stakeholder Satisfied / Issue Closed Out?
CNVMP – Consultation, including with ER and AA	Requests that consultation process be included in the monitoring program. (Note: The exact same comment was raised on CNVMonP).	7 July 2020	No change. GRCLR noted that this was the CNVMP, and referred to response in CNVMonP.	Yes. 9 October 2020.
CNVMonP – Consultation, including with ER and AA	Requests that consultation process be included in the monitoring program.	7 July 2020	No change. GRCLR pointed out that the ER and AA are independent of GRCLR, and that consultation and	Yes. 9 October 2020.

Aspect	Issue Raised	Date Raised	How Addressed / Justification Why Not Addressed	Stakeholder Satisfied / Issue Closed Out?
	Also request quarterly briefing of Council by ER and AA, on noise and vibration matters.		management of the cumulative impacts across the project (including all contractors) are coordinated by TfNSW, and the request would be better directed to TfNSW as this CNVMonP only related to SOM scope of works.	

Appendix A1 – NSW EPA

Anita Rylah

From: Nicola Campbell <Nicola.Campbell@epa.nsw.gov.au>
Sent: Friday, 24 July 2020 3:55 PM
To: Anita Rylah
Subject: RE: Construction Noise and Vibration Management and Monitoring Plans - Consultation Request

Good Afternoon Anita

Thank you for forwarding the Noise and Vibration Management Plan and Noise Vibration Monitoring Plan for our records. The EPA encourages the development of such plans to ensure that proponents have determined how they will meet their statutory obligations and designated environmental objectives. However, it is not EPA policy to approve or endorse these documents. The EPA's role is to set environmental objectives/requirements for environmental management, rather than being directly involved in the development of strategies to achieve those objectives/requirements.

Apologies for the delay in my response. Thank you for your email and please do not hesitate to contact me should you wish to discuss.

Regards

Nicola Campbell

From: Anita Rylah <anita.rylah@greatriverscity.com.au>
Sent: Thursday, 23 July 2020 3:55 PM
To: Nicola Campbell <Nicola.Campbell@epa.nsw.gov.au>; James Boyle <James.Boyle@epa.nsw.gov.au>
Cc: Lia Camillos <lia.evangelia.pl@gmail.com>; Michael Watts <mwatts@caf.net>; Joshua Jenkins <joshua.jenkins@greatriverscity.com.au>
Subject: RE: Construction Noise and Vibration Management and Monitoring Plans - Consultation Request

Good Afternoon Nicola,

Just following up on the below request for consultation on the GRCLR Noise and Vibration Management Plan (NVMP) and Noise and Vibration Monitoring Plan (NVMonP) sent to yourself on 23 June 2020 and whether you did intend to provide comments to GRCLR on these plans?

If you do not intend to provide any comments on these plans, could you please let us know by responding to this email, so we can progress submission of these.

Much appreciated,

ANITA RYLAH
Environment, Planning and Sustainability Manager

M +61 417630652
E anita.rylah@greatriverscity.com.au



Level 1, 31 Macquarie St, Parramatta NSW 2150

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From: Anita Rylah
Sent: Wednesday, 15 July 2020 11:22 AM
To: 'Nicola Campbell' <Nicola.Campbell@epa.nsw.gov.au>; 'james.boyle@epa.nsw.gov.au' <james.boyle@epa.nsw.gov.au>
Cc: Lia Camillos <lia.evangelia.pl@gmail.com>; 'Michael Watts' <mwatts@caf.net>; Joshua Jenkins <joshua.jenkins@greatriverscity.com.au>
Subject: RE: Construction Noise and Vibration Management and Monitoring Plans - Consultation Request

Good Morning Nicola,

Just following up on the below request for consultation on the Noise and Vibration Management Plan (NVMP) and Noise and Vibration Monitoring Plan (NVMonP) sent to yourself on 23 June 2020.

Would EPA like to provide review comments on the GRCLR NVMP and NVMonPlan, and if EPA would like to provide comment, could you please ensure you return these to GRCLR by **Wednesday 22 July 2020**.

Please contact myself on the below details should additional information be required, or you have any further questions regarding the attached NVMP or NVMonP.

We look forward to your response. If you do not intend to make any comments on these plans, could you also please let us know.

Regards

ANITA RYLAH
Environment, Planning and Sustainability Manager

M +61 417630652
E anita.rylah@greatriverscity.com.au



Level 1, 31 Macquarie St, Parramatta NSW 2150

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From: Anita Rylah
Sent: Tuesday, 23 June 2020 3:08 PM
To: Nicola Campbell <Nicola.Campbell@epa.nsw.gov.au>; james.boyle@epa.nsw.gov.au
Cc: Lia Camillos <lia.evangelia.pl@gmail.com>; Warren Bottrill <Warren.Bottrill@greatriverscity.com.au>; Andy England <andy.england@greatriverscity.com.au>; Alan Brittain <alan.brittain@greatriverscity.com.au>; Johanna Maslem <johanna.maslem@advisian.com>; Michael Watts <mwatts@caf.net>; Joshua Jenkins <joshua.jenkins@greatriverscity.com.au>; Marc Richardson <mrichardson@caf.net>; Sam Fard <Samaneh.Fard@transport.nsw.gov.au>
Subject: Construction Noise and Vibration Management and Monitoring Plans - Consultation Request

Good Afternoon Nicola,

Great River City Light Rail (GRCLR) has been engaged by TfNSW to design and construct a portion of the Parramatta Light Rail (PLR) Project, including the Stabling and Maintenance Facility (SaMF) at 6 Grand Avenue Camellia.

GRCLR has prepared the Noise and Vibration Management Plan (NVMP) and Noise and Vibration Monitoring Plan (NVMonP) as sub-plans to the Construction Environmental Management Plan (CEMP) required under the CSSI Approval (8285) the Conditions of Approval (CoA) C1 and C2, and under CoA C3 and C5 are required to undertake consultation with key Stakeholders.

GRCLR invites the Environment Protection Authority (EPA) to review and comment on the NVMP and NVMonPlan, attached to this email.

GRCLR requests that if EPA would like to review and provide comments on the GRCLR NVMP and NVMonPlan, would you please return these to GRCLR by **Wednesday 22 July 2020**.

Please contact myself on the below details should additional information be required, or you have any further questions regarding the attached NVMP or NVMonP.

We look forward to your response. If you do intend to make any comments on these plans, please also let us know.

Regards

ANITA RYLAH

Environment, Planning and Sustainability Manager

M +61 417630652
E anita.rylah@greatriverscity.com.au



Level 1, 31 Macquarie St, Parramatta NSW 2150

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

Appendix A2 – NSW Health – HAC



General Correspondence

Reference No.: PLR-PLR1SOM-GLR-HAC-CORR-000009

Project Title: Parramatta Light Rail - Main Works

Date: 23 July 2020, 12:31

To: James Wright, Health Administration Corporation
Ivan Tcherkashnev, Health Administration Corporation

Cc: Samaneh Fard, Transport for NSW
Lia Camillo, Great River City Light Rail Pty Ltd
Joshua Jenkins, Great River City Light Rail Pty Ltd
Michael Watts, Great River City Light Rail Pty Ltd
Warren Bottrill, Great River City Light Rail Pty Ltd
Andy England, Great River City Light Rail Pty Ltd
Tony Eames, Transport for NSW
Megan Wallis, Transport for NSW

From: Anita Rylah, Great River City Light Rail Pty Ltd

Subject: RE: Construction Noise and Vibration Management and Monitoring Plans - Request for Consultation - Response

Good Afternoon Ivan,

Just following up with yourself whether you had any other comments on the GRCLR Noise and Vibration Management and Monitoring Plans for construction phase. I believe we have sent through all information requested.

Could you please let me know either way, so we can progress with the submission of these documents. Please give me a call on 0417 630 652 if you would like to discuss further.

Much appreciated,
Anita Rylah

Design Pkg:

Contract / Program: Stage 1 Supply Operate and Maintain Contract

Discipline: Environmental

Location:

----- Original Message -----



General Correspondence

Reference No.: PLR-PLR1SOM-GLR-HAC-CORR-000008

Project Title: Parramatta Light Rail - Main Works

Date: 17 July 2020, 13:23

To: James Wright, Health Administration Corporation
Ivan Tcherkashnev, Health Administration Corporation

Cc: Samaneh Fard, Transport for NSW
Lia Camillo, Great River City Light Rail Pty Ltd
Joshua Jenkins, Great River City Light Rail Pty Ltd
Michael Watts, Great River City Light Rail Pty Ltd
Warren Bottrill, Great River City Light Rail Pty Ltd
Andy England, Great River City Light Rail Pty Ltd
Tony Eames, Transport for NSW
Megan Wallis, Transport for NSW

From: Anita Rylah, Great River City Light Rail Pty Ltd

Subject: **RE: Construction Noise and Vibration Management and Monitoring Plans - Request for Consultation - Response**

Good Afternoon Ivan,

GRCLR have collated responses to your questions raised. Please find these attached along with the Landuse Survey which was not provided previously with the sub plan.

The files were to large to send through traditional email. I will also send through our minutes and presentation from our briefing yesterday.

As discussed, if you have any queries, please feel free to contact myself on 0417 630 652.

Regards,
Anita Rylah

Design Pkg:	Contract / Program: Stage 1 Supply Operate and Maintain Contract
Discipline: Environmental	Location:

Attachments: HAC Questions and SOM (including RTA) Response 15072020.docx, PLR1SOM-GLR-ALL-NV-RPT-001001.B.C1.B.01.docx, PLR1SOM-GLR-ALL-NV-RPT-001001.B.C1.B.01.pdf, PLR1SOM-GLR-ALL-NV-RPT-001002.A.C1.A.01.pdf

----- Original Message -----



General Correspondence

Reference No.: PLR-PLR1SOM-GLR-HAC-CORR-000007

Project Title: Parramatta Light Rail - Main Works

Date: 30 June 2020, 16:23

To: James Wright, Health Administration Corporation
Ivan Tcherkashnev, Health Administration Corporation

Cc: Samaneh Fard, Transport for NSW
Lia Camillo, Great River City Light Rail Pty Ltd
Joshua Jenkins, Great River City Light Rail Pty Ltd
Michael Watts, Great River City Light Rail Pty Ltd
Warren Bottrill, Great River City Light Rail Pty Ltd
Andy England, Great River City Light Rail Pty Ltd
Tony Eames, Transport for NSW

From: Anita Rylah, Great River City Light Rail Pty Ltd

Subject: FW: Construction Noise and Vibration Management and Monitoring Plans - Request for Consultation

Good Afternoon James and Ivan,

I understand Tony Eames has discussed our Noise and Vibration Management and Monitoring Plans being sent to you for review.

GRCLR is happy to discuss with you our project scope to aid the review of the documents which were sent through from Tony.

Please respond with your available timing and I will arrange a suitable time to take you through the project scope. You can also contact myself on the below details to discuss further.

Regards,
Anita Rylah
0417630652

Design Pkg:

Contract / Program: Stage 1 Supply Operate and Maintain Contract

Discipline: Environmental

Location:

Attachments: Construction Noise and Vibration Management Plan Rev D.pdf, Noise Vibration Monitoring Plan Rev C.pdf, NVMP and NMonP Consultation Comments Template.xlsx, PLR1SOM-GLR-HAC-LETTER-000001 - NSW Health Consultation Request - NVMP and NVMonP.pdf

----- Original Message -----



General Correspondence

Reference No.: PLR-PLR1SOM-GLR-TFNSW-CORR-001110

Project Title: Parramatta Light Rail - Main Works

Date: 23 June 2020, 15:00

To: Tony Eames, Transport for NSW

Cc: Samaneh Fard, Transport for NSW
Warren Bottrill, Great River City Light Rail Pty Ltd
Joshua Jenkins, Great River City Light Rail Pty Ltd
Michael Watts, Great River City Light Rail Pty Ltd
Lia Camillo, Great River City Light Rail Pty Ltd
Mark Richardson, Great River City Light Rail Pty Ltd
Andy England, Great River City Light Rail Pty Ltd
Alan Brittain, Great River City Light Rail Pty Ltd
Johanna Maslem, Great River City Light Rail Pty Ltd

From: Anita Rylah, Great River City Light Rail Pty Ltd

Subject: Construction Noise and Vibration Management and Monitoring Plans - Request for Consultation

Good Afternoon Tony,

Please find attached the Construction Noise and Vibration Management and Monitoring Plans (NVMP and NVMonP) for consultation with NSW Health.

Please provide review comments on the sheet attached and return these to GRCLR by **Wednesday 22 July 2020**.

Would you please direct any queries or requests for additional information to myself, Anita Rylah on 0417 630 652.

If NSW Health could let GRCLR know either way, on whether they will or will not provide comments, that would be much appreciated.

Regards,
Anita Rylah

Design Pkg:

Contract / Program: Stage 1 Supply Operate and Maintain Contract

Discipline: Environmental

Location:

Attachments: PLR1SOM-GLR-HAC-LETTER-000001 - NSW Health Consultation Request - NVMP and NVMonP.pdf, Construction Noise and Vibration Management Plan Rev D.pdf, NVMP and NMonP Consultation Comments Template.xlsx, Noise Vibration Monitoring Plan Rev C.pdf

From: mwatts@caf.net
Sent: Monday, 12 October 2020 10:08 AM
To: lia.evangelia.pl@gmail.com
Subject: Fw: Re: Notification of New Mail

See email chain below.

Mike Watts
Environment and Sustainability Manager

E-mail: mwatts@caf.net
Phone: 0451 415 610
Address: Level 1, 31-39 Macquarie Street, Parramatta, NSW 2150



----- Original message -----

From: "Ivan Tcherkashnev (AU)" <ivan.tcherkashnev@pwc.com>
To: Anita Rylah <anita.rylah@greatriverscity.com.au>
Cc: Tony Eames <tony.eames@transport.nsw.gov.au>, Joshua Jenkins <joshua.jenkins@greatriverscity.com.au>, Andy England <andy.england@greatriverscity.com.au>, Lia Camillos <lia.evangelia.pl@gmail.com>, Michael Watts <mwatts@caf.net>
Subject: Re: Notification of New Mail
Date: Mon, Jul 6, 2020 4:50 PM

Hi Anita,
Can you please send through Zoom/Microsoft Team etc. meeting invite link?
The meeting will need to be hosted by GRCLR.

Regards,
Ivan Tcherkashnev

Project Manager | Infrastructure & Urban Renewal | PwC
M: 0431 478 388 T: +61 (02) 8266 1206
ivan.tcherkashnev@pwc.com

On Mon, 6 Jul 2020 at 16:46, Ivan Tcherkashnev (AU) <ivan.tcherkashnev@pwc.com> wrote:
Hi Anita,
16th July should be fine. I have issued an invite to HAC stakeholders.

Regards,
Ivan Tcherkashnev

Project Manager | Infrastructure & Urban Renewal | PwC
M: 0431 478 388 T: +61 (02) 8266 1206
ivan.tcherkashnev@pwc.com

On Fri, 3 Jul 2020 at 13:26, Anita Rylah <anita.rylah@greatriverscity.com.au> wrote:
Good Afternoon Ivan,

Thank you for your email, we are collating answers to your questions you have raised below and will respond before our scheduled briefing.

Would you be available the same time on Thursday 16 July?

Just to clarify this Noise and Vibration Management and Monitoring Plan is for the construction phase only, not operations, this will be dealt with separately at a later date.

Please let me know if the Thursday 16 July will be suitable for you and your team and we shall go from there.

Regards

ANITA RYLAH

Environment, Planning and Sustainability Manager

M +61 417630652

E anita.rylah@greatrivercity.com.au



Level 1, 31 Macquarie St, Parramatta NSW 2150

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From: Ivan Tcherkashnev (AU) <ivan.tcherkashnev@pwc.com>

Sent: Wednesday, 1 July 2020 4:52 PM

To: Anita Rylah <anita.rylah@greatrivercity.com.au>

Cc: Tony Eames <tony.eames@transport.nsw.gov.au>

Subject: Re: Notification of New Mail

Hi Antia,

Thanks for sending through the documents. I recommend a brief review session with HAC stakeholders, especially with Research Institutes (WIMR & CMRI).

Next Thursday 11:30 - 12 noon is ideal - this is after the HAC coordination meeting with PCPLR and most HAC attendees will be present. Can someone from GRCLR provide an overview and collate comments?

Prior to the meeting can you clarify some key items:

- Are Renzo Tonin preparing the CNVIS, carrying out all the assessments and monitoring? Are they following the same protocols set up with PCPLR? Will the same sensitive locations be transferred?
- Confirmation required on extent GRCLR are following the same processes/principles adopted by PCPLR. A lot of work has already been done to advise on HAC requirements for monitoring.
- Research Institutes (WIMR, CMRI and KR) are not mentioned as sensitive locations. Will this be added?
- Table 5-1 is general and does not identify any HAC locations, or apply NCA05 rating. Will this be added?
- This document appears to cover construction activities and monitoring. What about operational noise and vibration once the LR is live?
- Where is the Land Use Survey from Appendix B-1?

Regards,

Ivan Tcherkashnev

Project Manager | Infrastructure & Urban Renewal | PwC

M: 0431 478 388 T: +61 (02) 8266 1206

ivan.tcherkashnev@pwc.com

On Tue, 30 Jun 2020 at 16:24, Anita Rylah <system@teambinder.com> wrote:

You have received the following new mail in InEight Document

Project Number: PLRM
Project Title: Parramatta Light Rail - Main Works

Reference: PLR-PLR1SOM-GLR-HAC-CORR-000007

Type: CORR

Date: 30 June 2020, 16:23
To: James Wright, Health Administration Corporation
Ivan Tcherkashnev, Health Administration Corporation
CC: Samaneh Fard, Transport for NSW
Tony Eames, Transport for NSW
Lia Camillo, Great River City Light Rail Pty Ltd
Joshua Jenkins, Great River City Light Rail Pty Ltd
Michael Watts, Great River City Light Rail Pty Ltd
Warren Bottrill, Great River City Light Rail Pty Ltd
Andy England, Great River City Light Rail Pty Ltd
Subject: **FW: Construction Noise and Vibration Management and Monitoring Plans - Request for Consultation**
From: **Anita Rylah, Great River City Light Rail Pty Ltd**
Original
Reference:

Good Afternoon James and Ivan, I understand Tony Eames has discussed our Noise and Vibration Management and Monitoring Plans being sent to you for review. GRCLR is happy to discuss with you our project scope to aid the review of the documents which were sent through from Tony. Please respond with your available timing and I will arrange a suitable time to take you through the project scope. You can also contact myself on the below details to discuss further. Regards, Anita Ryla.....

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Anita Rylah

From: Ivan Tcherkashnev (AU) <ivan.tcherkashnev@pwc.com>
Sent: Thursday, 30 July 2020 4:47 PM
To: Anita Rylah
Cc: Tony Eames; Wallis, Megan
Subject: Re: Notification of New Mail

Hi Anita,
Thanks for the consultation and presentation.
HAC has no further comments on SOM's Construction Noise and Vibration Management and Monitoring Plans.

Regards,
Ivan Tcherkashnev

Project Manager | Infrastructure & Urban Renewal | PwC
M: 0431 478 388 T: +61 (02) 8266 1206
ivan.tcherkashnev@pwc.com

On Thu, 23 Jul 2020 at 12:31, Anita Rylah <system@teambinder.com> wrote:
You have received the following new mail in InEight Document

Project Number: PLRM
Project Title: Parramatta Light Rail - Main Works

Reference: PLR-PLR1SOM-GLR-HAC-CORR-000009
Type: CORR
Date: 23 July 2020, 12:31
To: James Wright, Health Administration Corporation
Ivan Tcherkashnev, Health Administration Corporation
CC: Samaneh Fard, Transport for NSW
Tony Eames, Transport for NSW
Megan Wallis, Transport for NSW
Lia Camillo, Great River City Light Rail Pty Ltd
Joshua Jenkins, Great River City Light Rail Pty Ltd
Michael Watts, Great River City Light Rail Pty Ltd
Warren Bottrill, Great River City Light Rail Pty Ltd
Andy England, Great River City Light Rail Pty Ltd
Subject: **RE: Construction Noise and Vibration Management and Monitoring Plans - Request for Consultation - Response**
From: **Anita Rylah, Great River City Light Rail Pty Ltd**
Original Reference:

Good Afternoon Ivan, Just following up with yourself whether you had any other comments on the GRCLR Noise and Vibration Management and Monitoring Plans for construction phase. I believe we have sent through all information requested. Could you please let me know either way, so we can progress with the submission of these documents. Please give me a call on 0417 630 652 if you would like to discuss further. Much appreciated, Anita Rylah ----- Original Message ----- Gen.....

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Appendix A3 – City of Parramatta Council

03 September 2020, 14:43

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000012**

Great River City Light Rail Pty Ltd

Attention: Andy England

Project Name Parramatta Light Rail - Main Works
RE: Construction Environment Management Plan - Sub-Plan
Consultation Request with CoPC

Hi Andy

City of Parramatta Council refers to GRCLR correspondence PDCS ref PLRM-GLR-COP-TX-000004, inviting CoPC to review and comment on the Sub-Plans, attached to this transmittal along with a review comment sheet.

Accordingly, please find attached CoPC Comment sheet for the the sub plans, with comments for each subplan entered on a separate worktab

Regards

Ian Taylor
Senior Engineering & Project Manager
(02) 9806 8484

City of Parramatta
Level 11, 126 Church Street, Parramatta NSW 2150
PO Box 32, Parramatta, NSW 2124
cityofparramatta.nsw.gov.au

Project Reference No: **PLR-PLR1SOM-COP-GLR-LETTER-000012**

To: Andy England (GLR) ,
Cc: Walter Casu (TFNSW) , Samaneh Fard (TFNSW) , Anita Rylah (GLR) , Joshua Jenkins (GLR) , Lia Camillo (GLR) , Michael Watts (GLR) , Johanna Maslem (GLR) , PLR Document Controller (TFNSW) , Judy Chan (APP) , David Opperman (APP)

City of Parramatta

----- Original Message -----

Document Transmittal



Project Number: PLRM

Transmittal No: PLRM-GLR-COP-TX-000004

Project Title: Parramatta Light Rail - Main Works

Date: 07 August 2020 10:50 AM

Subject: Construction Environment Management Plan - Sub-Plan Consultation Request with CoPC

Reason for Issue: Issued For Review

Message:

Anthony,

In follow up to our recent consultation on GRCLR's Construction Environment Management Plan (CEMP), GRCLR has now prepared Sub-Plans to the CEMP, required under the CSSI Approval (8285) the Conditions of Approval (CoA) C1 and C2, and under CoA C3 and C5. Under these conditions, GRCLR are required to undertake consultation with key Stakeholders.

The following Sub-Plans have been prepared by GRCLR:

Sub-Plans for the Stabilising and Maintenance Facility Only *(a revised version of these plans covering the entire SOM construction scope of works will be released at a later date for consultation prior to commencement of construction):*

- Traffic, Transport and Access Management Plan (TTAMP)
- Flood Management Plan (FMP)
- Flora and Fauna Management Plan (FFMP)

Sub-Plans for the Entire SOM Construction Scope of Works:

- Noise and Vibration Management Plan (NVMP) including Noise Vibration Monitoring Program (NVmonP)
- Heritage Management Plan (HMP)

Further to the above sub plans, GRCLR is required under the CSSI Approval (8285) the Conditions of Approval (CoA) C9 (a) to develop a Water Quality (turbidity) Monitoring Program. GRCLR is seeking an exemption from CoA C9 (a) Water Quality (turbidity) Monitoring Program for the SOM works, in consultation with our key stakeholders, due to the following reasons:

- The SaMF site would be limited to surface water run-off. Erosion and sediment controls would be in place. The potential release of sediment-laden surface flows would be low and would only occur if appropriate controls were not in place.
- Calculations of Erosion Risk at the site indicate that the rate of soil loss would be very low.
- The SaMF site has undergone subsurface remediation works, which involved removing all vegetation from site and installing a compacted capping layer. This will limit any exposed natural surfaces that would ordinarily contribute to the sediment-laden surface flows at the site.
- Any measured changes within the Parramatta River would be difficult to directly attribute to the works at the SaMF site in isolation from other contributors to the catchment flow.

GRCLR is providing the SWMP as an alternative to the water quality monitoring program, as was done for the early works packages for PLR. The scope of the SaMF would unlikely have measurable impacts on the Parramatta River. Therefore, monitoring of surface water is not proposed as part of delivery of the SaMF. As part of the review of this SWMP the Department of Primary Industries (Water) and the Environment Protection Authority is also being consulted on this approach. This is discussed in further detail in Section 4.2.1 of the SWMP.

Please note: the SWMP included with this transmittal, is for the construction of the SaMF site only. A revised SWMP covering all GRCLR construction works will be released at a later date for consultation prior to commencement of GRCLR works along the main alignment

GRCLR invites The City of Parramatta Council (CoPC) to review and comment on the Sub-Plans, attached to this transmittal along with a review comment sheet.

GRCLR requests that if CoPC would like to review and provide comments on the GRCLR Sub-Plans, would you please return these by **Thursday 3rd September 2020**.

Please contact Anita Rylah on the below details should additional information be required, or you have any further questions regarding these Sub-Plans.

Anita Rylah
Environment, Planning and Sustainability Manager

M +61 417630652  
E anita.rylah@greatrivercity.com.au

Please let us know if do not intend to make any comments

Please submit your comments by 03 September 2020

Transmitted to:

Company	Name
City of Parramatta	Anthony Newland

Transmitted cc:

Company	Name
Transport for NSW	Walter Casu
Transport for NSW	Samaneh Fard
Great River City Light Rail Pty Ltd	Anita Rylah
Great River City Light Rail Pty Ltd	Joshua Jenkins
Great River City Light Rail Pty Ltd	Lia Camillo
Great River City Light Rail Pty Ltd	Michael Watts
Great River City Light Rail Pty Ltd	Andy England
Great River City Light Rail Pty Ltd	Johanna Maslem

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Click on Document Nos to download them individually.

Item	Document No	Rev	Sts	Title	Alt Doc Number	Design Package No
1	PLR1SOM-GLR-ALL-EN-PRG-000001	C	C3	Construction Noise and Vibration Monitoring Program		
2	PLR1SOM-GLR-ALL-PM-PLN-000032	D	S2	Construction Traffic, Transport and Access Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000032	
3	PLR1SOM-GLR-ALL-PM-PLN-000033	D	S2	Construction Flora and Fauna Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000033	
4	PLR1SOM-GLR-ALL-PM-PLN-000034	D	S2	Construction Noise and Vibration Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000034	
5	PLR1SOM-GLR-ALL-PM-PLN-000035	D	S2	Construction Soil and Water Quality Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000035	
6	PLR1SOM-GLR-ALL-PM-PLN-000037	G	S2	Construction Heritage Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000037	

7	PLR1SOM-GLR-ALL-PM-PLN-000047	C	S0	Flood Management Plan	PLR-SOM-GLR-PJT-PM-PLN-000040	
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Transmitted by: Andy England, Great River City Light Rail Pty Ltd

Attachments
CoPC Sub-Plan Consultation CoP Comments.xlsx (109 KB)



08 September 2020, 11:35

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000012**

City of Parramatta

Attention: Ian Taylor

Project Name Parramatta Light Rail - Main Works
Construction Environment Management Plan - Sub-Plan Consultation Request with CoPC

City of Parramatta Council

Attention: Ian Taylor

Project Name: Parramatta Light Rail - Supply Operate and Maintain (SOM)
RE: Great River City Light Rail - Sub-plan Consultation Response

Dear Ian,

Thank you for taking the time to review GRCLR's Sub plans provided for the SOM scope of works.

GRCLR has provided response to each of these comments in the attached comments register under each tab.

GRCLR is happy to organise a meeting to discuss any outstanding concerns CoPC might have.

Please consider the attached responses, and contact Anita Rylah (0417630652), if you would like to discuss the content further.

If you consider that GRCLR's response has adequately closed your comments, please let us know these are now closed by responding to this email.

Regards,
Andy England

----- Original Message -----

03 September 2020, 14:43

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000012**

Great River City Light Rail Pty Ltd

Attention: Andy England

Project Name Parramatta Light Rail - Main Works
RE: Construction Environment Management Plan - Sub-Plan Consultation Request with CoPC

Hi Andy

City of Parramatta Council refers to GRCLR correspondence PDCS ref PLRM-GLR-COP-TX-000004, inviting CoPC to review and comment on the Sub-Plans, attached to this transmittal along with a review comment sheet.

Accordingly, please find attached CoPC Comment sheet for the the sub plans, with comments for each subplan entered on a separate worktab

Regards

Ian Taylor
Senior Engineering & Project Manager
(02) 9806 8484

City of Parramatta
Level 11, 126 Church Street, Parramatta NSW 2150
PO Box 32, Parramatta, NSW 2124
cityofparramatta.nsw.gov.au

Project Reference No: **PLR-PLR1SOM-COP-GLR-LETTER-000012**

To: Andy England (GLR) ,
Cc: Walter Casu (TFNSW) , Samaneh Fard (TFNSW) , Anita Rylah (GLR) , Joshua Jenkins (GLR) , Lia Camillo (GLR) , Michael Watts (GLR) , Johanna Maslem (GLR) , PLR Document Controller (TFNSW) , Judy Chan (APP) , David Opperman (APP)

City of Parramatta

----- Original Message -----



Document Transmittal

Project Number: PLRM **Transmittal No:** PLRM-GLR-COP-TX-000004

Project Title: Parramatta Light Rail - Main Works

Date: 07 August 2020 10:50 AM

Subject: Construction Environment Management Plan - Sub-Plan Consultation Request with CoPC

Reason for Issue: Issued For Review

Message:

Anthony,

In follow up to our recent consultation on GRCLR's Construction Environment Management Plan (CEMP), GRCLR has now prepared Sub-Plans to the CEMP, required under the CSSI Approval (8285) the Conditions of Approval (CoA) C1 and C2, and under CoA C3 and C5. Under these conditions, GRCLR are required to undertake consultation with key Stakeholders.

The following Sub-Plans have been prepared by GRCLR:

Sub-Plans for the Stabilising and Maintenance Facility Only (*a revised version of these plans covering the entire SOM construction scope of works will be released at a later date for consultation prior to commencement of construction*):

- Traffic, Transport and Access Management Plan (TTAMP)
- Flood Management Plan (FMP)
- Flora and Fauna Management Plan (FFMP)

Sub-Plans for the Entire SOM Construction Scope of Works:

- Noise and Vibration Management Plan (NVMP) including Noise Vibration Monitoring Program (NVmonP)
- Heritage Management Plan (HMP)

Further to the above sub plans, GRCLR is required under the CSSI Approval (8285) the Conditions of Approval (CoA) C9 (a) to develop a Water Quality (turbidity) Monitoring Program. GRCLR is seeking an exemption from CoA C9 (a) Water Quality (turbidity) Monitoring Program for the SOM works, in consultation with our key stakeholders, due to the following reasons:

- The SaMF site would be limited to surface water run-off. Erosion and sediment controls would be in place. The potential release of sediment-laden surface flows would be low and would only occur if appropriate controls were not in place.
- Calculations of Erosion Risk at the site indicate that the rate of soil loss would be very low.
- The SaMF site has undergone subsurface remediation works, which involved removing all vegetation from site and installing a compacted capping layer. This will limit any exposed natural surfaces that would ordinarily contribute to the sediment-laden surface flows at the site.
- Any measured changes within the Parramatta River would be difficult to directly attribute to the works at the SaMF site in isolation from other contributors to the catchment flow.

GRCLR is providing the SWMP as an alternative to the water quality monitoring program, as was done for the early works packages for PLR. The scope of the SaMF would unlikely have measurable impacts on the Parramatta River. Therefore, monitoring of surface water is not proposed as part of delivery of the SaMF. As part of the review of this SWMP the Department of Primary Industries (Water) and the Environment Protection Authority is also being consulted on this approach. This is discussed in further detail in Section 4.2.1 of the SWMP.

Please note: the SWMP included with this transmittal, is for the construction of the SaMF site only. A revised SWMP covering all GRCLR construction works will be released at a later date for consultation prior to commencement of GRCLR works along the main alignment

GRCLR invites The City of Parramatta Council (CoPC) to review and comment on the Sub-Plans, attached to this transmittal along with a review comment sheet.

GRCLR requests that if CoPC would like to review and provide comments on the GRCLR Sub-Plans, would you please return these by **Thursday 3rd September 2020**.

Please contact Anita Rylah on the below details should additional information be required, or you have any further questions regarding these Sub-Plans.

Anita Rylah
Environment, Planning and Sustainability Manager

M +61 417630652
E anita.rylah@greatrivercity.com.au

Please let us know if do not intend to make any comments

Please submit your comments by 03 September 2020

Transmitted to:

Company	Name
City of Parramatta	Anthony Newland

Transmitted cc:

Company	Name
Transport for NSW	Walter Casu
Transport for NSW	Samaneh Fard
Great River City Light Rail Pty Ltd	Anita Rylah
Great River City Light Rail Pty Ltd	Joshua Jenkins
Great River City Light Rail Pty Ltd	Lia Camillo
Great River City Light Rail Pty Ltd	Michael Watts
Great River City Light Rail Pty Ltd	Andy England
Great River City Light Rail Pty Ltd	Johanna Maslem

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Click on Document Nos to download them individually.

Item	Document No	Rev	Sts	Title	Alt Doc Number	Design Package No
1	PLR1SOM-GLR-ALL-EN-PRG-000001	C	C3	Construction Noise and Vibration Monitoring Program		
2	PLR1SOM-GLR-ALL-PM-PLN-000032	D	S2	Construction Traffic, Transport and Access Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000032	
3	PLR1SOM-GLR-ALL-PM-PLN-000033	D	S2	Construction Flora and Fauna Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000033	
4	PLR1SOM-GLR-ALL-PM-PLN-000034	D	S2	Construction Noise and Vibration Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000034	
5	PLR1SOM-GLR-ALL-PM-PLN-000035	D	S2	Construction Soil and Water Quality Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000035	
6	PLR1SOM-GLR-ALL-PM-PLN-000037	G	S2	Construction Heritage Management Sub Plan	PLR-SOM-GLR-PJT-PM-PLN-000037	
7	PLR1SOM-GLR-ALL-PM-PLN-000047	C	S0	Flood Management Plan	PLR-SOM-GLR-PJT-PM-PLN-000040	

Transmitted by: Andy England, Great River City Light Rail Pty Ltd

Project Reference No: **PLR-PLR1SOM-GLR-COP-LETTER-000006**

To: Ian Taylor (COP),
 Cc: Judy Chan (APP), David Opperman (APP), Joshua Jenkins (GLR), Walter Casu (TFNSW), Samaneh Fard (TFNSW), Lia Camillo (GLR), Michael Watts (GLR), Johanna Maslem (GLR), PLR Document Controller (TFNSW), Sandra Martin (COP), Anita Rylah (GLR), Andy England

Great River City Light Rail Pty Ltd
ABN 622 239 605

Attachments
20200908 CoPC Comments -GRCLR Response.xlsx (109 KB)

Anita Rylah

From: Ivan Tcherkashnev (AU) <ivan.tcherkashnev@pwc.com>
Sent: Thursday, 30 July 2020 4:47 PM
To: Anita Rylah
Cc: Tony Eames; Wallis, Megan
Subject: Re: Notification of New Mail

Hi Anita,
Thanks for the consultation and presentation.
HAC has no further comments on SOM's Construction Noise and Vibration Management and Monitoring Plans.

Regards,
Ivan Tcherkashnev

Project Manager | Infrastructure & Urban Renewal | PwC
M: 0431 478 388 T: +61 (02) 8266 1206
ivan.tcherkashnev@pwc.com

On Thu, 23 Jul 2020 at 12:31, Anita Rylah <system@teambinder.com> wrote:
You have received the following new mail in InEight Document

Project Number: PLRM
Project Title: Parramatta Light Rail - Main Works

Reference: PLR-PLR1SOM-GLR-HAC-CORR-000009
Type: CORR
Date: 23 July 2020, 12:31
To: James Wright, Health Administration Corporation
Ivan Tcherkashnev, Health Administration Corporation
CC: Samaneh Fard, Transport for NSW
Tony Eames, Transport for NSW
Megan Wallis, Transport for NSW
Lia Camillo, Great River City Light Rail Pty Ltd
Joshua Jenkins, Great River City Light Rail Pty Ltd
Michael Watts, Great River City Light Rail Pty Ltd
Warren Bottrill, Great River City Light Rail Pty Ltd
Andy England, Great River City Light Rail Pty Ltd
Subject: **RE: Construction Noise and Vibration Management and Monitoring Plans - Request for Consultation - Response**
From: **Anita Rylah, Great River City Light Rail Pty Ltd**
Original Reference:

Good Afternoon Ivan, Just following up with yourself whether you had any other comments on the GRCLR Noise and Vibration Management and Monitoring Plans for construction phase. I believe we have sent through all information requested. Could you please let me know either way, so we can progress with the submission of these documents. Please give me a call on 0417 630 652 if you would like to discuss further. Much appreciated, Anita Rylah ----- Original Message ----- Gen.....

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09 October 2020, 15:29

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000007**

Great River City Light Rail Pty Ltd

Attention: Andy England

Project Name Parramatta Light Rail - Main Works
RE: Great River City Light Rail - Sub Plan Response

Hi Andy

City of Parramatta Council refer to the GRCLR sub plans response on 23 September, and are satisfied that our comments/concerns have been closed.

Please find attached CoPC's further feedback accordingly in RED for clarity

Regards

Ian Taylor
Senior Engineering & Project Manager
(02) 9806 8484

City of Parramatta
Level 11, 126 Church Street, Parramatta NSW 2150
PO Box 32, Parramatta, NSW 2124
cityofparramatta.nsw.gov.au

Project Reference No: **PLR-PLR1SOM-COP-GLR-LETTER-000014**

To: Andy England (GLR)
Cc: Judy Chan (APP) , Annabelle Tungol (APP) , Anthony Newland (COP) , Lia Camillo (GLR) , Sandra Martin (COP) , Mark Richardson (GLR) , Walter Casu (TFNSW) , Michael Watts (GLR) , Samaneh Fard (TFNSW) , Warren Bottrill (GLR) , PLR Document Controller (TFNSW)

City of Parramatta

----- Original Message -----



23 September 2020, 15:46

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000007**

City of Parramatta

Attention: Ian Taylor

Project Name Parramatta Light Rail - Main Works

RE: Great River City Light Rail - Sub Plan Response

Afternoon Ian,

Please find attached GRCLR's response to the outstanding queries on GRCLR sub plans.

Can you also confirm whether GRCLR have adequately closed the comments on the N&V Management Plan and N&V Monitoring Plan or if you require further clarification before considering these closed?

Is CoPC satisfied that their comments/concerns have been closed out adequately by GRCLR? If so, can you please respond indicating this.

If CoPC are not satisfied that GRCLR have adequately closed out these items on the spreadsheet attached, can I suggest we arrange a suitable time to discuss the outstanding items together?

We look forward to your response.

Anita Rylah

Environment, Planning and Sustainability Manager
Parramatta Light Rail Stage 1
Supply, Operate and Maintain

0417 630 652

Project Reference No: **PLR-PLR1SOM-GLR-COP-LETTER-000007**

To: Ian Taylor (COP)

Cc: Judy Chan (APP) , Anthony Newland (COP) , Lia Camillo (GLR) , Mark Richardson (GLR) , Andy England (GLR) , Walter Casu (TFNSW) , Joshua Jenkins (GLR) , Michael Watts (GLR) , PLR Document Controller (TFNSW) , Samaneh Fard (TFNSW) , Annabelle Tungol (APP) , Warren Bottrill (GLR) , Sandra Martin (COP)

Great River City Light Rail Pty Ltd
ABN 622 239 605

----- Original Message -----

23 September 2020, 11:41

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000007**

Great River City Light Rail Pty Ltd

Attention: Warren Bottrill

Project Name Parramatta Light Rail - Main Works
RE: Great River City Light Rail - Construction Environmental
Management Plan Consultation Response

Warren and Anita

City of Parramatta Council refer to GRCLR responses to the Sub-Plan CEMP documents for the SOM scope of works (25 June 2020).

Please find attached spreadsheet with the CoPC feedback in Blue for clarity to GRCLR responses. Please note however we were unable to provide feedback comments for the N&V Management Plan, and N&V Monitoring Plan

Regards

Ian Taylor
Senior Engineering & Project Manager
(02) 9806 8484

City of Parramatta
Level 11, 126 Church Street, Parramatta NSW 2150
PO Box 32, Parramatta, NSW 2124
cityofparramatta.nsw.gov.au

Project Reference No: **PLR-PLR1SOM-COP-GLR-LETTER-000013**

To: Warren Bottrill (GLR) ,
Cc: Judy Chan (APP) , Lia Camillo (GLR) , Mark Richardson (GLR) , Andy England (GLR) , Walter Casu (TFNSW) , Joshua Jenkins (GLR) , Michael Watts (GLR) , PLR Document Controller (TFNSW) , Anthony Newland (COP)

City of Parramatta

----- Original Message -----



09 July 2020, 08:52

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000007**

City of Parramatta

Attention: Ian Taylor

Project Name Parramatta Light Rail - Main Works
RE: Great River City Light Rail - Construction Environmental
Management Plan Consultation Response

Dear Ian,

Thank you for taking the time to review the CEMP document for the SOM scope of works (25 June 2020).

GRCLR has provided response to each of these comments in the attached comments register. By way of summary of key items raised, GRCLR can confirm this CEMP:

- Has been prepared as an overarching management plan, under which there will be a series of sub-plans (currently under preparation) which will provide additional detail requested in some of CoPC comments. The sub-plans, as relevant, will be provided to CoPC for review and comment as a single package once they have been through internal, Proponent (TfNSW) and Environmental Representative (ER) review.
- Has been prepared to be compliant with the CSSI approval, CoA and deed requirements. It has been reviewed by the ER, to ensure that it meets the requirements as relevant to the SOM scope, within the CSSI planning approvals regime.
- Is not the governing document for management of:
 - Design process;
 - Asset management, and land access; or
 - Operational and maintenance processes and procedures. These are all managed separately to the CEMP through other existing processes, procedures and communications avenues. These will remain unchanged, and are unaffected by the CEMP which relates only to construction management.

GRCLR is happy to organise a meeting to discuss any outstanding concerns CoPC might have.

10/12/2020

PLRM - LETTER-PLR-PLR1SOM-COP-GLR-LETTER-000014 - RE: Great River City Light Rail - Sub Plan Response

Please consider the above, and attached, and contact Anita Rylah (0417630652), if you would like to discuss any of the content.

Kind regards,
Warren Bottrill

Project Reference No: **PLR-PLR1SOM-GLR-COP-LETTER-000003**

To: Ian Taylor (COP) ,
Cc: Judy Chan (APP) , Lia Camillo (GLR) , Walter Casu (TFNSW) , Mark Richardson (GLR) , PLR Document Controller (TFNSW) , Andy England (GLR) , Joshua Jenkins (GLR) , Michael Watts (GLR)

Great River City Light Rail Pty Ltd
ABN 622 239 605

----- Original Message -----

25 June 2020, 14:57

Reference No.: **PLR-PLR1SOM-COP-GLR-LETTER-000007**

Great River City Light Rail Pty Ltd

Attention: Warren Bottrill

Project Name Parramatta Light Rail - Main Works
RE: Great River City Light Rail - Construction Environmental
Management Plan Consultation Request

Hi Warren

City of Parramatta Council refer to the GRCLR Transmittal Ref PLRM-GLR-COP-TX-000003 dated 28 May below, and invitation to comment on Construction Environmental Management Plan (CEMP) for the construction of the SaMF site due by 25 June 2020.

Please find attached Comments Register in response to GRCLR CEMP, document PLR1SOM-GLR-ALL-PM-PLN-000014, Rev E.

Regards

Ian Taylor
Senior Engineering & Project Manager
(02) 9806 8484

City of Parramatta
Level 11, 126 Church Street, Parramatta NSW 2150
PO Box 32, Parramatta, NSW 2124
cityofparramatta.nsw.gov.au

Project Reference No: **PLR-PLR1SOM-COP-GLR-LETTER-000007**

To: Warren Bottrill (GLR) ,
Cc: Walter Casu (TFNSW) , Alan Brittain (GLR) , Anita Rylah (GLR) , Lia Camillo (GLR) , Mark Richardson (GLR) , PLR Document Controller (TFNSW) , Judy Chan (APP)

City of Parramatta

----- Original Message -----

Document Transmittal



Project Number: PLRM **Transmittal No:** PLRM-GLR-COP-TX-000003

Project Title: Parramatta Light Rail - Main Works

Date: 28 May 2020 04:06 PM

Subject: Great River City Light Rail - Construction Environmental Management Plan Consultation Request

Reason for Issue: Issued For Review

Message:

Good Afternoon,

Great River City Light Rail (GRCLR) has been engaged by TfNSW to design and construct a portion of the Parramatta Light Rail (PLR) Project, including the Stabling and Maintenance Facility (SaMF) at 6 Grand Avenue Camellia.

GRCLR has prepared the Construction Environmental Management Plan (CEMP) required under the CSSI Approval (8285) the Conditions of Approval (CoA) C1 and C2, and under CoA C3 and C5 are required to undertake consultation with key Stakeholders.

GRCLR invites the City of Parramatta Council to comment on the CEMP, included together with this transmittal. The CEMP presented is for the construction of the SaMF site only.

Please note: a revised CEMP covering all GRCLR construction works will be released at a later date for consultation prior to commencement of GRCLR works along the main alignment, as these are dependent on completion of the Infrastructure Contractor (Parramatta Connect) works.

GRCLR requests that the City of Parramatta Council provide comments on the GRCLR CEMP **by Thursday 25 June 2020**.

Please contact Anita Rylah on the below details should additional information be required, or you have any further questions regarding this CEMP.

It is of utmost importance that we receive your comments within the above timeframe, or at least confirmation that you will or will not be providing comments on this plan.

Anita Rylah

Environment, Planning and Sustainability Manager

M +61 417630652  

E anita.rylah@greatriverscity.com.au

Warren Bottrill

Senior Commercial Manager/Temporary Contractors Representative

Great River City Light Rail

M: +61 418 882 378

E: warren.bottrill@greatriverscity.com.au

Level 1, 31 Macquarie Street, Parramatta NSW 2150 Australia

Please submit your comments by 25 June 2020

Transmitted to:

Company	Name
---------	------

City of Parramatta	Anthony Newland
--------------------	-----------------

Transmitted cc:

Company	Name
Transport for NSW	Walter Casu
Great River City Light Rail Pty Ltd	Alan Brittain
Great River City Light Rail Pty Ltd	Anita Rylah
Great River City Light Rail Pty Ltd	Lia Camillo
Great River City Light Rail Pty Ltd	Mark Richardson

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Click on Document Nos to download them individually.

Item	Document No	Rev	Sts	Title	Alt Doc Number	Design Package No
1	PLR1SOM-GLR-ALL-PM-PLN-000014	E	S2	Construction Environmental Management Plan	PLR-SOM-GLR-PJT-PM-PLN-00014	

Transmitted by: Warren Bottrill, Great River City Light Rail Pty Ltd

Attachments

LETTER-PLR-PLR1SOM-GLR-COP-LETTER-000007-CoPC Comments -GRCLR Response 23092020.xlsx (115 KB)

