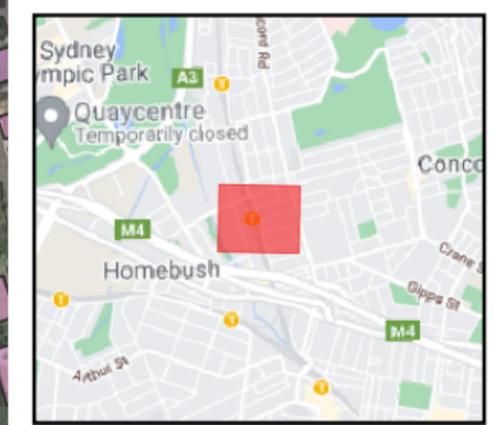
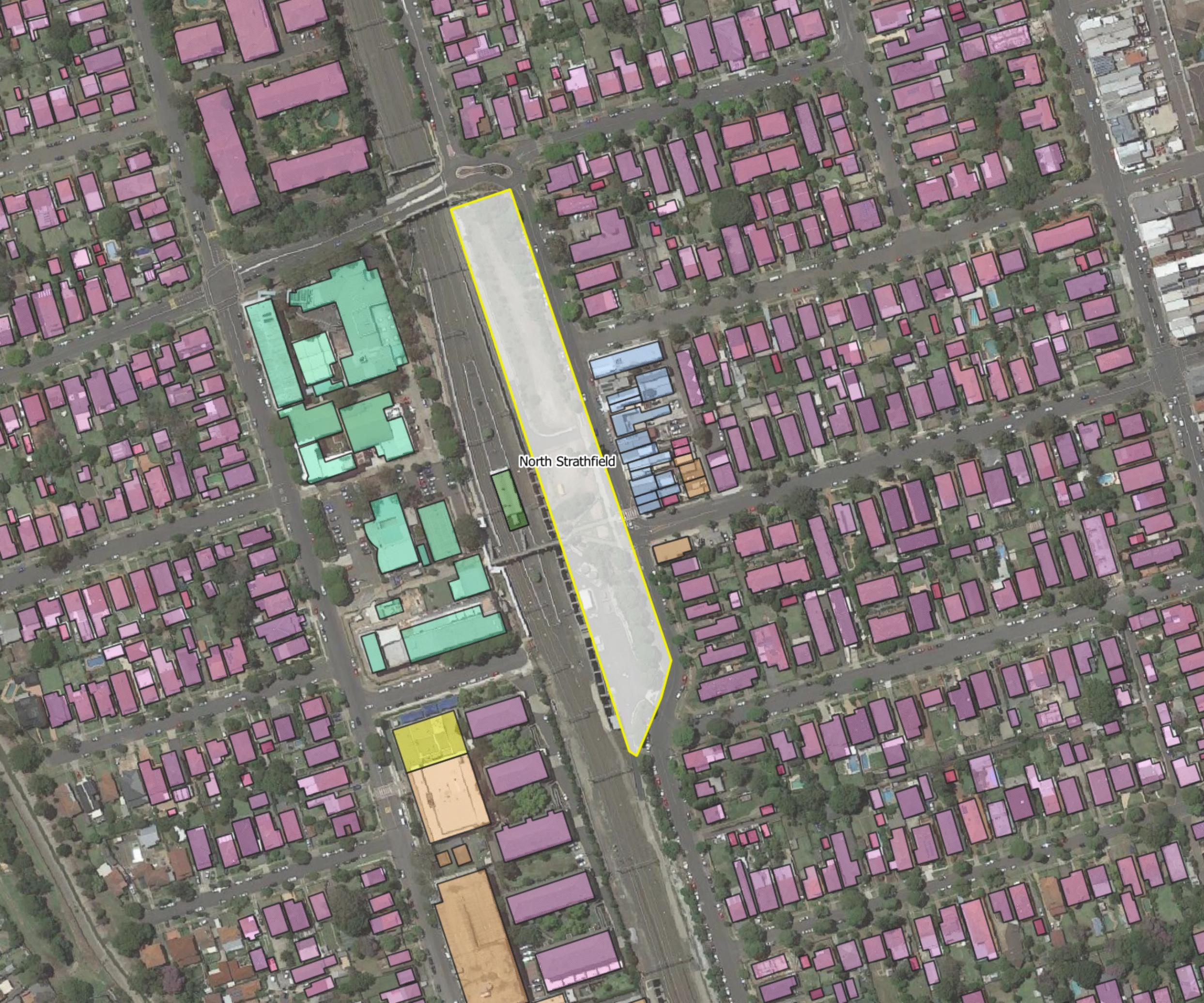


# Land Use- North Strathfield

## Legend

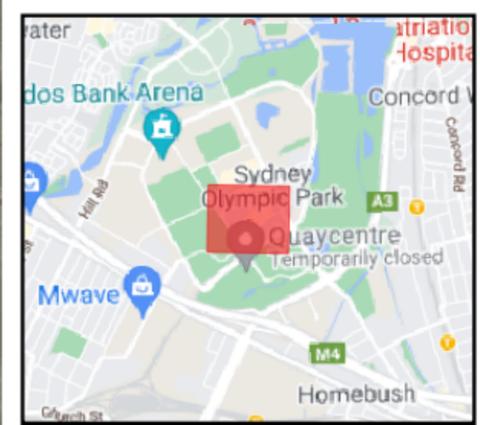
- CTP Sites
- Receiver Types
  - Childcare
  - Commercial/Business
  - Commercial/Residential
  - Community Use
  - Community/Residential
  - Education
  - Garage
  - Hotel
  - Industrial/Utilities
  - Residential
  - Medical
  - Place of Worship
  - None
  - Aged Care
  - Transport/Infrastructure

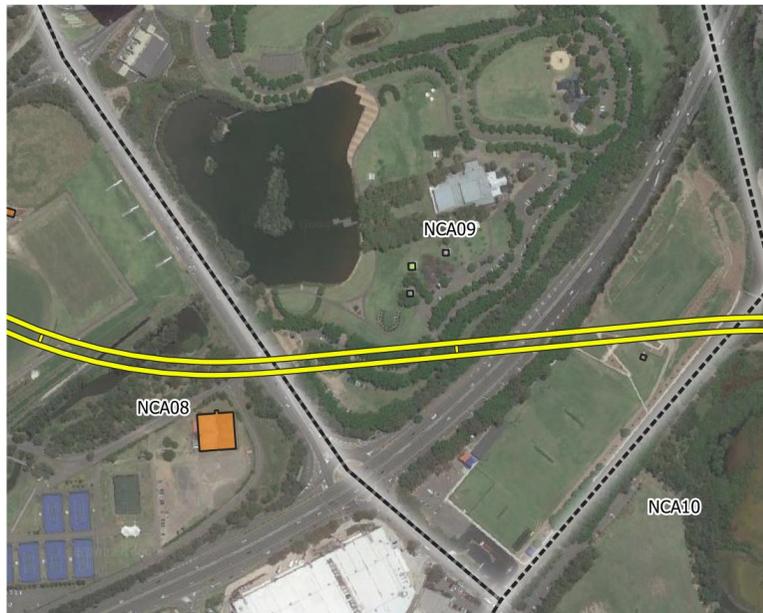
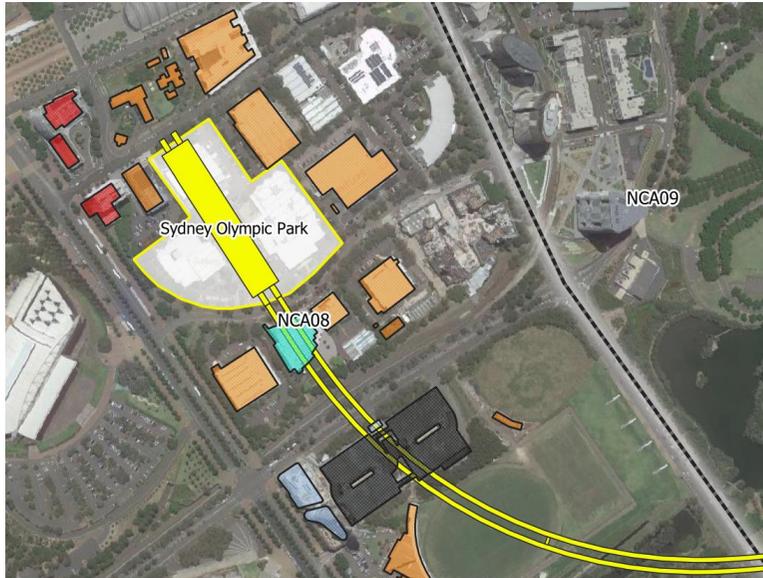


# Land Use- Sydney Olympic Park

## Legend

- CTP Sites
- Receiver Types
- Childcare
- Commercial/Business
- Commercial/Residential
- Community Use
- Community/Residential
- Education
- Garage
- Hotel
- Industrial/Utilities
- Residential
- Medical
- Place of Worship
- None
- Aged Care
- Transport/Infrastructure

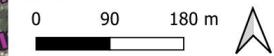
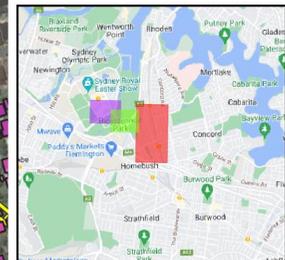


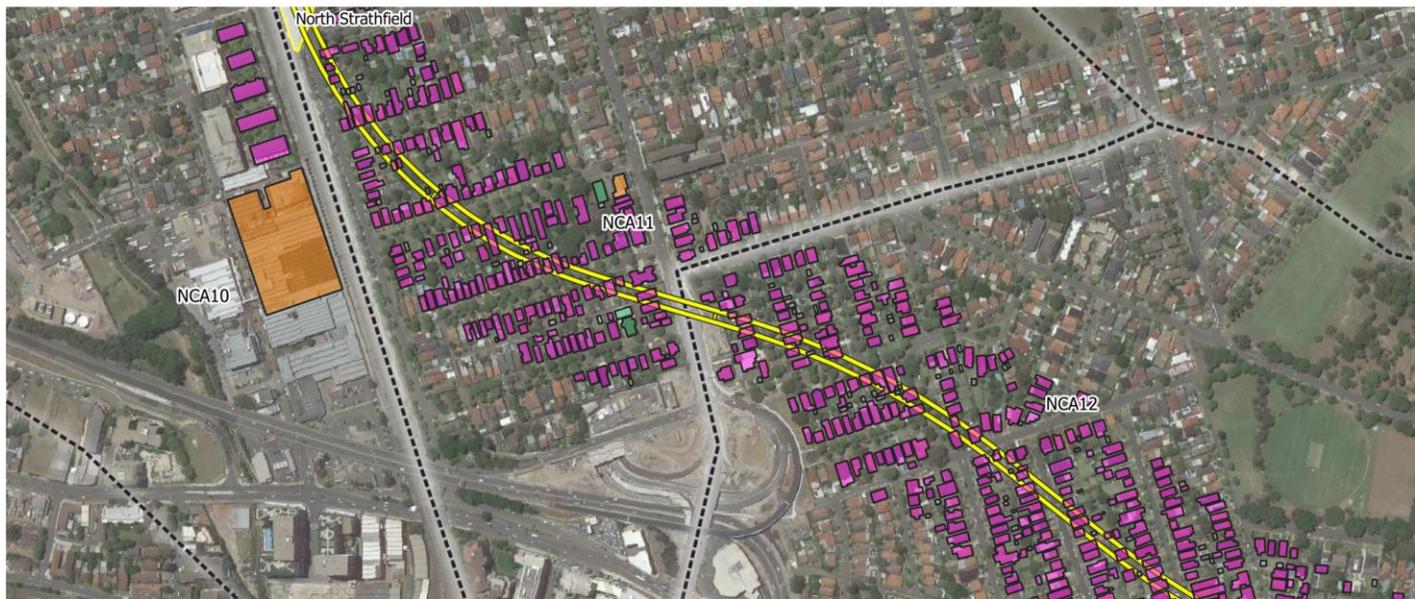


### Land use - Tunnelling

#### Legend

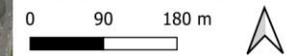
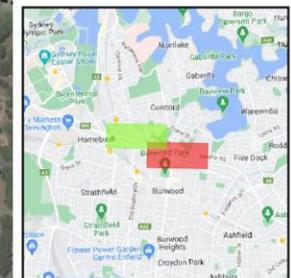
- CTP Sites
- Tunnel alignment
- Receiver Type
- Business/Residential
- Childcare
- Commercial/Business
- Commercial/Residential
- Community Use
- Conservation/National Park
- Education
- Garage
- Hotel
- Industrial/Utilities
- Medical
- None
- Place of Worship
- Recreational Passive
- Recreational/Open Space
- Residential
- Transport/Infrastructure





### Land use - Tunnelling Legend

- CTP Sites
- Tunnel alignment
- Receiver Type**
- Business/Residential
- Childcare
- Commercial/Business
- Commercial/Residential
- Community Use
- Conservation/National Park
- Education
- Garage
- Hotel
- Industrial/Utilities
- Medical
- None
- Place of Worship
- Recreational Passive
- Recreational/Open Space
- Residential
- Transport/Infrastructure

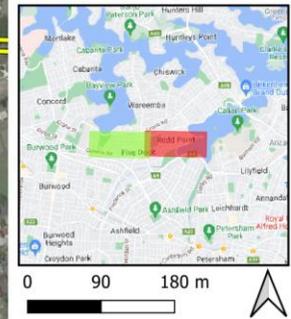




## Land use - Tunnelling

### Legend

- CTP Sites
- Tunnel alignment
- Receiver Type
- Business/Residential
- Childcare
- Commercial/Business
- Commercial/Residential
- Community Use
- Conservation/National Park
- Education
- Garage
- Hotel
- Industrial/Utilities
- Medical
- None
- Place of Worship
- Recreational Passive
- Recreational/Open Space
- Residential
- Transport/Infrastructure

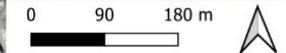
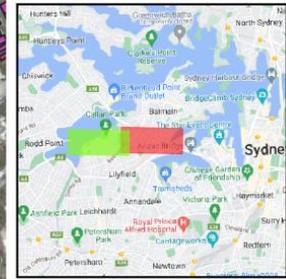
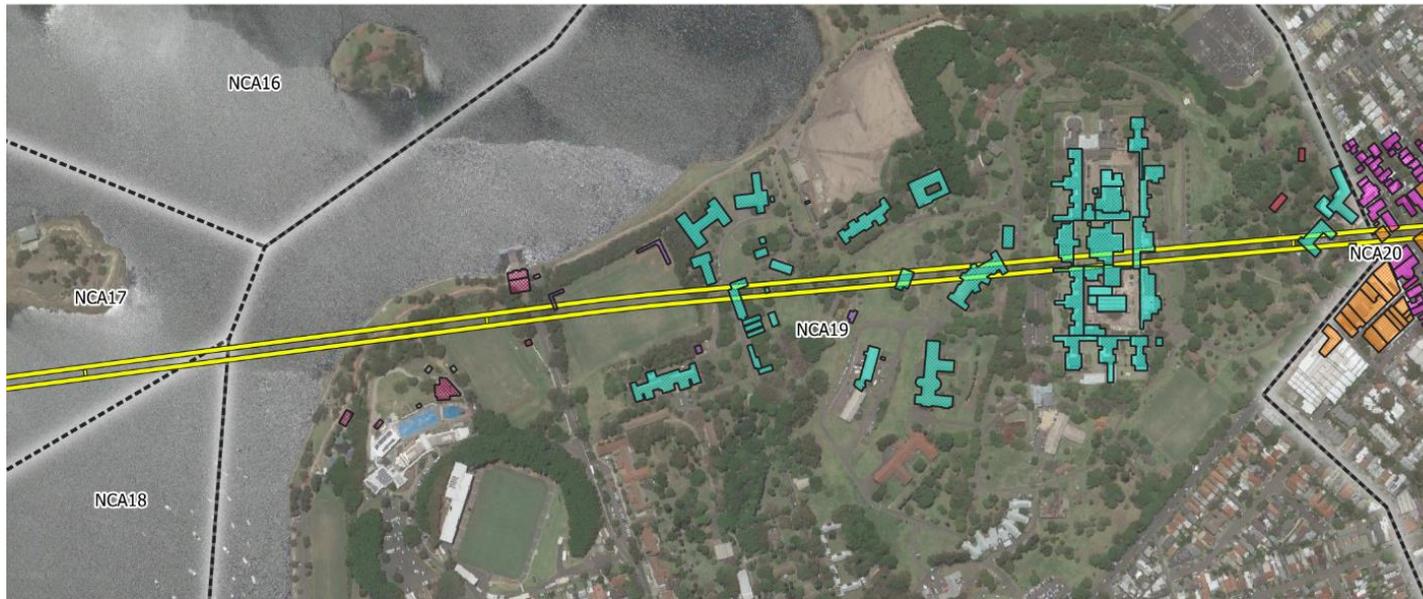




Land use - Tunnelling

Legend

- CTP Sites
- Tunnel alignment
- Receiver Type
- Business/Residential
- Childcare
- Commercial/Business
- Commercial/Residential
- Community Use
- Conservation/National Park
- Education
- Garage
- Hotel
- Industrial/Utilities
- None
- Place of Worship
- Recreational Passive
- Recreational/Open Space
- Residential
- Transport/Infrastructure



## **APPENDIX D    OUT OF HOURS WORK PROTOCOL**



# Sydney Metro West - CTP - Out of Hours works Protocol

SMWSTCTP-AFJ-1NL-PE-PLN-000005 Revision 04

Sydney Metro West – Central Tunnelling Package



## DOCUMENT APPROVAL

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Position:	Acoustician	Environmental Approvals Manager	Environment Manager
Date:	29/09/21	29/10/21	29/10/21

## REVISION HISTORY

Rev:	Date:	Pages:	By:	Description:
00	26 August 2021	All	JH	For submission to Sydney Metro
01	15 October 2021	All	EW	For AA & ER Endorsement
02	29 October 2021	All	EW	For DPIE Approval
03	3 December 2021	10,13-14	JH	Update of mitigation measure table
04	16 March 2022		AS	Update following EPL

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## GLOSSARY AND ABBREVIATIONS

Abbreviation	Description / Definition
AFJV	Acciona Ferrovial Joint Venture (the Contractor)
AS/NZS	Australia/New Zealand Standards
Amendment Report	Sydney Metro West Westmead to The Bays and Sydney CBD Amendment Report Concept and Stage 1 (2020)
CEMP	Construction Environmental Management Plan
Construction	Includes all work required to construct Stage 1 of the CSSI as described in the documents listed in Condition A1 of Schedule 3, including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding Low Impact Work.  <i>Note: As defined in Table 1 of SSI 10038 Infrastructure approval for the Project.</i>
CNVMP	Central Tunnelling Package Construction Noise and Vibration Management Plan
CNVS	Sydney Metro Construction Noise and Vibration Standard Version 4.3 (4/11/2020) (SM-20-00098866)
CoA	Minister's Conditions of Approval (as relevant to Sydney Metro West Concept and Stage 1)
CTP	Central Tunnelling Package
DPIE	NSW Department of Planning, Infrastructure and Environment
EIS	Sydney Metro West Concept and Stage 1 Environmental Impact Statement (April 2020)
EMS	Environmental Management System
EPA	NSW Environment Protection Authority
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EPL	NSW Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997</i> .
NVMP	Central Tunnelling Package Noise and Vibration Monitoring Program
OCCS	Overarching Community Communication Strategy
Planning Secretary	The Planning Secretary of the Department of Planning, Industry and Environment
PoEO Act	<i>NSW Protection of the Environment Operations Act 1997</i>
Project	Sydney Metro West Concept and Stage 1
Relevant Councils	Any or all local government councils as relevant, Inner West Council, Strathfield Council, Burwood Council, City of Canada Bay, Parramatta City Council
REMM	Revised Environmental Mitigation Measure
Submissions Report	Sydney Metro West Westmead to The Bays and Sydney CBD Submissions Report Concept and Stage 1 (2020)

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## 1. INTRODUCTION

### 1.1 BACKGROUND

Sydney Metro is Australia's biggest public transport program. Services on the North West Metro Line between Rouse Hill and Chatswood started in May 2019. The Sydney Metro network also includes Sydney Metro City & Southwest, Sydney Metro West and Sydney Metro Western Sydney Airport.

Sydney Metro West is a new 24kilometre metro line between Westmead and the Sydney CBD. This infrastructure investment will double the rail capacity of the Greater Parramatta to Sydney CBD corridor with a travel time target between the two centres of about 20 minutes.

The planning approvals and environmental impact assessment for Sydney Metro West has been split into a number of stages recognising the size of the project. This includes:

- Stage 1 – Concept and all major civil construction works including station excavation and tunnelling between Westmead and The Bays. Planning approval for this stage was granted in March 2021.
- Stage 2 – All major civil construction works including station excavation and tunnelling from The Bays to Sydney CBD
- Stage 3 – Tunnel fit-out, construction of stations, ancillary facilities and station precincts, and operation and maintenance of the Sydney Metro West line

An Environmental Impact Statement (EIS) (Jacobs/Arcadis, 2020) for the Concept and Stage 1 (herein referred to as the Project) assessed the noise and vibration impacts in response to the Secretary Environmental Assessment Requirements issued by the Department of Planning, Industry and Environment (DPIE). The Project was approved on 11 March 2021 (SSI 10038).

Sydney Metro is delivering the Project via several different packages, including the Central Tunnelling Package (CTP).

### 1.2 SCOPE

This Protocol outlines how Acciona Ferrovial Joint Venture (AFJV) propose to consider, approve, and manage works outside the approved construction hours as required under the CoA D38, for works not subject to an Environment Protection Licence (EPL).

This Protocol will be included into the Project Construction Noise & Vibration Management Plan (CNVMP) (document number SMWSTCTP-AFJ-1NL-NV-PLN-000001) once that document has been approved.

In addition, the Protocol has been developed in accordance with the Project EIS, the Revised Environmental Mitigation Measures (REMMs) and all applicable legislation and guidelines for the design and construction of the CTP.

This document applies for works not subject to an EPL, such as Low Impact Works undertaken prior to EPL determination and works outside the EPL premise boundary. OOHW that apply under the Project's EPL will be subject to the requirements defined in the EPL (Licence no. 21610).

### 1.3 OBJECTIVES

This Protocol outlines how AFJV will comply with and implement the applicable elements of the following documents, collectively referred to herein as the 'Project requirements' for the CTP:

- The CoA (issued on 11 March 2021 and as modified on 29 July 2021)
- The Project EIS, Submissions Report and Amendment Report
- Sydney Metro Construction Environmental Management Framework (CEMF).

▪

## 2. ENVIRONMENTAL REQUIREMENTS

### 2.1 RELEVANT LEGISLATION AND GUIDELINES

Legislation relevant to this Protocol includes:

- Protection of the Environment Operations Act 1997 (POEO Act)

The guidelines, specifications and policy documents relevant to this Protocol include:

- Sydney Metro Construction Noise and Vibration Standard (CNVS) 2020 v4.3
- Sydney Metro Construction Environmental Management Framework (CEMF) 2020 v4.1
- Environment Protection Licence (EPL 21610) issued on 18 February 2022

### 2.2 PROJECT REQUIREMENTS

The Project requirements relevant to the preparation of this Protocol are identified in Table 2-1. A cross reference is also included to indicate where the requirement is addressed in this Protocol or other documents.

TABLE 2-1: COMPLIANCE TABLE - REQUIREMENTS FOR PREPARATION OF OOHW PROTOCOL

<b>Project Planning Approval</b>		
D38	An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of work which are outside the hours defined in Conditions D35 and D36 of this schedule.  The Protocol must be approved by the Planning Secretary before commencement of the out-of-hours work. The Protocol must be prepared in consultation with the ER, AA and EPA. The Protocol must provide:	This document  Section 3.1
(a)	identification of low and high-risk activities and an approval process that considers the risk of activities, proposed mitigation, management, and coordination, including where: <ul style="list-style-type: none"> <li>• the ER and AA review all proposed out-of-hours activities and confirm their risk levels;</li> <li>• low risk activities can be approved by the ER in consultation with the AA; and</li> <li>• high risk activities that are approved by the Planning Secretary;</li> </ul>	Section 8
(b)	a process for the consideration of out-of-hours work against the relevant NML and vibration criteria;	Section 8
(c)	a process for selecting and implementing mitigation measures for residual impacts in consultation with the community at each affected location, including respite periods consistent with the requirements of Condition D50 of this schedule. The measures must take into account the predicted noise levels and the likely frequency and duration of the out-of-hours works that sensitive land user(s) would be exposed to, including the number of noise awakening events;	Section 6 Section 9

Project Planning Approval		
(d)	procedures to facilitate the coordination of out-of-hours work including those approved by an EPL or undertaken by a third party, to ensure appropriate respite is provided; and	Section 10
(e)	notification arrangements for affected receivers for all approved out-of-hours works and notification to the Planning Secretary of approved low risk out-of-hours works.	Section 9
This condition does not apply if the requirements of Condition D37(b) of this schedule are met.		

### 3. DOCUMENT CONSULTATION AND APPROVAL

#### 3.1 DOCUMENT CONSULTATION

The CoA D38 requires the following consultation for this Protocol:

- Be prepared in consultation with the NSW Environment Protection Authority (EPA)
- Be prepared in consultation with the Acoustic Advisor (AA) and Environmental Representative (ER)

Details of issues raised by a government agency during consultation are included as **Appendix B**, including copies of all correspondence from those agencies, as required under CoA A6.

Ongoing consultation with stakeholders may be undertaken as required during project delivery.

#### 3.2 DOCUMENT APPROVAL

In accordance with CoA D38 this Monitoring Protocol will be submitted to the Planning Secretary for approval, following the consultation with the AA, ER and EPA as described above.

### 4. ROLES AND RESPONSIBILITIES

#### 4.1 ACOUSTICS ADVISOR

CoA A36 requires an AA to be appointed to the project. The AA is to act as an independent point of contact for all noise and vibration matters under the planning approval. Pertinent to this OOHW Protocol the AA is to:

- review all proposed night-time works (with the exception of low risk activities) to determine if sleep disturbance would occur and recommend measures to avoid sleep disturbance or appropriate additional alternative mitigation measures; and
- review all noise and vibration documents required to be prepared under the conditions of this approval and, should they be consistent with the conditions of this approval, endorse them before submission to the Planning Secretary (if required to be submitted to the Planning Secretary) or before implementation (if not required to be submitted to the Planning Secretary);
- noise and vibration related responsibilities detailed in CoA A36.

## 4.2 ENVIRONMENTAL REPRESENTATIVE

CoA A27 requires an ER to be appointed to the project. The ER is to act as an independent point of contact for all environmental and planning approval compliance matters. Refer to CoA A30 for a comprehensive list of the ER's responsibilities.

## 4.3 PLACE MANAGER (COMMUNITY)

An AFJV Place Manager has been allocated to the Project. The Place Manager is responsible for ensuring that all project communication requirements with the surrounding community are implemented, including community notifications required for this Protocol.

## 4.4 AFJV ENVIRONMENT MANAGER

The AFJV Environment Manager is responsible for ensuring environmental risks of the Project are identified and appropriate mitigation measures implemented. The Environment Manager is also responsible for ensuring environmental compliance with statutory, approval and proponent requirements.

## 4.5 SYDNEY METRO ENVIRONMENTAL MANAGER

The Sydney Metro Environmental Manager is responsible for ensuring that all environmental management requirements associated with this Project are being complied.

---

# 5. MANAGEMENT DOCUMENTS

## 5.1 SYDNEY METRO CONSTRUCTION NOISE AND VIBRATION STANDARD

Sydney Metro has developed a Construction Noise and Vibration Standard (CNVS) to:

- Establish a framework for managing construction noise and vibration impacts and adopting appropriate mitigation measures (including minimum requirements);
- Form part of the Project's Environmental Impact Statement;
- Form part of the contract requirements that Sydney Metro's Principal Contractors must comply with; and
- Set minimum requirements around all works undertaken outside approved hours, including the need for and development of the Detailed Noise and Vibration Impact Statements (DNVIS).

This Protocol has been prepared in accordance with the CNVS.

## 5.2 CONSTRUCTION NOISE AND VIBRATION MANAGEMENT PLAN

In accordance with CoA C5 AFJV has prepared a CNVMP, which forms part of the CEMP sub-plans. The CNVMP is currently in draft and is pending approval by the Planning Secretary. This Protocol will become an Appendix to the CNVMP once that document is approved.

The function of the CNVMP is to provide a strategic overview of how the requirements of the CNVS will be applied to activities or locations for the Project, as well as meeting relevant requirements under the CoA and Environmental Impact Statement (EIS).

The CNVMP also contains the Noise & Vibration Monitoring Program (NVMP) which outlines when monitoring of noise and vibration impacts are to be carried out. It also identifies the guidelines to be applied to undertake the monitoring.

### 5.3 DETAILED NOISE AND VIBRATION IMPACT STATEMENTS

While quantitative noise assessments are documented in the EIS, a more refined assessment is required to be undertaken within DNVIS's prepared under CoA D43. A DNVIS is intended to be a more accurate assessment of potential noise and vibration impacts with more detailed information of the equipment and construction methodology to be used.

CoA D43 requires DNVIS to be prepared prior to any works exceeding:

- must be prepared for any work that may exceed the NMLs, vibration criteria and / or ground-borne noise levels specified in Conditions D39 and D40 at any residence outside construction hours, or
- where receivers will be highly noise affected (at any time).

A DNVIS will be prepared for each construction site and for the tunnelling activity along the project alignment. The DNVIS will be written to:

- assess and document the anticipated noise impacts at noise sensitive receivers of proposed construction activities, prior to the commencement of those activities.
- remove assumptions made in the EIS including the Noise and Vibration Technical Paper.
- be written with a focus on specific activities or locations and considers works carried out inside and outside of standard working hours.
- include mitigation measures identified through consultation with affected sensitive land user(s).

The AA is required to review and endorse the DNVIS (as per AA role described at CoA A36(e)) and a copy of the DNVIS must be provided to the AA and ER before the commencement of the associated works and the Planning Secretary and the EPA may request a copy(ies) of the DNVIS.

---

## 6. OOHW ASSESSMENT-

### 6.1 OOH DEFINITION

OOHW are any works that are undertaken outside of the approved hours defined in the Project CoA D35 and Condition L5.1 of the EPL, being:

- 7:00am to 6:00pm Mondays to Fridays, inclusive;
- 8:00am to 6:00pm Saturdays; and
- at no time on Sundays or public holidays.

### 6.2 COVID-19 PANDEMIC

COVID – 19 Health Orders issued by the Minister for Planning provide for OOHW in certain circumstances without any further approval whilst in force up to 31 March 2022 or a later date if extended. The orders provide for OOHW necessary to protect the health, safety and welfare of the members of the public during the Covid – 19 pandemic as it will facilitate social distancing by spreading infrastructure construction work over more days a week in accordance with the above Order.

The Order permits infrastructure construction to carry out building work or work, or the demolition of a building or work, on a Saturday, Sunday or public holidays.

The project must:

- “a) be the subject of a State Significant Infrastructure approval*
- b) comply with all conditions of the approval other than any condition that restricts the hours*

*of work or operation on a Saturday, Sunday or public holiday, and*

*c) for work or operation on a Saturday, Sunday or public holiday –*

*(i) comply with the conditions of the approval that restrict the hours of work or operation on any other day as if the conditions applied to work or operation on a Saturday, Sunday or public holiday, and*

*(ii) not involve the carrying out of rock breaking, rock hammering, sheet piling, pile driving or similar activities during the hours of work or operation that would not be permitted but for this Order, and*

*(iii) take all feasible and reasonable measures to minimise noise.”*

## 6.3 WORKS NOT SUBJECT TO AN EPL

### 6.3.1 ALLOWABLE OOHW

CoA D37 recognises there are times where works outside the construction hours described above may be undertaken under specific circumstances. These include:

- In the case of safety and other emergencies
- Low impact activities for which noise and vibration levels do not exceed a set criteria
- In accordance with an EPL or by negotiated agreements
- By prescribed activity

These activities are not required to be approved as they have inherent permission to be undertaken in accordance with this condition.

CoA D37 also allows works outside the approved construction hours where they are approved under this Protocol.

### 6.3.2 OOHW JUSTIFICATION

Construction work associated with the Project will be undertaken in accordance with the assessment and management approach outlined in the Interim Construction Noise Guidelines (ICNG). The ICNG requires that work proposed outside of approved construction hours must be appropriately justified. In general, OOHW undertaken during public infrastructure projects, necessary to sustain the operational integrity of roads, is considered justified in the ICNG.

### 6.3.3 OOHW PERMIT

Due to greater community sensitivity to noise and vibration impacts from works undertaken outside approved hours, an OOHW Permit application process is adopted by the requiring an OOHW Permit to be prepared, noise assessments completed, and reviewed, prior to the commencement of any OOHW. Only after final approval may the OOHW Permit be issued for the works activity to commence.

As per CoA D38(a) approval of OOHW is dependent upon the OOHW Classification. The process of OOHW Classification is outlined in Section 8 of this document.

To facilitate this process, an OOHW Permit will be utilised for all OOHW applications (i.e. for works both within and outside the EPL) to ensure due diligence is undertaken by requiring the applicant to:

- Provide justification for the works to be undertaken outside of approved hours;
- Adequately assess the noise & vibration impacts at nearest receivers;
- Demonstrate mitigation measures being implemented;
- Provide an agreed OOHW Classification; and
- Obtain relevant approval and review confirmation as required.

- The OOHW Permit requires a work activity specific noise and vibration assessment to be undertaken and reviewed prior to approval of any planned OOHW works.

#### 6.3.4 OOHW PERMIT PROCESS

For any planned OOHW, the process as described below will be undertaken:

1. An OOHW Permit will be prepared that summarises the activities, equipment required, location, duration, includes detailed justification for works supported by reasonable and feasible mitigation measures.
2. The OOHW Permit will be submitted to the Environment Team to undertake the noise & vibration assessment to produce the activity specific DNVIS. The AFJV Environment Manager will consider:
  - a. the justification for the OOHW works is satisfactory;
  - b. the noise & vibration assessment is adequate and if relevant, addresses cumulative impacts;
  - c. mitigation measures are reasonable and feasible; and
  - d. will allocate the appropriate risk category.
3. Dependent on the circumstances and impact classification the OOHW Permit will be either:
  - a. in accordance with D37 including:
    - i. safety & emergencies (D37(a));
    - ii. low impact circumstances (D37(b));
    - iii. by negotiated agreement (D37(c)(iii));
    - iv. prescribed activity including work within an acoustic shed where noise levels do not exceed low impact circumstances identified in CoA D37(b) (D37(d)(v));
  - or
  - b. provided to the AA for consultation and subsequently to the ER for approval under the category of “Low risk”;
  - or
  - c. provided to the AA for review and the ER for review & endorsement prior to being lodged with DPIE for approval under the category of “High risk”.
4. Community consultation and notification will be undertaken in accordance with the Project Communication Strategy (refer to Section 9).
5. Mitigation measures and monitoring as identified in the OOHW Permit will be undertaken during the works.

#### 6.3.5 EMERGENCY WORKS

Occasionally there may be a need to undertake emergency works outside of standard working hours, including:

- for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or
- where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm.

On becoming aware of the need for emergency work in accordance with CoA D37(a)(ii) AFJV will notify Sydney Metro, the AA, the ER, and Sydney Metro will notify the Planning Secretary and the EPA (if required) providing the reasons for such work.

Best endeavours will be made to notify as soon as practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work, with as much details as possible regarding:

- Scope
- Location
- Hours
- Duration
- Types of equipment to be used
- Likely impacts.

On the following workday of completion of any emergency works being undertaken, a summary will be provided to Sydney Metro, the AA and ER, including:

- Date, time, duration and cause of the emergency
- Description of emergency works undertaken
- Mitigation measures implemented to address the impacts of the emergency works
- Actions/Measures taken or to be taken to prevent or mitigate recurrence of the emergency

#### 6.4 OOHW ASSESSMENT- SUBJECT TO EPL

##### 6.4.6 EXEMPTIONS FOR LOW NOISE IMPACT WORKS

Works and activities may be carried on outside of the hours specified in Section 6.1 if the works and activities do not cause, when measured at the boundary of the most affected noise sensitive receiver:

- a) LAeq(15 minute) noise levels greater than 5dB above the day, evening and night rating background level (RBL) at any residence in accordance with the ICNG; and
- b) no more than the "Noise affected" NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and
- c) LA1(1 minute) or LAmax noise levels greater than 15dB above the night RBL for night works;
- d) the preferred continuous or impulsive vibration values greater than those for human exposure to vibration, set out for residences in Table 2.2 in Assessing Vibration: a technical guideline (DEC, 2006); and
- e) the preferred intermittent vibration values greater than those for human exposure to vibration, set out for Residences in Table 2.4 in Assessing Vibration: a technical guideline (DEC, 2006).

##### 6.4.7 EXEMPTIONS HOURS IN EXCEPTIONAL CIRCUMSTANCES

AFJV may undertake works and activities outside of standard construction hours for:

- i. emergency works required to avoid injury to persons, the loss of life or property, or to prevent material harm to the environment; and
- ii. the delivery of oversized plant, structures or materials determined by the police or other authorised authorities to require special arrangements to transport along public roads.

On becoming aware of the need to undertake emergency works AFJV must notify the EPA's Environment Line as soon as practicable and submit a report to the EPA by 2:00 pm on the next business day after the emergency works commenced that describes:

- i. the cause, time and duration of the emergency;
- ii. action taken by or on behalf of the licensee in relation to the emergency; and

details of any measures taken or proposed to be taken by the licensee to prevent or mitigate against a recurrence of the emergency.

#### 6.4.8 EXEMPTION BY ACTIVITY TYPE

Under Condition L5.6 of the EPL, the following works are permitted to be undertaken 24 hours a day, 7 days per week:

- a) Tunnelling activities (excluding cut and cover tunnelling and surface works); and
- b) Haulage of spoil, and delivery of material that is required to be delivered outside of standard construction hours to directly support tunnelling activities, except between the hours of 10:00pm and 7:00am to and from the Five Dock construction site; and
- c) Haulage of spoil, and delivery of material that is required to be delivered outside of standard construction hours to directly support tunnelling activities, except between the hours 10:00pm and 7:00am to and from the Burwood North construction site using any roads or streets other than directly from Parramatta Road; and
- d) work within an acoustic shed where there is no exceedance of noise levels under Low impact circumstances identified in condition L5.3,

Note: Tunnelling does not include station box excavation

#### 6.4.9 OOHW JUSTIFICATION

Under condition L5.7 of the EPL, works and activities may be undertaken outside of standard construction hours until 30 April 2022, and if they are required in relation to one or more of the following:

- a) carrying on those works and activities during standard construction hours would result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009 "Risk Management";
- b) the relevant road network operator has advised the licensee in writing that carrying out the works and activities during standard construction hours would result in a high risk to road network operational performance;
- c) a relevant utility service operator has advised the licensee in writing that carrying out the works and activities during standard construction hours would result in a high risk to the operation and integrity of the utility network;
- d) the TfNSW Transport Management Centre (or other road authority) have refused to issue a road occupancy licence during standard construction hours; or
- e) Sydney Trains (or other rail authority) requires a rail possession for the activities to be performed outside of standard construction hours.

#### 6.5 OOHW PERMIT

In undertaking any out-of-hours works or activities subject to the EPL and justifiable under the requirements set out in Section 6.4.9 AFJV must complete an OOHW permit that complies with the following:

- a) Prepare a construction noise and vibration impact assessment in accordance with the Interim Construction Noise Guideline (DEC, 2009)

- b) Undertake noise monitoring in accordance with the monitoring outlined in the construction noise assessment
- c) Only undertake activities between the hours of 6:00pm on Mondays, Tuesdays, Wednesdays, Thursdays, Fridays and 7:00am the following day (unless permitted by another condition of this licence).
- d) *Activities are not to be undertaken between the hours of 6:00pm on Saturdays, Sundays or Public Holidays and 7:00am the following day (unless permitted by another condition of this licence).***
- e) Ensure that out-of-hours works do not result in noise levels exceeding those specified in Section 6.4.6 at the same noise sensitive receivers (unless specified in another condition of this licence) on more than:
  - i. 2 consecutive evenings and/or nights at any time; and
  - ii. 3 evenings and/or nights per week; and
  - iii. 10 evenings and/or nights per month.
- f) Undertake any high noise impact works before 12:00 am (midnight) where reasonable and feasible.
- g) Where high noise impact activities are undertaken, 3 hours on 1 hour off respite is not required provided that all high noise impact activities are undertaken prior to 12:00 am (midnight).
- h) Where high noise impact activities are undertaken after 12:00 am (midnight), AFJV is required to submit a written report to the EPA within 2 business days of the activity outlining the justification for continuing high noise impact works after midnight and the reasonable and feasible noise mitigation measures that were implemented to address these night time impacts.
- i) Upon request of an authorised officer, the licensee must provide within 5 business days:
  - i. the construction noise and vibration impact assessment required for OOHW completed under the requirements of Section 6.4.9
  - ii. noise monitoring results
  - iii. written evidence demonstrating the works are necessary and permitted under the EPL requirements;
  - iv. any other relevant information or records requested by the EPA.

## 6.6 OOHW PERMIT PROCESS

For any planned OOHW that is subject to the conditions of the EPL, the process as described below will be undertaken:

1. An OOHW Permit will be prepared that summarises the activities, equipment required, location, duration, includes detailed justification for works supported by reasonable and feasible mitigation measures.
2. The OOHW Permit will be submitted to the Environment Team to undertake the noise & vibration assessment to produce the activity specific DNVIS. The AFJV Environment Manager will consider:
  - a. the justification for the OOHW works is satisfactory;
  - b. the noise & vibration assessment is adequate and if relevant, addresses cumulative impacts;
  - c. mitigation measures are reasonable and feasible
3. Dependent on the circumstances the OOHW Permit will be in accordance with the EPL under one or more of the following circumstances:
  - a. safety & emergencies (L5.4);
  - b. low impact circumstances (L5.3);
  - c. activity including work within an acoustic shed where noise levels do not exceed low impact circumstances (L5.6)

- d. High risk work assessed as so under either-
    - i. A Risk assessment, (L5.7a)
    - ii. By a road authority, (L5.7b)
    - iii. By a utility service operator, (L5.7c)
  - e. Works subject to an OOH ROL from a relevant road authority (L5.7d)
  - f. Works that can only be undertaken during a rail possession (L5.7e)
4. Community consultation and notification will be undertaken in accordance with the Project Communication Strategy (refer to Section 9).
  5. Mitigation measures and monitoring as identified in the OOHW Permit will be undertaken during the works.

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## 7. OOHW NOISE AND VIBRATION ASSESSMENT

### 7.1 ASSESSMENT CRITERIA

The guidelines for establishing project-specific noise and vibration criteria to guide the application of mitigation measures include the following:

- Airborne and ground-borne noise - the Interim Construction Noise Guideline (DECC, 2009). The Interim Construction Noise Guideline identifies ‘particularly annoying’ activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction Noise Management Level (NML).
- Vibration (human comfort) - Assessing vibration: a technical guideline (DEC, 2006)
- Building damage - BS 7385 Part 2-1993 “Evaluation and measurement for vibration in buildings Part 2” as they are “applicable to Australian conditions”
- Heritage items - German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures (for structural damage) (applicable when a heritage-listed structure is identified in poor condition)
- Sleep disturbance - NSW Noise Policy for Industry, Environment Protection Authority 2017

These guidelines will be utilised to identify noise and vibration criteria which will be documented for each specific activity within the Out of Hours Permit, based upon the location, plant and equipment required, and timing of the proposed activity.

### 7.2 ASSESSMENT METHOD

For each OOHW activity a detailed assessment will be undertaken to determine the noise and vibration impacts of the proposed OOHW. These assessments will use an appropriately detailed noise prediction tool developed by the project acoustic consultant Hutchison Weller. KNOWnoise is a web-based noise prediction tool designed for use by the project team to complete its own assessment. This provides opportunity to proactively plan OOHW works and make adjustments as necessary.

KNOWnoise is based on the same 3D noise modelling done in Soundplan noise prediction software, as that done for the DNVIS, and is therefore considered an extension or replication of the modelling processes used for the DNVIS. KNOWnoise includes all terrain, buildings, noise walls as well as air and ground absorption for accurate results.

Each assessment of proposed OOHW will incorporate quantitative prediction of the noise level and extent of noise impact that activities will have on potentially affected sensitive receivers,

based on inputs including location, and the types and number of construction machinery operating at any one time.

Vibration will be automatically assessed within KNOWnoise based initially on standard safe working distances of selected vibration-intensive equipment, and subsequent site laws updated into KNOWnoise following initial vibration monitoring (as described in the Noise and Vibration Monitoring Program). Advice will be provided on whether the human comfort, cosmetic damage or heritage criteria may be exceeded, with appropriate mitigation measures recommended.

### 7.3 REPORTING

A report for each assessment is automatically generated and must be attached to the OOHW permit application and includes:

- details of the nature and scope of each activity, including planned times, duration and location(s) of works,
- plant and equipment to be used with estimated equipment sound power levels (including 5 dB penalty where applicable for annoying characteristics)
- justification of the need to work outside approved hours
- relevant noise management levels and vibration criteria
- an evaluation of predicted noise levels with a summary of the number of exceedances and predicted maximum noise levels
- assessment of sleep disturbance and where sleep disturbance criteria at a residential location exceed criteria, provide details of likelihood of occurrence and appropriate additional or alternative mitigation measures
- assessment of vibration (whether works are likely to be within safe working distances for selected plant)
- recommended standard and additional mitigation measures. Additional mitigation measures will be recommended based on the CNVS and predicted levels of exceedance at each identified sensitive receiver.

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## 8. OOHW CLASSIFICATION AND APPROVAL

OOHW Classification is a two-step process, being:

**Step 1:** Prediction of noise and vibration Impact Rating as shown in Table 8-1

**Step 2:** Determination of OOHW Classification based on OOHW periods as shown in Table 8-2

Within the OOHW Permit, the proposed works will have an OOHW Classification of one of the following categories:

1. Low impact: as defined under CoA D37(b)
2. Low risk: can be approved by the ER in consultation with the AA, and
3. High risk: activities are approved by the Planning Secretary.

TABLE 8-1: OOHV IMPACT RATING

Impact Rating	Airborne noise		Vibration (intermittent)
	(L <sub>Aeq</sub> 15 min) Exceedance of NML	(L <sub>AMax</sub> ) Sleep disturbance likelihood	Exceedance of Night VDV Criteria
NML Compliant	A	-	-
Audible	B	0-10	Exceeds RBL + 15 dBA
Minor Impact	C	10-20	>Preferred <sup>1</sup>
Moderate Impact	D	20-30	
High Impact	E	30+	Exceeds 65 dBA

<sup>1</sup> Refer to Table 2.4 of 'Assessing Vibration – A Technical Guideline'

TABLE 8-2: OOHW CLASSIFICATION

Variation to Work Hours (D37)	Low Risk (D38)	High risk (D38)
Review AA & ER	Consultation AA & Approval ER	DPIE Approval
<ol style="list-style-type: none"> <li>1. Works assessed to meet <b>Classification A</b></li> <li>2. <b>Low impact</b> works as per CoA D37(b), including: Low impact works as per CoA D37, including:               <ol style="list-style-type: none"> <li>(i) construction that causes LAeq(15 minute) noise levels:                   <ul style="list-style-type: none"> <li>▪ no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and</li> <li>▪ no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and</li> </ul> </li> <li>(ii) construction that causes LAFmax(15 minute) noise levels no more than 15 dB(A) above the rating background level at any residence; or</li> <li>(iii) construction that causes:                   <ul style="list-style-type: none"> <li>▪ continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or</li> <li>▪ intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006).</li> </ul> </li> </ol> </li> <li>3. <b>Negotiated agreements</b> with directly affected residents and sensitive land users(s) (CoA 37 (c)(iii)).</li> <li>4. Work within an <b>acoustic shed</b> where there is no exceedance of noise levels under <b>Low Impact</b> circumstances identified in (2) above</li> </ol>	<p>OOHW works represent low risk to the community under the following conditions and can approved by the ER following consultation with the AA</p> <ol style="list-style-type: none"> <li>1. Works assessed to meet impact <b>Classification B</b></li> <li>2. Works assessed to meet impact <b>Classification C</b> with the following restrictions:               <ol style="list-style-type: none"> <li>a. 3 consecutive evenings or nights in a calendar week</li> <li>b. No more than 4 evenings or nights in total per calendar week</li> <li>c. Works under this condition would expend the equivalent number of nights allowed under condition 1.</li> </ol> </li> <li>3. Works assessed to meet noise impact <b>Classification D</b> or <b>Classification E</b> with the following restrictions:               <ol style="list-style-type: none"> <li>a. 2 consecutive nights in a calendar week</li> <li>b. No more than 3 nights in total per calendar week</li> <li>c. No more than 12 evenings or nights in total within a period of 4 consecutive weeks</li> <li>d. Works under this condition would expend the equivalent number of nights allowed under condition 1 or 2.</li> </ol> </li> <li>4. No works on a public holiday. <i>Note: Classification D and E requires clear reasonable and feasible justification and appropriate mitigation measures</i></li> </ol>	<p>OOHW with higher levels of impact over prolonged durations represent a high risk of adverse impact on the community and require DPIE approval.</p>

The AA and ER will then review this OOHW Classification for works not being done as 'low impact' activities to consider all other relevant factors, including:

- Those identified in Section 6.4 of the CNVS
- Those listed in Table 8-3 of this document;
- Third Party permits; and
- Any other factors considered relevant in their professional opinion.

TABLE 8-3: CLASSIFICATION CONSIDERATIONS

Type	Consideration
Predicted Noise Exceedance	The degree of predicted noise level exceedance above the RBL or NML as appropriate
Certainty	Whether RBLs, NMLs or predicted noise impacts are not well understood
Past Experience	Nature of works are new, in a new location or have not been undertaken by the contractor on the project already
Negotiated Agreement	Whether negotiated agreements have been obtained in accordance with CoA D38 (c)(iii)
Potential Sleep Disturbance	Whether the activity is likely to exceed the Project's sleep disturbance criteria
Non-Residential Receivers	Whether the impacted non-residential receivers operate within the same time period as scheduled OOHW.
Special Events	The timing and location of special events in the area of the proposed OOHW maybe schedules at the same time or immediately before or after the special event (e.g. festivals, public gatherings etc.)

Following their consideration, the AA & ER will confirm the final Classification level on the OOHW Permit (including any risk identification commentary) and they will sign and date the Permit as per the roles described in Table 8-4.

TABLE 8-4: REVIEW AND APPROVAL ROLES PER OOHW CLASSIFICATION

Classification	AA	ER	DPIE
Low impact	Review	Review	N/A
Low risk	Consultation	Approval	N/A
High risk	Review	Endorse	Approval

Following approval, the OOHW Permit will be provided to the construction team by the AFJV Environment Manager and the Planning Secretary will be informed by Sydney Metro of all upcoming low risk out-of-hours works in an agreed format. This will likely take the format of a weekly submission or presentation of a four week look-ahead of works, however the final process for provision of this information will be determined by Sydney Metro in consultation with DPIE.

## 9. MITIGATION AND CONSULTATION

### 9.1 MITIGATION MEASURES

Works outside approved hours are typically undertaken at a time most people are more sensitive to noise and vibration and background levels of noise are quieter. This increases the level of risk for adverse impacts on the community.

The mitigation measures implemented would take into account the predicted noise levels and the likely frequency and duration of the out-of-hours works that sensitive land user(s) would be exposed to, including the number of noise awakening events.

AFJV will implement all reasonable and feasible measures for noise mitigation and management regardless of predicted noise levels. These actions include as a minimum:

- management of behaviour such as avoiding shouting and swearing, turning off idling equipment when not in use, avoiding impulsive noise (metal on metal contact),
- selection of quieter equipment such as smaller, lower powered, newer, or better maintained.
- examining alternative technologies and methods to complete activities more quietly
- programming to avoid noisy activities after midnight as far as practicable (such as hammering, sawing etc)
- use of screens and enclosures to reduce noise emissions from equipment.
- adequate consultation and notification (as described below)
- noise and vibration monitoring identified in the OOHW Permit.

In addition to the above standard mitigation measures, the additional mitigation measures described in the CNVS (Section 5) will be implemented as reasonable and feasible. The Additional Mitigation Measures matrix is shown in **Error! Reference source not found., Error! Reference source not found.,** and **Error! Reference source not found..**

There may be personal circumstances among the sensitive receivers where the approach to specific additional mitigation measures is not best suited. The Stakeholder and Community Engagement Manager has the authority to amend the below approach taking into account personal circumstances that may apply.

TABLE 9-1: ADDITIONAL MITIGATION MEASURES MATRIX – AIRBORNE NOISE

Construction hours	dB above NML	Additional management measures
<b>Approved hours</b> Monday – Friday: 7am – 6pm Saturday: 8am to 6pm	0 to 10	-
	10 to 20	LB
	20 to 30	LB, M, SN
	>30	LB, M, SN
<b>Evening</b> Monday – Friday: 6pm – 10pm Saturday: 7am – 8am, 6pm – 10pm Sunday / PH: 8am – 6pm	0 to 10	LB
	10 to 20	LB, M
	20 to 30	LB, M, SN, RO
	> 30	LB, M, SN, IB, PC, RO
<b>Night</b> Monday – Saturday: 10pm – 7am Saturday: 10pm – 8am) Sunday / PH: 6pm – 7am	0 to 10	LB
	10 to 20	LB, M, SN, RO
	20 to 30	LB, M, SN, IB, PC, RO, AA
	> 30	LB, M, SN, IB, PC, RO, AA
Notes:	PC = Phone calls M = Monitoring IB = Individual briefings AA = Alternative accommodation	SN = Specific notification LB = Letterbox drops DR = Duration reduction RO = Project specific respite offer

TABLE 9-2: ADDITIONAL MITIGATION MEASURES – GROUND BORNE CONSTRUCTION NOISE (TABLE 17 CNVS)

Construction hours	Mitigation measures		
	Predicted LAeq (15minute) noise level Above NML		
	0-10dB	10-20dB	>20dB
<b>Approved hours</b> Monday – Friday: 7am – 6pm Saturday: 8am to 6pm	No NML for GBN during standard hours		
<b>Evening</b> Monday – Friday: 6pm – 10pm Saturday: 7am – 8am, 6pm – 10pm Sunday / PH: 8am – 6pm	LB	LB, M, SN	LB, M, SN, IB, PC, RO
<b>Night</b> Monday – Saturday: 10pm – 7am Saturday: 10pm – 8am) Sunday / PH: 6pm – 7am	LB, M, SN	LB, M, SN, IB, PC, RO, AA	LB, M, SN, IB, PC, RO, AA
Notes: PC = Phone calls M = Monitoring IB = Individual briefings AA = Alternative accommodation	SN = Specific notification LB = Letterbox drops DR = Duration reduction RO = Project specific respite offer		

TABLE 9-3: ADDITIONAL MITIGATION MEASURES – GROUND BORNE VIBRATION

Construction hours	Mitigation measures	
	predicted vibration levels exceed maximum levels	
<b>Approved hours</b> Monday – Friday: 7am – 6pm Saturday: 8am to 6pm	LB, M, RO	
<b>Evening</b> Monday – Friday: 6pm – 10pm Saturday: 7am – 8am, 6pm – 10pm Sunday / PH: 8am – 6pm	LB, M, IB, PC, RO, SN	
<b>Night</b> Monday – Saturday: 10pm – 7am Saturday: 10pm – 8am) Sunday / PH: 6pm – 7am	LB, M, IB, PC, RO, SN, AA	
Notes:	PC = Phone calls M = Monitoring IB = Individual briefings AA = Alternative accommodation	SN = Specific notification LB = Letterbox drops DR = Duration reduction RO = Project specific respite offer

Mitigation measures that relate to the OOHW will be:

- Implemented prior to OOHW (such as specific conditions that relate to the community).
- Communicated to relevant workforce and site personnel before each shift to introduce/reinforce work restrictions, management measures and expected workforce behaviour.
- Implemented during OOHW and monitored by the Environment Team to confirm effectiveness against the predicted noise levels and validate the noise predictions where required by the permit.

## 9.2 CONSULTATION

Consultation on respite with the affected community will be undertaken to meet the requirements of CoA D51, as described in Section 10.

In line with CoA D41, noise generating work in the vicinity of potentially affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) resulting in noise levels above the NMLs must not be timetabled within sensitive periods, unless other reasonable arrangements with the affected institutions are made at no cost to the affected institution. Sensitive periods and potential alternative arrangements will be determined by the consultation process described on the Overarching Community Consultation Strategy.

## 9.3 COMMUNITY NOTIFICATION

Community notifications can be used as a mitigation measure for receivers of noise and vibration impacts as a result of OOHW.

Community notifications usually comprise of letterbox-dropped or hand-distributed notification letters to identified stakeholders prior to the commencement of works. Communities are more likely to understand and accept the impacts from noise and vibration if they are provided with honest detailed information and commitments on mitigation measures to be implemented that are adhered to by the project prior to the works commencing.

Community notification requirements are included in the CNVS and outlined in the Community Communications Strategy. Specific notifications of OOHW events will be issued to potentially affected sensitive receivers at least seven days, and not more than 14 working days, prior to the OOHW commencing.

OOHW notifications will be prepared generally in accordance with the CNVS and will:

- Be undertaken by letterbox drop or email
- Clearly outline the reason that the work is required to be undertaken outside standard construction hours specified
- Include a diagram that clearly identifies the location of the proposed works in relation to nearby cross streets and local landmarks
- Include details of relevant time restrictions that apply to the proposed works
- Clearly outline in plain English, the location, nature, type of work, scope and days and dates and hours of the proposed works
- Detail the expected noise impact of the works on potentially affected noise sensitive receivers
- Detail mitigation and management measures and proposed respite periods
- Clearly state how complaints may be made and additional information obtained
- Include the number of the 24-hour telephone complaints line, site contact (where available) and the Project website address.

In accordance with CoA D45, landowners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage will also be notified prior to OOHW that generate vibration commencing near those properties.

If the potential exceedance is to occur more than once, or extend over a period of 24 hours, landowners and occupiers would be provided a schedule of potential exceedances on a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the landowner and occupier.

#### 9.4 NEGOTIATED AGREEMENTS

A negotiated agreement for particular OOHW may be formed with directly affected sensitive receivers in accordance CoA D37(c)(iii). These negotiated agreements would be undertaken and documented by the AFJV Place Manager and will be included as evidence for relevant OOHW applications.

In order to be considered 'accepted', the negotiated agreement needs to be confirmed acceptable by the 'substantial majority' (taken as being a minimum of 65%) of all respondents. Responses can be either verbal or written from the potentially affected receivers, and within a two-week timeframe of the provided notification of the negotiated agreement offer. The Land Use Survey, noise and vibration assessment for OOHW (either as part of or in addition to the DNVIS) and the Place Manager will advise of potentially affected sensitive receivers to be contacted with regards to each/any negotiated agreement offer.

Upon approval of any OOHW applications containing negotiated agreements, Sydney Metro will forward the negotiated agreement documentation to the Secretary for information at least one week prior to the OOHW commencing.

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## 10. SCHEDULING AND RESPITE

### 10.1 RESPITE

Providing respite is an important component of reducing impacts to potentially affected receivers. OOHW, including work undertaken by other projects, must be coordinated to ensure respite periods are not impacted (discussed further in Section 10.2) through effective scheduling.

Consultation will be critical in ensuring the community's expectations are managed, their concerns are heard, appropriate respite and other mitigation is implemented and works outside of approved hours are not unexpected. As per CoA D51, appropriate respite periods for the OOHW will be identified in consultation with the community at each affected location on a regular basis. This consultation will include providing the community with OOHW project updates and project newsletters that are distributed to potentially affected receivers and also be viewed on the project webpage and include:

- a) a progressive schedule for periods no less than three months, of likely out-of-hours work;
- b) a description of the potential work, location and duration of the out-of-hours work;
- c) the noise characteristics and likely noise levels of the work; and
- d) likely mitigation and management measures which aim to achieve the relevant NMLs under CoA D39 (including the circumstances of when respite or relocation offers will be available and details about how the affected community can access these offers).

The outcomes of the community consultation, the identified respite periods and the scheduling of the likely out-of-hour work will be provided to Sydney Metro, the AA, and the Planning Secretary.

Respite periods can be any combination of days or hours during which receivers are not impacted by works resulting in noise levels greater than 5 dB(A) above the RBL at any residence. There are three main forms of respite to be considered for the Project, described further below.

### 10.1.1 HIGH NOISE OR VIBRATION EMITTING WORKS

Equipment that can generate high noise impacts include jackhammering, rock breaking or hammering, pile driving, concrete cutting, vibratory rolling and impact piling occurring on the surface and generating noise with impulsive, intermittent, tonal or low frequency characteristics will generate high noise impacts. Where reasonable and feasible, these pieces of equipment will be used:

- Between 8am-6pm, Monday to Friday;
- Between 8am-1pm Saturdays; and
- In continuance blocks of no more than 3 hours with at least a one hour respite between each block of work generating high noise impact, where the location of the work is likely to impact the same receivers;

Where the use of such equipment is proposed as part of OOHW:

- The equipment will be used prior to 10pm where reasonable and feasible;
- Where the above cannot be achieved the equipment will be used prior to midnight where reasonable and feasible; and
- It is not proposed to apply a 3 hour on and a 1 hour off respite approach in an effort to ensure that the use of such equipment is completed as early in the night as possible.

### 10.1.2 COA PROJECT SPECIFIC RESPITE OFFERS

The CNVS (Section 5) requires project specific respite offers are to be made for all OOHW that are predicted to generate impacts that exceed the criteria (refer to CNVS Section 5.1) for the applicable OOHW period. The purpose of a project specific respite offer is to provide residents subjected to lengthy periods of noise or vibration a respite from an ongoing impact. Respite may be offered in the form of a reduction or absence of noise emissions for a period of time, or by removing the affected receiver from the noise emission point source (e.g. dinner/movie tickets).

If a project specific respite offer is required, a decision on the type of offer will be determined on a case- by-case basis and considering, but not limited to, the following factors:

- the predicted maximum exceedance level
- the predicted exceedance levels and associated duration and timings of those exceedance levels
- the overall duration of the predicted exceedance levels
- surrounding land uses
- community feedback
- any other OOHW (Sydney Metro or otherwise) that have affected or will affect the same receivers concurrently or within three days of either the start or end of the proposed OOHW.

### 10.1.3 ALTERNATIVE ACCOMMODATION

As described in the CNVS (Section 5), alternative accommodation options may be provided for residents living in close proximity to construction works that are likely to incur unreasonably high impacts over an extended period of time. Specific triggers for alternative accommodation are provided in CNVS (Section 5.1). Generally, AA is triggered as a potential mitigation measure when:

- Noise levels exceed the NML by over 20dB during the OOHW night time period
- Ground borne noise exceeds the NML by 10dB during the OOHW night time period
- Predicted vibration exceeds the maximum levels during the OOHW night time period

As per the project specific respite offers, alternative accommodation will be determined on a case-by-case basis, in consideration of the same contributing factors as listed in Section 10.1.2. Alternative accommodation will be offered by the Place Manager in consultation with each triggered receiver, to understand and align with their respite preferences.

The consideration of alternative accommodation would also include all other approved Critical SSI, SSI and SSD projects which may cause cumulative and / or consecutive impacts at receivers affected by the delivery of Stage 1 of the CSSI.

## 10.2 SCHEDULING

As part of the noise and vibration assessment process under CoA D50, AFJV will ensure all OOHW undertaken for the delivery of the CSSI, including works undertaken by a third party, are co-ordinated to implement appropriate respite and/or mitigation measures for potentially affected sensitive receivers and ensure respite would be coordinated to ensure agreed respite is provided.

Works undertaken as part of this OOHW Protocol will be scheduled to minimise or avoid any impact to agreed respite due to:

- other works, which may have been approved via other pathways, such as negotiated agreement (CoA D37(c)(iii)).
- works associated with other major projects (e.g. M4-M5 Link Rozelle Interchange) or known third parties works which may also reduce the respite provided to the community.

AFJV currently participate in routine coordination meetings with relevant authorities, DSSI SSI and CSSI projects to coordinate activities.

Scheduling of these activities will consider in each case the reduction in respite due to other approved works. Ideally, works will be scheduled to occur within the same OOHW period to preserve non-work periods. To achieve this, consultation will be undertaken with the AFJV Environment Manager, Place Manager and AFJV engineers and where possible applicable third parties, to ensure works can be coordinated to satisfy CoA D37(d).

Scheduling will be facilitated using KNOWnoise, which captures all works within a calendar view for simple communication of upcoming activities. All relevant team members will have access to KNOWnoise to schedule specific OOHW works.

Cumulative impacts from works being undertaken at the same time are also assessed within KNOWnoise.

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## 11. MONITORING

Noise and vibration monitoring of OOHW will be conducted as determined by the relevant DNVIS or KNOWnoise assessments, or as triggered by the additional mitigation measures described in the CNVS. These monitoring requirements will be identified on the OOHW Permit, including monitoring to confirm predicted noise levels, assess effectiveness of mitigation measures and monitor compliance with the OOHW Permit. Monitoring will either be attended (used for short term monitoring, generally less than one hour) or unattended (used for longer term monitoring, generally greater than one hour) and will be undertaken in accordance with technical guidance provided by an appropriately qualified acoustician.

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## 12. REVIEW AND IMPROVEMENT

Monitoring results will be reviewed on a case by case basis and periodically to identify gaps or issues in the compliance performance under this Protocol..

Where monitored construction levels are found to be above noise or vibration management levels and predicted levels, the following actions will be undertaken:

- Assess the noise/vibration generating sources and activities to identify a potential source of the exceedance,
- Confirm the monitored levels are not being impacted by other noise or vibration sources,
- Confirm if the exceedance is due to an uncharacteristically noisy or vibration-intensive piece of equipment,
- Confirm that the modelling reflects the actual activity being undertaken,
- Implement other feasible and reasonable measures which may include reducing plant type or size, modifying time of works, changing operational settings (such as turning off the vibratory function of the machine), utilising alternative construction methodology or a combination of these,
- 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,
- Where noise cannot be reduced for this activity, re-assess the extent of impacts based on new information (e.g. revised equipment sound power level) and implement appropriate mitigation and management measures.
- Communicate lessons learnt to relevant personnel.
- AFJV will review the activity and where possible, modify the work or activity to prevent any recurrence. Lessons learnt will be communicated to relevant personnel in toolbox talks.

Monitoring results will be made available to the AA and ER at least six monthly when OOHW are active under this Protocol. This process along with consideration of complaints (number and nature) and other community feedback will inform improvement opportunities and potential updates to this Protocol.

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## 13. DOCUMENT REVISION

The ER may, following consultation with the AA, approve amendments to this Protocol once it is included as an Appendix to the CNVMP within the CEMP sub-plans, if satisfied such amendment is minor and in accordance with CoA A30(j).

Refer to Section 3.11 of the CEMP for further detail on the process of CEMP (including sub plans) revision.

## APPENDIX A PROJECT REQUIREMENTS

CoA	Requirement	Document Reference
D35	Work must only be undertaken during the following hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; (b) 8:00am to 6:00pm Saturdays; and at no time on Sundays or public holidays.	Section 6.1
D36	Except as permitted by an EPL, highly noise intensive work that results in an exceedance of the applicable NML at the same receiver must only be undertaken: (a) between the hours of 8:00 am to 6:00 pm Monday to Friday; (b) between the hours of 8:00 am to 1:00 pm Saturday; and (c) if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one (1) hour. For the purposes of this condition, 'continuously' includes any period during which there is less than one (1) hour between ceasing and recommencing any of the work.	Section 10.1.1
D37	Notwithstanding Conditions D35 and D36 of this schedule work may be undertaken outside the hours specified in the following circumstances:	
a)	<b>(a) Safety and Emergencies, including:</b> (i) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or (ii) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm.  On becoming aware of the need for emergency work in accordance with (a)(ii) above, the AA, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work.	Section 6.1
b)	<b>(b) Low impact, including:</b> (i) construction that causes LAeq(15 minute) noise levels: no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and (ii) construction that causes LAFmax(15 minute) noise levels no more than 15 dB(A) above the rating background level at any residence; or (iii) construction that causes: continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006).	Section 6.1
c)	<b>(c) By Approval, including:</b>	Section 6.1

CoA	Requirement	Document Reference
	<p>(i) where different construction hours are permitted or required under an EPL in force in respect of the CSSI; or</p> <p>(ii) works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition D38 of this schedule; or</p> <p>(iii) negotiated agreements with directly affected residents and sensitive land user(s).</p>	
d)	<p><b>(d) By Prescribed Activity, including:</b></p> <p>(i) tunnelling (excluding cut and cover tunnelling and surface works) are permitted 24 hours a day, seven days a week; or</p> <p>(ii) concrete batching at the Clyde construction site is permitted 24 hours a day, seven days a week; or</p> <p>(iii) delivery of material that is required to be delivered outside of standard construction hours in Condition D35 of this schedule to directly support tunnelling activities, except between the hours 10:00 pm and 7:00 am to / from the Five Dock and Westmead construction sites and to / from BurwoodNorth construction site using any roads / streets other than directly from Parramatta Road; or</p> <p>(iv) haulage of spoil except between the hours of 10:00 pm and 7:00 am to / from the Five Dock and Westmead construction sites and to / from BurwoodNorth construction site using any roads / streets other than directly from Parramatta Road; or</p> <p>work within an acoustic shed where there is no exceedance of noise levels under Low impact circumstances identified in (b) above.</p>	Section 6.1
D39	<p>All reasonable and feasible mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration criteria:</p> <p>(a) construction 'Noise affected' noise management levels established using the Interim Construction Noise Guideline (DECC, 2009);</p> <p>(b) vibration criteria established using the Assessing vibration: a technical guideline (DEC, 2006) (for human exposure);</p> <p>(c) Australian Standard AS 2187.2 - 2006 "Explosives - Storage and Use - Use of Explosives" (for human exposure);</p> <p>(d) BS 7385 Part 2-1993 "Evaluation and measurement for vibration in buildings Part 2" as they are "applicable to Australian conditions"; and</p> <p>(e) the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures (for structural damage for structurally unsound heritage items).</p> <p>Any work identified as exceeding the noise management levels and / or vibration criteria must be managed in accordance with the Noise and Vibration CEMP Sub-plan.</p> <p>Note: The ICNG identifies 'particularly annoying' activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction Noise Management Level.</p>	Section 9.1
D40	<p>All reasonable and feasible mitigation measures must be applied when the following residential ground-borne noise levels are exceeded:</p> <p>(a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and</p>	Section 9.1

CoA	Requirement	Document Reference
	<p>(b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A).</p> <p>The mitigation measures must be outlined in the Noise and Vibration CEMP Sub-plan, including in any Out-of-Hours Work Protocol, required by Condition D38 of this schedule.</p>	
D41	<p>Noise generating work in the vicinity of potentially-affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) resulting in noise levels above the NMLs must not be timetabled within sensitive periods, unless other reasonable arrangements with the affected institutions are made at no cost to the affected institution.</p>	Section 9.2
D43	<p>Detailed Noise and Vibration Impact Statements (DNVIS) must be prepared for any work that may exceed the NMLs, vibration criteria and / or ground-borne noise levels specified in Conditions D39 and D40 of this schedule at any residence outside construction hours identified in Condition D35 of this schedule, or where receivers will be highly noise affected. The DNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the works. A copy of the DNVIS must be provided to the AA and ER before the commencement of the associated works. The Planning Secretary and the EPA may request a copy (ies) of the DNVIS.</p>	The DNVIS
D50	<p>All work undertaken for the delivery of Stage 1 of the CSSI, including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided. The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) reschedule any work to provide respite to impacted noise sensitive receivers so that the respite is achieved in accordance with Condition D51 of this schedule; or</li> <li>(b) consider the provision of alternative respite or mitigation to impacted noise sensitive receivers; and</li> <li>(c) provide documentary evidence to the AA in support of any decision made by the Proponent in relation to respite or mitigation.</li> </ul> <p>The consideration of respite must also include all other approved Critical SSI, SSI and SSD projects which may cause cumulative and / or consecutive impacts at receivers affected by the delivery of Stage 1 of the CSSI.</p>	Section 10.2
D51	<p>In order to undertake out-of-hours work outside the work hours specified under Condition D35 of this schedule, appropriate respite periods for the out-of-hours work must be identified in consultation with the community at each affected location on a regular basis. This consultation must include (but not be limited to) providing the community with:</p> <ul style="list-style-type: none"> <li>(a) a progressive schedule for periods no less than three (3) months, of likely out-of-hours work;</li> <li>(b) a description of the potential work, location and duration of the out-of-hours work;</li> <li>(c) the noise characteristics and likely noise levels of the work; and</li> <li>(d) likely mitigation and management measures which aim to achieve the relevant NMLs under Condition D39 (including the</li> </ul>	Section 10.2

CoA	Requirement	Document Reference
	<p>circumstances of when respite or relocation offers will be available and details about how the affected community can access these offers).</p> <p>The outcomes of the community consultation, the identified respite periods and the scheduling of the likely out-of-hour work must be provided to the AA, EPA and the Planning Secretary.</p> <p>Note: Respite periods can be any combination of days or hours where out-of-hours work would not be more than 5 dB(A) above the RBL at any residence.</p>	

# APPENDIX B CONSULTATION

## Condition of Approval A6 Evidence – Out of Hours Work Protocol

In accordance with CoA D38 an Out of Hours Work Protocol was prepared in consultation with the following government agencies and stakeholders:

- Environment Protection Authority

The attached supporting evidence has been included to demonstrate compliance with Condition of Approval (CoA) A6 in the development of the Out of Hours Work Protocol.

The Out of Hours Work Protocol was provided to the required agencies and stakeholders for consultation as follows:

<b>CoA D38 Out of Hours Work Protocol Consultation</b>		
<b>Government Agency/Stakeholder</b>	<b>Date consulted</b>	<b>Date of Response</b>
Environment Protection Authority	07/09/2021	21/09/2021 (No Comment)

## APPENDIX C OUT OF HOURS WORK PERMIT



# Out of Hours (OOH) Work Permit

**Part A – Completed by Site/Project Engineer (4 Weeks Prior to Works)**

## 1. Permit details

<b>Project Site:</b>	<b>OOH Permit No.:</b>	<b>Revision No.:</b>
<b>Requested By:</b>	<b>Processed By (Enviro):</b>	
<b>Commencement Date:</b>	<b>Completion Date:</b>	
<b>Location Description:</b>		
<b>Location map attached?</b> <input checked="" type="checkbox"/>		

## 2. Time Period (24hour) of Proposed OOH Works per day:

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## 3. Description of Proposed OOH Works:

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## 4. Proposed plant and equipment:

## Number of items:

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## 5. Justification for Proposed OOH Works:

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## 6. Proposed Noise Mitigation Measures:

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## 7. Highly Noise Intensive Works

### Are Highly Noise Intensive Works required?

*(jackhammering, rock breaking or hammering, pile driving, concrete cutting, vibratory rolling and impact piling occurring on the surface and generating noise with impulsive, intermittent, tonal or low frequency characteristics.)*

Please circle: **YES** / **NO**

## 8. Vibration Intensive Works

--



**Are Vibration Intensive Works proposed?**

*(jackhammering, rock breaking or hammering, pile driving, vibratory rolling and impact piling occurring on the surface.)*

Please circle: **YES / NO**

**9. Proposed Light Spill Mitigation Measures**

If lighting is deemed to be required during the winter months, the control measures of light spill include:

1. Use day makers when deemed unsafe to work without additional light
2. Keep lights as close as possible to the area intended
3. Keep the height as low as possible to the ground

Setup in the adequate location, angles and directions aim to the task areas only and away from sensitive receivers.

Given the extensive distance between the site and sensitive receivers this is deemed to be low risk.

**10. Traffic**

**A. Has the project Traffic Manager been informed?**

Please circle: YES / NO

**B. Is a road occupancy licence required? If yes, attach permit**

Please circle: YES / NO

**C. Is an oversized permit required? If yes, attach permit**

Please circle: YES / NO

**List the relevant ROL reference codes & issuing authority:**

Permit(s) Licence Number	Issuing Authority (TMC, TfNSW, Council, etc.)
N/A	

**11. Construction Line Manager Endorsement**

<b>Name:</b>	<b>Position:</b>
<b>Signature:</b>	<b>Date:</b>

**Part B – Approval Pathway: Completed by Environmental Coordinator**

Tick	Description	Ref
<b>12. EITHER:</b>		
	<b>A) WORKS OUTSIDE EPL BOUNDARY – Approved by Environmental Manager</b>	

<input type="checkbox"/>	<p><b>Safety and Emergencies, including:</b></p> <p>(i) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or</p> <p>(ii) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm.</p>	CoA: D37 (a)
<input type="checkbox"/>	<p><b>Low impact:</b></p> <p>(i) construction that causes LAeq(15 minute) noise levels:</p> <ul style="list-style-type: none"> <li>▪ no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and</li> <li>▪ no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and</li> </ul> <p>(ii) construction that causes LAFmax(15 minute) noise levels no more than 15 dB(A) above the rating background level at any residence; or</p> <p>(iii) construction that causes:</p> <ul style="list-style-type: none"> <li>▪ continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or</li> <li>▪ intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006).</li> </ul>	CoA: D37 (b)
<input type="checkbox"/>	<p><b>By Approval</b></p> <p>(i) N/A; or</p> <p>(ii) N/A; or</p> <p>(iii) negotiated agreements with directly affected residents and sensitive land user(s).</p>	CoA: D37 (c)
	<p><b>By Prescribed Activity</b></p> <p>(i) tunnelling (excluding cut and cover tunnelling and surface works) are permitted 24 hours a day, seven days a week; or</p> <p>(ii) N/A</p> <p>(iii) delivery of material that is required to be delivered outside of standard construction hours in Condition D35 of this schedule to directly support tunnelling activities, except between the hours 10:00 pm and 7:00 am to / from the Five Dock and Westmead construction sites and to / from Burwood North construction site using any roads / streets other than directly from Parramatta Road; or</p> <p>(iv) haulage of spoil except between the hours of 10:00 pm and 7:00 am to / from the Five Dock and Westmead construction sites and to / from Burwood North construction site using any roads / streets other than directly from Parramatta Road; or</p> <p>(v) work within an acoustic shed where there is no exceedance of noise levels under Low impact circumstances identified in (b) above, unless otherwise agreed by the Planning Secretary.</p> <p>Note: Tunnelling does not include station box excavation.</p>	CoA: D37 (d)
<p><b>B) WORKS OUTSIDE EPL BOUNDARY – Approved externally</b></p>		
<input type="checkbox"/>	<p>Low Risk Works (refer to Appendix A) - requires AA Endorsement and ER Approval</p>	

<input type="checkbox"/>	High Risk Works (refer to Appendix A) – requires DPIE approval	OOHW Protocol Section 8
<b>C) WORKS WITHIN EPL BOUNDARY – Approved by Environment Manager</b>		
<input type="checkbox"/>	<p><b>Low impact:</b></p> <p>Works and activities may be carried on outside of the hours specified in Section L5.3 if the works and activities do not cause, when measured at the boundary of the most affected noise sensitive receiver:</p> <ul style="list-style-type: none"> <li>a) LAeq(15 minute) noise levels greater than 5dB above the day, evening and night rating background level (RBL) at any residence in accordance with the ICNG; and</li> <li>b) no more than the "Noise affected" NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and</li> <li>c) LA1(1 minute) or LAm<sub>ax</sub> noise levels greater than 15dB above the night RBL for night works;</li> <li>d) the preferred continuous or impulsive vibration values greater than those for human exposure to vibration, set out for residences in Table 2.2 in Assessing Vibration: a technical guideline (DEC, 2006); and</li> <li>e) the preferred intermittent vibration values greater than those for human exposure to vibration, set out for Residences in Table 2.4 in Assessing Vibration: a technical guideline (DEC, 2006).</li> </ul>	EPL: L5.3
<input type="checkbox"/>	<p><b>Exceptional circumstances:</b></p> <ul style="list-style-type: none"> <li>a) The licensee may undertake works and activities outside of standard construction hours specified in condition L5.1 for:           <ul style="list-style-type: none"> <li>i. emergency works required to avoid injury to persons, the loss of life or property, or to prevent material harm to the environment; and</li> <li>ii. the delivery of oversized plant, structures or materials determined by the police or other authorised authorities to require special arrangements to transport along public roads.</li> </ul> </li> </ul> <p>The licensee must, on becoming aware of the need to undertake emergency works under this condition notify the EPA's Environment Line as soon as practicable and submit a report to the EPA by 2:00 pm on the next business day after the emergency works commenced that describes:</p> <ul style="list-style-type: none"> <li>i. the cause, time and duration of the emergency;</li> <li>ii. action taken by or on behalf of the licensee in relation to the emergency; and</li> </ul> <p>details of any measures taken or proposed to be taken by the licensee to prevent or mitigate against a recurrence of the emergency.</p>	EPL: L5.4

<input type="checkbox"/>	<p><b>24-Hour works/Prescribed Activity:</b> The following works are permitted to be undertaken 24 hours a day, 7 days per week:</p> <ul style="list-style-type: none"> <li>a) Tunnelling activities (excluding cut and cover tunnelling and surface works); and</li> <li>b) Haulage of spoil, and delivery of material that is required to be delivered outside of standard construction hours to directly support tunnelling activities, except between the hours of 10:00pm and 7:00am to and from the Five Dock construction site; and</li> <li>c) Haulage of spoil, and delivery of material that is required to be delivered outside of standard construction hours to directly support tunnelling activities, except between the hours 10:00pm and 7:00am to and from the Burwood North construction site using any roads or streets other than directly from Parramatta Road; and</li> <li>d) work within an acoustic shed where there is no exceedance of noise levels under Low impact circumstances identified in condition L5.3,</li> </ul> <p>Note: Tunnelling does not include station box excavation</p>	<p>EPL: L5.6</p>
<input type="checkbox"/>	<p><b>Works outside of standard construction hours (out-of-hours works)</b> Under this condition, works and activities may be undertaken outside of standard construction hours specified in condition L5.1 and L5.2 until 23 December 2022, and if they are required in relation to one or more of the following:</p> <ul style="list-style-type: none"> <li>a) carrying on those works and activities during standard construction hours would result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009 "Risk Management";</li> <li>b) the relevant road network operator has advised the licensee in writing that carrying out the works an activities during standard construction hours would result in a high risk to road network operational performance;</li> <li>c) a relevant utility service operator has advised the licensee in writing that carrying out the works and activities during standard construction hours would result in a high risk to the operation and integrity of the utility network;</li> <li>d) the TfNSW Transport Management Centre (or other road authority) have refused to issue a road occupancy licence during standard construction hours; or</li> <li>e) Sydney Trains (or other rail authority) requires a rail possession for the activities to be performed outside of standard construction hours.</li> </ul>	<p>EPL: L5.7</p>
<p><b>D) WORKS WITHIN EPL BOUNDARY – Approved by EPA</b></p>		
<input type="checkbox"/>	<p>Attach EPA Approval letter</p> <p>Environmental Manager to sign off Permit, ensuring works are consistent with EPA approval.</p>	



**Part C – Noise & Vibration Impact Assessment (modelling results to be attached)**

**13. Noise and Vibration Impact Assessment Outcomes**



<b>Do works comply with the Safe Working Distance limits?</b>	Yes  If NO, review CNVMP for respite and monitoring requirements to be implemented.
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**14. Additional mitigation required as per Construction Noise & Vibration Standard (See Appendix B)**  
**Please ensure you are assessing against the relevant period of OOHW.**

Tick	Description (refer to reference table at end of Doc.)	Mandatory mitigation
<input type="checkbox"/>	Works assessed to comply with the NML, Sleep disturbance and human comfort vibration criteria. <i>Go to part D</i>	N/A
<input type="checkbox"/>	Audible- (0 to 10 dB(A) above NML): <i>Go to part D</i>	Letter Box Drop
<input type="checkbox"/>	Minor Impact- (10 to 20 dB(A) above NML)	Letter Box Drop, Monitoring, Specific Notification, Respite Offer
<input type="checkbox"/>	Moderately Impact- (20 to 30 dB(A) above NML)	Letter Box Drop, Monitoring, Specific Notification, Individual Briefings, Phone Calls, Respite Offer, Alternative Accommodation
<input type="checkbox"/>	High Impact- (>30 dB(A) above NML)	Letter Box Drop, Monitoring, Specific Notification, IB, Phone Calls, Respite Offer, Alternative Accommodation

Tick	Impact Rating	Sleep disturbance description (refer to reference table at end of Doc.)
<input type="checkbox"/>	<b>Audible- B</b>	LAm <sub>max</sub> Exceeds RBL + 15 dBA
<input type="checkbox"/>	<b>High Impact- E</b>	LAm <sub>max</sub> Exceeds 65 dBA

**15. Location of monitoring triggered**

<b>Receiver address 1:</b>	
<b>Receiver address 2:</b>	
<b>Receiver address 3:</b>	

<b>Do OOHW require Alternative Accomodation?</b>	Yes: <input type="checkbox"/> <b><u>Application must be approved by Enviro Manager</u></b>	No: <input type="checkbox"/>
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**16. Respite**

<b>Do OOHW require noise or vibration respite?</b>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/>
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**If Yes, provide details below.**

**17. Neighbouring Projects and Utility Coordination and Respite (D50)**



<p><b>Are works being undertaken concurrently or within respite periods that could impact upon noise affected receivers by:</b></p> <ul style="list-style-type: none"><li>• neighbouring WestConnex Projects (M4-M5 Tunnels Link Rozelle) or</li><li>• utility providers (undertaking works for the Project)</li></ul> <p><b>If yes, provide description:</b></p>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/>
<p><b>If Yes, are OOHW required to be rescheduled to ensure appropriate respite is provided to noise affected community?</b></p> <p><b>If no, provide justification:</b></p>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/>



## Part D – Documentation and Approval

### Internal Approval

#### Community Manager

Notification No.		Copy Attached? <input type="checkbox"/>	Date Distributed:	
Name: Sanjin Muhic	Signature:		Date:	

#### Environment Manager

Name: Erran Woodward	Signature:		Date:	
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Additional Comments or Mitigation Measures (if applicable)

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### External Approval

#### Acoustic Advisor – Endorsement (if applicable)

Name: Dave Anderson	Signature:		Date:	
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Additional Comments or Mitigation Measures (if applicable)

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#### Environmental Representative – Approval (if applicable)

Name: Michael Woolley	Signature:		Date:	
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Additional Comments or Mitigation Measures (if applicable)

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**Supervisor Approval**

*By signing this Permit I understand the works that are permitted to be undertaken, including location of works, start/finish times, duration and permissible plant and equipment for each activity.*

**Name:**

**Signature:**

**Date:**

**Phone Number:**



## Appendix A- OOHW classification and impact rating

TABLE A -1: OOHW IMPACT RATING

Impact Rating		Airborne noise		Vibration (intermittent)
		(L <sub>Aeq</sub> 15 min) Exceedance of NML	(L <sub>AMax</sub> ) Sleep disturbance likelihood	Exceedance of Night VDV Criteria
<b>NML Compliant</b>	<b>A</b>	-	-	-
<b>Audible</b>	<b>B</b>	0-10	Exceeds RBL + 15 dBA	-
<b>Minor Impact</b>	<b>C</b>	10-20		>Preferred <sup>1</sup>
<b>Moderate Impact</b>	<b>D</b>	20-30		
<b>High Impact</b>	<b>E</b>	30+	Exceeds 65 dBA	>Maximum <sup>1</sup>

<sup>1</sup> Refer to Table 2.4 of 'Assessing Vibration – A Technical Guideline'

TABLE A-2 OOHV REQUIREMENTS- WORKS NOT SUBJECT TO AN EPL

Variation to Work Hours (D37)	Low Risk (D38)	High risk (D38)
Review AA & ER	Endorsement AA & Approval ER	DPIE Approval
<p>1. Works assessed to meet <b>Classification A</b></p> <p>2. <b>Low impact</b> works as per CoA D37(b), including: Low impact works as per CoA D37, including:</p> <p>(i) construction that causes LAeq(15 minute) noise levels:</p> <ul style="list-style-type: none"> <li>▪ no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and</li> <li>▪ no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and</li> </ul> <p>(ii) construction that causes LAFmax(15 minute) noise levels no more than 15 dB(A) above the rating background level at any residence; or</p> <p>(iii) construction that causes:</p> <ul style="list-style-type: none"> <li>▪ continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or</li> <li>▪ intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006).</li> </ul> <p>3. <b>Negotiated agreements</b> with directly affected residents and sensitive land users(s) (CoA 37 (c)(iii)).</p> <p>4. Work within an <b>acoustic shed</b> where there is no exceedance of noise levels under <b>Low Impact</b> circumstances identified in (2) above</p>	<p>OOHV works represent low risk to the community under the following conditions and can be approved by the ER following consultation with the AA</p> <ol style="list-style-type: none"> <li>1. Works assessed to meet impact <b>Classification B</b></li> <li>2. Works assessed to meet impact <b>Classification C</b> with the following restrictions: <ol style="list-style-type: none"> <li>a. 3 consecutive evenings or nights in a calendar week</li> <li>b. No more than 4 evenings or nights in total per calendar week</li> <li>c. Works under this condition would expend the equivalent number of nights allowed under condition 1.</li> </ol> </li> <li>3. Works assessed to meet noise impact <b>Classification D</b> or <b>Classification E</b> with the following restrictions: <ol style="list-style-type: none"> <li>a. 2 consecutive nights in a calendar week</li> <li>b. No more than 3 nights in total per calendar week</li> <li>c. No more than 12 evenings or nights in total within a period of 4 consecutive weeks</li> <li>d. Works under this condition would expend the equivalent number of nights allowed under condition 1 or 2.</li> </ol> </li> <li>4. No works on a public holiday. <i>Note: Classification D and E requires clear reasonable and feasible justification and appropriate mitigation measures</i></li> </ol>	<p>OOHV with higher levels of impact over prolonged durations represent a high risk of adverse impact on the community and require DPIE approval.</p>

## CTP-AFJV OOHW Permit

TABLE 2-B OOHW REQUIREMENTS- WORKS SUBJECT TO AN EPL

OOHW Permitted under an EPL
Approval by Environment Manager
<p>In undertaking any out-of-hours works or activities under condition L5.7, the licensee must comply with the following:</p> <ul style="list-style-type: none"> <li>a) Undertake noise monitoring in accordance with the monitoring plan in the Permit</li> <li>b) Only undertake activities between the hours of <b>6:00pm</b> on Mondays, Tuesdays, Wednesdays, Thursdays, Fridays and <b>7:00am the following day</b> (unless permitted by another condition of this licence).</li> <li>c) Activities are <b>not to be undertaken between the hours of 6:00pm on Saturdays, Sundays or Public Holidays and 7:00am the following day</b> (unless permitted by another condition of this licence).</li> <li>d) Ensure that out-of-hours works do not result in noise levels exceeding those specified in condition L5.3 at the same noise sensitive receivers (unless specified in another condition of this licence) on more than: <ul style="list-style-type: none"> <li>i. <b>2 consecutive evenings and/or nights at any time; and</b></li> <li>ii. <b>3 evenings and/or nights per week; and</b></li> <li>iii. <b>10 evenings and/or nights per month.</b></li> </ul> </li> <li>e) Undertake any high noise impact works before 12:00 am (midnight) where reasonable and feasible.</li> <li>f) Where high noise impact activities are undertaken, the respite provisions as per the requirements of condition L5.2(c) do not apply provided that all high noise impact activities are undertaken prior to 12:00 am (midnight).</li> <li>g) Where high noise impact activities are undertaken after 12:00 am (midnight), the licensee is required to submit a written report to the EPA within 2 business days of the activity outlining the justification for continuing high noise impact works after midnight and the reasonable and feasible noise mitigation measures that were implemented to address these night time impacts.</li> <li>h) Upon request of an authorised officer, the licensee must provide within 5 business days: <ul style="list-style-type: none"> <li>i. the construction noise and vibration impact assessment required by condition L5.8(a);</li> <li>ii. noise monitoring results required by condition L5.8(b);</li> <li>iii. written evidence demonstrating the works are necessary and permitted under condition L5.7; and/or</li> <li>iv. any other relevant information or records requested by the EPA.</li> </ul> </li> </ul>

## Appendix B - Additional Mitigation Measures (CNVS)

TABLE B-1 ADDITIONAL MITIGATION MEASURES DEFINITIONS

Measure	Description	Abbreviation
Alternative accommodation	<p>Alternative accommodation options may be provided for residents living in close proximity to construction works that are likely to incur unreasonably high impacts over an extended period of time. Alternative accommodation will be determined on a case-by-case basis.</p> <p>Where it has been identified that specific construction activities are likely to exceed the relevant noise or vibration goals, noise or vibration monitoring may be conducted at the affected receiver(s) or a nominated representative location (typically the nearest receiver where more than one receiver have been identified). Monitoring can be in the form of either unattended logging or operator attended surveys. The purpose of monitoring is to inform the relevant personnel when the noise or vibration goal has been exceeded so that additional management measures may be implemented.</p>	AA
Monitoring	<p>Where it has been identified that specific construction activities are likely to exceed the relevant noise or vibration goals, noise or vibration monitoring may be conducted at the affected receiver(s) or a nominated representative location (typically the nearest receiver where more than one receiver have been identified). Monitoring can be in the form of either unattended logging or operator attended surveys. The purpose of monitoring is to inform the relevant personnel when the noise or vibration goal has been exceeded so that additional management measures may be implemented.</p>	M
Individual briefings	<p>Individual briefings are used to inform stakeholders about the impacts of high noise activities and mitigation measures that will be implemented.</p> <p>Communications representatives from the contractor would visit identified stakeholders at least 48 hours ahead of potentially disturbing construction activities. Individual briefings provide affected stakeholders with personalised contact and tailored advice, with the opportunity to comment on the project.</p>	IB
Letter box drops	<p>For each Sydney Metro project, a newsletter is produced and distributed to the local community via letterbox drop and the project mailing list.</p> <p>These newsletters provide an overview of current and upcoming works across the project and other topics of interest. The objective is to engage and inform and provide project-specific messages. Advanced warning of potential disruptions (e.g. traffic changes or noisy works) can assist in reducing the impact on the community. Content and newsletter length is determined on a project-by-project basis. Most projects distribute notifications on a monthly basis. Each newsletter is graphically designed within a branded template.</p>	LB
Project specific respite offer	<p>The purpose of a project specific respite offer is to provide residents subjected to lengthy periods of noise or vibration respite from an ongoing impact.</p>	RO
Phone calls and emails	<p>Phone calls and/or emails detailing relevant information would be made to identified/affected stakeholders within 7 days of proposed work. Phone calls and/or emails provide affected stakeholders with personalised contact and tailored advice, with the opportunity to provide comments on the proposed work and specific needs etc</p>	PC
Specific notifications	<p>Specific notifications would be letterbox dropped or hand distributed to identified stakeholders no later than 7 days ahead of construction activities that are likely to exceed the noise objectives. This form of communication is used to support periodic notifications, or to advertise unscheduled works.</p>	SN

## CTP-AFJV OOHW Permit

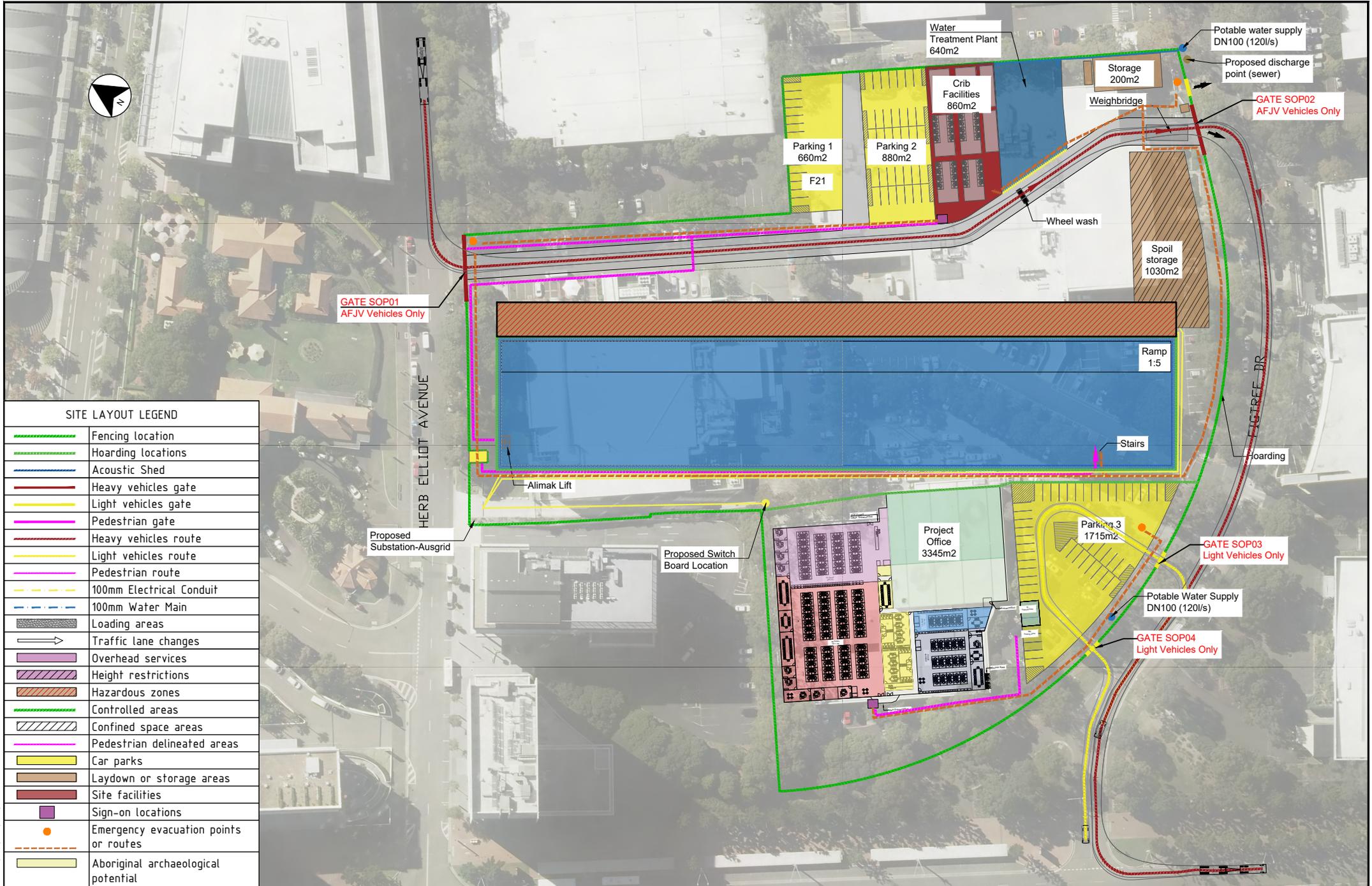
The Additional Mitigation Measures Matrix (AMMM) from the CNVS is presented in Table B-.

TABLE B-2 ADDITIONAL MITIGATION MEASURES MATRIX (CNVS)

Construction hours	dB above NML	Additional management measures
Approved hours	0 to 10	-
Monday – Friday: 7am – 6pm	10 to 20	LB
Saturday: 8am to 6pm	20 to 30	LB, M, SN
	>30	LB, M, SN
Evening	0 to 10	LB
Monday – Friday: 6pm – 10pm	10 to 20	LB, M
Saturday: 7am – 8am, 6pm – 10pm	20 to 30	LB, M, SN, RO
Sunday / PH: 8am – 6pm	> 30	LB, M, SN, IB, PC, RO
Night	0 to 10	LB
Monday – Saturday: 10am – 7am	10 to 20	LB, M, SN, RO
Saturday: 10pm – 8am)	20 to 30	LB, M, SN, IB, PC, RO, AA
Sunday / PH: 6pm – 7am	> 30	LB, M, SN, IB, PC, RO, AA
Notes:	PC = Phone calls	SN = Specific notification
	M = Monitoring	LB = Letterbox drops
	IB = Individual briefings	DR = Duration reduction
	AA = Alternative accommodation	RO = Project specific respite offer

## **APPENDIX E    INDICATIVE CONSTRUCTION SITE LAYOUT DRAWINGS**

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 AT Original

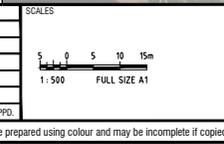


**SITE LAYOUT LEGEND**

	Fencing location
	Hoarding locations
	Acoustic Shed
	Heavy vehicles gate
	Light vehicles gate
	Pedestrian gate
	Heavy vehicles route
	Light vehicles route
	Pedestrian route
	100mm Electrical Conduit
	100mm Water Main
	Loading areas
	Traffic lane changes
	Overhead services
	Height restrictions
	Hazardous zones
	Controlled areas
	Confined space areas
	Pedestrian delineated areas
	Car parks
	Laydown or storage areas
	Site facilities
	Sign-on locations
	Emergency evacuation points or routes
	Aboriginal archaeological potential

REV.	BY	DATE	DESCRIPTION	APPD.
2	MI	27/07/2021		

AT Original Co-ordinate System: GDA 2020 Zone 56 Height Datum: A.H.D. This sheet may be prepared using colour and may be incomplete if copied



**SENSITIVE : NSW CABINET**



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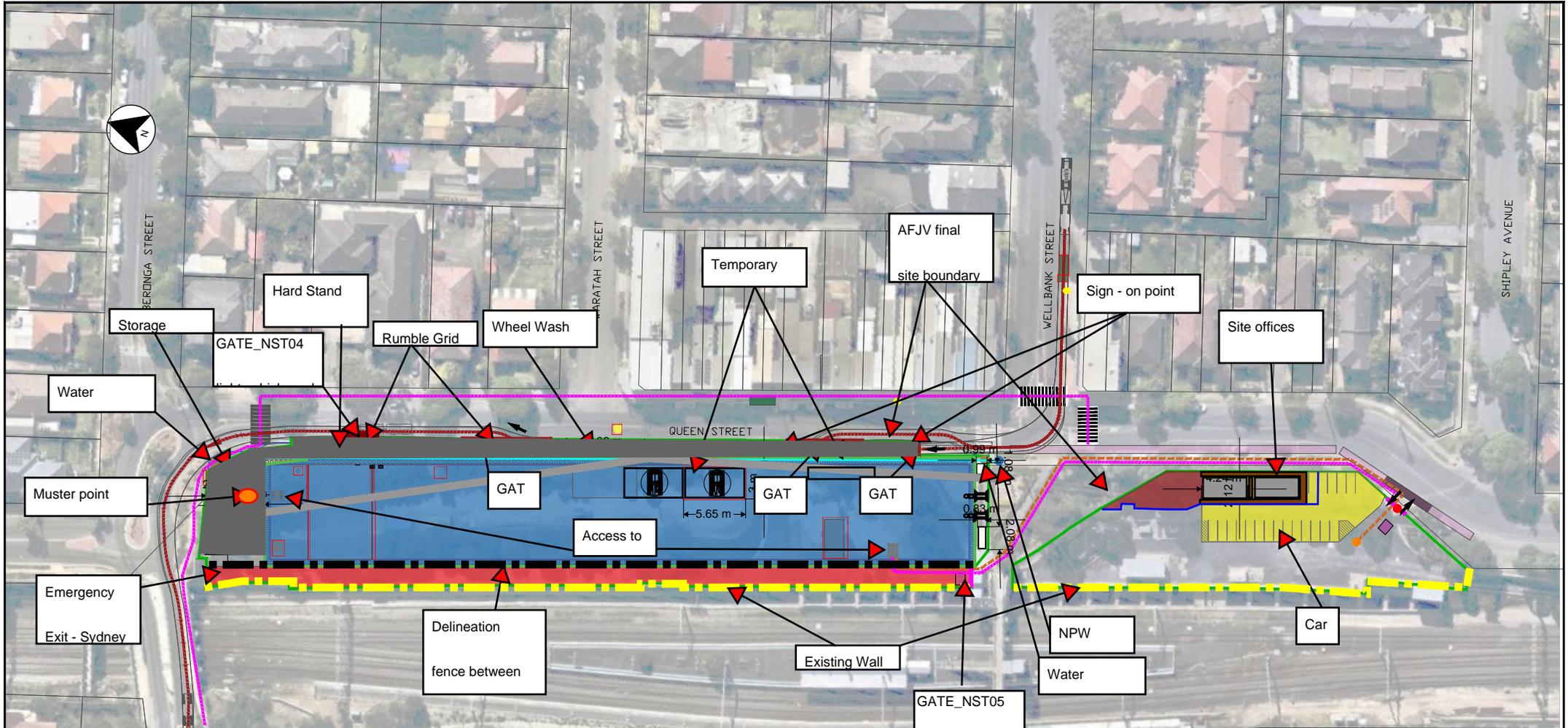
SERVICE PROVIDERS

DRAWN	PATRICIA VILLEN
DESIGNED	
DRG CHECK	
DESIGN CHECK	
APPROVED	

**SYDNEY METRO WEST**  
 SITE LAYOUT  
 SYDNEY OLYMPIC PARK  
 OPERATIONAL

STATUS: ECI DESIGN	SHEET 01 OF 01
Dwg No. SMW-AFJV-SLY-DWG-250	REV. 10

Cad File: C:\Users\mreem.ingal\OneDrive - ACCIONA SA\Desktop\Working Folder\ICTP\Drawings\01-SITE LAYOUT\SYDNEY METRO WEST\AFJV\CS\DWG\605100-605500-20.dwg  
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 100mm AT FULL SIZE  
 AT Original Co-ordinate System: GDA 2020 Zone 56 Height Datum: A.H.D. This sheet may be prepared using colour and may be incomplete if copied.



**SITE LAYOUT LEGEND**

	Fencing location		Hazardous zones
	Hoarding locations		Controlled areas
	Acoustic Shed		Confined space areas
	Heavy vehicles gate		Pedestrian delineated areas
	Light vehicles gate		Car parks
	Pedestrian gate		Laydown or storage areas
	Heavy vehicles route		Site facilities
	Light vehicles route		Sign-on locations
	Pedestrian route		Emergency evacuation points or routes
	Loading areas		Aboriginal archaeological potential
	Traffic lane changes		New Pedestrian Crossing
	Overhead services		
	Height restrictions		

REV.	BY	DATE	DESCRIPTION	APPD.
3	MI	11/08/2021		

SCALES  
  
 1:500 FULL SIZE AT

SENSITIVE : NSW CABINET

Jacobs

SYDNEY METRO WEST

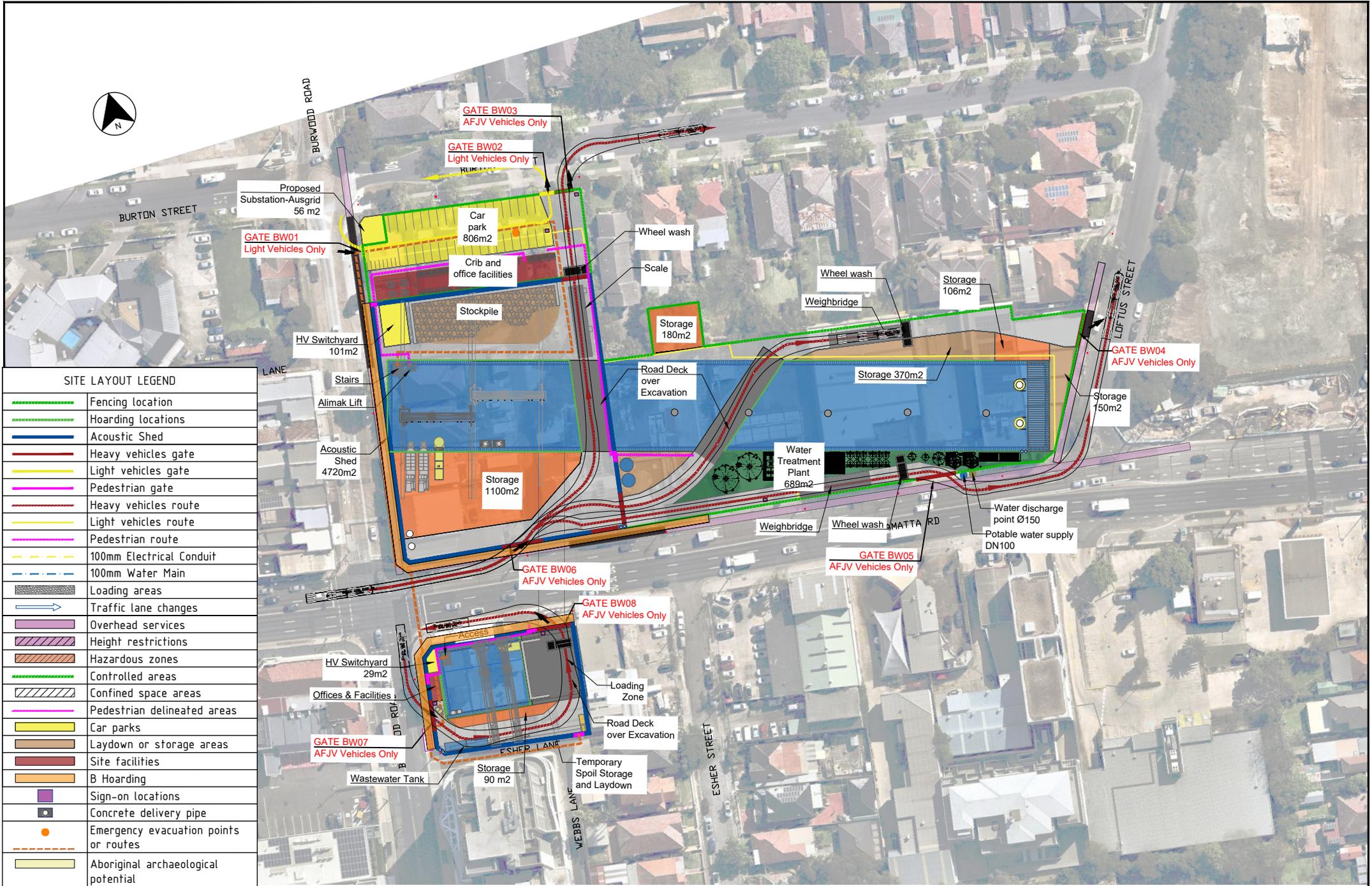
SITE LAYOUT  
NORTH STRATHFIELD  
OPERATIONAL

STATUS: ECI DESIGN SHEET 01 OF 01

Dwg No. SMW-AFJV-SLY-DWG-605300 REV. 3

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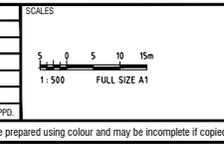
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 Plot Size: 100mm AT FULL SIZE  
 Plot Scale: 1:1



SITE LAYOUT LEGEND	
	Fencing location
	Hoarding locations
	Acoustic Shed
	Heavy vehicles gate
	Light vehicles gate
	Pedestrian gate
	Heavy vehicles route
	Light vehicles route
	Pedestrian route
	100mm Electrical Conduit
	100mm Water Main
	Loading areas
	Traffic lane changes
	Overhead services
	Height restrictions
	Hazardous zones
	Controlled areas
	Confined space areas
	Pedestrian delineated areas
	Car parks
	Laydown or storage areas
	Site facilities
	B Hoarding
	Sign-on locations
	Concrete delivery pipe
	Emergency evacuation points or routes
	Aboriginal archaeological potential

REV.	BY	DATE	DESCRIPTION	APPD.
2	MI	27/07/2021		

AT Original Co-ordinate System: GDA 2020 Zone 56 Height Datum: A.H.D. This sheet may be prepared using colour and may be incomplete if copied.



SENSITIVE : NSW CABINET

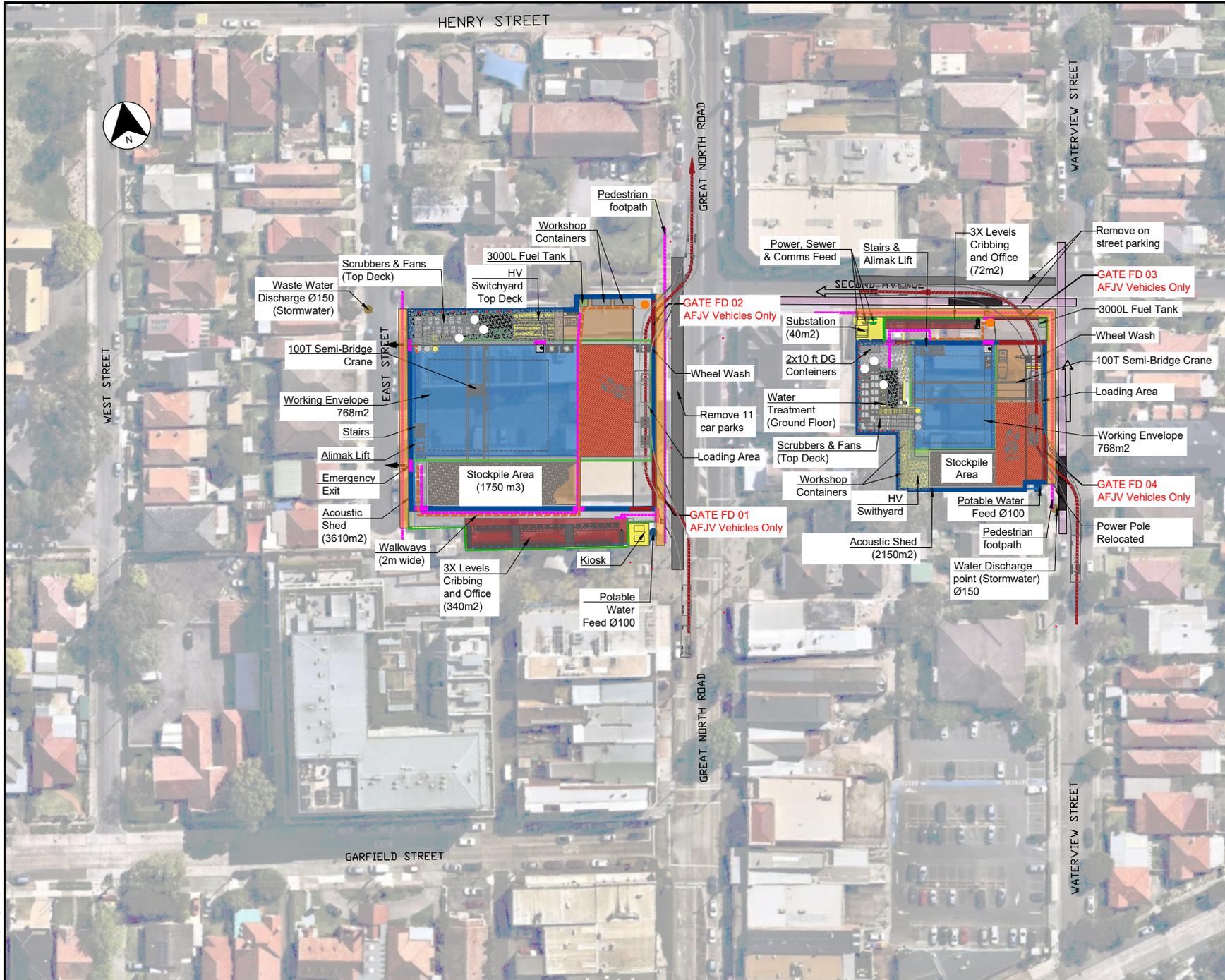


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SERVICE PROVIDERS	DRAWN: PATRICIA VILLEN
	DESIGNED:
	DRG CHECK:
	DESIGN CHECK:
	APPROVED:

<b>SYDNEY METRO WEST</b>	
SITE LAYOUT NORTH OPERATIONAL	
STATUS: ECI DESIGN	SHEET 01 OF 01
Dwg No. SMW-AFJV-SLY-DWG-605350	REV. 13

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SITE LAYOUT LEGEND	
	Fencing location
	Hoarding locations
	Acoustic Shed
	Heavy vehicles gate
	Light vehicles gate
	Pedestrian gate
	Heavy vehicles route
	Light vehicles route
	Pedestrian route
	100mm Electrical Conduit
	100mm Water Main
	Loading areas
	Traffic lane changes
	Overhead services
	Height restrictions
	Hazardous zones
	Controlled areas
	Confined space areas
	Pedestrian delineated areas
	Car parks
	Laydown or storage areas
	Site facilities
	B Hoarding
	Sign-on locations
	Concrete delivery pipe
	Emergency evacuation points or routes
	Aboriginal archaeological potential

REV.	BY	DATE	DESCRIPTION	APPD.
2	MI	27/07/2021		

A1 Original Co-ordinate System: GDA 2020 Zone 56 Height Datum: A.H.D. This sheet may be prepared using colour and may be incomplete if copied.

SENSITIVE : NSW CABINET  
 NOTE: Do not scale from this drawing.



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SERVICE PROVIDERS	DRAWN: PATRICIA VILLEN
	DESIGNED:
	DRG CHECK:
	DESIGN CHECK:
	APPROVED:

<b>SYDNEY METRO WEST</b> SITE LAYOUT FIVE DOCK OPERATIONAL	
STATUS: ECI DESIGN	SHEET 01 OF 01
Dwg No. SMW-AFJV-SLY-DWG-605400	REV. 11



## **APPENDIX F    CONSULTATION**

## Condition of Approval A6 Evidence – Construction Noise and Vibration Management Plan and Monitoring Program

In accordance with C5(a) the Construction Noise and Vibration Management Plan and Monitoring Program was prepared in consultation with the following government agencies and stakeholders:

- Sydney Olympic Park Authority
- Inner West Council
- City of Canada Bay Council
- Burwood Council
- Strathfield Municipal Council
- City of Parramatta Council
- Place Management NSW
- EPA (in regards to the Monitoring Program)

The attached supporting evidence has been included to demonstrate compliance with Condition of Approval (CoA) A6 in the development of the Construction Noise and Vibration Management Plan and Monitoring Program.

The Construction Noise and Vibration Management Plan and Monitoring Program was provided to the required agencies and stakeholders for consultation as follows:

<b>CoA C5(e) Construction Noise and Vibration Management Plan and Monitoring Program</b>		
<b>Government Agency/Stakeholder</b>	<b>Date consulted</b>	<b>Date of Response</b>
Inner West Council	18/08/2021	10/09/2021
City of Canada Bay Council	18/08/2021	10/09/2021
Burwood Council	18/08/2021	17/08/2021
Strathfield Municipal Council	18/08/2021	10/09/2021
City of Parramatta Council	18/08/2021	No comments
EPA (Monitoring program only)	07/09/2021	21/09/2021
Place Management NSW	18/08/2021	30/08/2021
Sydney Olympic Park Authority	18/08/2021	08/09/2021

## Erran Woodward

---

**From:** David Crosby <david.crosby@innerwest.nsw.gov.au>  
**Sent:** Friday, 10 September 2021 2:40 PM  
**To:** Erran Woodward  
**Cc:** Ken Welsh; Lorryn Williamson; Ankur Arora  
**Subject:** RE: Pending comments from Inner West Council

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Erran

Please see below our comments:

### Flora and Fauna Management Plan:

- Section 6.2 states that pre-clearance inspections should be undertaken prior to clearing of native vegetation. As native wildlife also use non-native vegetation for nesting and roosting and other purposes pre-clearance inspections should be undertaken prior to non-native and native vegetation clearance.
- The wharf/jetty infrastructure in White Bay is possible roosting habitat for *Myotis Macropus* (fishing bats) so this infrastructure needs to be inspected/surveyed by qualified ecologist prior to any demolition/disturbance.
- To reduce impacts on various native wildlife best practice lighting guidelines should be followed for any temporary or permanent lighting – see Appendix A of the National Light Pollution Guidelines for Wildlife - <https://www.environment.gov.au/biodiversity/publications/national-light-pollution-guidelines-wildlife>

### Spoil Management Plan:

- Is there a way to ensure that the council streets will be cleaned? Which council street will be impacted the most (i.e. what streets around the tunnel dive site at The Bays?)

### Soil and Water Management Plan:

- You mention there will be ongoing reporting. Will there be any remediation reports made available at the end of the works?
- Also, page 1 of the Acid Sulphate Soil section is missing the project title and there is a formatting error in various tables and sections.

### Noise and Vibration Monitoring Plan:

- At The Bays, would there be any cumulative noise and vibration effects from the Eastern tunnel package that need to be considered?
- Have other major projects' CEMPs been considered in these Central Tunnelling CEMPs?

I'm yet to hear back on the Heritage Management Plan, but I'll let you know next week on that one.

Regards

David Crosby

Road Access Project Engineer

p +61 2 9392 5650 e [david.crosby@innerwest.nsw.gov.au](mailto:david.crosby@innerwest.nsw.gov.au)



Council acknowledges the Traditional Custodians of these lands, the Gadigal-Wangal people of the Eora Nation.




---

**From:** Erran Woodward <Erran.Woodward@ctp-afjv.com.au>  
**Sent:** Friday, 10 September 2021 1:58 PM  
**To:** David Crosby <david.crosby@innerwest.nsw.gov.au>  
**Cc:** Ken Welsh <Ken.Welsh@innerwest.nsw.gov.au>; Lorryn Williamson <Lorryn.Williamson@ctp-afjv.com.au>; Ankur Arora <Ankur.Arora@transport.nsw.gov.au>  
**Subject:** Pending comments from Inner West Council

Some people who received this message don't often get email from [erran.woodward@ctp-afjv.com.au](mailto:erran.woodward@ctp-afjv.com.au). [Learn why this is important](#)

Hi David,

I reached out via phone this morning to follow up on comments on documents provided to Inner West Council for review for the Sydney Metro West Central Tunnelling Package project.

To date the Acciona Ferrovia Joint Venture has provided the following documents to Inner West Council for their opportunity to comment:

- Noise and Vibration Management Plan including Monitoring Program
- Flora and Fauna Management Plan
- Soil and Water Management Plan including Monitoring Program
- Heritage Management Plan
- Spoil Management Plan

Could you please confirm if Council is intending on providing comment on these documents, as the review period has now reached completion.

Thanks,  
ew



**Erran Woodward**  
 Environmental Approvals Manager  
**Acciona Ferrovia Joint Venture**

*Sydney Metro West  
 Central Tunnelling Package  
 +61 437 343 178*

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this email.

**From:** [Paul Dewar](#)  
**To:** [Erran Woodward](#)  
**Cc:** [Lorryn Williamson](#); [Aidann Stathis](#)  
**Subject:** RE: Pending comments from City of Canada Bay Council  
**Date:** Friday, 10 September 2021 12:26:33 PM  
**Attachments:** [image001.png](#)  
[image8df9fd.PNG](#)  
[imagea9288c.PNG](#)  
[image123c16.PNG](#)  
[imageaa2f66.PNG](#)  
[image8c165a.PNG](#)

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Hi Erran

Thank you for your email.

Council's Environmental Health Coordinator has confirmed that Council does not have any comment on the draft Noise and Vibration Plan or Program.

Regards

Paul

**Paul Dewar | Manager, Strategic Planning**  
City of Canada Bay

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1a Marlborough St Drummoyne NSW 2047 | [www.canadabay.nsw.gov.au](http://www.canadabay.nsw.gov.au)  
T: 02 9911 6402 | [Paul.Dewar@canadabay.nsw.gov.au](mailto:Paul.Dewar@canadabay.nsw.gov.au)



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**From:** Erran Woodward <[Erran.Woodward@ctp-afjv.com.au](mailto:Erran.Woodward@ctp-afjv.com.au)>  
**Sent:** Friday, 10 September 2021 12:12 PM  
**To:** Paul Dewar <[Paul.Dewar@canadabay.nsw.gov.au](mailto:Paul.Dewar@canadabay.nsw.gov.au)>  
**Cc:** Lorryn Williamson <[Lorryn.Williamson@ctp-afjv.com.au](mailto:Lorryn.Williamson@ctp-afjv.com.au)>; Aidann Stathis <[aidann@hutchisonweller.com](mailto:aidann@hutchisonweller.com)>  
**Subject:** Pending comments from City of Canada Bay Council

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. Please report all suspicious emails to [helpdesk@canadabay.nsw.gov.au](mailto:helpdesk@canadabay.nsw.gov.au)

Hi Paul,

As discussed, I would like to follow up on remaining comments on documents provided to City of Canada Bay Council for your review.

Our records show only the following comments remain to be received:

- Noise and Vibration Management Plan
- Noise and Vibration Monitoring Program.

Could you please confirm if you would like to provide comment on these documents.

Kind regards,  
ew

---

**Erran Woodward**  
Environmental Approvals Manager  
Acciona Ferrovial Joint Venture

## **Erran Woodward**

---

**From:** Dylan Porter <Dylan.Porter@burwood.nsw.gov.au>  
**Sent:** Friday, 17 September 2021 8:46 PM  
**To:** Erran Woodward  
**Cc:** Lorryn Williamson  
**Subject:** RE: SMW -CTP Environmental Documents

Hi Erran

Thank you for your latitude in giving some additional time to respond to these reports. I would offer that both reports cover at a management level the key issues that need to be addressed. However, there are two key suggestions that I would like to make in relation to key management activities.

### **Noise and Vibration Management Plan**

The consideration of noise and vibration impacts outlines a number of issues in terms of intrusive activities and assumed impact upon local residents and business. The basis of this appears sound but is based upon traditional considerations of daily life. It is suggested that there has been an increase in working from home, which means an increased number of residents at home between 9am and 5pm Monday to Friday, which within the noise and vibration management plan is period when increase construction noise and activity is likely to occur.

Similarly, from a local business perspective, it is likely that business, in particularly hospitality, is striving to return to business normality. For hospitality in particular this will likely mean increase use of outdoor spaces in response to venue capacity limits, which will be more directly impacted by construction activities.

It is requested that consideration be given to likely or potential business or working practices that may occur in response to COVID restrictions and management procedures. This will mean further consideration of impacts of noise and vibration on a cumulative basis and upon those living and working from home and broader consideration of impacts.

### **Heritage Management Plan**

No additional comments on the content of the management plan. However, we request that copies of any photos during the demolition and construction phases of the project, be provided to Burwood Council library. Council has historian and archivist officers, and records of major construction projects such as the Sydney Metro Burwood North station offer invaluable insight into the development of the locality and record of these events can be retain in our library records.

Trust you find these comments constructive and can make myself available to elaborate on any issues.

Regards

**Dylan Porter**  
Director City Strategy  
T: 02 9911 9850

E: [Dylan.Porter@burwood.nsw.gov.au](mailto:Dylan.Porter@burwood.nsw.gov.au)  
2 Conder Street, Burwood, NSW, 2134



Inc.1874  
**Burwood**

Burwood . Burwood Heights . Croydon . Croydon Park . Enfield . Strathfield



---

**From:** Erran Woodward [mailto:[erran.woodward@ctp-afjv.com.au](mailto:erran.woodward@ctp-afjv.com.au)]  
**Sent:** Thursday, 16 September 2021 4:31 PM  
**To:** Dylan Porter  
**Cc:** Lorryn Williamson  
**Subject:** SMW -CTP Environmental Documents

Hi Dylan,

Can you please confirm you will not be providing comment on the following documents:

- Noise and Vibration Management Plan including Monitoring Program – first provided 18 August
- Heritage Management Plan – first provided 23 August

At this stage we must progress the document with the comments received from all other reviewers and can no longer accommodate any further delay. This extended review period will conclude 17 September, and any comments received after this time may be considered in subsequent revisions and/or after DPIE document review.

Thanks,  
ew



**Erran Woodward**  
Environmental Approvals Manager  
Acciona Ferrovia Joint Venture

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

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## Erran Woodward

---

**From:** Terrence Wong <terrence.wong@strathfield.nsw.gov.au>  
**Sent:** Friday, 10 September 2021 2:39 PM  
**To:** Erran Woodward  
**Cc:** Stephen Clements; Bradley Pope; Sarah Kacir  
**Subject:** RE: Pending comments from Strathfield Council

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Erran,

Thanks for sending through the report for Council's comment.

On behalf of Stephen, I've reviewed the Noise and Vibration Management Plan including Monitoring Program.

The acoustic report indicated minimal impact on Strathfield LGA's residents, most notably within Noise Catchment area 10 (NCA 10). Based on the proposed metro rail alignment, at this stage Strathfield Council is satisfied with the noise mitigation measures and monitoring program put in place to ensure compliance.



**Terrence Wong** | *Development Compliance Officer*  
P 9748 9999  
65 Homebush Rd, Strathfield NSW 2135  
[www.strathfield.nsw.gov.au](http://www.strathfield.nsw.gov.au)



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A blue banner with white and yellow text. On the left, it says "COVID-19 VACCINES" in large yellow letters, followed by "To stay up to date with the latest news and information about Covid-19 vaccines including booking an appointment." in white. On the right, there is an illustration of a family (a man, a woman, and a child) standing under a protective dome, with a large syringe icon above them. The Strathfield Council logo is in the bottom right corner, and a yellow button with a white play icon and the text "FIND OUT MORE" is at the bottom right.

**COVID-19 VACCINES**  
To stay up to date with the latest news and information about Covid-19 vaccines including booking an appointment.  
STRATHFIELD COUNCIL  
▶ FIND OUT MORE

COVID-19 Info | updates [aus.gov.au](http://aus.gov.au) | WhatsApp: [www.aus.gov.au/whatsapp](http://www.aus.gov.au/whatsapp) | Coronavirus Australia App: [download here](#)  
 COVID-19 Health Updates | [health.gov.au](http://health.gov.au) or 24/7 Coronavirus Hotline 1800 020 080

---

**From:** Erran Woodward [<mailto:Erran.Woodward@ctp-afjv.com.au>]  
**Sent:** Friday, 10 September 2021 1:56 PM  
**To:** Stephen Clements <[stephen.clements@strathfield.nsw.gov.au](mailto:stephen.clements@strathfield.nsw.gov.au)>  
**Cc:** Lorryn Williamson <[Lorryn.Williamson@ctp-afjv.com.au](mailto:Lorryn.Williamson@ctp-afjv.com.au)>; Ankur Arora <[Ankur.Arora@transport.nsw.gov.au](mailto:Ankur.Arora@transport.nsw.gov.au)>  
**Subject:** Pending comments from Strathfield Council

Hi Stephen,

Following our chat this morning, I am reaching out to follow up on comments on documents provided to Strathfield Council for review for the Sydney Metro West Central Tunnelling Package project.

To date the Acciona Ferrovia Joint Venture has provided the following documents to Strathfield Council for their opportunity to comment:

- Noise and Vibration Management Plan including Monitoring Program
- Flora and Fauna Management Plan
- Soil and Water Management Plan including Monitoring Program
- Heritage Management Plan
- Spoil Management Plan

Could you please confirm if Council is intending on providing comment on these documents, as the review period has now reached completion.

Thanks,  
ew



**Erran Woodward**  
Environmental Approvals Manager  
**Acciona Ferrovia Joint Venture**

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

---

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## Erran Woodward

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**From:** Michael Jollon <MJollon@cityofparramatta.nsw.gov.au>  
**Sent:** Friday, 1 October 2021 4:05 PM  
**To:** Erran Woodward  
**Cc:** Phillip Kelly  
**Subject:** RE: SMW - CTP Environmental Documents

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Erran,

I am sorry for not getting back to you. I can confirm that CoP will not be able to review within the timeframes you are working to consider these plans. I note that most of these works are outside of Parramatta's LGA, and those that are in our City, I believe are within the responsibility of the Sydney Olympic Park Authority. If Council has any issues we wish to raise, we will raise them through any of public, official, or stakeholder communication channels with the project.

Thank you for consulting with City of Parramatta.

Kind regards

**Michael Jollon**  
Transport Planning Manager | City Strategy

02 9806 5580 | 0427 840 254

City of Parramatta  
126 Church Street, Parramatta NSW 2150  
PO Box 32, Parramatta NSW 2124  
[cityofparramatta.nsw.gov.au](http://cityofparramatta.nsw.gov.au)



I acknowledge the Traditional Owners of the land I work on, the Darug Peoples, and pay my respects to their Elders past and present.

---

**From:** Erran Woodward <erran.woodward@ctp-afjv.com.au>  
**Sent:** Friday, 1 October 2021 3:54 PM  
**To:** Michael Jollon <MJollon@cityofparramatta.nsw.gov.au>  
**Subject:** RE: SMW - CTP Environmental Documents

\*\*\*[EXTERNAL EMAIL] Stop and think before opening attachments, clicking on links or responding. \*\*\*

Hi Michael,

Just to close out the review, can you please confirm if City of Parramatta will not be providing comment on documents provided by the AFJV for the Sydney Metro West Central Tunnelling Package, including:

- Noise and Vibration Management Plan and Monitoring Program
- Flora and Fauna Management Plan
- Soil and Water Management Plan including Surface Water Monitoring Program
- Heritage Management Plan
- Spoil Management Plan.

Thanks,  
ew



**Erran Woodward**  
Environment Manager  
**Acciona Ferrovia Joint Venture**

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**From:** Erran Woodward  
**Sent:** Wednesday, 22 September 2021 3:37 PM  
**To:** 'Michael Jollon' <[MJollon@cityofparramatta.nsw.gov.au](mailto:MJollon@cityofparramatta.nsw.gov.au)>  
**Subject:** RE: SMW - CTP Environmental Documents

Hi Michael,

Noting that we are still waiting on response on the Sydney Metro West Central Tunnelling Package environmental documentation sent to you (on behalf of Parramatta City Council) in August, I am sorry to provide the update that this review period is now completed. We still welcome your comments but note that these may need to be considered as part of future revisions.

Can you please confirm you are comfortable with this solution.

Thanks,  
ew



**Erran Woodward**  
Environmental Approvals Manager  
**Acciona Ferrovia Joint Venture**

*Sydney Metro West  
Central Tunnelling Package*

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**From:** Erran Woodward  
**Sent:** Wednesday, 15 September 2021 5:50 PM  
**To:** Michael Jollon <[MJollon@cityofparramatta.nsw.gov.au](mailto:MJollon@cityofparramatta.nsw.gov.au)>  
**Subject:** RE: SMW - CTP Environmental Documents

Hi Michael,

Thanks for letting me know.

Thanks,  
ew



**Erran Woodward**  
Environmental Approvals Manager  
**Acciona Ferrovia Joint Venture**

*Sydney Metro West  
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**From:** Michael Jollon <[MJollon@cityofparramatta.nsw.gov.au](mailto:MJollon@cityofparramatta.nsw.gov.au)>  
**Sent:** Monday, 13 September 2021 3:29 PM  
**To:** Erran Woodward <[erran.woodward@ctp-afjv.com.au](mailto:erran.woodward@ctp-afjv.com.au)>  
**Subject:** FW: SMW - CTP Environmental Documents

Hi Erran,

I am very sorry to say that I do not think I have distributed these around Council for officer comments. I am afraid I was receiving a volume of similar reports for Parramatta and Westmead enabling works, and I must have conflated the two stages. I am not likely to have comments to you in time. But if you don't mind, I will send to responsible officers as an FYI now and collect and return any comments later? (Also noting the impacted land is SOPA land and we are unlikely to have any comments for areas we don't administer.)

Regards

**Michael Jollon**  
Transport Planning Manager | City Strategy

02 9806 5580 | 0427 840 254

City of Parramatta  
126 Church Street, Parramatta NSW 2150  
PO Box 32, Parramatta NSW 2124  
[cityofparramatta.nsw.gov.au](http://cityofparramatta.nsw.gov.au)



I acknowledge the Traditional Owners of the land I work on, the Darug Peoples, and pay my respects to their Elders past and present.

---

**From:** Erran Woodward <[erran.woodward@ctp-afjv.com.au](mailto:erran.woodward@ctp-afjv.com.au)>  
**Sent:** Monday, 13 September 2021 3:19 PM  
**To:** Michael Jollon <[MJollon@cityofparramatta.nsw.gov.au](mailto:MJollon@cityofparramatta.nsw.gov.au)>  
**Cc:** Lorryn Williamson <[lorryn.williamson@ctp-afjv.com.au](mailto:lorryn.williamson@ctp-afjv.com.au)>; [ankur.arora@transport.nsw.gov.au](mailto:ankur.arora@transport.nsw.gov.au)  
**Subject:** SMW - CTP Environmental Documents

**\*\*\*[EXTERNAL EMAIL] Stop and think before opening attachments, clicking on links or responding. \*\*\***

Hi Michael,

Following my email last week, can you please confirm if Parramatta City Council will be providing comment on the following documents, provided for the Sydney Metro West Central Tunnelling Package:

- Noise and Vibration Management Plan and Monitoring Program
- Flora and Fauna Management Plan
- Soil and Water Management Plan including Surface Water Monitoring Program
- Heritage Management Plan
- Spoil Management Plan.

Your response would be appreciated as soon as possible if one is to be provided, as the consultation and review phase has now been completed.

Thanks,  
ew



**Erran Woodward**  
Environmental Approvals Manager  
**Acciona Ferrovial Joint Venture**

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

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this email.

From: Mark Jansons <Mark.Jansons@epa.nsw.gov.au>  
Sent: Tuesday, 21 September 2021 2:48 PM  
To: Lorryn Williamson  
Cc: Jacqueline Ingham; Afnan Fazli; Joanne Bell (EPA)  
Subject: EXT: RE: SMW-Central Tunnelling Package - groundwater monitoring program - document review

Hi Lorryn,

Thank you for the request for comment from AFJV requesting the review by the NSW Environment Protection Authority (EPA) of the Noise and Vibration Monitoring Program for the Central Tunnelling Package for the Sydney Metro West Project.

The EPA's position on post approval management plans or similar, is to encourage the development of such plans to ensure that proponents have determined how they will meet their statutory obligations and designated environmental objectives.

However, we do not approve or endorse these documents as our role is to set environmental objectives for environmental management and not to be directly involved in the development of strategies to achieve those objectives. Therefore we will not be providing comments on the plan.

The EPA may however request such documents are submitted with Environment Protection Licence applications or variations to ensure compliance with s.45 of the Protection of the Environment (Operations) Act 1997 and to support those decisions.

Regards,  
Mark

**Mark Jansons**  
Senior Operations Officer  
NSW Environment Protection Authority  
Ph: 02 9995 6829



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---

From: Lorryn Williamson <lorryn.williamson@acciona.com>  
Sent: Tuesday, 7 September 2021 12:23 PM  
To: INFOEnvironment <info@environment.nsw.gov.au>; Mark Jansons <Mark.Jansons@epa.nsw.gov.au>  
Subject: SMW-Central Tunnelling Package - groundwater monitoring program - document review  
Importance: High

Dear Mark,

The Acciona Ferrovia Joint Venture (AFJV) are engaged with Sydney Metro to construct the tunnel and station boxes of the Sydney Metro West – Central Tunneling Package between The Bays and Sydney Olympic Park. The project was approved with Conditions of Approval (SSI 10038) issued on 28 July 2021.

A copy of the planning consent conditions are attached for your reference.

The EIS and subsequent submissions response are located at <https://www.planningportal.nsw.gov.au/major-projects/project/25631>

AFJV invites EPA to review the attached AFJV Noise & Vibration Monitoring Program Rev 00 for the project in accordance with these conditions.

AFJV are kindly requesting that comments be provided within 10 business days.

If you would like to discuss any aspect of the Noise & Vibration Monitoring Program please contact the undersigned.

Thank you



Lorryn Williamson  
Manager | Environment and Sustainability | Central Region (NSW/ACT)  
ACCIONA Construction Australia  
  
Level 2, 55 Harrington Street,  
The Rocks, NSW, 2000, Australia  
+61 427 243 313  
[lorryn.williamson@acciona.com](mailto:lorryn.williamson@acciona.com)  
[www.acciona.com.au](http://www.acciona.com.au)

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30 August 2021

Mr Joseph Cruz

Email: [system@teambinder.com](mailto:system@teambinder.com)>

Dear Mr Cruz

**Re: Comments: Sydney Metro West Project – CTP – Noise and Vibration  
Management Plan and NV Monitoring Program  
- LOC Reference Number: #11196**

Place Management NSW (PMNSW) have been reviewed and advise the following:

- For the purpose of this report in regard to White Bay Power Station site, “heritage values” is understood to mean the heritage significance criteria as set out in the *White Bay Power Station Conservation Management Plan* (2013) by Design 5 Architects.
- For purposes of this report in regard to White Bay Power Station site, “heritage specialist” is understood to refer to PMNSW heritage staff, or their appointed representatives.
- A *Condition Report* is to be established prior to construction, as indicated in Table 20 (MMNV 9, 10) in consultation with PMNSW heritage staff and its nominated heritage consultants.
- (MMNV10) Condition Surveys – PMNSW has flagged the need for these to be undertaken asap before its contractor commences work on site in October.
- PMNSW confirms that even cosmetic damage due to vibration is unacceptable as the WBPS is Heritage listed and PMNSW has obligations under the Heritage Act to protect the asset.
- Therefore, PMNSW seeks AFJV confirmation that it will adopt the lower screening level of 2.5mm/s for heritage structures as the default base case and that this will not be increased unless actioning the following point demonstrates that cosmetic damage will be avoided at a higher level.
- (MMNV9) AFJV will need to work with PMNSW to verify that the safe working distances in 6.4.4 are sufficient to prevent cosmetic damage and confirm the acceptable screening levels by WBPS building / structure, noting that acceptable screening levels should not revert to “standard building vibration criteria” without approval by PMNSW and that it may be possible that the acceptable level(s) is between 2.5mm/s and the standard level.
- The NVMP notes that vibration monitoring equipment will be placed at footing level of structures. PMNSW’s structural engineer has advised that it is possible that some amplification of vibrations may be experienced near the top of the WBPS buildings. As such, the NVMP plan should consider placing

monitors on roofs of sensitive receivers and must agree the locations of these with PMNSW's structural engineer. The indicative nominal real-time vibration monitoring location shown needs to be confirmed according to points 4 and 5 above. It is noted that more than one location may be required depending on the results of initial on site monitoring in different locations for different buildings at WBPS.

- Whilst we understand that blasting will be unlikely to be used at the bays site due to its geology, if it is proposed to be introduced PMNSW would wish to review the blast management strategy in advance.
- PMNSW requests to review the site specific DNVIS that will be produced for the bays site.
- Reporting data from real time vibration monitoring to PMNSW needs to be more frequent than every six months, PMNSW requests monthly as standard and, if there is an instance of damage, then it should be weekly for the [four] weeks following the damage occurring to validate that the construction practices that caused the damage have been systematically rectified.
- PMNSW requests that a standard operating procedure be proposed by AFJV for PMNSW and its consultants and contractors to alert Metro and AFJV to any damage that they identify as having occurred after the AFJV commences its works and believe is caused by vibration generated by AFJV works, ie who should PMNSW notify and how, etc and what mitigating actions this will trigger AFJV to take, etc.
- PMNSW notes that the intent and focus of the above comments is consistent with the intent and focus of the comments PMNSW provided to Metro in April 2021 related to Quickway's NVMP.

**For Further Assistance:**

If you require any further information or wish to discuss the contents of this letter, please contact Katarina Simunic on 0436 802 874.

Yours sincerely



**Arthur Tzortzis**  
A/Director, Leasing & Asset Management

**From:** [Sally Hamilton](#)  
**To:** [Erran Woodward](#)  
**Subject:** FW: SMWST1 - Notification of Automatic Review of Restrained Document(s) issued for Review  
**Date:** Wednesday, 22 September 2021 12:22:19 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[AFJV Comments Review sheet - SOPA CONSOLIDATED COMMENTS.xlsx](#)  
**Importance:** High

---

Hi Erran,

As per yesterday's message could you please direct all queries about the documents to Vivienne?

Cheers

Sally

Sally Hamilton  
Director, Environment and Planning  
Sydney Olympic Park Authority  
0419 229 259  
9714 7140

---

**From:** Julie Currey <[Julie.Currey@sopa.nsw.gov.au](mailto:Julie.Currey@sopa.nsw.gov.au)>  
**Sent:** Wednesday, 22 September 2021 11:46 AM  
**To:** Vivienne Albin <[Vivienne.Albin@sopa.nsw.gov.au](mailto:Vivienne.Albin@sopa.nsw.gov.au)>; Sally Hamilton <[Sally.Hamilton@sopa.nsw.gov.au](mailto:Sally.Hamilton@sopa.nsw.gov.au)>  
**Cc:** 'Erran Woodward' <[erran.woodward@ctp-afjv.com.au](mailto:erran.woodward@ctp-afjv.com.au)>  
**Subject:** FW: SMWST1 - Notification of Automatic Review of Restrained Document(s) issued for Review  
**Importance:** High

Viv, Sally,

Were comments sought from Ecology in relation to flora and fauna and soil and water management? I recall Kerry did provide comments – unless I'm getting my CEMPs mixed up?

Julie

---

**From:** Erran Woodward <[erran.woodward@ctp-afjv.com.au](mailto:erran.woodward@ctp-afjv.com.au)>  
**Sent:** Wednesday, 22 September 2021 11:06 AM  
**To:** Julie Currey <[Julie.Currey@sopa.nsw.gov.au](mailto:Julie.Currey@sopa.nsw.gov.au)>  
**Cc:** Aidann Stathis <[aidann@hutchisonweller.com](mailto:aidann@hutchisonweller.com)>  
**Subject:** RE: SMWST1 - Notification of Automatic Review of Restrained Document(s) issued for Review

Hi Julie – these are automated messages sent by TeamBinder. It basically just means the comments period is closed, but it was actually closed a while ago and is just a belated and unhelpful feature. Please rest assured that we have your comments and are addressing them as part of the uprevved plan.

However with regards to the provision of comments, a consolidated spreadsheet of comments was provided by SOPA (attached FYI), but there were no comments included for the:

- Flora and Fauna Management Plan
- Soil and Water Management Plan including the Monitoring Program

Can you please confirm in writing for our records that SOPA have no comments on these documents?

Thanks,  
ew

**Erran Woodward**  
Environmental Approvals Manager  
Acciona Ferrovial Joint Venture

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**From:** Julie Currey <[Julie.Currey@sopa.nsw.gov.au](mailto:Julie.Currey@sopa.nsw.gov.au)>  
**Sent:** Wednesday, 22 September 2021 10:46 AM  
**To:** Erran Woodward <[erran.woodward@ctp-afjv.com.au](mailto:erran.woodward@ctp-afjv.com.au)>  
**Subject:** FW: SMWST1 - Notification of Automatic Review of Restrained Document(s) issued for Review

Erran,

Are these messages an error?

Julie

**From:** [system@teambinder.com](mailto:system@teambinder.com) <[system@teambinder.com](mailto:system@teambinder.com)>  
**Sent:** Wednesday, 22 September 2021 9:23 AM  
**To:** Julie Currey <[Julie.Currey@sopa.nsw.gov.au](mailto:Julie.Currey@sopa.nsw.gov.au)>  
**Subject:** SMWST1 - Notification of Automatic Review of Restrained Document(s) issued for Review



## Notification of Automatic Review of Restrained Document(s) issued for Review

Your review of the following document(s) **is no longer required**. The document(s) has moved on in the review workflow.

**Project:** Sydney Metro West Project Delivery (SMWST1)  
**Date:** 22 September 2021, 09:23:06 AM +10:00

Document No	Rev	Sts	Title	Discipline
SMWSTCTP-AFJ-1NL-NV-PLN-000001	00	S3	Sydney Metro West - CTP - Noise and Vibration Management Plan and NV Monitoring Program	EN

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DOCUMENT NO.	TITLE	VER	STATUS	NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT	Int_Hst	Int_Cmnt	DocOrder
				127	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	For the purpose of this report in regard to White Bay Power Station site, "heritage values" is understood to mean the heritage significance criteria as set out in the White Bay Power Station Conservation Management Plan (2013) by Design 5 Architects.	Observation	N	324	1384	262
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted	Observation	N	324	1384	263
				128	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	For purposes of this report in regard to White Bay Power Station site, "heritage specialist" is understood to refer to PMNSW heritage staff, or their appointed representatives.	Observation	N	324	1385	264
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The heritage specialist is the contractors heritage consultant. Further text has been added in Section 9.3.3 to make this clear. Additional text has also been added here to note that asset managers would be consulted on the placement of vibration monitoring devices within the curtilage of Heritage items.	Observation	N	324	1385	265
				129	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	A Condition Report is to be established prior to construction, as indicated in Table 20 (MMNV 9, 10) in consultation with PMNSW heritage staff and its nominated heritage consultants.	Observation	N	324	1386	266
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted. Further noted that this would be addressed as part of the Heritage Management Plan.	Observation	N	324	1386	267
				130	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	(MMNV10) Condition Surveys – PMNSW has flagged the need for these to be undertaken asap before its contractor commences work on site in October.	Observation	N	324	1387	268
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted. Further noted that this would be addressed as part of the Heritage Management Plan.	Observation	N	324	1387	269
				131	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	PMNSW confirms that even cosmetic damage due to vibration is unacceptable as the WBPS is Heritage listed and PMNSW has obligations under the Heritage Act to protect the asset.	Observation	N	324	1388	270
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted.	Observation	N	324	1388	271
				132	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Therefore, PMNSW seeks AFJV confirmation that it will adopt the lower screening level of 2.5mm/s for heritage structures as the default base case and that this will not be increased unless actioning the following point demonstrates that cosmetic damage will be avoided at a higher level.	Observation	N	324	1389	272
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Section 9.3.2 has been added to the CNVMP, this notes that 2.5mm will be adopted until it can be confirmed that the building is structurally sound.	Observation	N	324	1389	273
				133	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The NVMP notes that vibration monitoring equipment will be placed at footing level of structures. PMNSW's structural engineer has advised that it is possible that some amplification of vibrations may be experienced near the top of the WBPS buildings. As such, the NVMP plan should consider placing monitors on roofs of sensitive receivers and must agree the locations of these with PMNSW's structural engineer. The indicative nominal real-time vibration monitoring location shown needs to be confirmed according to points 4 and 5 above. It is noted that more than one location may be required depending on the results of initial on site monitoring in different locations for different buildings at WBPS.	Observation	N	324	1390	274
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Vibration is generally measured at the foundations of a building. Where there are concerns regarding the possibility of amplification, AFJV can work with Place Management to establish if this is occurring at WBPS. This would not lead to an ongoing monitoring process due to access and safety constraints but results of a short-term monitoring program should provide a level of confidence in the foundation monitoring. With regard to the number and location of vibration monitoring locations for the ongoing vibration monitoring survey, this will be determined as part of the DNVIS in consultation with PM NSW, and certainly may include multiple locations which may change over the course of the project. AFJV will work cooperatively with PMNSW to ensure concerns are addressed and monitoring	Observation	N	324	1390	275
				134	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Whilst we understand that blasting will be unlikely to be used at the bays site due to its geology, if it is proposed to be introduced PMNSW would wish to review the blast management strategy in advance.	Observation	N	324	1391	276
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted	Observation	N	324	1391	277
				135	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	PMNSW requests to review the site specific DNVIS that will be produced for the bays site.	Observation	N	324	1392	278
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	AFJV will liaise with PMNSW with regards to the outcomes of the DNVIS and will proactively address the concerns of PMNSW to ensure the effective management of this asset.	Observation	N	324	1392	279
				136	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Reporting data from real time vibration monitoring to PMNSW needs to be more frequent than every six months, PMNSW requests monthly as standard and, if there is an instance of damage, then it should be weekly for the [four] weeks following the damage occurring to validate that the construction practices that caused the damage have been systematically rectified.	Observation	N	324	1393	280

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								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Monitoring reports would be produced on a weekly basis for real time monitoring locations and within a week for monitoring. These would be provided by the noise consultant to AFJV. The Environment Manager will convey any issues regarding the results of monitoring to relevant stakeholders.	Observation	N	324	1393	281
				137	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	PMNSW requests that a standard operating procedure be proposed by AFJV for PMNSW and its consultants and contractors to alert Metro and AFJV to any damage that they identify as having occurred after the AFJV commences its works and believe is caused by vibration generated by AFJV works, ie who should PMNSW notify and how, etc and what mitigating actions this will trigger AFJV to take, etc.	Observation	N	324	1394	282
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	PMNSW should contact the Environment Manager so that an inspection of the potential damage can be undertaken together. After this takes place the standard process of incident review would take place.	Observation	N	324	1394	283
				138	30/08/2021	PMN	KSIMUNIC	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	PMNSW notes that the intent and focus of the above comments is consistent with the intent and focus of the comments PMNSW provided to Metro in April 2021 related to Quickway's NVMP.	Observation	N	324	1395	284
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	noted	Observation	N	324	1395	285
				139	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The CEMP objectives should include avoid structural damage to SOPA's remedated lands infrastructure (including gravity drain, peizometers). This infrastructre can compromised by vibrations and the case of the gravity drain, would be extremeyl difficult to reapiar. The infrastructure is required to be maintained by SOPA under CLM Act Notice 28040	Observation	N	324	1396	286
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Information has been requested from SOPA regarding the location and detail of this infrastrucutre. Consultation on the appropriate management of this infrastructure is required in accordance with CoA D101 which includes liaison with asset owners to indentify appropriate vibration criteria.	Observation	N	324	1396	287
				140	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Update Table 1 to include No damage to remedated lands infrastructure generated by the project - as the SOPA infrastructure is below ground, damage not be identified immediately. Damage to the gravity drain for example may is to be reflected in a build-up of leacachte within the landfill resulting in batter bleeds. Consultation with SOPA will be required to indentify any infrastructure damage and may require a period of monitoring to determine function has not been compromised.	Observation	N	324	1397	288
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	refer to response above.	Observation	N	324	1397	289
				141	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Section 3.5 - Acoustics Advisor will need to consult with the Site Auditor and any requirements under the RAP in realtion to potential vibration impacts on remedated lands infrastructure	Observation	N	324	1398	290
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The Acoustics Advisor can liaise with AFJV with on any request they may have in this regard.	Observation	N	324	1398	291
				142	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Table 5 - noise catchment areas - should note SOP is a major events precinct with event patron being key sensitive receivers	Observation	N	324	1399	292
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted and table 5 (now table 6) updated	Observation	N	324	1399	293
				143	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Section 6.4.1 - Buildings and Structures should include remediated lands infrastructure including leachate rising main, gravity grains and piezometers with suitable measures for monitoring, identifying and rectifying any damage in consultation with SOPA	Observation	N	324	1400	294
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Refer to response at comment 139	Observation	N	324	1400	295
				144	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Section 6.4.3 Vibration Sensitive structure - Should include leachate rising main, gravity drains and piezometers. The gravity drains are Atlantis drains.	Observation	N	324	1401	296
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Refer to response at comment 139	Observation	N	324	1401	297
				145	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Table 20 - Noise and Vibration Mitigation Measures - Should include consulting with site Auditor , environmental consultants and SOPA to ensure adequate consideration and mitigation measure are put in place for remediated lands infrastructure prior to undertaking tunnelling beneath SOP . And condition assessment of infrastructure following tunnelling - SOPA can provide some monitoring data to assist.	Observation	N	324	1402	298
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Refer to response at comment 139	Observation	N	324	1402	299
				146	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Appendix B - include monitoring or assessment measures for identifying damage to remediated lands infrastructure	Observation	N	324	1403	300
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Refer to response at comment 139	Observation	N	324	1403	301

DOCUMENT NO.	TITLE	VER	STATUS	NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUME NT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT	Int_Hst	Int_Cmnt	DocOrder
				147	8/09/2021	SOA	JCURREY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Appendix B - relevant legislation - should include CLM Act	Observation	N	324	1404	302
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	This is not an appropriate reference as the CLM act is not relevant to the Monitoring Program	Observation	N	324	1404	303
				148	10/09/2021	IWC	DCROSBY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	At The Bays, would there be any cumulative noise and vibration effects from the Eastern tunnel package that need to be considered?	Observation	N	324	1405	304
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The management of cumulative noise and vibration impacts have been discussed in Section 9.6 of the CNVMP. Essentially consultation with relevant stakeholders from neighbouring projects would be undertaken throughout the duration of the CTP. This would include interface with projects such as West Connex Rozelle interchange and other Metro Projects.	Observation	N	324	1405	305
				149	10/09/2021	IWC	DCROSBY	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Have other major projects' CEMPs been considered in these Central Tunnelling CEMPs?	Observation	N	324	1406	306
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The management of cumulative noise and vibration impacts have been discussed in Section 9.6 of the CNVMP.	Observation	N	324	1406	307
				150	10/09/2021	STF	SCLEMENTS	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The acoustic report indicated minimal impact on Strathfield LGA's residents, most notably within Noise Catchment area 10 (NCA 10). Based on the proposed metro rail alignment, at this stage Strathfield Council is satisfied with the noise mitigation measures and monitoring program put in place to ensure compliance. - Comment by TW	Observation	N	324	1407	308
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted	Observation	N	324	1407	309
				151	10/09/2021	CCB	PDEWAR	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	No comments	Observation	Y	324	1408	310
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted	Observation	Y	324	1408	311
				152	10/09/2021	PAR	MJOLLON	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	No comments	Observation	Y	324	1409	312
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Noted	Observation	Y	324	1409	313
				153	17/09/2021	BCL	DPORTER	SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	The consideration of noise and vibration impacts outlines a number of issues in terms of intrusive activities and assumed impact upon local residents and business. The basis of this appears sound but is based upon traditional considerations of daily life. It is suggested that there has been an increase in working from home, which means an increased number of residents at home between 9am and 5pm Monday to Friday, which within the noise and vibration management plan is period when increase construction noise and activity is likely to occur. Similarly, from a local business perspective, it is likely that business, in particular hospitality, is striving to return to business normality. For hospitality in particular this will likely mean increase use of outdoor spaces in response to venue capacity limits, which will be more directly impacted by construction activities. It is requested that consideration be given to likely or potential business or working practices that may occur in response to COVID restrictions and management procedures. This will mean further consideration of impacts of noise and vibration on a cumulative basis and upon those living and working from home and broader consideration of impacts	Observation	N	324	1410	314
								SMWSTCTP-AFJ-1NL-NV-PLN-000001	General	NA	Its noted that the hours residents are at home has increased and that the day time period is generally more sensitive than it was pre-pandemic. Despite this the day time period 9-5pm would still be considered the least sensitive period of the day. While best efforts will be made to ensure residents are not unnecessarily disrupted, including the mitigation measures and constulation processes described in this document, it is not currently proposed to minimise working hours during the day time period owing to COVID lockdowns.	Observation	N	324	1410	315

<b>CoA C5(a) Noise and Vibration Management Plan Consultation Phase B2 – Tunnelling Works</b>		
<b>Government Agency/Stakeholder</b>	<b>Date consulted</b>	<b>Date of response</b>
Inner West Council	10/6/22	No response
City of Canada Bay Council	10/6/22	No response
Burwood Council	10/6/22	1/7/22
Strathfield Municipal Council	10/6/22	24/6/22
City of Parramatta Council	10/6/22	No response
Place Management NSW	10/6/22	1/7/22
Sydney Olympic Park Authority	10/6/22	1/7/22

## Gregor Wilson

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**From:** Erran Woodward  
**Sent:** Friday, 10 June 2022 4:10 PM  
**To:** 'Sally.Hamilton@sopa.nsw.gov.au'; Rupert Luxton; 'Vivienne.Albin@sopa.nsw.gov.au'; Eric Wong; Paul Dewar; john.earls@canadabay.nsw.gov.au; Dylan Porter; David Crosby; Ken Welsh; Stephen Clements; Sasi Kumar; Sandra Martin; Michelle King  
**Cc:** Anne Andersen; James Hayward  
**Subject:** CTP Noise and Vibration Management Plan (Rev07) - for review.  
**Attachments:** SMWSTCTP-AFJ-1NL-NV-PLN-000001 Sydney Metro West - CTP - Noise and Vibration Management Plan (External).pdf; SMWST1 External Comments Template.xlsx

This email is addressed to:

- Sydney Olympic Park Authority
- City of Canada Bay Council
- Burwood Council
- Inner West Council
- Strathfield Municipal Council
- City of Parramatta Council
- Place Management NSW

Hi,

Acciona Ferrovia Joint Venture (AFJV) would like to provide for your review the Sydney Metro West Central Tunnelling Package (CTP):

- Noise and Vibration Management Plan (Rev07)

The CTP Construction Environmental Management Plan (CEMP) was prepared as a phased document. The first phase (B1) addressed civils works (including surface works and station box excavation); this second phase (B2) is an update to include tunnelling activities. As per the Sydney Metro Phasing Report, as this update is under a new 'phase' this must undergo a repeat of the consultation undertaken for the CEMP phase B1, with consultation limited to only those changes to include tunnelling. These updates are minimal in nature and have been highlighted in the text, to assist your review.

We invite your feedback on highlighted changes using the attached Comments Template and seek a response by 22 June 2022. If you have any questions please do not hesitate to contact me on the details below.

Thanks,  
ew



**Erran Woodward**  
Environment Manager  
**Acciona Ferrovia Joint Venture**

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

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## **Gregor Wilson**

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**From:** Dylan Porter <Dylan.Porter@burwood.nsw.gov.au>  
**Sent:** Friday, 1 July 2022 12:46 PM  
**To:** Erran Woodward  
**Subject:** RE: Closure of document review period

Erran

No further comments on the updated management plans. However, I would note that I cannot identify a specific response to the points raised below and as per our previous submission.

Do you have a comments register which notes the AAJV response to these issues?

### **Noise and Vibration Management Plan**

The consideration of noise and vibration impacts outlines a number of issues in terms of intrusive activities and assumed impact upon local residents and business. The basis of this appears sound but is based upon traditional considerations of daily life. It is suggested that there has been an increase in working from home, which means an increased number of residents at home between 9am and 5pm Monday to Friday, which within the noise and vibration management plan is period when increase construction noise and activity is likely to occur.

Similarly, from a local business perspective, it is likely that business, in particularly hospitality, is striving to return to business normality. For hospitality in particular this will likely mean increase use of outdoor spaces in response to venue capacity limits, which will be more directly impacted by construction activities.

It is requested that consideration be given to likely or potential business or working practices that may occur in response to COVID restrictions and management procedures. This will mean further consideration of impacts of noise and vibration on a cumulative basis and upon those living and working from home and broader consideration of impacts.

### **Heritage Management Plan**

No additional comments on the content of the management plan. However, we request that copies of any photos during the demolition and construction phases of the project, be provided to Burwood Council library. Council has historian and archivist officers, and records of major construction projects such as the Sydney Metro Burwood North station offer invaluable insight into the development of the locality and record of these events can be retained in our library records.

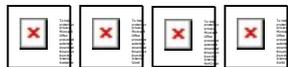
Further on this point, we provided feedback on the Heritage Assessment for the property on the corner of the Burwood Road and Parramatta Road, which concluded that there was potential for this property to meet the threshold for heritage listing, despite being noted for demolition. The updated management plan did not appear to make a response to this point.

Regards

**Dylan Porter**  
Director City Strategy  
T: 02 9911 9850  
E: [Dylan.Porter@burwood.nsw.gov.au](mailto:Dylan.Porter@burwood.nsw.gov.au)  
2 Conder Street, Burwood, NSW, 2134



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**From:** Erran Woodward <erran.woodward@ctp-afjv.com.au>

**Sent:** Friday, 1 July 2022 9:32 AM

**To:** Sally.Hamilton@sopa.nsw.gov.au; Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>; Dylan Porter <Dylan.Porter@burwood.nsw.gov.au>; Michelle King <michelle.king@property.nsw.gov.au>; Eric Wong <Eric.Wong@canadabay.nsw.gov.au>; Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>; john.earls@canadabay.nsw.gov.au; David Crosby <david.crosby@innerwest.nsw.gov.au>; Gordon Malesevic <gordon.malesevic@strathfield.nsw.gov.au>; Sasi Kumar <SKumar@cityofparramatta.nsw.gov.au>; Sandra Martin <SMartin@cityofparramatta.nsw.gov.au>

**Cc:** Oliver Gilroy-Sarkies <oliver.gilroysarkies@ctp-afjv.com.au>; Gregor Wilson <gregor.wilson@ctp-afjv.com.au>; Anne Andersen <anne.andersen@ctp-afjv.com.au>; Michael Woolley <michael.woolley@hbi.com.au>; John Ieroklis <John.Ieroklis@transport.nsw.gov.au>; Maria Doumit <maria.doumit@transport.nsw.gov.au>; James Hayward <James.Hayward@transport.nsw.gov.au>

**Subject:** Closure of document review period

This email is addressed to:

- Sydney Olympic Park Authority
- City of Canada Bay Council
- Burwood Council
- Inner West Council
- Strathfield Municipal Council
- City of Parramatta Council
- Place Management NSW

Hi,

Acciona Ferrovial Joint Venture (AFJV) would like to acknowledge your assistance in review the Sydney Metro West Central Tunnelling Package (CTP) Construction Environmental Management Plan update to include tunnelling activities.

Document review period for all documents will be closed by end of business today. If you have not provided comments on documents provided to you for review by this time, it will be understood that no comments will be provided.

Document	Response due by	Status
Flora and Fauna Management Plan	17/6/22	Closed
Heritage Management Plan	17/6/22	Closed
Spoil Management Plan	24/6/22	Closed
Noise and Vibration Management Plan	24/6/22	Closed
Soil and Water Management Plan	01/7/22	Closed

Thanks,  
ew



**Erran Woodward**  
Environment Manager  
**Acciona Ferrovia Joint Venture**

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

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**From:** Erran Woodward <erran.woodward@ctp-afjv.com.au>  
**Sent:** Friday, 1 July 2022 9:32 AM  
**To:** Sally.Hamilton@sopa.nsw.gov.au; Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>; Dylan Porter <Dylan.Porter@burwood.nsw.gov.au>; Michelle King <michelle.king@property.nsw.gov.au>; Eric Wong <Eric.Wong@canadabay.nsw.gov.au>; Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>; john.earls@canadabay.nsw.gov.au; David Crosby <david.crosby@innerwest.nsw.gov.au>; Gordon Malesevic <gordon.malesevic@strathfield.nsw.gov.au>; Sasi Kumar <SKumar@cityofparramatta.nsw.gov.au>; Sandra Martin <SMartin@cityofparramatta.nsw.gov.au>  
**Cc:** Oliver Gilroy-Sarkies <oliver.gilroysarkies@ctp-afjv.com.au>; Gregor Wilson <gregor.wilson@ctp-afjv.com.au>; Anne Andersen <anne.andersen@ctp-afjv.com.au>; Michael Woolley <michael.woolley@hbi.com.au>; John Ieroklis <John.Ieroklis@transport.nsw.gov.au>; Maria Doumit <maria.doumit@transport.nsw.gov.au>; James Hayward <James.Hayward@transport.nsw.gov.au>  
**Subject:** Closure of document review period

This email is addressed to:

- Sydney Olympic Park Authority
- City of Canada Bay Council
- Burwood Council
- Inner West Council
- Strathfield Municipal Council
- City of Parramatta Council
- Place Management NSW

Hi,

Acciona Ferrovia Joint Venture (AFJV) would like to acknowledge your assistance in review the Sydney Metro West Central Tunnelling Package (CTP) Construction Environmental Management Plan update to include tunnelling activities.

Document review period for all documents will be closed by end of business today. If you have not provided comments on documents provided to you for review by this time, it will be understood that no comments will be provided.

Document	Response due by	Status
Flora and Fauna Management Plan	17/6/22	Closed

Heritage Management Plan	17/6/22	Closed
Spoil Management Plan	24/6/22	Closed
Noise and Vibration Management Plan	24/6/22	Closed
Soil and Water Management Plan	01/7/22	Closed

Thanks,  
ew



**Erran Woodward**  
Environment Manager  
**Acciona Ferrovia Joint Venture**

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

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this email.

## Gregor Wilson

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**From:** Gordon Malesevic <gordon.malesevic@strathfield.nsw.gov.au>  
**Sent:** Friday, 24 June 2022 12:52 PM  
**To:** Erran Woodward  
**Cc:** Anne Andersen; Kandace Lindeberg  
**Subject:** Strathfield Council - CTP Noise and Vibration Management Plan (Rev07) - for review.

Afternoon Erran

As per our phone call this afternoon, I have read through the document you prepared and I'm struggling

As to providing you with feedback because it seems to address all aspects of the works quite well.

Regards



**Gordon Malesevic** | *Executive Manager, Urban Services*

P 9748 9999

1 Weeroona Rd, Strathfield NSW 2135

[www.strathfield.nsw.gov.au](http://www.strathfield.nsw.gov.au)



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**COVID-19 Health Updates** | [health.gov.au](http://health.gov.au) or 24/7 Coronavirus Hotline 1800 020 080

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**From:** Erran Woodward <erran.woodward@ctp-afjv.com.au>  
**Sent:** Friday, 10 June 2022 4:25 PM  
**To:** Gordon Malesevic <gordon.malesevic@strathfield.nsw.gov.au>  
**Cc:** Anne Andersen <anne.andersen@ctp-afjv.com.au>  
**Subject:** FW: CTP Noise and Vibration Management Plan (Rev07) - for review.

Hi Gordan,

I am providing you the attached as I received a response that Stephen Clements is currently on leave. Please refer to the email below for context on this submission.

Please let me know if you would like to be included on submission of documents for review.

Thanks,  
ew



**Erran Woodward**  
Environment Manager  
**Acciona Ferrovial Joint Venture**

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

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**From:** Erran Woodward  
**Sent:** Friday, 10 June 2022 4:10 PM  
**To:** 'Sally.Hamilton@sopa.nsw.gov.au' <[Sally.Hamilton@sopa.nsw.gov.au](mailto:Sally.Hamilton@sopa.nsw.gov.au)>; Rupert Luxton <[Rupert.Luxton@sopa.nsw.gov.au](mailto:Rupert.Luxton@sopa.nsw.gov.au)>; 'Vivienne.Albin@sopa.nsw.gov.au' <[Vivienne.Albin@sopa.nsw.gov.au](mailto:Vivienne.Albin@sopa.nsw.gov.au)>; Eric Wong <[Eric.Wong@canadabay.nsw.gov.au](mailto:Eric.Wong@canadabay.nsw.gov.au)>; Paul Dewar <[Paul.Dewar@canadabay.nsw.gov.au](mailto:Paul.Dewar@canadabay.nsw.gov.au)>; [john.earls@canadabay.nsw.gov.au](mailto:john.earls@canadabay.nsw.gov.au); Dylan Porter <[dylan.porter@burwood.nsw.gov.au](mailto:dylan.porter@burwood.nsw.gov.au)>; David Crosby <[david.crosby@innerwest.nsw.gov.au](mailto:david.crosby@innerwest.nsw.gov.au)>; Ken Welsh <[Ken.Welsh@innerwest.nsw.gov.au](mailto:Ken.Welsh@innerwest.nsw.gov.au)>; Stephen Clements <[stephen.clements@strathfield.nsw.gov.au](mailto:stephen.clements@strathfield.nsw.gov.au)>; Sasi Kumar <[SKumar@cityofparramatta.nsw.gov.au](mailto:SKumar@cityofparramatta.nsw.gov.au)>; Sandra Martin <[SMartin@cityofparramatta.nsw.gov.au](mailto:SMartin@cityofparramatta.nsw.gov.au)>; Michelle King <[michelle.king@property.nsw.gov.au](mailto:michelle.king@property.nsw.gov.au)>  
**Cc:** Anne Andersen <[anne.andersen@ctp-afjv.com.au](mailto:anne.andersen@ctp-afjv.com.au)>; James Hayward <[James.Hayward@transport.nsw.gov.au](mailto:James.Hayward@transport.nsw.gov.au)>  
**Subject:** CTP Noise and Vibration Management Plan (Rev07) - for review.

This email is addressed to:

- Sydney Olympic Park Authority
- City of Canada Bay Council
- Burwood Council
- Inner West Council
- Strathfield Municipal Council
- City of Parramatta Council
- Place Management NSW

Hi,

Acciona Ferrovial Joint Venture (AFJV) would like to provide for your review the Sydney Metro West Central Tunnelling Package (CTP):

- Noise and Vibration Management Plan (Rev07)

The CTP Construction Environmental Management Plan (CEMP) was prepared as a phased document. The first phase (B1) addressed civils works (including surface works and station box excavation); this second phase (B2) is an update to include tunnelling activities. As per the Sydney Metro Phasing Report, as this update is under a new 'phase' this must undergo a repeat of the consultation undertaken for the CEMP phase B1, with consultation limited to only those changes to include tunnelling. These updates are minimal in nature and have been highlighted in the text, to assist your review.

We invite your feedback on highlighted changes using the attached Comments Template and seek a response by 22 June 2022. If you have any questions please do not hesitate to contact me on the details below.

Thanks,  
ew



**Erran Woodward**  
Environment Manager  
**Acciona Ferrovial Joint Venture**

*Sydney Metro West  
Central Tunnelling Package  
+61 437 343 178*

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## Gregor Wilson

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**From:** Michelle King <michelle.king@property.nsw.gov.au>  
**Sent:** Friday, 1 July 2022 3:08 PM  
**To:** Erran Woodward  
**Cc:** Katarina Simunic  
**Subject:** 11525 - Comments - Sydney Metro West - Westmead to Sydney CBD-CTP Noise and Vibration Management Plan - 01.07.22 - Letter  
**Attachments:** 11525 - Comments - Sydney Metro West - Westmead to Sydney CBD-CTP Noise and Vibration Management Plan - 01.07.22 - Letter.PDF

Afternoon Erran

Please find attached PMNSW comments

Cheers  
Michelle

Michelle King  
Leasing & Place Management Officer  
Place Management NSW | Cities and Active Transport | Transport for NSW P 02 9240 8806 M 0419 400 842 | E michelle.king@property.nsw.gov.au Level 2, 66 Harrington Street, The Rocks NSW 2000 PO Box N408, Grosvenor Place NSW 1220

As Tallawoladah (The Rocks) and Tumbalong (Darling Harbour) and Barangaroo precincts' custodians, Place Management NSW recognises and understands that it stands on Aboriginal land, the area we know as Sydney. We would like to acknowledge the Gadigal people of the Eora Nation and their Elders as the Traditional Custodians of this area.

## Gregor Wilson

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**From:** Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>  
**Sent:** Friday, 1 July 2022 6:53 PM  
**To:** Erran Woodward  
**Cc:** Vivienne Ruth Albin  
**Subject:** RE: SMW CTP NVMP (REV 7)  
**Attachments:** Copy of SOPA comments on NVMP (Rev 7) (002.xlsx; ATT00001.txt; ATT00002.htm)

Hi Erran,

I have received additional comments from a colleague. Please see attached updated spreadsheet.

Kind regards

**Rupert Luxton**  
Urban Planner  
**Sydney Olympic Park Authority**

M 0400 768 486  
[rupert.luxton@sopa.nsw.gov.au](mailto:rupert.luxton@sopa.nsw.gov.au)  
Level 8, 5 Olympic Boulevard, Sydney Olympic Park, NSW, 2127  
[sydneyolympicpark.com.au](http://sydneyolympicpark.com.au)

Visit our [website](#) to find out about all of the exciting things you can do and see at Sydney Olympic Park.



**We acknowledge the Wangal as the first Custodians of the land, air and waters now known as Sydney Olympic Park. We pay respect to all First Nations People and our community Elders past, present and emerging.**

The information that you voluntarily provide to the Sydney Olympic Park Authority (5 Olympic Boulevard, Sydney Olympic Park NSW 2127) is collected for administrative purposes and may be held in a data base shared with the Office of Sport and Venues NSW. You have the right to access and correct the information.

**From:** Rupert Luxton  
**Sent:** Friday, 1 July 2022 1:51 PM  
**To:** Erran Woodward <erran.woodward@ctp-afjv.com.au>  
**Cc:** Vivienne Ruth Albin <Vivienne.Albin@sopa.nsw.gov.au>  
**Subject:** SMW CTP NVMP (REV 7)

Hi Erran,

Thank you for your patience with allowing us an extension to get this to you. Please see attached.

Kind regards

**Rupert Luxton**  
Urban Planner  
**Sydney Olympic Park Authority**

M 0400 768 486  
[rupert.luxton@sopa.nsw.gov.au](mailto:rupert.luxton@sopa.nsw.gov.au)  
Level 8, 5 Olympic Boulevard, Sydney Olympic Park, NSW, 2127  
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DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*
1/07/2022	BC	-	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>The consideration of noise and vibration impacts outlines a number of issues in terms of intrusive activities and assumed impact upon local residents and business. The basis of this appears sound but is based upon traditional considerations of daily life. It is suggested that there has been an increase in working from home, which means an increased number of residents at home between 9am and 5pm Monday to Friday, which within the noise and vibration management plan is period when increase construction noise and activity is likely to occur.</p> <p>Similarly, from a local business perspective, it is likely that business, in particularly hospitality, is striving to return to business normality. For hospitality in particular this will likely mean increase use of outdoor spaces in response to venue capacity limits, which will be more directly impacted by construction activities.</p> <p>It is requested that consideration be given to likely or potential business or working practices that may occur in response to COVID restrictions and management procedures. This will mean further consideration of impacts of noise and vibration on a cumulative basis and upon those living and working from home and broader consideration of impacts.</p>	Observation
13/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>It is noted that this comment has been provided and applies to all phases of works, including civils (surface works) and tunnelling. It is the role of the Detailed Noise and Vibration Impact Statements (DNVIS) required under the Conditions of Approval to assess noise impact and consider appropriate mitigation measures. Further, consultation with the community and the management of respite periods is required under CoA D40, D50, D51. This is in addition to the community consultation required under the Sydney Metro Overarching Community Communications Strategy.</p>	
1/07/2022	SOPA	-	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>Noted that the State Abattoirs heritage precinct is identified as being affected by 'potential direct impact – vibration'; on page 37; and that the plan details a range of measures to assess and monitor impacts to heritage items with the aim of avoiding structural and cosmetic damage due to vibration and settlement"</p>	Observation
13/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>Noted. Further noted that the Project has reduced the civils footprint area at SOP and no longer directly interacts with the State Abattoirs site.</p>	
1/07/2022	SOPA	-	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>The diagram at Appendix B: Noise and Vibration Monitoring Program A.1.1.1 Indicative real-time monitoring locations, shows a noise monitor located within the gardens of the State Abattoirs precinct, and a real-time vibration monitor located away from the heritage buildings. Please note that the gardens of the State Abattoir precinct form part of its heritage significance and liaison with SOPA is required for the placement of any monitoring structures. Please also advise why the real-time vibration monitor is not located within the heritage precinct to support assessment of impacts to these buildings</p>	Observation
13/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>Noted that this comment is not related to the scope of B2. AFJV has reduced the civils footprint area at SOP and no longer directly interacts with the State Abattoirs site. The SOP DNVIS identified that the buildings in the heritage precinct are outside the nominal buffer distances for risk of cosmetic damage. As such, the AFJV vibration monitor has been situated at a closer building to better reflect the risk of impact. Also, the monitor mapped in the gardens is a baseline monitor that was used to inform the EIS, ie it isn't/wasn't an AFJV monitor.</p>	
1/07/2022	SOPA	-	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	NA	<p>The noise and vibration plan appears to be in relation to the CTP only rather than tunnelling impacts. However impacts of tunnelling are discussed in section 7.1 which outlines the use of tunnel boring machines to excavate the tunnel between the bays and SOP. If this Noise and Vibration Plan is intended to address the potential environmental impacts of both the box excavation and the tunnelling works from the Bays to SOP then the comments provided previously by SOPA are still relevant as no attempt has been made to recognise the remediated lands infrastructures as potentially sensitive in-ground structures.</p>	Observation
13/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>The NVMP is intended to cover both civil and tunnelling works and the management measures to be applied to the CTP Works. It is not intended to be a detailed analysis of noise and vibration impacts on adjacent infrastructure- this is covered in the site specific DNVISs. Assessment of the SOPA infrastructure is provided in the Tunnelling DNVIS. The DNVIS process is described in Sections 7.2 and 8.2 of the NVMP.</p> <p>A copy of the Tunnelling DNVIS will be made available to SOPA once finalised.</p>	

DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*
1/07/2022	SOPA	-	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	NA	The NVP does discuss pipes and other in-ground services as low risk of damage as these as considered reasonably robust and unlike to be affected by boring machines, blasting or piling vibrations. However as indicated previously the remediated lands gravity drains and other structure are highly vulnerable to damage and if damaged, extremely difficult to impossible to repair. As such any NVP relevant to tunnelling works immediately beneath or adjacent to these structures much consider monitoring and mitigation measures to protect the remediated lands infrastructure.	Observation
13/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	Please refer to response above.	
1/07/2022	SOPA	-	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	NA	clarification is sought on if the attached plan is intended to contemplate the CTP box excavation works only or is intended to include tunnelling from The Bays through to Olympic Park.	Observation
13/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	The plan addresses station box excavation and tunnelling.	
1/07/2022	PMNSW	-	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	NA	Approval is subject to acceptance of Sydney Metro West's advised assessment of movement, and remediation, if required, under Condition D62 of the Conditions of Approval, set out in Appendix B of the West Stage 1 – Phasing Report.	Observation
13/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-NV-PLN-000001 Rev08	Revision 8	N/A	<p>Noted. AFJV notes that the Construction Noise and Vibration Management Plan (NVMP) does not address Planning Approval Condition D62 and therefore this comment is taken as a note. AFJV further notes that PM NSW are not required to approve the NVMP.</p> <p>The requirements of Planning Approval Condition D62 (regarding rectification of any property damage caused directly or indirectly (for example from vibration or from groundwater change) by the work) are noted and will be addressed in a process separate to the review of this document. As advised to PMNSW in the settlement presentation on 12 May 2022:</p> <ul style="list-style-type: none"> <li>•Pre and post dilapidation reports in accordance with CoA D60 and D61 will be completed noting the pre construction dilapidation report has been completed and provided to PMNSW.</li> <li>•Monitoring during construction/excavation including settlement monitoring will be undertaken in accordance with CoA D63.</li> <li>•A property damage process is established for review of any damage claims as a result of CTP Works (noting CoA C13 requires consultation with a suitably qualified and experienced heritage consultant for any rectification to WBPS).</li> </ul>	