



Appendix B4

Construction Heritage Sub-plan (HMP)

Project Name: Parramatta Light Rail Stage 2 Enabling Works

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Definitions

Term	Meaning
Aboriginal place	An Aboriginal Place is an area declared by the Minister administering the Act to be of special significance with respect to Aboriginal culture
Aboriginal objects	Aboriginal objects include any deposit, object or material evidence (not being a handicraft made for sale), including Aboriginal remains, relating to the Aboriginal habitation of NSW, before or concurrent with occupation by non-Aboriginal people, as defined in Section 5 of the NPW Act
AATEM	Aboriginal Archaeological Test Excavation Methodology (Appendix C of the Aboriginal Cultural Heritage Assessment Report)
ACHAR	Aboriginal Cultural Heritage Assessment Report
AG DCCEEW	Australian Government Department of Climate Change, Energy, the Environment and Water
AHIMS	Aboriginal Heritage Information Management System
AQMP	Construction Air Quality Management Sub-plan
ARDEM	Archaeological Research Design and Excavation Methodology (Appendix B of the Updated Historical Archaeological Assessment, Amendment Report)
BCS	Biodiversity Conservation and Science group of the NSW Department of Climate Change, Energy, the Environment and Water
CCS	Community Communication Strategy
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CEP	Communications and Engagement Plan
CMP	Conservation Management Plans
Construction	Includes Work required to construct the CSSI as defined in the Project Description described in the documents listed in Condition A1 including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding Low Impact Work which is carried out or completed prior to approval of the CEMP and work approved under a Site Establishment Management Plan
CSSI	Critical State Significant Infrastructure
CTTAMP	Construction Traffic, Transport and Access Management Sub-plan
DPHI	Department of Planning, Housing and Infrastructure
DPIRD Fisheries	NSW Department of Primary Industries and Regional Development – Fisheries
ECM	Environmental Control Map
EIS	Environmental Impact Statement Parramatta Light Rail Stage 2
Emergency Services	NSW Police, NSW Ambulance, Fire and Rescue NSW, NSW Rural Fire Services and NSW State Emergency Service
Environmental Assessment Documentation	The set of documents that comprise the Division 5.2 Approval: • Transport for NSW (November, 2022), Environmental Impact Statement (EIS) • Transport for NSW (October, 2023), Response to Submissions Report (Submissions Report) • Transport for NSW (October, 2023), Amendment Report (AR)



Term	Meaning
	The documents that comprise the EPBC Act referral: - Referral 2022/09300, to construct approximately 10 km long dual-track light rail line to connect Stage 1 of the Parramatta Light Rail network to Sydney Olympic Park, in NSW - Notification of referral decision and designated proponent - controlled action; date of decision 30 September 2022; ID: 2022/09300
Environmental aspect	Defined by AS/NZS ISO 14001:2016 as an element of an organisation's activities, products or services that can interact with the environment
Environmental impact	Defined by AS/NZS ISO 14001:2016 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects
Environmental objective	Defined by AS/NZS ISO 14001:2016 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve
Environmental target	Defined by AS/NZS ISO 14001:2016 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives
Environmental Representative (ER)	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. A key point of contact for the Planning Secretary in relation to environmental performance of the CSSI.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	NSW Environment Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
EPBC CoA	Condition of Approval of the Parramatta Light Rail Stage 2 Environmental Planning and Biodiversity Conservation Act 1999 (EPBC) 2022/09300
EPL	Environment Protection Licence
ESMS	Environment and Sustainability Management System
FFMP	Construction Flora and Fauna Management Sub-plan
HAMU	Historical Archaeological Management Units
Heritage Act	<i>NSW Heritage Act 1997</i>
Heritage item	A place, building, work, relic, archaeological site, tree, movable object or precinct of heritage significance, that is listed or may be eligible to be listed under one or more of the following registers: the State Heritage Register under the <i>Heritage Act 1977</i> (NSW), a state agency heritage and conservation register under Section 170 of the <i>Heritage Act 1977</i> (NSW), a Local Environmental Plan under the EP&A Act, the World, National or Commonwealth Heritage lists under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth), and/ or an Aboriginal object or Aboriginal place as defined in section 5 of the <i>National Parks and Wildlife Act 1974</i> (NSW)
HMP	Construction Heritage Management Sub-plan
IC	Independent Certifier
Infrastructure Approval	State Significant Infrastructure (SSI) 10035 Parramatta Light Rail Stage 2, determined on 22 February 2024
LALC	Local Aboriginal Land Council





Term	Meaning
LEP	Local Environmental Plan
MAMU	Maritime Archaeological Management Unit
MWNMP	Construction Maritime Works and Navigation Management Sub-plan
MR	Management Ratings
NATA	National Association of Testing Authorities
Non-compliance	An occurrence, set of circumstances or development that is a breach of the Infrastructure Approval.
NVMP	Construction Noise and Vibration Management Sub-plan
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPWS	NSW National Parks and Wildlife Service, within the NSW Department of Climate Change, Energy, the Environment and Water
NSW CoA	Condition of Approval of the State Significant Infrastructure (SSI) 10035 Parramatta Light Rail Stage 2
NSW DCCEEW – Water Group	Water Group of the NSW Department of Climate Change, Energy, the Environment and Water
OOHW	Out-of-hours work
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Roads and Maritime, 2011)
PAD	Potential Archaeological Deposit
Planning Secretary	Planning Secretary of the DPHI (or nominee, whether nominated before or after the date on which the Infrastructure Approval was granted)
PLR	Parramatta Light Rail
PLR2 – EW	Parramatta Light Rail Stage 2 – Enabling Works
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Preliminary ACHAR	Preliminary Aboriginal Cultural Heritage Assessment Report
Project, the	Parramatta Light Rail Stage 2 – Enabling Works
RAPs	Registered Aboriginal Parties
Relic	Evidence of past human activity which has local or state heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse
SEPP BC	<i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i>
SEPP PCRC	<i>State Environmental Planning Policy (Precincts – Central River City) 2021</i>
SHR	State Heritage Register
SOPA	Sydney Olympic Park Authority
SPR	Scope and Performance Requirements
SWMP	Construction Soil and Water Management Sub-plan



Term	Meaning
SSI	State Significant Infrastructure
TfNSW	Transport for NSW (the proponent)
Unexpected heritage find	A potential heritage item or place discovered but not identified in the documents listed in the Environmental Assessment Documentation, where assessment is required to determine if the item has heritage significance, or is an Aboriginal object or human remains. Unexpected heritage finds do not include confirmed human remains
UMM	Updated Mitigation Measures
WMP	Construction Waste Management Sub-plan
Work	Any physical activity for the purpose of the CSSI including Construction and Low Impact Work





1. Introduction

1.1. Context

Transport for New South Wales (TfNSW) have engaged John Holland to design and construct the Parramatta Light Rail Stage 2 Enabling Works (PLR2 – EW or the ‘Project’) as part of the Stage 2 extension of the Parramatta Light Rail network (PLR Stage 2).

This Construction Heritage Management Sub-plan (HMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the PLR2 – EW and describes how John Holland will minimise and manage the heritage impacts of construction.

This Plan has been prepared to address the requirements of the:

- State Significant Infrastructure (SSI) 10035 Parramatta Light Rail Stage 2, determined on 22 February 2024 (Infrastructure Approval), including Conditions of Approval (NSW CoA)
- Parramatta Light Rail Stage 2 *Environmental Planning and Biodiversity Conservation Act 1999* (EPBC) 2022/09300 approved September 2022, including Conditions of Approval (EPBC CoA)
- Parramatta Light Rail Stage 2 – Project Staging Report (TfNSW, November 2024)
- Parramatta Light Rail Stage 2 – Construction Environmental Management Framework (TfNSW, November 2024) (CEMF)
- Environmental Impact Statement (EIS), Response to Submissions Report (Submissions Report), and Amendment Report, including the Updated Mitigation Measures (UMMs) (collectively referred to as Environmental Assessment Documentation)
- Contractual requirements, including the PLR2 – EW Project Deed and TfNSW Specifications
- Applicable legislation.

1.2. Background

1.2.1. Parramatta Light Rail – Stage 2

Parramatta Light Rail (PLR) will deliver an integrated light rail service that supports the population and employment growth expected throughout the Greater Parramatta and Olympic Peninsula. It will integrate with existing and future modes of transport including buses, trains, ferries and active transport (pedestrian and cycle networks), as well as Sydney Metro services and the road network.

Stage 2 will connect the Parramatta CBD and Stage 1 to Camellia, Rydalmere, Ermington, Melrose Park, Wentworth Point, Sydney Olympic Park and the Carter Street precinct in Lidcombe (Figure 1).

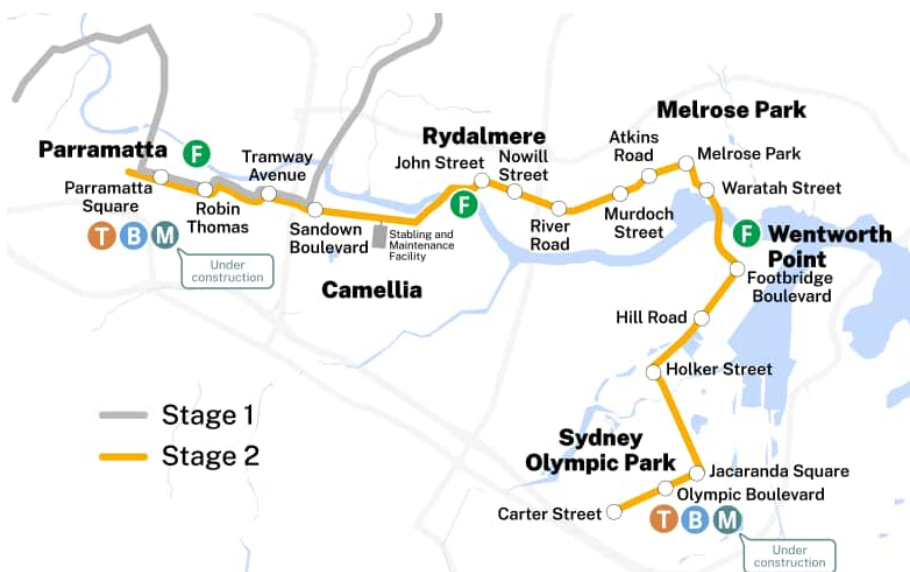


Figure 1 – Overview of the Parramatta Light Rail Stage 2 (Source: TfNSW)





1.2.2. Statutory context

PLR Stage 2 is subject to an approval under Division 5.2 the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) as Critical State Significant Infrastructure (CSSI). PLR Stage 2 is also a controlled action under Section 75 of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) requiring a separate approval from the Australian Minister for the Environment and Water.

The PLR Stage 2 project was assessed as part of the Environmental Assessment Documentation. UMMs are nominated in these assessments to manage the identified impacts.

Approval for the PLR Stage 2 project under the EP&A Act was granted by the Minister for Planning and Public Spaces on 22 February 2024 (SSI-10035). Approval for the PLR Stage 2 under the EPBC Act was granted by the Australian Government on 19 April 2024 (EPBC 2022/09300).

1.2.3. Delivery strategy

Construction of the PLR Stage 2 project will be staged to align with the procurement and delivery strategy, and achieve project completion in the minimum, practically reasonable time. PLR Stage 2 will be constructed in three stages:

- PLR2 – EW – Approximately 1.3km of light rail including 2 bridges between Melrose Park and Wentworth Point
- PLR Stage 2A – Parramatta Light Rail Stage 2a will connect services from the Parramatta CBD to Wentworth Point via Camellia. The work will include 4.5km of new dual track and nine new stops. There will be a new public and active transport bridge linking Camellia and Rydalmere, an expanded Stabling and Maintenance Facility and additional light rail vehicles
- PLR Stage 2B – Planning and delivery of Stage 2b will be considered as part of the Government's broader transport infrastructure investment program and in line with future network planning, including Sydney Olympic Park

1.3. PLR2 – Enabling Works (the Project)

1.3.1. Key features of the Project

The PLR2 – EW includes the delivery of a public and active transport bridge across the Parramatta River and approaches between Wentworth Point and Melrose Park (Figure 2). The bridge over the Parramatta River requires a 340m span over a bend in the Parramatta River to clear environmentally sensitive mangroves and provide an underpass access for road and active transport to established recreational facilities. The key features of the PLR2 – EW scope of works is provided in Table 1 and a detailed description is provided in Section 2 of the CEMP.





LEGEND

- Enabling Works alignment
- Enabling Works limit of works (project site boundary)



Figure 2 – Location of the PLR Stage 2 Enabling Works

Table 1 – Key features of the PLR2 EW scope of works

Worksite	Scope	Description
Melrose Park	Utilities	- Investigations of utility assets and preparation of Safety Management Study applications for working around the Viva Energy fuel pipeline - Relocation and/or protection of utility services
	Site establishment and temporary works	- Establishment of the main site compound and environmental controls - Construction of hardstand for piling platform and crane pad - Construction of temporary boat and trailer carpark to enable ramp access on weekends and public holidays
	Main construction	- Relocation of the existing Viva Energy fuel pipeline to enable bulk earthworks, foundation treatments, and construction of new car park - Construction of drainage - Construction of Light Rail track slab
Bridge Works	Access tracks and working platforms	Installation of erosion and sediment controls, salvage of recorded midden, and progressive clearing of mangroves to root level





Worksite	Scope	Description
		Construction of temporary platforms in Parramatta River to enable access to Pier 1 and Pier 2
	Main construction	- Installation of piling and caps - Construction of blade walls at piers using pre-assembled formwork - Construction of pier head in three phases: base slab, webs and diaphragms, and top slab - Installation of bridge deck superstructure
	Finishing works	- Installation of barrier - Completion of final levelling and grouting of the steel railing - Installation of the underdeck drainage on the Light Rail side - Construction of reinforced concrete upstands (cast in situ) with conduit/cable separators - Installation of multi-function poles - Surfacing of bridge deck prior to Light Rail track slab construction
Wentworth Point	Site establishment and temporary works	- Establishment of site compound and environmental controls - Clearing and grubbing of vegetation
	Utilities	- Decommission redundant Ausgrid transition point at Hill Road - Relocation, installation and/or protection of utility services
	Main construction	- Construction of elevated structure spanning the landfill and tie into Sekisui House - Construction of remaining spans to tie into Hill Road (including earthworks for new bus corridor and pavement widening on Hill Road) - Road works (drainage, pavements and signalised intersection)
Track	Track slabs	- Pouring of concrete - Installation of rail
Finishing and demobilisation	Landscaping and finishing works	- Installation of architectural treatments, urban design features, landscaping, street furniture, paving, signage, and pavement marking - Defect rectification and demobilisation

1.3.2. PLR2 – EW staging

The Project Staging Report identifies that the PLR2 – EW will be carried out in Substages, including:

- Substage A1 – Pre-construction
- Substage A2 – Preliminary construction works
- Substage A3 – Main construction works and testing and commissioning.

This Plan is applicable to Substages A2 and A3 and any activities from Substage A1 that were not completed prior to approval of the CEMP and Sub-plans. Substages will not commence until the relevant Substage is approved to commence by the relevant authority (Section 1.6.3).

1.4. Scope of the Plan

The scope of this HMP is to describe how potential Aboriginal and non-Aboriginal heritage impacts will be managed during construction of the PLR2 – EW. This Plan has been prepared in accordance with the CEMP. In the preparation and ongoing implementation of this Plan, SMART (Specific, Measurable, Achievable, Realistic and Timely) principles have been considered and applied.





This Plan is applicable to all activities during the design and construction of the PLR2 – EW, including all areas where physical works will occur or areas that may otherwise be impacted by the construction works, and under the control of John Holland. This Plan, as approved or endorsed (as relevant), including any minor amendments approved by the ER, will be implemented for the duration of construction.

All John Holland employees, contractors and consultants at workplaces under the control of John Holland are required to operate fully under the requirements of this Plan and related environmental management plans, over the full duration of the construction program. This Plan may also apply to person/s, contractors, consultants and suppliers where compliance with this Plan is a term of their engagement or association with John Holland.

If at any time any part of this Plan or actions under it is, or becomes illegal, invalid, or void under the law of any jurisdiction, then that part of this Plan will be severed and will not apply.

1.5. Environment and Sustainability Management System

To achieve the intended environmental performance outcomes, John Holland have established, implemented, maintained and continually improved an Environment and Sustainability Management System (ESMS) in accordance with the requirements of ISO14001:2016. The John Holland ESMS, described in Section 3 the CEMP, will be adopted as the guiding environmental management framework for the PLR2 – EW.

This Plan is an appendix of the CEMP and forms part of the ESMS. Guided by the John Holland Environment and Sustainability Policy, this Plan should be read in conjunction with the CEMP and relevant Sub-plans (Table 2).

Table 2 – CEMP map

Reference	Document	Requirement
Main Body	Construction Environmental Management Plan (CEMP)	NSW CoA C9
A1	Secondary Environmental Requirements	NSW CoA C9
A2	Environment and Sustainability Policy	
A3	Minor Ancillary Facilities checklist template	
A4	Environmental Control Map template	
A5	Environmental Incident Classification and Reporting Procedure	
A6	Environmental Work Method Statement template	
B1	Construction Traffic, Transport and Access Management Sub-plan (CTTAMP)	NSW CoA C14(a)
B2	Construction Maritime Works and Navigation Management Sub-plan (MWNMP)	NSW CoA C14 (b) UMM TT10
B3	Construction Noise and Vibration Management Sub-plan (NVMP)	NSW CoA C14 (c)
B3.1	Noise and Vibration Monitoring Program	NSW CoA C20
B3.2	Out of Hours Works (OOHW) Protocol	UMM NV11
B3.3	Land use survey	NSW CoA E30 UMM NV14
B4	Construction Heritage Management Sub-plan (HMP)	NSW CoA C14 (d)
B4.1	Unexpected Heritage Finds and Human Remains Procedure	NSW CoA E15 UMM NAH9
B5	Construction Flora and Fauna Management Sub-plan (FFMP)	NSW CoA C14 (e)
B5.1	Green and Golden Bell Frog Management Plan	UMM BD12





Reference	Document	Requirement
B5.2	Unexpected Threatened Species and Ecological Communities Finds Protocol	NSW CoA E8 UMM BD11
B6	Construction Soil and Water Management Sub-plan (SWMP)	NSW CoA C14 (f)
B6.1	Water Quality Monitoring Program	UMM W11
B6.2	Acid Sulfate Soils Management Plan	UMM CS11
B6.3	Unexpected Contaminated Finds Procedure	UMM CS13
B7	Construction Air Quality Management Sub-plan (AQMP)	UMM AQ1
B7.1	Air Quality, Odour and Landfill Gas Monitoring Program	UMM AQ1
B7.2	Odour Management Strategy	UMM AQ2
B8	Construction Waste Management Sub-plan (WMP)	UMM WR3

1.5.1. Interactions with other plans

This Plan has the following interrelationships with other management plans and documents:

- NVMP – includes the requirement to undertake vibration testing and monitoring before and during vibration generating activities that have the potential to impact heritage items (including the Ermington Wharf) to identify minimum working distances to prevent cosmetic damage (NSW CoA E43, E44 and E45)
- PLR Stage 2 Heritage Interpretation Strategy (prepared by TfNSW) – identifies and interprets the key Aboriginal and non-Aboriginal heritage values and stories, items of heritage significance, and heritage conservation areas impacts by the PLR Stage 2
- SWMP – details the process for remediating contaminated land, including areas subject to archaeological testing and excavation
- FFMP – details processes for exclusion zone establishment and clearing and flagging protocols
- Communications and Engagement Plan (CEP) – details procedures and processes for community notification, consultation, complaints management
- PLR2 – EW Place, Design and Landscape Plan (PDLP) – to be prepared to demonstrate how the design responds to the character, setting and fabric of heritage elements and landscapes. The PDLP will document how the Heritage Interpretation Strategy has been considered in the design and landscaping of the project.

1.6. Consultation and approval

1.6.1. Stakeholder consultation

Reflecting the requirements of the Infrastructure Approval and Environmental Assessment Documentation, this Plan has been prepared in consultation with the stakeholders nominated in Table 3. A detailed consultation report, including matters raised by stakeholders and John Holland responses, has been prepared in accordance with NSW CoA A12 (Appendix D).



Table 3 – Consultation requirements

Document	Relevant council(s) ¹	Relevant Road Authority	Relevant Emergency Services	SOPA ²	Ferry operator	TfSNW (maritime operations)	LALCs ³	Heritage NSW	RAPs ⁴	AG DCCEEW ⁵	DPIRD Fisheries ⁶	NPWS ⁷	NSW DCCEEW – Water Group ⁸	BCS ⁹	EPA ¹⁰	Birdlife Australia
CEMP Sub-plans																
CTTAMP	✓	✓	✓	✓												
MWNMP	✓			✓	✓	✓										
NVMP	✓			✓												
HMP	✓			✓			✓	✓	✓							
FFMP	✓			✓						✓	✓	✓	✓	✓		
SWMP	✓			✓				✓			✓		✓			
AQMP																
WMP																
Construction Monitoring Programs																
Noise and Vibration	✓			✓											✓	
Water Quality	✓			✓											✓	
Air Quality, Odour & Landfill Gas																
Fauna				✓										✓		✓

Notes:

1. The relevant council is City of Parramatta Council and City of Ryde Council
2. Sydney Olympic Park Authority (SOPA)
3. Local Aboriginal Land Council(s) (LALCs)
4. Registered Aboriginal Parties (RAPs)
5. Australian Government Department of Climate Change, Energy, the Environment and Water (AG DCCEEW)
6. NSW Department of Primary Industries and Regional Development – Fisheries (DPIRD Fisheries)
7. NSW National Parks and Wildlife Service, within the NSW Department of Climate Change, Energy, the Environment and Water (NPWS)
8. Water Group, of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW – Water Group)
9. Biodiversity Conservation and Science group of the NSW Department of Climate Change, Energy, the Environment and Water (BCS)
10. NSW Environment Protection Authority (EPA)

Ongoing consultation between TfNSW, John Holland, other PLR Stage 2 contractors, nearby construction projects, stakeholders, the community and relevant agencies as required regarding the management of impacts on heritage will be undertaken during the PLR2 – EW construction. The process for the consultation will be consistent with the Community Communication Strategy (CCS) and as described in the Communications and Engagement Plan (CEP).

In accordance with NSW CoA E27 and UMM AH2, the RAPs must be kept regularly informed about the progress of PLR2 – EW works. Consultation will be in accordance with the *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI) (Roads and Maritime Services,





2011) and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010). RAPs will continue to be provided with the opportunity to be consulted about the Aboriginal cultural heritage management requirements of the PLR2 – EW works, including managing potential impacts on objects/aspects of cultural significance. Section 1.6.2 provides the key principals of RAP engagement that John Holland will adhere to.

Heritage management information will be communicated to the community and stakeholders in accordance with the principles and procedures outlined in the CEP. John Holland will provide timely, accurate, relevant and accessible information about construction activities that may impact upon heritage, with provision for feedback through a complaints line, postal address and email address.

1.6.2. Principals of RAP engagement

John Holland is committed to improving accessibility and outreach with Aboriginal and Torres Strait Islander communities by working collaboratively and respectfully with our Aboriginal and Torres Strait Islander staff, Aboriginal Peak Bodies, and with the communities in which operations occur.

John Holland recognise the importance of cultural protocols in the engagement of RAPs and the Aboriginal community more broadly. As such, John Holland has adopted the principals outlined in the Australian Heritage Commission's *Ask First* guidelines (Australian Heritage Commission, 2002). These principals require that all parties concerned with identifying, conserving and managing Aboriginal heritage must acknowledge, accept and act on the principles that Aboriginal people:

- Are the primary source of information on the value of their heritage and how this is best conserved
- Must have an active role in any Aboriginal heritage planning process
- Must have input into primary decision-making in relation to Aboriginal heritage so they can continue to fulfil their obligations towards this heritage
- Have a right to retain control of their cultural knowledge, including intellectual property and other information relating specifically to their heritage.

1.6.3. Plan endorsement and approval

In accordance with the risk assessment outlined in the CEMF, this Plan will be endorsed by the Environmental Representative (ER) prior to the commencement of Substage A2. Prior to the commencement of Substage A3, this Plan will be endorsed by the ER and submitted to the Planning Secretary for approval no later than one month before the commencement of construction of Substage A3.

Construction of each Substage will not commence until the CEMP, Sub-plans and monitoring programs have been approved by the Planning Secretary or endorsed by the ER (as applicable and as identified in the CEMF). The CEMPs, Sub-plans and monitoring programs, as approved by the Planning Secretary or endorsed by the ER (whichever is applicable), including any minor amendments approved by the ER, will be implemented for the duration of the PLR2 – EW.

1.7. Plan structure

The structure of this Plan is provided in Table 4.

Table 4 – Plan structure

Part	Details
Section 1	PLR Stage 2 and PLR2 – EW overview, scope, systems, consultation, and endorsement/approvals
Section 2	Environmental requirements including relevant legislation, guidelines, conditions, licences, objectives, targets and key performance indicators
Section 3	Existing environment
Section 4	Environmental aspects and impacts
Section 5	Environmental management and mitigation measures





Part	Details
Section 6	Compliance management, including roles and responsibilities applicable for this Plan, training, inspections, monitoring, auditing and reporting
Section 7	Review and improvement
Appendices	• Appendix A: Secondary Environmental Requirements • Appendix B: Unexpected Heritage Finds Procedure and Human Remains Procedure • Appendix C: Removal and Storage Methodology • Appendix D: Consultation Report • Appendix E: ER Endorsement





2. Environmental requirements

In accordance with NSW CoA A7, references in the terms of this Plan to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Australian Standards or policies in the form they are in as at the date of the Infrastructure Approval (CSSI-10035), unless otherwise approved or required by the Planning Secretary.

2.1. Relevant legislation and guidelines

2.1.1. Legislation

This Plan has been prepared in accordance with the:

- EP&A Act
- *Heritage Act 1977* (Heritage Act)
- *National Parks and Wildlife Act 1974*
- *Protection of the Environment Operations Act 1997* (POEO Act)
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (SEPP BC)
- *State Environmental Planning Policy (Precincts – Central River City) 2021* (SEPP PCRC).

2.1.2. Guidelines and standards

The main guidelines, specifications and policy documents of relevance to this Plan include:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010)
- *Archaeological Assessment Guidelines* (Heritage Office, 1996)
- *Ask First, A guide to respecting Indigenous heritage places and values* (Australian Heritage Commission, 2002)
- *Assessing Significance for Historical Archaeological Sites and 'Relics* (Heritage Branch, 2009)
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010)
- *Construction Noise and Vibration strategy* (Transport for NSW, 2022)
- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (Office of Environment and Heritage (OEH), 2011)
- *Interpreting Heritage Places and Items* (Heritage Office, 2005)
- *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (Roads and Maritime Services, 2011)
- *Skeletal Remains: Guidelines for Management of Human Skeletal Remains* (NSW Heritage Office, 1998)
- *The Australia ICOMOS Burra Charter 2013*
- *Unexpected Heritage Items Procedure* (Transport for NSW, 2022) EMF-HE-PR-0076.

2.2. Construction Environmental Management Framework

The CEMF has been developed by TfNSW to facilitate the preparation and approval of PLR Stage 2 CEMPs, Sub-plans and monitoring programs. This Plan has been prepared in accordance with relevant requirements of the CEMF, including the following heritage performance outcomes that will apply throughout construction:

- Ensure appropriate controls and procedures are implemented during construction to avoid or minimise potential adverse impacts on items of heritage value
- Ensure workers are aware of Aboriginal and non-Aboriginal heritage.



The example mitigation measures detailed in the CEMF have been considered and addressed in Section 5 of this Plan.





2.3. Ministers Conditions of Approval

The primary NSW CoA of relevance to the development of this Plan are listed in Table 5. A cross reference is included to indicate where the NSW CoA is addressed in this Plan or other Project management documents. Secondary NSW CoA of relevance to this Plan are listed in Appendix A.

Table 5 – Primary NSW CoA

NSW CoA	Condition	Plan reference	How addressed
C14	Except as provided by Condition C1, the following CEMP Sub-plans must be prepared in consultation with the relevant government agencies and council(s) identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A12. (a) Traffic, Transport and Access - Relevant council(s), relevant road authority, relevant Emergency Services, SOPA (b) Maritime works and Navigation - Relevant council(s), Ferry operator, Transport for NSW (maritime operations), SOPA (c) Noise and Vibration - Relevant council(s), SOPA (d) Heritage (including Aboriginal and non-Aboriginal heritage) - Relevant council(s), SOPA, LALCs, Heritage NSW, and RAPs (e) Flora and Fauna - Relevant council(s), AG DCCEEW, DPI Fisheries, NPWS, NSW DCCEEW – Water Group, BCS and SOPA (f) Soil and water - Relevant council(s), NSW DCCEEW – Water Group, DPI Fisheries, SOPA and Heritage NSW Notes: 1. CEMP Sub-plan(s) may reflect the Construction of the project through geographical activities, temporal activities or activity based contracting and staging. 2. Nothing in this condition prevents the Proponent from combining any of the above CEMP Sub-plans. 3. Where reviewed by an EPA accredited Site Auditor, the Planning Secretary will consider Interim Audit Advice or a Section B Site Audit Statement provided with CEMP sub-plans for approval.	Section 1.6.1 Appendix D	This Plan has been prepared in consultation with the government agencies and council(s) nominated in NSW CoA C14 and UMM NAH8. A detailed consultation report, including matters raised by stakeholders and John Holland responses is provided in Appendix D.





NSW CoA	Condition	Plan reference	How addressed
	4. Consultation with SOPA is only relevant where there is SOPA affected lands being impacted. 5. The Flora and Fauna CEMP Sub-Plan must be consistent with goals and objectives, mitigation measures and monitoring requirements of the Commonwealth approved conservation advice and any Recovery Plans for all Matters of National Environmental Significance.		
C15	The CEMP Sub-plans must state how:	Section 2	The applicable environmental requirements which have informed the development of this Plan are identified in Section 2 along with details of how these requirements have been addressed. The key objectives, targets and key performance indicators (KPI's) for this Plan are provided in Section 2.6.
	(a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;		
	(b) the mitigation measures identified in the documents listed in Condition A1 will be implemented;	Section 2.4 Section 5 Appendix A	The primary UMM applicable to the development of this Plan are listed in Section 2.4 along with details of how these requirements have been addressed by this Plan. Secondary UMM of relevance to this Plan are listed in Appendix A. Section 5 provides the mitigation measures to be implemented during construction of the PLR2 – EW.
	(c) the relevant terms of this approval will be complied with; and	Section 2.3 Section 5 Appendix A	The primary NSW CoA applicable to the development of this Plan are listed in Section 2.3 along with details of how these requirements have been addressed by this Plan. Secondary NSW CoA of relevance to this Plan are listed in Appendix A. Section 5 provides the mitigation measures to be implemented during construction of the PLR2 – EW.
	(d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.	Section 1.4	Section 1.4 includes a commitment to applying SMART principles. Issues requiring management and ongoing risk analysis are discussed in Section 4. How these issues will be managed including cumulative impacts is provided in Sections 5 and 6.





2.4. Updated Mitigation Measures

The primary UMM of relevance to the development of this Plan are listed in Table 6. A cross reference is also included to indicate where the UMM is addressed in this Plan or other Project management documents. Secondary UMM of relevance to this Plan are listed in Appendix A.

Table 6 – Primary UMM

UMM	Requirement	Plan reference	How addressed
AH7	An Aboriginal cultural heritage management plan will be prepared prior to construction and implemented as part of the CEMP. The plan will include measures to minimise the potential for impacts and manage Aboriginal heritage, including: - outcomes of further investigations (mitigation measures AH5) - salvage methodology (mitigation measure AH6) - requirements for an induction and cultural awareness training for construction workers and supervisors (mitigation measure AH8) - unexpected finds procedure (mitigation measure AH9) - measures to protect sites from inadvertent impacts from vehicles and equipment.	This Plan Section 5 Table 17 (measures H5, H8, and H26) Appendix A	This Plan provides the detailed processes, roles and responsibilities (Section 6.1) and mitigation measures (Section 5) to minimise the potential for impacts and manage Aboriginal heritage during construction of PLR2 – EW, including post construction reporting. Details of how this Plan has addressed the secondary UMMs is provided in Appendix A. The Unexpected Heritage Finds and Human Remains Procedure is provided in Appendix B. Measures to protect sites from inadvertent impacts from vehicles and equipment, including fencing, are detailed in Table 17 (measures H5, H8, and H26).
NAH8	A heritage management plan will be prepared and implemented as part of the CEMP. The plan will include measures to manage non-Aboriginal heritage and minimise the potential for impacts during construction. The plan will be prepared in consultation with relevant heritage agencies (Heritage NSW, Sydney Olympic Park Authority, City of Parramatta Council and City of Ryde Council) and take into account the outcomes of further investigations, including test excavations and the Research Design and Excavation Methodology. The heritage management plan will define a requirement for non-Aboriginal historical heritage awareness training for site workers prior to commencement of construction works. The awareness training will promote an understanding of heritage items that may be impacted during the works.	This Plan Section 1.6.1 Section 3.2.1 Section 5 Section 5.2 Section 6.2 Appendix D	This Plan provides the detailed processes, roles and responsibilities (Section 6.1) and mitigation measures (Section 5) to manage non-Aboriginal heritage and minimise the potential for impacts during construction of PLR2 – EW. Details of proposed training, including cultural awareness training is provided in Section 6.2. This Plan also takes into account the outcomes of further investigations, including test excavations (Section 3.2.1) and the Archaeological Research Design and Excavation Methodology (ARDEM) (included in Appendix B of the Updated Historical Archaeological Assessment, Amendment Report) (Section 5.2). This Plan has been prepared in consultation with the government agencies and council(s) nominated in NSW CoA C14 and UMM NAH8. Refer to Appendix D for the Consultation Report.





2.5. Infrastructure Sustainability Council

The PLR2 – EW will employ an integrated approach to sustainability to ensure effective implementation and tracking of initiatives. While the Construction Sustainability Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000025) details the overall requirements and targets for the Project, this Plan supports the achievement of relevant credits within Infrastructure Sustainability Council (ISC) Infrastructure Sustainability (IS) Rating Tool Version 2.1 (Table 7).

Table 7 – ISC commitments

ISC reference	Commitment	Reference
Her-1	Heritage Protection and Enhancement	
DL1.1	An assessment of heritage value has been undertaken (or reviewed) and includes community and key stakeholder values.	Environmental Assessment Documentation
DL1.2	The community has been informed of assessment results and provided with an appropriate feedback mechanism	Environmental Assessment Documentation
DL1.3	A heritage monitoring system has been developed for unforeseen circumstances, unidentified sites, unexpected finds and previously unknown sensitive heritage values.	Unexpected Heritage Finds and Human Remains Procedure (Appendix B) Section 6.1.2 Section 6.3
DL1.4	Project or site inductions and training cover heritage assets and values.	Site induction, cultural awareness training and toolbox talks / pre-starts Section 6
DL1.5	The design maintains tangible and intangible heritage assets and values.	Design drawings and Environmental and Sustainability Design Review Reports
ABL1.1	Heritage maintenance and enhancements outlined in the design have been built.	Design drawings and Environmental and Sustainability Design Review Reports
ABL1.2	A heritage monitoring system has been implemented for unforeseen circumstances, unidentified sites and unexpected finds.	Unexpected Heritage Finds and Human Remains Procedure (Appendix B)
ABL1.3	Project employees have been inducted on site-specific heritage values and undertaken heritage awareness training	Site induction, cultural awareness training Section 6

2.6. Objectives, targets and key performance indicators

The objectives, targets and key performance indicators relevant to this Plan are detailed in Table 8. The objectives, targets and key performance indicators have been sourced from the Environmental Assessment Documentation, the CEMF and relevant guidelines.

Table 8 – Objectives, targets and key performance indicators

Objectives	Targets	Key Performance Indicators
Minimise impacts to Aboriginal and non-Aboriginal heritage sites or	- No unapproved impact on heritage items or places - Ensure full compliance with the relevant legislative requirements and approvals	Number of non-compliances and incidents associated with heritage





Objectives	Targets	Key Performance Indicators
their heritage significance	Follow correct procedure and ensure notification of any unexpected Aboriginal or non-Aboriginal heritage objects/places uncovered during construction	
Maximise worker's awareness of Aboriginal and non-Aboriginal heritage	Ensure cultural awareness training is provided to all construction personnel in the form of Site inductions before they begin the PLR2 – EW and at the commencement of substantial works (i.e. Substage A3).	Percentage of workers who have completed the induction





3. Existing environment

3.1. Key reference documents

The Environmental Assessment Documentation contains the following key reference documents for Aboriginal and non-Aboriginal heritage values within and adjacent to the PLR Stage 2 alignment, including the footprint of the PLR2 – EW:

- Aboriginal heritage:
 - EIS Technical Paper 4, Preliminary Aboriginal Cultural Heritage Assessment Report (Preliminary ACHAR) (RPS, 2022) assessed the potential impacts of the PLR Stage 2 on Aboriginal cultural heritage
 - Amendment Report, Aboriginal Cultural Heritage Assessment Report (ACHAR) (RPS, 2023) prepared to assess the potential impacts of the amended PLR Stage 2 project on Aboriginal cultural heritage. It also includes the findings of additional investigations and consultation with registered Aboriginal parties (see Section 4.2 of the Response to Submissions).
- Non-Aboriginal heritage:
 - EIS Technical Paper 5, *Statement of Heritage Impact* (RPS, 2022) assessed the potential direct and indirect impacts of PLR Stage 2 on built heritage
 - EIS Technical Paper 6, *Historical Archaeological Assessment* (RPS, 2022) assessed the potential impacts on of PLR Stage 2 on historical archaeology
 - Amendment Report, *Updated Statement of Heritage Impact* was prepared to assess potential impacts on built heritage items near or in the vicinity of Camellia and Rydalmere. There were limited changes to the assessment on built heritage items in the vicinity of the PLR2 – EW
 - Amendment Report, *Updated Historical Archaeological Assessment* was prepared to map and assess historical archaeological management units (HAMUs) and maritime archaeological management units (MAMUs) within the PLR Stage 2 site (as amended)

Additional assessments have been carried out since the development of the Environmental Assessment Documentation to inform the management of heritage impacts, including:

- *Parramatta Light Rail Stage 2 Historical Archaeology GPR Survey Results* (EcoLogical, 2023) details the results of a Ground Penetrating Radar (GPR) Survey undertaken in search for historical archaeological evidence adjacent to Ermington Boat Ramp in Melrose Park

3.2. Aboriginal heritage

Field surveys and test excavations carried out to inform the Environmental Assessment Documentation determined that there are Aboriginal objects distributed at various points along the PLR Stage 2 corridor. The assessment considered areas within a 50 metre buffer of the proposed PLR Stage 2 site boundary, which encompasses the PLR2 – EW construction area.

While the PLR2 – EW construction area is likely to have been occupied by Aboriginal people, the likelihood of surviving evidence remaining is influenced by a range of factors, including the durability of material and amount of disturbance to the land. Due to the extent of previous disturbance within the PLR2 – EW site, archaeological potential is only likely to occur in areas that have not been subject to extensive sub-surface disturbance.

3.2.1. Recorded Aboriginal heritage sites and places

During a site visit in February 2023 by Aboriginal cultural heritage officers from TfNSW and a representative from the Metropolitan LALC, two recorded Aboriginal sites (shell middens) were identified within the mangroves at Melrose Park (see Figure 3 for location):

- AHIMS 45-6-4078 is located 30 metres east of the PLR2 – EW site, with a variety of shell species scattered in an area around 21.5 metres in length and 1.5 metres in depth



- AHIMS 45-6-4079 is located within the PLR2 – EW site, with similar shell species covering an area of about 15 metres by five metres.

The shell middens (AHIMS 45-6-4078 and 45-6-4079) are registered as sites on the Aboriginal heritage information management system (AHIMS) and have been assessed in the ACHAR. Details on these sites from the AHIMS site cards is provided in Table 9.

Table 9 – Description of registered Aboriginal sites in the vicinity of PLR2 – EW works

Site	Description
AHIMS 45-6-4078 (Ermington SHL 01)	AHIMS 45-6-4078 (Ermington SHL 01) is located 30 metres east of the PLR2 – EW construction footprint. The shells were recorded within the mature mangroves and are scattered in an area around 21.5 metres in length and 1.5 metres in depth (ACHAR, Plate 5.1, Plate 5.2 and Plate 5.3). Shells from five different species were identified during the site visit, including mud oyster, periwinkle, pippi, turban and ribbed cockle (ACHAR, Plate 5.4). The importance of the site could not be determined however, the site card has noted further advice will be sought from the Metropolitan LALC.
AHIMS 45-6-4079 (Ermington SHL 02)	AHIMS 45-6-4079 (Ermington SHL 02) is located within the project site. The visible extent of this site is relatively smaller than AHIMS 45-6-4078, covering an area of 15 by five metres (ACHAR, Plate 5.5, Plate 5.6). A variety of shell species, including mud oyster, periwinkle, pippi, turban and ribbed cockle, were identified during the site visit (ACHAR, Plate 5.7, Plate 5.8). The importance of the site could not be determined however, the site card has noted further advice will be sought from the Metropolitan LALC.

3.2.2. Areas with Aboriginal archaeological potential

During the archaeological field surveys, two areas were identified as high potential archaeological deposits (PADs) as they were in close proximity to a known site or landform such as a river or creek:

- PAD1 Ermington Boat Ramp, Melrose Park (Figure 3)
- PAD2 Melrose Park Public School Oval (outside construction footprint).

No Aboriginal artefacts were identified during surveys. Details of these PADs is provided in Table 10.

Table 10 – Description of PADs in the vicinity of PLR2 – EW works

Site	Description
PAD1 Ermington Boat Ramp, Melrose Park (9,204 m2)	The Ermington Boat Ramp area has been previously identified as having high archaeological potential (Dallas Consulting, 2014), and the less disturbed parts of this area have been recorded as an area of potential archaeological deposit following the surveys conducted as part of the Preliminary ACHAR. The less disturbed areas include: • The nature strip north-west of the overhead high voltage lines • The northern (SU2) boundary of Waratah Street. PAD1 is located in the Lucas Heights Soil Landscape, which is formed in situ by weathering material, namely residual soil. This soil type is favourable for artefact durability, except for organic material, which may result as an accumulation of artefacts from the different occupation levels. The survey indicated that the area had been modified by landscaping, the Viva Energy fuel pipeline and the high voltage power easement, however, archaeological investigations at sites in the region have uncovered intact archaeological deposits beneath modern disturbance. The area has been assessed as having the potential for subsurface Aboriginal archaeological deposits due to its proximity to the Parramatta River and the shell midden (AHIMS 45-6-1961) on the west coast of the unnamed bay in Ermington.



Site	Description
PAD2 Melrose Park Public School Oval (7,972 m2)	Melrose Park Public School oval has been identified as an area of potential archaeological deposit based on landform features and distance to Parramatta River and noting the likely minimal disturbance of the oval which indicates potential for sub-surface archaeological deposits. The location was observed from the footpath with the Metropolitan LALC Site Officer, although not directly surveyed. The elevation of this area associated with the Parramatta River would have been less impacted by flooding and so the disturbance from historic and modern land use has been limited. This PAD will not be impacted by the PLR2 – EW.

In addition, an area of Aboriginal archaeological sensitivity has been identified adjacent to the PLR2 – EW construction footprint which consists of 10 residential properties, adjacent to Wharf Road (see Figure 3 for location). Undisturbed gardens and backyards in these properties may hold Aboriginal heritage potential based on their location adjacent to the Parramatta River and PAD1. No testing of this area of Aboriginal archaeological sensitivity was completed as part of the Environmental Assessment Documentation, however due to the realignment of the proposed bridge from Melrose Park to Wentworth Point, this area is not directly impacted which has avoided the potential for harm. Should any changes to the proposed Project require disturbance of this area, further surveys and testing will be carried out and this Plan updated.

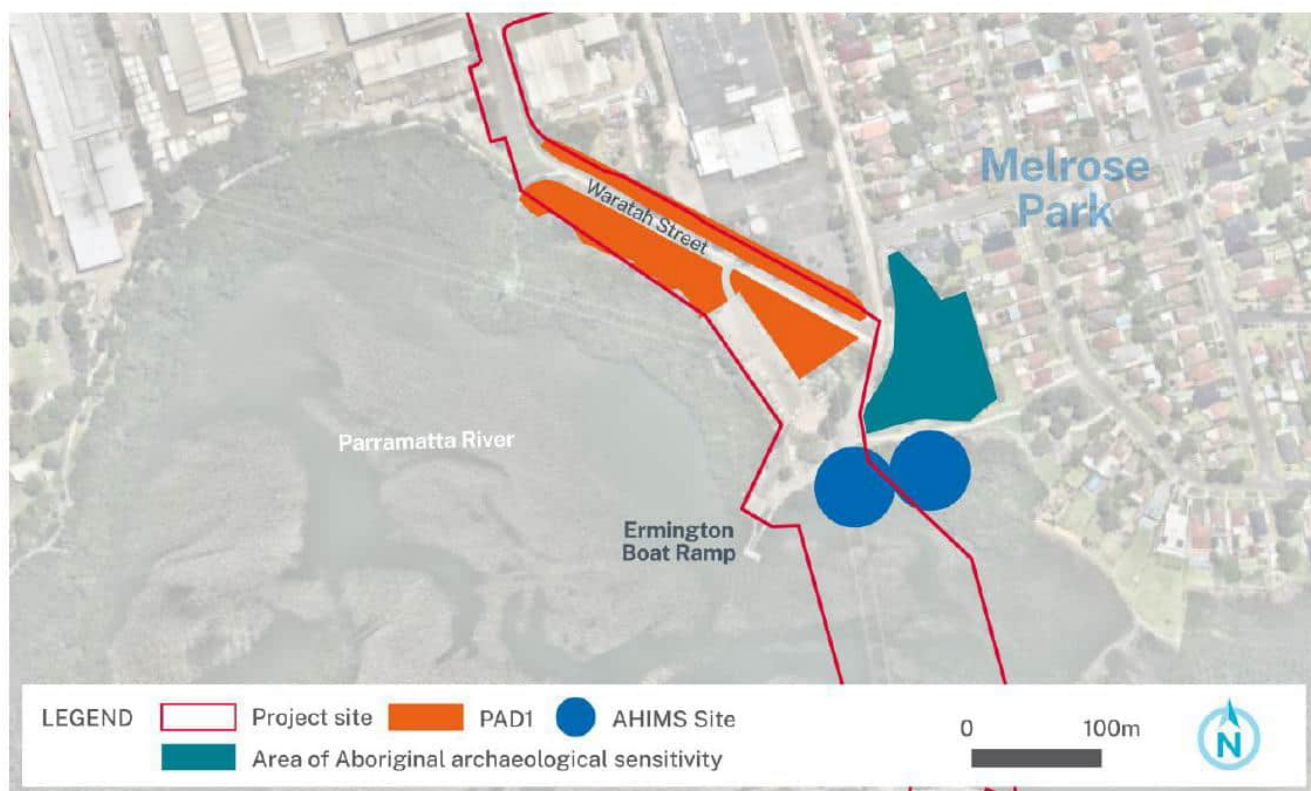


Figure 3 – Location of identified Aboriginal cultural sites in the vicinity of PLR2 – EW

3.2.3. Aboriginal cultural heritage values

Consultation with Aboriginal knowledge holders was carried out as part of the Environmental Assessment Documentation to assess potential impacts to Aboriginal cultural heritage values. In addition to archaeological features, such as artefact scatters or culturally modified trees, Aboriginal cultural heritage values include those associated with permanent water sources, traditional thoroughfares and burial sites, and those associated with intangible values related to Aboriginal culture and dreaming. The presence for Aboriginal objects is not required for a site to hold value for the Aboriginal community.



An assessment of Aboriginal cultural heritage values must be undertaken collaboratively with the Aboriginal community and identified Aboriginal knowledge holders. Some of the Aboriginal cultural heritage values for the Parramatta area expressed during consultation with local Aboriginal land councils and RAPs include:

- All Aboriginal objects are important to Aboriginal people and have cultural value
- The PLR Stage 2 alignment, including the PLR2 – EW site has been identified as a significant location for gathering, hunting and travelling via the Parramatta River
- The PLR Stage 2 alignment, including the PLR2 – EW site, is part of a broader cultural landscape and the importance of songlines and sightlines were noted
- All Aboriginal objects hold physical, social and cultural value to the past occupation of the area.

3.3. Non-Aboriginal heritage

The assessment carried out as part of the Environmental Assessment Documentation identified a number of heritage items protected under the Heritage Act and EP&A Act. These heritage items are described in the following sections and shown in Figure 4.

3.3.1. State Heritage Register

The State Heritage Register (SHR) is a statutory register of environmental heritage, with heritage values that have been confirmed as demonstrating importance to the whole of NSW under specific criteria. Listing a place on the register means that prior approval from the NSW Heritage Council is required for major changes to ensure its heritage significance is retained. Section 57 of the Heritage Act outlines what works require approval, and approvals are granted under Section 63 of the Act.

The following built heritage item included on the SHR is located near to the PLR2 – EW site:

- Newington Armament Depot and Nature Reserve (SHR No. 01850).

3.3.2. Conservation Management Plans

Conservation Management Plans (CMPs) assess the significance and set out management policies for each item. CMPs relevant to the PLR2 – EW site include:

- Newington Armament Depot and Nature Reserve, Sydney Olympic Park Conservation Management Plan (Tanner Architects, 2013):
 - This CMP provides policies regarding historical archaeology (Policy 48 to 53). As the area covered by the CMP is outside of the PLR2 – EW site, these are not applicable
- Millennium Parklands Heritage Precinct Conservation Master Plan (Graham Brooks and Associates, 2003):
 - This CMP does not make mention of historical archaeology.

3.3.3. State Environmental Planning Policy (Precincts – Central River City) 2021

The *State Environmental Planning Policy (Precincts – Central River City) 2021* (SEPP PCRC) aims to facilitate the development, redevelopment, or protection of important places of economic, environmental or social significance to the State. The following heritage items listed under Schedule 5 of the SEPP (PCRC) are located within the PLR2 – EW site:

- Millennium Parklands Heritage Precinct:

Item A – The collection of buildings, structures, relics and landforms constructed by the Royal Australian Navy as an armaments depot during the 19th and 20th centuries, together with the rare river edge wetlands and the Cumberland Plain woodland area, to the extent to which they are—

(a) situated on land identified on the map marked “Sydney Regional Environmental Plan No 24—Homebush Bay Area—Amendment No 2—Map 3”, and





(b) described in the document entitled Millennium Parklands Heritage Precinct Conservation Master Plan 2001, prepared by Graham Brooks and Associates, copies of which are available for inspection at the head office, and the Sydney Region West office, of the Department.

The following conservation area identified on the SEPP PCRC Sydney Olympic Park Heritage Map under Appendix 4 Sydney Olympic Park site, is located within the PLR2 – EW site:

- Newington Armament Depot and Nature Reserve (Conservation Area B) – This area is listed twice in the SEPP PCRC in Appendix 4 and 12, with one name coinciding with the SHR item, albeit with a different heritage curtilage. To avoid confusion between the SHR item and the SEPP conservation area, this area will be referred to as the Millennium Parklands Heritage Precinct throughout this Plan.

3.3.4. State Environmental Planning Policy (Biodiversity and Conservation) 2021

The PLR2 – EW site is within an area administered by the *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (SEPP BC). The SEPP covers all the waterways of the Sydney Harbour, the foreshore and the catchment. It addresses a range of matters for consideration by consent authorities assessing development within the area of the policy to ensure consistent development decisions. It includes provisions relating to heritage and wetlands and provides planning controls for strategic foreshore areas. The objectives of the SEPP are stated in Part 10.51:

- (1) The objectives of this Chapter in relation to heritage are—*
- (a) to conserve the environmental heritage of the land to which this Part applies, and*
 - (b) to conserve the heritage significance of existing significant fabric, relics, settings and views associated with the heritage significance of heritage items, and*
 - (c) to ensure that archaeological sites and places of Aboriginal heritage significance are conserved, and*
 - (d) to allow for the protection of places which have the potential to have heritage significance but are not identified as heritage items.*

The following item identified in Schedule 11 of the SEPP BC is located directly adjacent to the PLR2 – EW site:

- Former Pennant Hills Wharf, Wharf Road, Ermington (Item No. 40).

3.3.5. Parramatta Local Environmental Plan 2011

The PLR2 – EW site is within an area administered by the Parramatta Local Environmental Plan (LEP) 2011. The Parramatta LEP 2011 sets out various planning, development and environmental controls for the local government area (LGA) of the City of Parramatta Council. Schedule 5 of the LEP identifies heritage items important to the LGA. The following items included in Schedule 5 of the Parramatta LEP 2011 are located within or near the PLR2 – EW site:

- Wetlands (Parramatta LEP Item No. I1)
- Ermington Wharf (Parramatta LEP Item No. I82).

3.3.6. Ryde Local Environmental Plan 2014

A small part of the PLR2 – EW site is within an area administered by the Ryde LEP 2014. The Ryde LEP 2014 sets out various planning, development and environmental controls for the LGA of the City of Ryde Council. Schedule 5 of the LEP identifies heritage items important to the LGA. The following item included in Schedule 5 of the Ryde LEP 2014 is located directly adjacent to the PLR2 – EW site:

- Wharf (Ryde LEP Item No. 165).





Figure 4 – Location of identified non-Aboriginal cultural sites in the vicinity of PLR2 – EW





3.4. Archaeological Management Units

In addition to the potential for archaeology at the listed heritage items (Section 3.3) the Environmental Assessment Documentation divided the PLR Stage 2 alignment, including the PLR2 – EW site, into 24 individual Historical Archaeological Management Units (HAMUs) and two Maritime Archaeological Management Units (MAMUs). The HAMU areas are specific to PLR Stage 2 assessment and the size and scope of each HAMU was defined based on an analysis of the historical development of the area. This analysis included primary historical research in addition to assessment of historic plans, aerial photographs, and the existing archaeological literature. Current and planned land use was also considered. Due to the limited impact of the PLR Stage 2 on the Parramatta River the size and scope of each MAMU was defined based on the proposed PLR Stage 2 boundary.

The HAMUs and MAMU relevant to the PLR2 – EW site include:

- HAMU14 – Hope & Waratah Street, Melrose Park
- HAMU15 – Ermington Wharf & Archer Park, Melrose Park
- HAMU17 – Hill Road, Wentworth Point
- HAMU18 – East of Newington Nature Reserve, Sydney Olympic Park
- MAMU02 – Melrose Park to Wentworth Point, Parramatta River.

3.4.1. Archaeological potential

The archaeological potential of each HAMU and MAMU was determined by considering the likely nature of the resource and then examining the historical record for any indications of past activity that may have contributed to the creation or destruction of the resource. In all instances, the level of potential presented is the minimum level that is likely to present and in each instance, the possibility exists for a more intact archaeological resource.

Test excavations were planned at four of the 24 HAMUs to interrogate the assessment of archaeological potential, including HAMU 15 – Ermington Wharf & Archer Park, Melrose Park. However, following the identification of suspect asbestos at nearby Aboriginal test excavations, the non-Aboriginal heritage test excavations were suspended. Samples of the suspected asbestos material were analysed by a National Association of Testing Authorities (NATA) accredited laboratory who reported that Chrysotile and Amosite asbestos was present in all samples.

3.4.2. Significance

Once the potential for archaeological evidence to be present has been established, it is necessary to assess whether that evidence has any cultural significance as only evidence with significance is protected. This assessment of significance was guided by the principles of The Burra Charter and the Heritage Act. It is supported by relevant guidelines produced by the Heritage Council of NSW/Heritage NSW including, but not limited to, *Archaeological Assessment Guidelines (Heritage Office, 1996)* and *Assessing Significance for Historical Archaeological Sites and 'Relics (Heritage Branch, 2009)*'.

The Environmental Assessment Documentation assessed the significance of individual phases of activity within each suburb individually to allow for both State and locally significant archaeological resources to be present in the same location.

3.4.3. Management rating

Each HAMU and MAMU was then assigned one of three Management Ratings (MR). These ratings were based on the assessed significance of the archaeological resource, the potential for that resource to be present, and the proposed impacts PLR2 – EW would have. In areas where a HAMU or MAMU were assessed as having no significance, it was rated as N/A, as only archaeological resources that have, or may have, significance are protected under legislation. Likewise, if a HAMU or MAMU was assessed as having nil archaeological potential, it was rated as N/A.





The rating system is scaled in such a way that ensures the work undertaken is appropriate to the level of significance and archaeological potential. The key components of each MR are:

- MR3: High potential for a State significant archaeological resource
- MR2: Either medium or low potential for State significant archaeological resources or high potential for locally significant archaeological resources
- MR1: Low or medium potential for locally significant archaeological resources.

The location and applicable management rating for each Archaeological Management Unit relevant to the PLR – EW is show in Figure 5 to Figure 7.

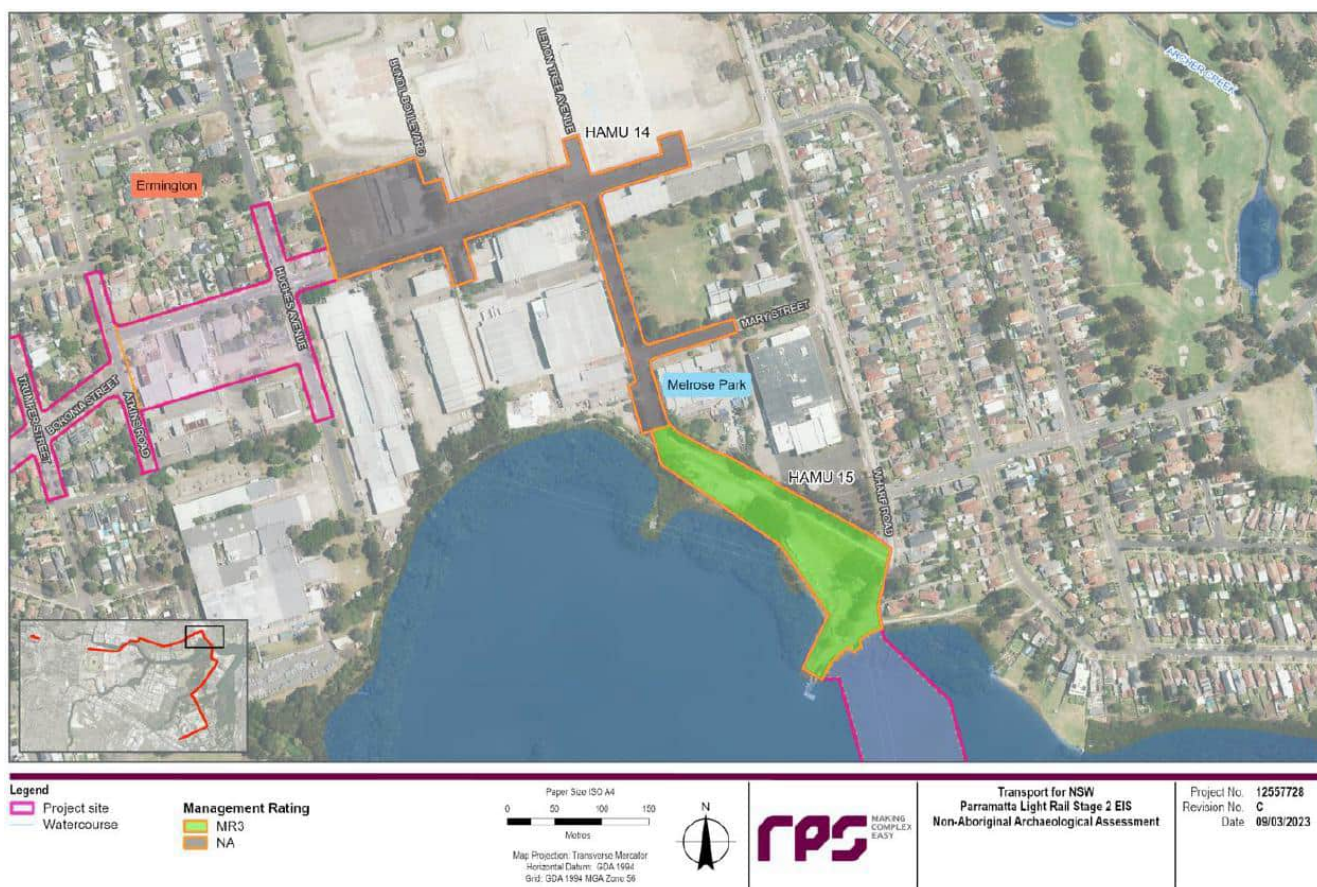


Figure 5 – Archaeological Management Units relevant to the PLR2 – EW (1 of 3)



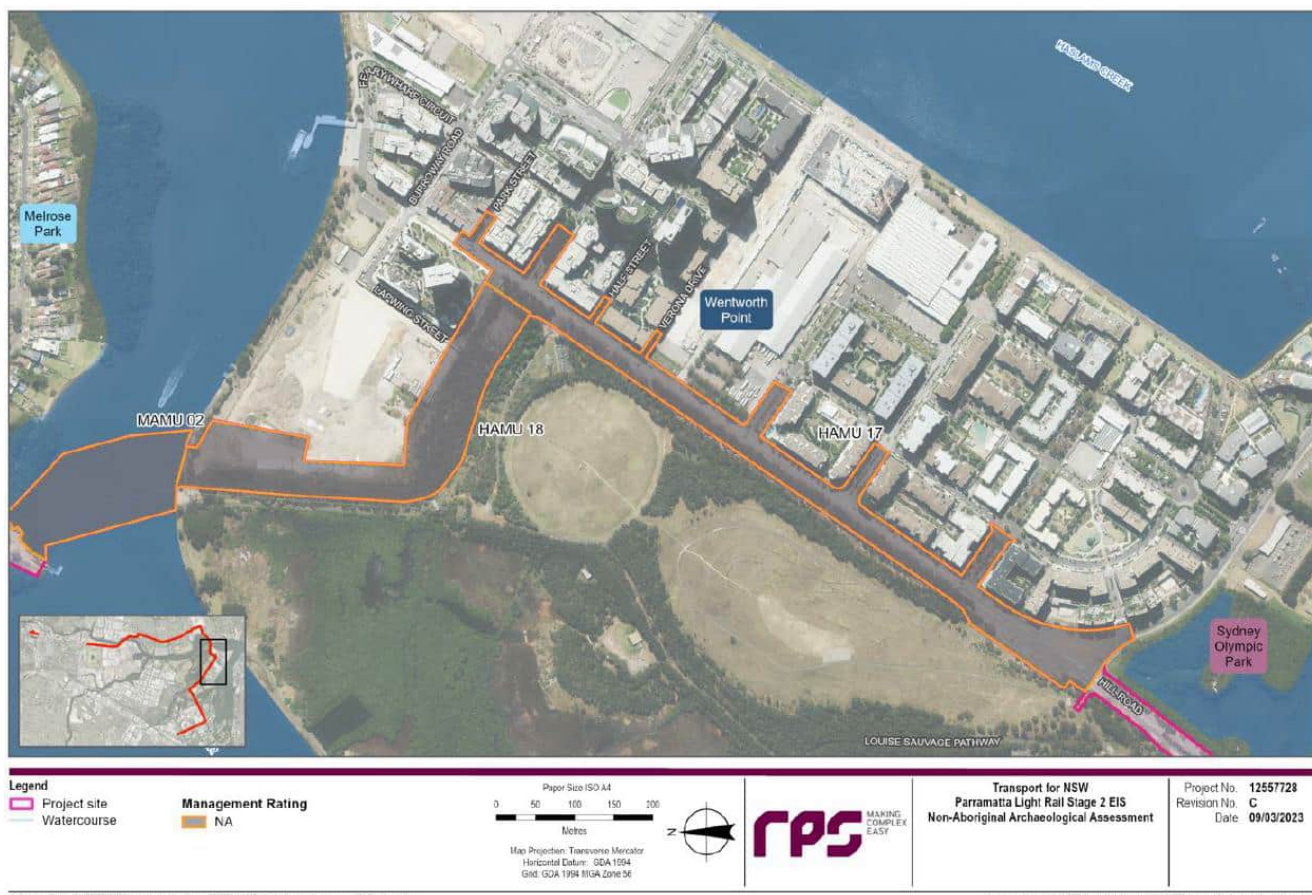


Figure 6 – Archaeological Management Units relevant to the PLR2 – EW (2 of 3)

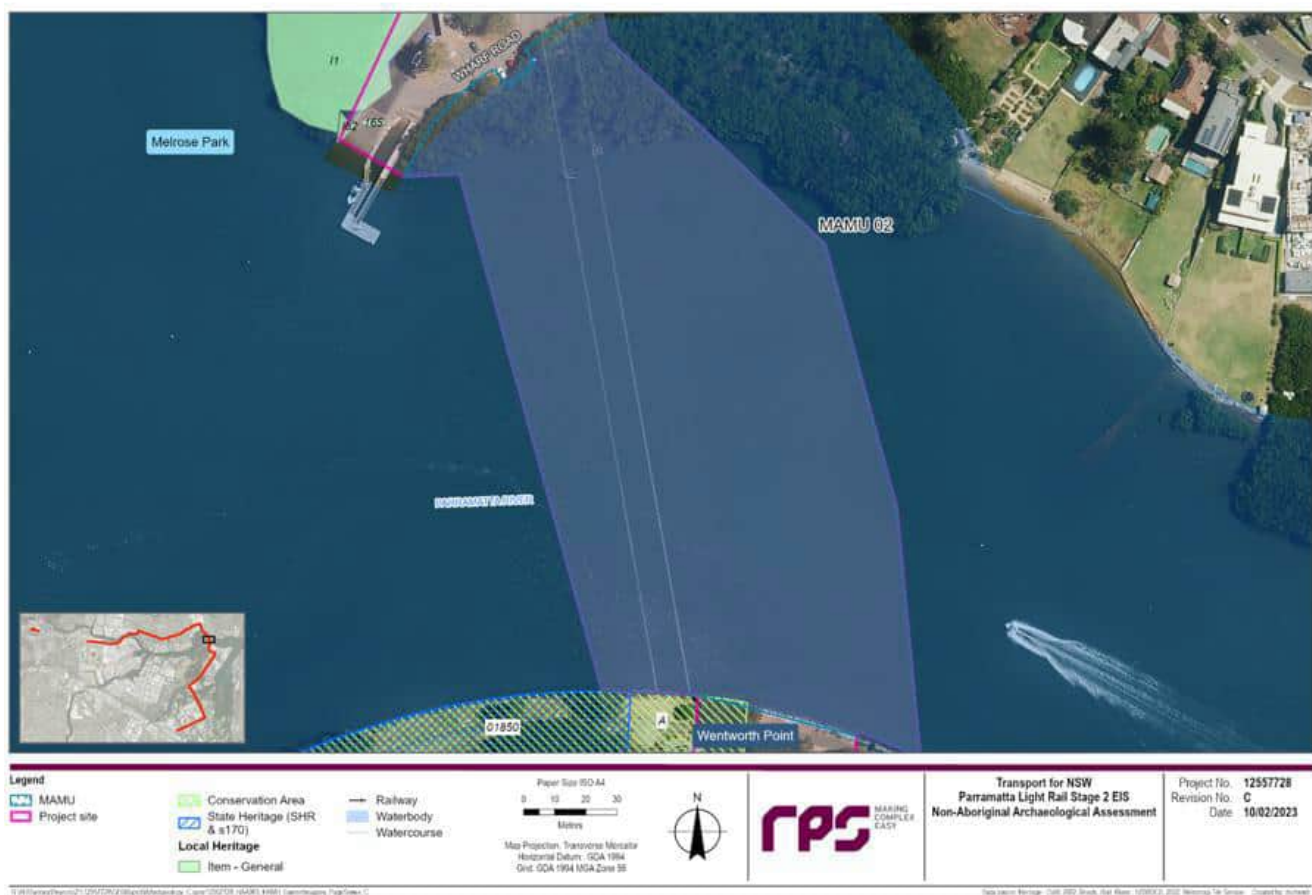


Figure 7 – Archaeological Management Units relevant to the PLR2 – EW (3 of 3)



3.4.4. HAMU14

A summary of HAMU14 is provided in Table 11.

Table 11 – HAMU14 – Hope & Waratah Street, Melrose Park

HAMU14	Hope & Waratah Street, Melrose Park			
Listings	None			
Description of site	HAMU 14 is a 'L' shaped area along 334 metres of Hope Street, 250 metres of Waratah Street and 100 metres of Mary Street. It also includes 77 and 75 Hughes Avenue, 9 Waratah Street, part of 10 Waratah Street, 19 to 31 Hope Street and part of 33 Hope Street.			
Analysis of historic plans and aerals	An 1841 subdivision plan (Manuscript map of subdivision of the village of Ermington & Plan of the village of Ermington on the Parramatta River: to be sold by auction by Mr. Blackman, on 23 April – 1841) shows the alignment of Hope Street and Waratah Street within this HAMU but with different names. This indicates these streets may have been constructed by this date. The 1943 aerial photograph shows no construction within this HAMU but crop marks indicate it is being farmed. The 1955 aerial photograph shows the houses at 77 and 75 Hughes Avenue had been built by this time. By 1965, a large shed had been erected on 33 Hope Street partially within this HAMU with sheds also within 31 Hope Street. By 1971, much of the current, or recent construction had been undertaken.			
Phases of occupation & nature of the resource	3 – Subdivision, and growth, and post-war housing (1840s–1945, and post- 1945) Evidence relating to this phase in the HAMU could include construction yards with building materials, refuse deposited during construction, informal temporary structures, utilities such as drains, and demolished houses.			
Impact from current buildings	Most of the HAMU is currently suburban streets built during the post-war housing boom. These roads have been constructed with solid foundational road-bases and contain numerous services. 77 and 75 Hughes Avenue both have houses with foundations on them. The area along the front of 31 Hope Street is built upon in a variety of different steps and platforms. The impact of these is unclear. 33 Hope Street appears to have been recently demolished.			
Likelihood of research potential	3 – Subdivision, and growth, and post-war housing (1840s–1945, and post-1945) Given the lack of development in the 19th century, and the breadth of historical data on post-war housing, archaeological resources dating to this phase are highly unlikely to contribute any novel data to addressing research questions, hence there is very low likelihood of research potential for this phase.			
Archaeological potential	The potential for evidence relating to subdivision, growth and post-war housing in this HAMU is assessed as being low as most of this unit is roadway with impacts from buildings having likely removed the resource in the aera north of Hope Street. Some evidence may remain around the houses on Hughes Street. Evidence from this phase is not assessed as meeting the threshold for local significance.			
Summary	Phase	Significance	Potential	Management Rating
	3 – Subdivision, growth and post-war housing (1840s–1945, and post-1945)	None	Low	N/A





3.4.5. HAMU15

A summary of HAMU15 is provided in Table 12.

Table 12 – HAMU15 – Ermington Wharf & Archer Park, Melrose Park

HAMU15	Ermington Wharf & Archer Park, Melrose Park
Listings	Parramatta LEP 2011 Item 182, Ryde LEP 2014 Item 165.
Description of site	HAMU 15 is an irregular rectangular area of foreshore along the north bank of the Parramatta River, 295-metres-long, 75-metres-wide. The physical remains of Ermington Wharf are located immediately to the east of the HAMU.
Analysis of historic plans and aerials	The 1841 subdivision plan shows multiple buildings and other features within the project site at this time. It shows a wharf at the northern end of this HAMU (unnamed wharf). To the south-east of the northern wharf, in the centre of the HAMU, is a large rectangular paddock which has a smaller enclosure and barn on its north- west side. South-west of this paddock, along the river shoreline is a small square structure. To the south-east of the paddock are two buildings identified on the plans as Mr Eyre's Cottages. They are immediately adjacent to Pennant Hills Wharf (Ermington Wharf). A hut is shown on the wharf itself at this time. One 1858 subdivision plan shows some relevant detail. Specifically, that Eyre's Cottage is still present at this time and that the northern wharf is also still in existence (Plan of Land Ermington, Property of Mrs Bobart - Pennant Hills St, Mary St, Wharf St, Henry St, 1858). The 1943 aerial photograph shows that little construction has occurred within the project site by this time. Along the foreshore, a rectangular shed has been built in the approximate centre of this HAMU. The Ermington Wharf is shown clearly at this time and appears to be an earthen rampway rather than a structural feature. Between 1971 and 1986 major changes occurred along the foreshore within the Project site. All previous buildings had been levelled and a car park built in the land north of Ermington Wharf. A new artificial peninsular for a high voltage transmission tower had been built at the northern end of the foreshore. The area around Ermington Wharf has been modified including the construction of the extant Ermington Boat Ramp.
Phases of occupation & nature of the resource	1– Early Farming and Edmund Lockyer (1792–1827) Evidence relating to this phase in this HAMU could include plough and ard marks, channels, gullies and ditches, fence lines and postholes, waste artefacts from muck spreading, seeds, pollen and other macrofossils. 2– Ermington Wharf (c.1820s–c. 1930) Evidence relating to this phase in this HAMU could include wharf structures, associated huts, sheds and other buildings including a hut on the wharf. Other potential evidence includes objects used in the construction, maintenance, and operation of the wharf. Evidence in this phase also includes the development of the surrounding area. There is the possibility of structural evidence being present including farming related structures such as barns and paddocks and other structures including Mr Eyre's cottage. The extant well/cistern is known evidence and likely dates from this phase. 3– Subdivision, and growth, and post-war housing (1840s–1945, and post-1945) Evidence relating to this phase in this HAMU could include construction yards with building materials, refuse deposited during construction, informal temporary structures, utilities such as drains, and demolished houses.
Impact from current buildings	Impact from current buildings in this HAMU is minimal. There is a car park in the south of the unit however this appears to be of relatively shallow construction. There is also a toilet block however this is small and would have only had a minimal impact on any underlying





HAMU15	Ermington Wharf & Archer Park, Melrose Park			
	archaeological resource. The presence of an intact well/cistern further indicates that the impact to the area has been minimal.			
Likelihood of research potential	1–Early Farming and Edmund Lockyer (1792-1827) The HAMU is outside of Lockyer’s Estate but may have been used by Samuel Marsden for early farming. The location, adjacent to the river, would have been ideal for this purpose and farming was undertaken in nearby areas. Later farming from the 1820s onwards has likely removed any trace of this earlier phase though, meaning the research potential is low. 2– Ermington Wharf (c.1820s–c. 1930) Physical remains of the c.1870s wharf remain in situ and there is likely to be further relics, potentially relating to the c.1820s wharf in the surrounding area. This provides a high likelihood for research potential as excavation is likely to produce new and unique data about both wharves and possibly about related economic and social systems. Evidence of the 1820s wharf would have very high research potential, as would evidence of domestic dwelling in the vicinity. There is also high research potential for the development of the immediate area during this phase including Mr Eyre’s Cottage and surrounding farm to the northwest of the Wharf. 3 – Subdivision, and growth, and post-war housing (1840s–1945, and post- 1945) Given the lack of development in the 19th century, and the breadth of historical data on post-war housing, archaeological resources dating to this phase are highly unlikely to contribute any novel data to addressing research questions, hence there is very low likelihood of research potential for this phase.			
Archaeological potential	The potential for evidence relating to early farming in this HAMU is assessed as being low. No specific indication of farming prior to the 1840s has been located for this area and farming during the 1840s onwards is likely to have impacted the earlier potential resource. There is high potential from the Ermington Wharf Phase relating to the wharf itself and the surrounding landscape. Evidence of c.1870s wharf structures are still visible in the current banks of the river, indicating there is likely to be high preservation here. This indicates there is high potential for aspects of the earlier wharf structure to remain. Historical evidence clearly shows that the area along the foreshore has been used for farming during this phase. The later impacts from the car park area likely to only be minimal hence the archaeological resource is likely intact. The presence of the well or cistern indicates that later land use only had a minimal impact on the archaeological resource. This collectively indicates high potential for evidence of farming in the area, as well as related domestic occupation during this phase. The potential for a resource relating to subdivision and growth is also considered low. No direct evidence of this phase has been located although informal structures were erected along the foreshore during the 20th century, and these may relate to this phase of occupation. At present it is not anticipated that archaeological resources related to this phase will meet the threshold for local significance.			
Summary	Phase	Significance	Potential	Management Rating
	1 – Early Farming and Edmund Lockyer (1792–1827)	State	Low	1
	2 – Ermington Wharf (c.1820s–c1930)	State/Local	High	3
	3 – Subdivision, and growth, and post-war	None	Low	N/A





HAMU15	Ermington Wharf & Archer Park, Melrose Park			
	housing (1840s–1945, and post-1945)			

3.4.6. HAMU17

A summary of HAMU17 is provided in Table 13.

Table 13 – HAMU17 – Hill Road, Wentworth Point

HAMU17	Hill Road, Wentworth Point			
Listings	None			
Description of site	HAMU 17 is 990-metre-long rectangular stretch of Hill Road from Park Street North to Bennelong Parkway. It includes small sections of the adjoining Burroway Road, Park Street North, Footbridge Boulevard, Verona Drive, Nuvolari Place Baywater Drive and Bennelong Parkway. The area also includes an approximate 15-metre-wide strip of land adjacent to Hill Road to the north-west and a small car park at the southern end of Hill Road within this HAMU.			
Analysis of historic plans and aerals	Early historic plans (e.g. the 1859 Reuss & Browne plan) show Wentworth Point as a marshy foreshore with no reclamation. The 1943 aerial photograph shows that aside from a small hut at the north-eastern end of Wentworth Point, no development had occurred. The shoreline is shown as being formalised by this date. By 1971, however the area has become largely industrialised. Some of the factories built by this time, such as Ralph Symonds plywood factory, may be of significance but fall outside of the project site.			
Phases of occupation & nature of the resource	1 – The Flats (1793–1949) It does not appear that the land was occupied at this time and so no accurate assessment of the types of evidence present can be made. 2 – Industrialisation (1949–2013) Evidence relating to this phase in this HAMU could include unidentified structural elements, discarded mechanical components, bottles and other refuse items, and objects used within the adjacent factories.			
Impact from current buildings	Most of the HAMU is currently suburban streets built in the late 20th century. These roads have been constructed with solid foundational road-bases and contain numerous services.			
Likelihood of research potential	There is nil likelihood of research potential in this HAMU for either phase as neither has an archaeological resource.			
Archaeological potential	There is nil potential for evidence relating to The Flats as the land was not occupied or used in a way that would leave an archaeological resource and Nil evidence relating to industrialisation as this all occurred to the south-east of the road and so external to this HAMU.			
Summary	Phase	Significance	Potential	Management Rating
	1 – The Flats 1793-1949	None	Nil	N/A
	2 – Industrialisation 1949-2013	None	Nil	N/A





3.4.7. HAMU18

A summary of HAMU18 is provided in Table 14.

Table 14 – HAMU18 – East of Newington Nature Reserve, Sydney Olympic Park

HAMU18	East of Newington Nature Reserve, Sydney Olympic Park			
Listings	None			
Description of site	HAMU 18 is an 'L' shaped area that runs parallel to the Louise Sauvage Pathway on the eastern side for 336m before turning eastward for 260 metres terminating at the intersection of Hill Road and Footbridge Boulevard.			
Analysis of historic plans and aerals	Early historic plans (e.g. the 1859 Reuss & Browne plan) show this area as a marshy foreshore with no reclamation. The 1943 aerial photograph shows that no development had occurred. By 1965 industrial machinery, possibly for quarrying is present on the site which is still present in 1971 but by 1986 the site had been levelled with a few large sheds constructed which were still present into the 1990s			
Phases of occupation & nature of the resource	1 – Early Farming (1794–1810) It does not appear that the land was occupied at this time so no accurate assessment of the types of evidence related to this phase can be made. 2a – Newington Estate (1807–1907) It does not appear that the land was occupied at this time so no accurate assessment of the types of evidence related to this phase can be made.			
Impact from current buildings	The west of the HAMU is undeveloped so there are no impacts from current buildings. The eastern part is a construction site, and it is unclear what impact this is having on any potential archaeological resource.			
Likelihood of research potential	There is no likelihood of research potential for either phase in this HAMU as there is no relevant archaeological resource.			
Archaeological potential	There is nil potential for evidence relating to Early Farming as the land was not occupied or used in a way that would leave an archaeological resource and nil evidence relating to the Newington Estate as the land was not occupied until after the Estate was sold in 1907			
Summary	Phase	Significance	Potential	Management Rating
	1 – Early Farming (1794–1810)	None	Nil	N/A
	2a – Newington Estate (1807–1907)	None	Nil	N/A

3.4.8. MAMU02

A summary of MAMU02 is provided in Table 15.

Table 15 – MAMU02 – Melrose Park to Wentworth Point, Parramatta River

MAMU02	Melrose Park to Wentworth Point, Parramatta River
Listings	PHALMS 2996
Description of site	MAMU 02 is a 175-metre-long, 108-metre-wide area that comprises the riverbed (excluding foreshore areas) between Melrose Park and Wentworth Point.





MAMU02	Melrose Park to Wentworth Point, Parramatta River			
Analysis of historic plans and aerals	There has been no development within the riverbed in this location. However, MAMU 02 is located immediately adjacent to HAMU 15, and there is potential for archaeological evidence associated with the development and use of Ermington Wharf within that location. In particular, MAMU 02 may contain the remains of cargo that was dumped over the side of vessels, ballast, personal effects, ship fittings or even the remains of small boats. It is likely that various objects would have been dropped overboard or from the wharf throughout its history. Similarly, quiet stretches of water near jetties and wharves were common locations for the abandoning of watercraft. Vessels that were abandoned or broken up on site were typically not documented and little archival or historical evidence remains of such activities. As these vessels break up over time by a combination of environmental factors and salvaging (formal or otherwise), debris associated with maritime sites can be spread over a relatively wide area. Surviving evidence of Ermington Wharf is clear within the shoreline of Melrose Park immediately adjacent the Ermington Boat Ramp. The Ryde LEP listing for Wharf states an earlier jetty/wharf structure, associated with the 19th century development of the site may be located underneath this wharf. In addition, there is some potential for archaeological evidence associated with the wharf to extend into the project site. Previous studies have also shown that archaeological evidence can survive within the mangrove areas of the Parramatta LEP heritage item Wetlands. For example, remnants of the corduroy road were observed in the mangroves at the continuation of Cobham Street (Archaeology & Heritage, 2007:6).			
Phases of occupation & nature of the resource	River transport and ways of life (1788–1900). Ermington Wharf (c. 1820s–c. 1930).			
Impact from current buildings	Survey of the riverbed indicated river currents, wave action from the river ferries, water erosion and river dredging. This disturbance has reduced the potential for archaeological remains to remain intact or in situ within the main river channel.			
Likelihood of research potential	The PHALMS identifies the following research questions within this MAMU: • Is there evidence for differentiation between land-based and other transport of goods? • Is there evidence of nineteenth-century river dredging or navigation improvements? • What archaeological evidence exists to show the link between the River and the Parramatta economy? • What evidence is there of transporting goods into Parramatta from the Interior, and from Parramatta to Sydney? These questions are relevant to Ermington Wharf.			
Archaeological potential	Quiet stretches of water near jetties and wharves were common locations for the abandoning of watercraft. Vessels that were abandoned or broken up on site were typically not documented and little archival or historical evidence remains of such activities. As these vessels break up over time by a combination of environmental factors and salvaging (formal or otherwise), debris associated with maritime sites can be spread over a relatively wide area. However, the riverbed and area surrounding the Ermington Boat Ramp have been disturbed by river currents, wave action from the river ferries, water erosion and river dredging. This disturbance has reduced the potential for archaeological remains to survive intact or in situ within the main river channel. Additional maritime archaeological assessment undertaken concluded there is no archaeological potential within the main riverbed. The potential for abandoned watercraft and associated relics within the main riverbed is considered nil. The potential evidence of maritime infrastructure within the main riverbed is considered nil.			
Summary	Phase	Significance	Potential	Management Rating





MAMU02	Melrose Park to Wentworth Point, Parramatta River			
	River transport / ways of life 1788 – 1900	Local	Nil	N/A
	Ermington Wharf (c. 1820s – c.1930)	Local	Nil	N/A





4. Environmental aspects and impacts

4.1. Construction activities

Key aspects of the PLR2 – EW that could result in adverse heritage impacts include:

- Site establishment, including installation of environmental controls
- Construction and use of ancillary facilities (including carparks, office buildings, laydown areas)
- Clearing and grubbing
- Relocation of utilities and services
- Demolition and removal of redundant structures
- Planned salvage of Aboriginal archaeological sites and non-Aboriginal heritage items
- Earthworks and excavations
- Installation of temporary rock causeways (subject to separate approvals)
- Construction of a new bridge (including piling)
- Construction of drainage and pavements
- Inadvertent impacts from vehicles and equipment
- Finishing work and site restoration (road furnishing and landscaping).

4.2. Aboriginal heritage impacts

A preliminary assessment of the potential impacts on the identified Aboriginal cultural heritage sites is provided in Table 16 (refer to Figure 3). Test excavations carried out as part of the Environmental Assessment Documentation were not able to be completed safely, or in accordance with the test excavation methodology due to the presence of asbestos or deep levels of fill, and so is a limitation to the assessment of PADs. Further investigation is required for the PAD1 Ermington Boat Ramp, and the AHIMS midden sites in Melrose Park to determine the presence, extent, and scientific significance of areas of identified archaeological sensitivity. PAD2 Melrose Park Public School Oval is not within the construction footprint and therefore will not be impacted by the PLR2 – EW works.

Table 16 – Summary of potential impacts to identified Aboriginal cultural heritage sites

Site	Type	Assessed significance	Degree of impact	Type of impact	Consequence of impact
AHIMS 45-6-4078 (Ermington SHL 01)	Registered site	High	Partial (the shell midden is within 50 metres of the Project site, the full extent will be confirmed in accordance with mitigation measure AH5)	Direct – risk of vibration due to vehicle and plant movements Indirect – impact to visual connections between heritage item and landscape	Partial or total loss of value
AHIMS 45-6-4079 (Ermington SHL 02)	Registered site	High	Total (as all of the shell midden is located in the Project site)	Direct – ground disturbance, excavation and vegetation clearing resulting from bridge works and from vehicle and plant movements Indirect – impact to visual connections between heritage item and landscape	Partial or total loss of value





Site	Type	Assessed significance	Degree of impact	Type of impact	Consequence of impact
PAD1 Ermington Boat Ramp, Melrose Park	Potential Aboriginal Deposit	High	Total – as all of the PAD is located in the Project site	Direct – ground disturbance, excavation and vegetation clearing resulting from bridge works and from vehicle and plant movements	Partial or total loss of value

4.3. Non-Aboriginal heritage impacts

4.3.1. Newington Armament Depot and Nature Reserve (SHR No.01850)

The PLR2 – EW will have a little to no direct impact on the Newington Armament Depot and Nature Reserve (SHR No.01850) as the Project site does not encroach on the heritage curtilage.

The bridge between Melrose Park and Wentworth Point will have a high-moderate visual impact on the urban visual landscape of this section of the Parramatta River through the introduction of a new built form. However, the bridge is to be located away from areas of highest significance and will not impact any significant views or vistas associated with the heritage item, which are all internal views and vistas between significant elements. Heritage interpretation is proposed as an additional mitigation measure.

Proposed works at Hill Road will have little to no visual impact on the heritage items as the alignment will not alter the current setting of the heritage item, which is currently screened by trees and shrubs. While some vegetation will require removal within the PLR2 – EW site, the existing setting of the heritage item will be retained.

PLR2 – EW is consistent with policies and guidelines outlined in Newington Armament Depot and Nature Reserve, Sydney Olympic Park Conservation Management Plan (Tanner Architects 2013), specifically *Policy 6 Conserve the diverse natural and cultural values of the site by minimising impacts and ongoing deterioration of the buildings, landscape, infrastructure and moveable heritage such that reuse options and opportunities are available into the future.*

4.3.2. Millennium Parklands Heritage Precinct (SEPP (PCRC) Item No. A)

The PLR2 – EW will have a minor direct impact on the Millennium Parklands Heritage Precinct through the reduction of its heritage curtilage. Where the PLR2 – EW site encroaches on the heritage curtilage, this section of the heritage curtilage is currently an electricity easement with high voltage overhead powerlines. No significant built fabric or conservation landscape is present in this area. The PLR2 – EW site is located within land reclaimed during the late nineteenth century. The biodiversity assessment completed as part of the Environmental Assessment Documentation identified native vegetation within the PLR2 – EW site which was planted for functional and aesthetic purposes in the 1990s. However, it is noted that the significant wetland area is located adjacent to the PLR2 – EW. Containing the PLR2 – EW site to the electricity easement and avoiding significant wetlands has mitigated this impact.

The bridge between Melrose Park and Wentworth Point will have a high-moderate visual impact on the urban visual landscape of this section of the Parramatta River through the introduction of a new built form. However, the bridge will be located away from the high significance area of the original establishment precinct. It will also not impact any significant views or vistas associated with the heritage item as the bridge will be located around the bend in the Parramatta River around 800 metres downstream. Heritage interpretation is proposed as an additional mitigation measure.

Proposed works at Hill Road will have little to no visual impact on the heritage item as the alignment will not alter the current setting of the heritage item and the existing setting of the heritage item will be retained.



PLR2 – EW is consistent with policies and guidelines outlined in Millennium Parklands Heritage Precinct Conservation Master Plan (Graham Brooks and Associates 2003), specifically Section 16: Landscape Conservation Management Policies.

4.3.3. Ermington Wharf (Parramatta LEP Item No. I82); Wharf (Ryde LEP Item No. I64); Former Pennant Hills Wharf (SEPP (BC) Item No. 40)

Construction of the bridge between Melrose Park and Wentworth Point will have little to no direct impact on Ermington Wharf (Parramatta LEP Item No. I82), Wharf (Ryde LEP Item No. I64), and Former Pennant Hills Wharf (SEPP (BC) Item No. 40) (the heritage item). While the PLR2 – EW site is located within the heritage curtilage of the heritage item, the bridge structure and associated road and landscaping works are located outside the heritage curtilage of the heritage item. Impact to archaeological resources associated with the heritage item, and associated management recommendations, are described in Section 5. The Ermington Boat Ramp contains a known archaeological resource (visible evidence of the former Ermington Wharf) as well as archaeological potential. This area will be managed with an exclusion zone, and no works will occur within the fenced preservation area.

The bridge between Melrose Park and Wentworth Point will have a high-moderate visual impact on the heritage item. While located around 50 metres east of the heritage item, the bridge will introduce a new built form to the urban visual landscape of this section of the Parramatta River. Heritage interpretation is proposed as an additional mitigation measure.

Works will require use of an excavator with rock breaker attachment and vibratory roller. Initial vibration modelling carried out as part of the Environmental Assessment Documentation indicates that significant heritage fabric from this item will experience vibration levels above the screening level for cosmetic damage, which may have a minor indirect impact. Potential vibration impacts will be managed through implementation of the mitigation measures provided in the NVMP.

4.3.4. Wetlands (Parramatta LEP Item No. I1)

The bridge between Melrose Park and Wentworth Point will have a high-moderate visual impact on the heritage item through the addition of a new built form to the urban visual landscape. This visual impact has been mitigated with the bridge being located outside the heritage curtilage which avoids impacting internal views of the natural landscape in which the heritage item sits. Additionally, the bridge will also provide a viewing platform of the heritage item, enabling views and vistas of the Wetlands to be appreciated from the Parramatta River at Melrose Park. Heritage interpretation is proposed as an additional mitigation measure.

The PLR2 – EW alignment along Waratah Street, Melrose Park to the Parramatta River will have little to no direct impact on the heritage item at this location. While the PLR2 – EW site encroaches on the heritage curtilage, in particular for the modifications required to the existing high-voltage transmission tower, there will be no significant impacts to the heritage values of this item.

Potential indirect impacts during the construction of the bridge include erosion and sedimentation, and mobilisation of contaminants. Management and mitigation measures outlined in the SWMP will mitigate these impacts. Potential impact has been further mitigated through biodiversity offsets to be obtained under the *Biodiversity Conservation Act 2016* and *Fisheries Management Act 1994*.

4.3.5. Non-Aboriginal Archaeology

At present the nature and extent of the potential archaeological resource is not completely understood. Limited archaeological research and excavation has been undertaken in the vicinity of the PLR2 – EW site. The assessments of significance outlined in Section 3.4 indicates that HAMU15 has a high potential for State significance resources and that additional archaeological test excavation is required to be undertaken to ensure that the approach taken to managing the archaeological resource is appropriate. Details of the proposed mitigation is provided in Section 5.



5. Environmental management and mitigation measures

5.1. Aboriginal archaeological excavation

5.1.1. Test excavation

Test excavation at PAD1 commenced on 31 October 2022, but was not able to be completed safely, or in accordance with the *Aboriginal Archaeological Test Excavation Methodology* (AATEM) provided in the ACHAR (Appendix B), due to the presence of asbestos.

A site-specific test excavation methodology, as required by CoA E28, will be developed to include a methodology for contaminated materials within areas of archaeological potential in the PLR2 – EW site. Developed in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objectives in New South Wales* (DECCW 2010), it will also include the methodology for the required investigation of the two recorded midden sites SHL 01 and SHL 02 in Melrose Park (AHIMS 45-6-4078 and AHIMS 45-6-4079). The site-specific methodology will be an addendum to the AATEM provided in the ACHAR and will be prepared in consultation with the RAPs.

The Excavation Director (Aboriginal archaeology) will also inform an Environmental Work Method Statement (EWMS) that will be developed for asbestos management within areas of archaeological potential to ensure a safe working environment while protecting archaeology.

Test excavation will be undertaken prior to ground disturbance in any of the areas requiring Aboriginal archaeological management. Test excavation will be carried out in accordance with the AATEM, as amended by the PLR2 – EW site-specific methodology developed in consultation with the RAPs. Following Aboriginal test excavation, this Plan will be reviewed to ensure that the mitigation measures are appropriate.

5.1.2. Salvage methodology

Where harm cannot be avoided to Aboriginal archaeology, a salvage methodology as required by UMM AH6 will be prepared in consultation with RAPs to ensure appropriate management of significant values in instances where they may be impacted. The salvage methodology will be informed by the test excavation results and outcomes of the design review for opportunities to avoid/minimise impact. If Aboriginal objects are identified during testing, salvage of the PLR2 – EW site would not be undertaken until the salvage methodology is prepared.

5.1.3. Triggers for salvage excavation

Thresholds for expansion of test units are provided in the AATEM (Appendix B of the ACHAR). These are:

- High artefact densities
- Presence of features such as a hearth or midden material
- Rare or unusual artefact types
- Unusual raw material types, evidence of contact archaeology.

Based on the test excavation results, the Excavation Director (Aboriginal archaeology), in consultation with the RAPs on site, will determine where expansion to salvage excavation would occur if construction impacts cannot be avoided. Expansion to salvage excavation would not occur until the salvage methodology, as required by UMM AH6, is prepared.

5.1.4. Design review and construction planning

Design development and construction planning will aim to avoid direct impacts on identified objects/sites of Aboriginal heritage potential as far as reasonably practicable. The test excavation results will inform a review of opportunities to avoid or minimise impacts to the Aboriginal heritage at the PLR2 – EW site (refer to Table 17, measure H18).



Aboriginal archaeological sites which are to be impacted by construction activities will be documented, and site-specific mitigation measures identified, including registration in the AHIMS register. TfNSW will be informed of any Aboriginal objects discovered to allow a review and update to the PLR Stage 2 Heritage Interpretation Strategy.

5.1.5. Contamination remediation

In accordance with NSW CoA A13, remediation required to be undertaken on land subject to archaeological testing and excavation is not subject to Part C or Part D of the Infrastructure Approval but is subject to the contamination requirements outlined in NSW CoA E95 to E107. Further, a suitably qualified and experienced person will monitor for archaeological impacts throughout remediation.

5.1.6. Short and long-term management of Aboriginal objects

Artefacts recovered during the excavation program will be securely stored in an interim capacity until they are appropriately repatriated (reburied) or transferred to a secure, suitable and culturally appropriate keeping place supported by the RAPs.

5.2. Non-Aboriginal archaeological excavation

Archaeological resources across the PLR2 – EW site will be managed according to the Management Rating system provided in the Environmental Assessment Documentation, including the ACHAR and ARDEM, as described in the following sections.

Each individual HAMU and MAMU within the PLR2 – EW site has been assigned a MR including those areas for where currently there is no assessed archaeological potential. Details of the HAMUs and MAMUs relevant to PLR2 – EW is provided in Section 3.4.

5.2.1. Management Rating 3

Management Rating (MR) 3 applies to resources that have been assessed as having high potential for a State significant archaeological resource. In instances where a HAMU or MAMU has been assessed as MR 3, in situ preservation must be considered which can involve redesigning structures so that they do not impact the resource. Archaeological test excavation is to be undertaken to interrogate the assessment of the resource. Likewise public engagement such as open days, media releases, and heritage interpretation must be considered. The management of substantially intact State significant resources should consider seeking the advice of Heritage NSW to ensure all appropriate steps are taken. The following mitigation measures apply for MR 3 (i.e. HAMU15):

- An Excavation Director who meets the NSW Heritage Council requirements for directing State significant archaeological investigations must manage the archaeological program including any potential further testing, salvage excavation and monitoring
- Any further test excavation, salvage, conservation or other heritage work is to be undertaken by a suitably qualified and experienced historical archaeologist in accordance with Heritage Council requirements
- Heritage induction for all contractors
- Testing required as impact or removal is generally unacceptable for substantially intact State significant archaeology identified. Any proposed removal of State significant archaeology would need to be appropriately justified
- In situ retention of archaeological evidence may be required
- If archaeological salvage excavation is undertaken, it would follow a well-structured and detailed methodology with robust research questions commensurate with the significance of the resource
- Public engagement, such as media releases, potential public open days, or heritage interpretation



- Post-excavation reporting, artefact analysis and relics conservation and interpretation would be required if relics are identified. This reporting will also need to address the artefact repository for recovered relics.

5.2.2. Management Rating 2

MR 2 applies to resources that have been assessed as having high potential for a locally significant archaeological resource and either medium or low potential for State significant archaeological resources. Its importance to the local community means that public engagement can be a core component of mitigation especially when in situ preservation is not appropriate. The following mitigation measures apply for MR 2 (nil for PLR2 – EW):

- An Excavation Director who meets the NSW Heritage Council requirements for directing locally or State (depending on the assessment of the resource) significant archaeological investigations must manage the archaeological program
- Any further test excavation, salvage, conservation or other heritage work is to be undertaken by a suitably qualified and experienced historical archaeologist in accordance with Heritage Council requirements
- Heritage induction for all contractors
- Impact or removal is likely to be considered acceptable if appropriate mitigation measures are followed
- Heritage NSW is to be notified if the resource is of State significance, noting that exceptional preservation can increase significance. In addition, under Section 146 of the Heritage Act, Heritage NSW is to be notified if relics are encountered
- Public engagement, such as media releases, potential public open days, or heritage interpretation, may be appropriate
- Post-excavation reporting, artefact analysis and relics conservation and interpretation would be required if relics are identified. This reporting will also need to address the artefact repository for recovered relics.

5.2.3. Management Rating 1

MR 1 applies to resources that have been assessed as having medium or low potential for a locally significant archaeological resource. This acknowledges the importance of locally significant archaeology but also accounts for potential disturbance that may have occurred. The following mitigation measures apply for MR 1:

- An Excavation Director who meets the NSW Heritage Council requirements for directing locally significant archaeological investigations must manage the archaeological program including any potential further testing, salvage excavation and monitoring
- Any further test excavation, salvage, conservation or other heritage work is to be undertaken by a suitably qualified and experienced historical archaeologist in accordance with Heritage Council requirements
- Monitoring of construction subsurface impact works may be an appropriate management strategy
- Heritage induction for all contractors
- Impact or removal is likely to be considered acceptable if appropriate mitigation measures are followed
- Heritage NSW is to be notified if the resource is of State significance, noting that exceptional preservation can increase significance. In addition, under Section 146 of the Heritage Act, Heritage NSW is to be notified if relics are encountered
- Post-excavation reporting, artefact analysis and relics conservation and interpretation would be required if relics are identified. This reporting will also need to address the artefact repository for recovered relics.





5.2.4. Management Rating N/A

MR N/A applies to areas where the resource, as assessed, does not currently meet the threshold of significance. Despite the assessment of nil potential, the possibility always exists for unknown archaeological evidence, hence the need for unexpected finds and an archaeologist to be engaged on an on-call basis. The following mitigation measures apply for MR N/A (i.e. HAMU14, HAMU17, HAMU18 and MAMU02):

- Heritage induction for all contractors
- Preparation and implementation of an unexpected finds protocol that outlines steps to be undertaken if artefacts are encountered.

5.2.5. Changes to Management Ratings

The MR system used in the Environmental Assessment Documentation is designed so that the scale of archaeological work (and methodology) in each HAMU or MAMU can be increased or decreased if required. For example, if during monitoring in a HAMU or MAMU rated MR1 an intact archaeological resource is found then it can be escalated to MR2 which would facilitate testing under the methodologies described in the previous sections. If during the subsequent testing it was then found that salvage excavation would be appropriate, it can be escalated again to MR3 and the relevant methodology followed. All escalations would be at the discretion of the Excavation Director in collaboration with the John Holland and TfNSW, and where necessary following consultation with Heritage NSW. Likewise, if during test excavations, in an area graded MR2, no evidence of an intact archaeological resource is found, or the resource is highly fragmentary, it may be suitable to deescalate the HAMU to MR1.

5.2.6. Archaeological methodology

Test excavation will be undertaken at HAMU15 in accordance with the MR3 mitigation measures. The results will inform a design review for opportunities to avoid or minimise impact to significant archaeology, including potential for in situ conservation of State significant archaeology.

Where significant archaeology is present and impact cannot be avoided, the Excavation Director (non-Aboriginal archaeology) will determine the extent of salvage excavation. They will be informed by the test excavation results, the research potential and significance of the archaeology, and input from the project team. The Excavation Director will also determine if archaeological monitoring of construction works is required for HAMU15 following test and/or salvage excavation.

The archaeological methodology for monitoring (section 4.4), test (section 4.5) and salvage excavation (section 4.5) provided in the ARDEM (provided as Appendix B Updated Historical Archaeological Assessment) will be implemented.

5.2.7. Timing of test excavation and salvage

Test excavation within HAMU 15 is to be carried out prior to ground disturbance so that sufficient time is allowed for the management and recording of the archaeological resource. The salvage excavation required for HAMU15 is to be undertaken prior to the commencement of substantial works, allowing for enough time to fully complete the archaeological excavation.

In accordance with NSW CoA A13, remediation required to be undertaken on land subject to archaeological testing and excavation is not subject to Part C or Part D of the Infrastructure Approval but is subject to the contamination requirements outlined in NSW CoA E95 to E107. Further, a suitably qualified and experienced person will monitor for archaeological impacts throughout remediation.

5.2.8. Notification to Heritage NSW

If at any time a State significant archaeological resource is encountered, Heritage NSW will be notified by the Environment and Sustainability Manager and/or Excavation Director. The significance of an archaeological resource is linked to its intactness and can change once found based on how intact it is found to be. In all instances, the primary management approach to State significant





archaeological resources is design amendment or modification to allow for *in situ* preservation. If a locally significant archaeological resource that contains relics is found, then Heritage NSW will be notified under s146 of the Heritage Act.

5.2.9. Design review and construction planning

There is a potential for State significant archaeological resources being identified within the PLR2 – EW site, particularly at HAMU15. Given the scarcity and importance of these State significant archaeological resources, all attempts are to be made to avoid disturbing or excavating these deposits. Following notification to Heritage NSW, design review will take place to avoid or mitigate (where avoidance is not reasonable or feasible) impacts to the State significant archaeological resources. Design review is also to be considered if extensive structural remains such as building footings, wells, or cesspits are encountered, irrespective of their level of significance, as these substantial remains can often be utilised in site interpretation.

5.2.10. Revised ARDEM

The ARDEM, as provided in Appendix B of the Updated Historical Archaeological Assessment (Amendment Report), will be implemented during the PLR2 – EW.

If known or potential State significant archaeological deposits or relics are discovered during the PLR2 – EW, or if new areas of archaeological significance are identified as needing to be impacted by the PLR2 – EW works, for example following test excavations, a Revised ARDEM must be prepared, in accordance NSW CoA E20 and Heritage Council of NSW guidelines. Where triggered, the Revised ARDEM will be submitted to the Planning Secretary prior to undertaking work that has the potential to impact upon areas of archaeological significance as defined in the Environmental Assessment Documentation.

5.3. Unexpected Heritage Finds and Human Remains Procedure

In accordance with NSW CoA E15, UMM AH9 and UMM NAH9, an Unexpected Heritage Finds and Human Remains Procedure is required to be developed by a suitable qualified and experienced heritage specialist in consultation with Heritage NSW and the Heritage Council of NSW. The TfNSW *Unexpected heritage items procedure* (2022) EMF-HE-PR-0076 will be adopted by John Holland as it meets the requirements of the Infrastructure Approval and provides a consistent way of managing unexpected finds on TfNSW projects.

The Unexpected Heritage Finds and Human Remains Procedure is provided in Appendix B. The procedure is summarised as follows:

- Unexpected heritage item discovered
- Stop work in affected area, protect item and inform Environment and Sustainability Manager
- Contact the project archaeologist and/or Excavation Director to provide advice on the item
- Complete preliminary assessment and recording of the item
- If it is not an archaeological or heritage item:
 - resume work
- If it is an archaeological or heritage item:
 - determine the archaeological methodology or heritage management requirements
 - notify the regulator as required
 - implement the required archaeological methodology or heritage management
 - review CEMP and approval conditions
 - resume work.

An Unexpected Heritage Item Recording Form will be used to document all unexpected heritage finds during the PLR2 – EW works. This will include the works being undertaken, the location, type and





description of the find, and actions taken. It will be completed by the Environment and Sustainability Manager and/or Excavation Director.

5.4. Management and mitigation measures

Performance outcomes, commitments and management measures were identified in the NSW CoA, EPBC CoA, Environmental Assessment Documentation, UMMs and relevant TfNSW documents.

All specific practicable measures and requirements to minimise impacts and manage impacts on Aboriginal and non-Aboriginal heritage are outlined in Table 17.

Table 17 – Environmental management and mitigation measures

ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
General					
H1	All employees, contractors and subcontractors are to receive an induction prior to commencing work on site. The induction will include: - Existence and requirements of this HMP - Relevant legislation and guidelines - Details of all heritage sites and areas of cultural sensitivity - Unexpected Heritage Finds Procedure and Human Remains Procedure (Appendix B) - Cultural awareness training which promotes an understanding of Aboriginal and non-Aboriginal heritage items that may be impacted - Specific responsibilities to minimise impacts on Aboriginal and non-Aboriginal heritage items associated with the works - Measures to protect Aboriginal and non-Aboriginal heritage items from inadvertent impacts from vehicles and equipment.	Pre-construction Construction	Construction Manager Safety Manager Environment and Sustainability Manager	Best practice	Induction records
H2	Do not to destroy, modify or otherwise affect any heritage item or Aboriginal heritage item, unless the identified impacts are described in the Environmental Assessment Documentation. Unexpected heritage finds identified during PLR2 – EW works must be managed in accordance with the Unexpected Heritage Finds and Human Remains Procedure (Appendix B). Consideration of avoidance and redesign to protect State significant unexpected finds must be undertaken where triggered.	Construction	Design Manager Environment and Sustainability Manager All construction personnel	NSW CoA E14	Unexpected Heritage Finds and Human Remains Procedure (Appendix B) and records of compliance Site inspections
H3	The Unexpected Heritage Finds and Human Remains Procedure (Appendix B) must be implemented for the duration of PLR2 – EW. Note: Human remains that are found unexpectedly during the carrying out of work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately. All work must cease immediately, and Heritage NSW be informed.	Construction	Environment and Sustainability Manager Supervisors	NSW CoA E15 UMM NAH9	Unexpected Heritage Finds and Human Remains Procedure (Appendix B) and records of compliance



ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
H4	Heritage community engagement initiatives must be implemented to share information on archaeological investigations, archaeological relics, heritage items, items of heritage significance and heritage conservation areas affected by the PLR2 – EW including, but not limited to: - Interpretative hoardings during construction - Community open days - Community updates - Permanent public interpretative displays, utilising salvaged archaeological materials where appropriate.	Construction	Construction Manager Stakeholder and Communications Manager Environment and Sustainability Manager	NSW CoA E17	Implementation of heritage specific community engagement initiatives
Non-Aboriginal					
H5	Barrier fencing with appropriate signage will be installed and maintained during construction to delineate heritage structures to be protected. This will include but is not limited to the former Ermington Wharf heritage item.	Pre-construction Construction	Construction Manager Supervisors Environment and Sustainability Manager	UMM AH7 Best practice	Environmental Control Maps (ECM) Site inspections
H6	If known or potential State significant archaeological deposits or relics are discovered during the PLR2 – EW, or if new areas of archaeological significance are identified as needing to be impacted by the PLR2 – EW works (for example following test excavations), a Revised ARDEM must be prepared, in accordance NSW CoA E20 and Heritage Council of NSW guidelines and submitted to the Planning Secretary.	Pre-construction	Environment and Sustainability Manager Excavation Director	NSW CoA E20 NSW CoA E22	Revised ARDEM
H7	Prior to undertaking activities that could impact non-Aboriginal heritage items, a suitably qualified and experienced Excavation Director will be nominated, who complies with Heritage Council of NSW's <i>Criteria for Assessment of Excavation Director</i> (September 2019) to oversee and advise on matters associated with historical archaeology, for the approval of the Planning Secretary in consultation with Heritage NSW. The Excavation Director will be present to oversee heritage excavations, advise on archaeological issues, and advise on the duration and extent of oversight required during archaeological excavations consistent with the ARDEM.	Construction	Construction Manager Environment and Sustainability Manager Project engineers Excavation Director	NSW CoA E21	Engagement of a suitably qualified Excavation Director and evidence of oversight and advice being followed





ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
H8	If known or potential State significant archaeological deposits or relics are discovered during PLR2 – EW, then activities must cease in the affected area and the Heritage Council of NSW must be notified as soon as practicable. If determined to be of heritage significance by the Excavation Director, a Revised ARDEM may be required (if requested by the Excavation Director) before further work can continue in that area. Work must only recommence if agreed to by the Excavation Director following consultation with Heritage NSW (under delegation from the Heritage Council of NSW).	Construction	Supervisors Environment and Sustainability Manager Excavation Director	NSW CoA E22 UMM AH7	Unexpected Heritage Finds and Human Remains Procedure (Appendix B) Notification to Heritage Council of NSW Advice from the Excavation Director Revised ARDEM
H9	Following the completion of the archaeological excavation program, a Final Excavation Report will be prepared and be submitted to the Heritage Council of NSW and the relevant council's local studies unit for information, and be made publicly available no later than 12 months after the completion of archaeological excavation. The Final Excavation Report will include: - Details of all archaeological findings; and - Details of any significant artefacts recovered, where they are located and details of their ongoing conservation and protection.	Construction	Heritage consultant	NSW CoA E23	Final Excavation Report
H10	An Archival Recording Report will be undertaken of all heritage-listed items and sites assessed to have heritage significance as outlined in the Environmental Assessment Documentation that will be affected by the PLR2 – EW. This may include: - Newington Armament Depot and Nature Reserve (SHR No.01850) - Millennium Parklands Heritage Precinct (SEPP (PCRC) Item No. A) - Ermington Wharf (Parramatta LEP Item No. 182); Wharf (Ryde LEP Item No. 164); Former Pennant Hills Wharf (SEPP (BC) Item No. 40) - Wetlands (Parramatta LEP Item No. 11) - Archer Park intact well (heritage potential). The archival recording will be prepared in accordance with <i>How to Prepare Archival Recordings of Heritage Items</i> (NSW Heritage, 1998) and	Pre-construction Construction	Heritage consultant	NSW CoA E24 and E25	Archival Recording Report Annotated Index and References





ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
	<i>Photographic Recording of Heritage items Using Film or Digital Capture (NSW Heritage, 2006).</i> The recordings will capture the potentially affected heritage listed items impacted by PLR2 – EW, and the immediate surrounds, before, during and after the works. The Archival Recording Report will be prepared no later than 12 months after the completion of construction. A copy will be provided to Heritage NSW and relevant councils and will be submitted as part of the Annotated Index and References.				
H11	Subject to the outcomes of test excavations, any significant heritage fabric that is to be removed or modified must be recorded and tagged on site and stored securely in accordance with the Removal and Storage Methodology for future use (Appendix C).	Pre-construction	Heritage consultant	NSW CoA E26	Removal and Storage Methodology (Appendix C)
H12	Test excavations will be undertaken, prior to ground disturbance within HAMU 15, including the Ermington Wharf, to clarify significance, extent and integrity of deposits in accordance with the ARDEM. Where testing confirms that archaeological resources are present, additional site-specific research will be undertaken to refine the understanding of significance to ensure future management is in line with research values. If new areas of archaeological significance are impacted, a Revised ARDEM will be developed in accordance with NSW CoA E20 and Heritage Council of NSW guidelines and submitted to the Planning Secretary.	Pre-construction	Construction Manager Environment and Sustainability Manager Project engineers Excavation Director	NSW CoA E20 UMM NAH3	Test excavation results Revised ARDEM
H13	Following test excavations, and as identified during construction, the design will be reviewed and refined to avoid direct impacts on items/sites of non-Aboriginal heritage significance and archaeological sites of State significance, and to minimise impacts on archaeological sites of local significance, as far as reasonably practicable.	Pre-construction Construction	Design Manager Project engineers Environment and Sustainability Manager	UMM NAH1	Environmental Design Review Reports
H14	For areas of archaeological significance where harm cannot be avoided, the ARDEM will be implemented to ensure there is appropriate management informed by significance and relevant research questions. The Management Rating system (Section 5.1) will be adopted based on the approach provided in the Updated Historical Archaeological Assessment, which will be further refined following the outcomes of test excavations and site-specific research.	Pre-construction Construction	Design Manager Project engineers Environment and Sustainability Manager	UMM NAH2	Environmental and Sustainability Design Review Reports





ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
H15	The design will be prepared: - In accordance with the urban design requirements - In accordance with the recommendations in the Updated Statement of Heritage Impact - To minimise the potential for visual impacts on heritage items by incorporating sympathetic form, fabric and colour, where feasible - To include appropriate interpretation of non-Aboriginal heritage in accordance with the PLR2 Heritage Interpretation Strategy.	Pre-construction Construction	Design Manager	UMM NAH4 UMM NAH6	Environmental and Sustainability Design Review Reports
Aboriginal Heritage					
H16	Registered Aboriginal Parties (RAPs) will be kept regularly informed about the PLR2 – EW works. Consultation will be in accordance with the <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> (Roads and Maritime Services, 2011) and the <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW, 2010). RAPs will continue to be provided with the opportunity to be consulted about the Aboriginal cultural heritage management requirements of the PLR2 – EW works, including managing potential impacts on objects/aspects of cultural significance.	Pre-construction Construction	Environment and Sustainability Manager	NSW CoA E27 UMM AH2	Consultation records Meeting minutes
H17	Aboriginal archaeological testing and excavations must be conducted by a suitably qualified and experienced person in accordance with the requirements of the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010). More than one Excavation Director may be engaged to exercise the functions required under the Infrastructure Approval.	Pre-construction	Construction Manager Environment and Sustainability Manager Excavation Director	NSW CoA E28	Engagement of a suitably qualified Excavation Director and evidence of oversight and advice being followed
H18	At the completion of Aboriginal cultural heritage test and salvage excavations, an Aboriginal Cultural Heritage Excavation Report(s) will be prepared by a suitably qualified person. The Aboriginal Cultural Heritage Excavation Report(s), will: Be prepared in accordance with the <i>Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW</i> (OEH 2011) and	Pre-construction	Heritage consultant	NSW CoA E29	Aboriginal Cultural Heritage Excavation Report Submission of report to stakeholders and RAPs for comment





ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
	the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010); and Document the results of the archaeological test excavations and any subsequent salvage excavations (with artefact analysis and identification of a final repository for finds) and inform detailed design to avoid/minimise impacts to historical archaeology and areas of archaeological significance. The RAPs must be given a minimum of 60 calendar days to consider and provide comments on the Aboriginal Cultural Heritage Excavation Report(s) before it is finalised. The final Aboriginal Cultural Heritage Excavation Report(s) must be provided to the Planning Secretary, Heritage NSW, the relevant Councils, LALC, the interested RAPs and local libraries within 24 months of the completion of the Aboriginal archaeological excavations (both test and salvage).				
H19	The design will continue to be refined to avoid direct impacts on identified places of Aboriginal heritage as far as reasonably practicable, and incorporate appropriate interpretation and integration of Aboriginal heritage in accordance with the PLR2 Heritage Interpretation Strategy.	Pre-construction Construction	Design Manager	UMM AH1 UMM AH3	Environmental and Sustainability Design Review Reports
H20	Aboriginal stakeholders will continue to be consulted and involved during design development in accordance with Transport for NSW's Aboriginal Culture and Heritage Framework, Draft Connecting with Country (Government Architect NSW, 2020) and Designing with Country (Government Architect NSW, 2020) and in consultation with the Design Review Panel.	Pre-construction Construction	Design Manager	UMM AH4	Environmental and Sustainability Design Review Reports Meeting minutes
H21	Test excavations will be undertaken to confirm the nature and extent of potential archaeological deposits/shell middens at: - PAD1 Ermington Boat Ramp - Ermington SHL01 (AHIMS 45-6-4078) - Ermington SHL02 (AHIMS 45-6-4079). The excavations will be undertaken in accordance with a project-specific excavation methodology developed as described in Section 12.2 of the	Pre-construction	Excavation Director Supervisor	UMM AH5	Text excavation results





ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
	Aboriginal Cultural Heritage Assessment Report. The test excavation program will be completed prior to the commencement of construction, and any ground disturbing works in these areas.				
H22	Where test excavations confirm that Aboriginal objects are present: - Options to modify the design will be investigated - Assessments of significance provided in the Aboriginal Cultural Heritage Assessment Report will be updated. Unavoidable impacts will be managed in consultation with the RAPs. Any salvage required will be undertaken in accordance with the salvage methodology required under UMM AH6.	Construction	Design Manager Environment and Sustainability Manager Excavation Director	UMM AH5	Environmental and Sustainability Design Review Reports ACHAR Consultation with RAPs
H23	A detailed salvage methodology will be prepared (if required) following test excavations. The methodology will be prepared by a suitably qualified archaeologist in consultation with RAPs, and will include: - Processes for consultation with Heritage NSW and RAPs in accordance with the <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW, 2010), and <i>Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW</i> (OEH, 2011) - Requirements in relation to the short and long-term management of Aboriginal objects recovered during testing and salvage, including care agreements, where relevant. Where salvage is required, RAPs will be engaged to assist the salvage process, which will be managed by an appropriately qualified archaeologist. Detailed analysis and reporting of cultural material collected will be provided to Heritage NSW in accordance with Section 89A of the <i>National Parks and Wildlife Act 1974</i>. This will include recording salvaged objects on the AHIMS register and updating site records.	Construction	Heritage consultant	UMM AH6	Salvage Methodology and consultation records AHIMS records Care agreements (where relevant)
H24	Cultural heritage awareness training will be provided by an Aboriginal representative at the commencement of substantial works (Substage A3).	Construction	Environment and Sustainability Manager	UMM AH8	Training register





ID	Management and mitigation measures	Timing	Responsibility	Reference or source	Evidence of implementation
			Aboriginal representative Heritage consultant		
H25	Where previously unidentified Aboriginal objects are encountered during construction, these will be: - Managed in accordance with the Unexpected Heritage Finds and Human Remains Procedure (Appendix B) - Included in the Heritage Interpretation Strategy, and this Plan, subject to the support of the RAPs and Aboriginal community members involved in the Project - Recorded on the AHIMS register.	Construction	Heritage consultant	UMM AH9	Unexpected Heritage Finds and Human Remains Procedure (Appendix B) HMP and Heritage Interpretation Strategy AHIMS records
Vibration impacts to heritage items					
H26	Potential vibration impacts on items of heritage significance will be managed in accordance with the TfNSW <i>Construction Noise and Vibration Guideline 2023</i> and the NVMP. Advice from a heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures before they are installed. Refer to the NVMP for details on dilapidation surveys.	Pre-construction Construction	Project engineers Environment and Sustainability Manager Heritage consultant	NSW CoA E43, E44, E45 and E87 UMM NAH11 UMM NV13 to NV15 UMM AH7	NVMP and CNVIS Dilapidation surveys Pre/Post Condition Surveys Heritage advice
Annotated Index and References					
H27	Following completion of all heritage work for PLR2 – EW, an Annotated Index and Reference will be prepared of all archival recording, historical research, archaeological excavations (with artefact analysis and identification of a final repository for finds), and other heritage documents developed during the PLR2 – EW works. The Annotated Index and References will be completed no later than 12 months after the completion of the PLR2 – EW works and submitted to the Planning Secretary, the Heritage Council of NSW, Heritage NSW, LALCs, RAPs and the relevant Council(s) on request.	Post-construction	Environment and Sustainability Manager Heritage consultant	NSW CoA E18 and E19	Annotated Index and References





6. Compliance management

6.1. Roles and responsibilities

The organisational structure for the PLR2 – EW Project and key roles and responsibilities are outlined in Section 5.1 of the CEMP. Specific responsibilities for the implementation of environmental controls are detailed in Section 5 of this Plan.

To provide specialist support in the management of Aboriginal and non-Aboriginal heritage values, the John Holland team will be supported by the suitably qualified heritage specialists as detailed in the sections that follow.

6.1.1. Heritage Consultant

A consultancy specialising in the field of Aboriginal and non-Aboriginal archaeology and built heritage will be engaged to conduct investigations, prepare documentation (where required) and provide advice on heritage management for the PLR2 – EW.

6.1.2. Excavation Director (non-Aboriginal archaeology)

A suitably qualified and experienced Excavation Director has been nominated in consultation with Heritage NSW and submitted to the Planning Secretary for approval. The Excavation Director complies with *Heritage Council of NSW's Criteria for Assessment of Excavation Director* (September 2019) and will oversee and advise on matters associated with historical archaeology. The Excavation Director must be present to oversee excavation, advise on archaeological issues, and advise on the duration and extent of oversight required during archaeological excavations consistent with the ARDEM.

The nominated Excavation Directors for PLR2 – EW are:

- Primary Excavation Director, [REDACTED] (GML Principal) – has 25+ years' experience and meets the Heritage Council criteria for investigations local and State significant archaeological sites
- Secondary Excavation Director, [REDACTED] (GML Associate) – has 16 years' experience in historical archaeology and meets the Heritage Council criteria for test and salvage excavation of locally significant archaeological sites.

6.1.3. Excavation Director (Aboriginal archaeology)

Aboriginal archaeological testing and excavations will be conducted by a suitably qualified and experienced person in accordance with the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010).

The nominated Excavation Director (Aboriginal archaeology) for PLR2 – EW is [REDACTED] (GML Consultant). [REDACTED] has 5 years' experience and meets the requirements of the Code of Practice.

6.2. Training

To ensure that this Plan is effectively implemented, all site personnel (including sub-contractors) will undergo site induction training prior to commencement of construction. The induction training will address elements related to heritage management, including:

- Existence and requirements of this Plan
- Relevant legislation and regulations
- Details of all heritage sites and areas of cultural sensitivity
- Unexpected Heritage Finds Procedure and Human Remains Procedure (Appendix B)
- Cultural awareness training which promotes an understanding of Aboriginal and non-Aboriginal heritage items that may be impacted





- Specific responsibilities to minimise impacts on Aboriginal and non-Aboriginal heritage items associated with the works
- Measures to protect Aboriginal and non-Aboriginal heritage items from inadvertent impacts from vehicles and equipment.

Cultural heritage awareness training for Aboriginal heritage will also be provided by an Aboriginal representative at the commencement of substantial works (Substage A3) consistent with UMM AH8.

Targeted training in the form of toolbox talks or role-specific training will also be provided to personnel with a key role in heritage management or those undertaking an activity with a high risk of environmental impact.

Daily pre-start meetings conducted by the Superintendent / Site Supervisor (or delegate) will inform the site workforce of any environmental issues relevant to heritage that could potentially be impacted by, or impact on, daily activities.

Further details regarding staff induction and training are provided in Section 5.3 of the CEMP.

6.3. Inspections and monitoring

Regular inspections of environmentally sensitive areas, exclusion zones and activities with the potential to impact Aboriginal and Non-Aboriginal heritage will be undertaken for the duration of construction. Inspections will include daily site inspections by Site Supervisors, and weekly site inspection by environmental personnel during construction as a minimum.

Site inspections will be recorded (along with actions and issues observed) and actioned appropriately within agreed timeframes. These inspections will be recorded as part of the Weekly Environmental Inspection Checklist and will also be used as a record of activities and observations related to heritage management. Additional requirements and responsibilities in relation to inspections are documented in Section 7.1 of the CEMP. For activities carried out under an EWMS, measures are to be reviewed regularly to ensure that they are effective, including for minimising the risk of impacting the heritage items.

Routine environmental inspections by TfNSW, regulators (such as DPHI and/or Heritage NSW), and the ER will also occur throughout construction. Details on the nature and frequency of these inspections are documented in Section 7.1.1 of the CEMP.

Archaeological monitoring of construction excavation activities will be undertaken by a suitably qualified and experienced archaeologist in accordance with the ARDEM and Revised ARDEM (where relevant). Where remediation is required to be undertaken on land subject to archaeological testing and excavation, a suitably qualified and experienced archaeologist will monitor for archaeological impacts throughout the remediation.

6.4. Auditing

Audits (internal and external) will be undertaken to evaluate the adequacy and effectiveness of environmental controls, and to assess compliance against the environmental requirements detailed in this Plan. Additional details on internal and external audits are provided in Section 7.4 of the CEMP.

6.5. Compliance tracking and reporting

Reporting requirements and responsibilities are documented in Section 7.3 of the CEMP.

6.6. Non-compliance

A non-compliance is an occurrence, set of circumstances or development that is a breach of the Infrastructure Approval. Where a non-compliance is detected which is directly attributable to the Project and exceeds the management criteria set out in this Plan, a Non-compliance Report will be raised, managed and reported as outlined in Section 7.3 of the CEMP.

Where a non-compliance is also an environmental incident, John Holland will implement the relevant notification procedures for both non-compliances and incidents (Section 6 of the CEMP).



Where a non-compliance is raised as part of an audit, inspection, incident investigation or complaint investigation, the relevant process may be used to close out the non-compliance and it is not necessary to raise a separate Non-compliance Report.





7. Review and improvement

7.1. Continual improvement

Continual improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets. The continual improvement process has been designed to:

- Identify opportunities for improvement of environmental management and performance
- Determine the cause or causes of non-compliances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-compliances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvements
- Make comparisons with objectives and targets.

The Environment and Sustainability Manager is responsible for ensuring that activity and location specific environmental risks and opportunities are identified throughout the construction, as part of the continuous improvement process. The process for ongoing risk identification and management during construction is outlined in Section 4.1.2 of the CEMP.

7.2. Plan review and amendment

The processes described in Sections 7.7 and 7.8 of the CEMP may result in the need to update or revise this Plan. This will occur as needed. Any revisions to this Plan or other Sub-plans will be in accordance with the process outlined in Section 1.9 of the CEMP.

Any minor amendments made to this Plan that are of an administrative nature, consistent with the terms of the Infrastructure Approval, and consistent with the management plans and monitoring programs approved by the Planning Secretary, may be approved by the ER.

A copy of the updated Plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure (Section 7.6.2 of the CEMP).



Appendix A: Secondary environmental requirements

Secondary requirements that are related, but not specific to, the development of this Plan are outlined in this appendix. Cross references are provided to indicate where the requirements are addressed in this Plan or other Project management documents. This includes:

- Secondary NSW CoA which are listed in Table 18
- Secondary UMM which are listed in Table 19.

Table 18 – Secondary Conditions of Approval

NSW CoA	Condition	Plan reference	How addressed
A10	Any document required by this approval, and which requires the Planning Secretary's approval, must be approved by the Planning Secretary before the commencement of Works associated with that document.	Section 1.6.3	The endorsement and approval process for this Plan is detailed in Section 1.6.3.
A11	Any document required to be prepared by this approval, must be implemented unless otherwise agreed by the Planning Secretary.	Section 1.4	This Plan will be implemented for the duration of the PLR2 – EW construction.
A12	Where the terms of this approval require a document or monitoring program to be prepared, or a review to be undertaken in consultation with relevant parties, evidence of the consultation undertaken must be submitted to the Planning Secretary and ER (as relevant) with the corresponding documentation. The evidence must include: (a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval; (b) a log of the dates of engagement or attempted engagement with the identified party (c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations; (d) outline of the issues raised by the identified party and how they have been addressed; and (e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.	Section 1.6.1 Appendix D	Reflecting the requirements of the Infrastructure Approval and Environmental Assessment Documentation, this Plan has been prepared in consultation with the stakeholders nominated in Table 3. A detailed consultation report, including matters raised by stakeholders and John Holland responses, has been prepared in accordance with NSW CoA A12 (Appendix D).
A13	Remediation required to be undertaken on land subject to archaeological testing and excavation is not subject to Part C or Part D of this approval, but is subject to: (a) the contamination requirements outlined in Conditions E95 to E107; and (b) The presence of a suitably qualified and experienced person to monitor for archaeological impacts throughout remediation.	Section 5.1.1 Section 5.2.7 Section 6.3	In accordance with NSW CoA A13, remediation required to be undertaken on land subject to archaeological testing and excavation is not subject to Part C or Part D of the Infrastructure Approval but is subject to the contamination requirements outlined in NSW CoA E95 to E107. Further, a suitably qualified and experienced person will monitor for archaeological impacts throughout remediation.



NSW CoA	Condition	Plan reference	How addressed
A19	Strategies, plans or programs required by this approval can be submitted on a progressive basis, with the agreement of the Planning Secretary. With the agreement of the Planning Secretary, the Proponent may prepare the updated strategy, plan or program without undertaking all the consultation required under the applicable condition in this approval. Notes: 1. While a strategy, plan or program may be submitted on a progressive basis, the Proponent must ensure that the activities on site are covered by suitable strategies, plans or programs at all times; and 2. If a strategy, plan or program is to be submitted on a progressive basis, then the relevant strategy, plan or program must clearly describe the specific stage / activities to which strategy, plan or program applies, the relationship of this stage / activity to future stages / activities, and the trigger for updating the strategy, plan or program.	Section 1.6.3	John Holland will prepare strategies, plans and programs in accordance with the Project Staging Report and the CEMF.
B6	The following information must be available to facilitate community enquiries and manage complaints one month before the commencement of Work and for 12 months following the completion of construction: (a) a 24- hour telephone number for the registration of complaints and enquiries about the CSSI; (b) a postal address to which written complaints and enquires may be sent; (c) an email address to which electronic complaints and enquiries may be transmitted; and (d) "a mediation system for complaints unable to be resolved. This information must be accessible to all in the community regardless of age, ethnicity, disability or literacy level.	Community Communication Strategy (CCS)	The requirements of this NSW CoA have been satisfied by TfNSW and will be maintained for 12 months following completion of construction. Refer to the CCS for further details on communication processes.
B7	A Complaints Register must be maintained recording information on all complaints received about the CSSI during the carrying out of any Work and for a minimum of 12 months following the completion of construction. The Complaints Register must record the:	CCS	The requirements of this NSW CoA have been satisfied by TfNSW and will be maintained for 12 months following completion of construction.





NSW CoA	Condition	Plan reference	How addressed
	(a) number of complaints received; (b) the date and time of the complaint; (c) the method by which the complaint was made; (d) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (e) nature of the complaint; (f) means by which the complaint was addressed and whether resolution was reached, with or without mediation; and (g) "if no action was taken, the reason(s) why no action was taken.		Refer to the CCS for further details on the Complaints Register.
C11	CEMP(s) (and relevant CEMP sub-plans) must be submitted to the Planning Secretary for approval except those permitted to be endorsed by others pursuant to a CEMF approved by the Planning Secretary under Condition C1.	Section 1.6.3	The endorsement and approval process for this Plan is detailed in Section 1.6.3.
C12	Where a CEMP (and relevant CEMP sub-plans) requires Planning Secretary's approval, the CEMP (and relevant CEMP sub-plans) must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one month before the commencement of construction, or where construction is staged, no later than one month before the commencement of each stage.	Section 1.6.3	The endorsement and approval process for this Plan is detailed in Section 1.6.3.
E14	All reasonable steps must be taken so as not to destroy, modify or otherwise affect any Heritage item not identified in documents referred to in Condition A1. Unexpected heritage finds identified by the CSSI must be managed in accordance with the Unexpected Heritage Finds Procedure and Human Remains Procedure outlined in the documents list under Condition E15. Consideration of avoidance and redesign to protect state significant unexpected finds must be addressed where this condition applies.	Section 5.4 Appendix B	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H2). An Unexpected Heritage Finds and Human Remains Procedure is provided in Appendix B.
E15	An Unexpected Heritage Finds and Human Remains Procedure must be prepared: (a) by a suitably qualified and experienced heritage specialist in consultation with Heritage NSW and the Heritage Council of NSW;	Section 5.4 Appendix B	An Unexpected Heritage Finds and Human Remains Procedure is provided in Appendix B and fully addresses all requirements of this condition.





NSW CoA	Condition	Plan reference	How addressed
	(b) in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW in relation to Environmental, Aboriginal cultural heritage and human remains; (c) to include provisions for hold points or stop work in the event of an unexpected heritage or human remains find to consult with RAPs, an independent expert for advice relevant to the type of unexpected find or, in the case of human remains other relevant stakeholders; (d) to include provision to recommence Work following permission from Heritage NSW; (e) the procedure must be included within the Heritage CEMP Sub-Plan required by Condition C14; and (f) no later than one (1) month before the commencement of Work and submitted to the Planning Secretary and Heritage NSW upon request. The Unexpected Heritage Finds and Human Remains Procedure must be implemented for the duration of Work. Note: Human remains that are found unexpectedly during the carrying out of work may be under the jurisdiction of the NSW State Coroner and must be reported.		The requirement to implement the Unexpected Heritage Finds and Human Remains Procedure is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H2 and H3). The Unexpected Heritage Finds and Human Remains Procedure was prepared by a suitably qualified and experienced heritage specialist (TfNSW Senior Specialist Heritage). Consultation was undertaken with Heritage NSW and the Heritage Council of NSW during the preparation of this Plan. The Procedure was prepared in accordance with relevance guidelines and standards (Section 1), includes provisions for hold points (Section 6) and includes provision to recommence work following permission from Heritage NSW (Section 6).
E16	The Proponent must prepare a Heritage Interpretation Strategy, which identifies and interprets the key Aboriginal and Non-Aboriginal heritage values and stories of Heritage items, items of heritage significance, and heritage conservation areas impacted by the CSSI. The Heritage Interpretation Strategy must be prepared in accordance with the documents listed in Condition A1, the <i>NSW Heritage Manual</i>, the NSW Heritage Office's <i>Interpreting Heritage Places and Items: Guidelines</i> (August 2005), and the NSW Heritage Council's <i>Heritage Interpretation Policy</i> and include, but not be limited to: (a) a discussion of key interpretive themes, stories and messages proposed to interpret the Aboriginal and other cultural values, history and significance of the affected Heritage items, items of heritage significance and sections of heritage conservation areas; (b) Aboriginal cultural and heritage values of the project area including the results of any archaeological investigations undertaken; and (c) interpretation of the results of Environmental archaeological excavations; The Heritage Interpretation Strategy must inform the Place, Design and Landscape Plan(s) (PDLP).	PLR2 Heritage Interpretation Strategy Section 5.4	TfNSW are responsible for preparing the Heritage Interpretation Strategy. John Holland will provide assistance where required including providing the results of any archaeological investigations to inform the update of the Strategy. John Holland will also implement the Strategy as part of the design and construction. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H4, H15, and H19).





NSW CoA	Condition	Plan reference	How addressed
E17	The Proponent must identify initiatives to be implemented during construction to share information with the community on archaeological investigations, archaeological relics, heritage items, items of heritage significance and heritage conservation areas affected by the CSSI including, but not limited to: (a) use of interpretative hoardings during construction; (b) community open days; (c) community updates; and (d) permanent public interpretative displays, utilising salvaged archaeological materials where appropriate. Interpretive initiatives to be implemented during construction must be identified in the Community Communication Strategy required by Condition B2 and implemented as soon as practicable.	CCS Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H4).
E18	Following completion of all Work described in the documents listed in Condition A1 in relation to heritage, an Annotated Index and Reference of all archival recording, historical research, archaeological excavations (with artefact analysis and identification of a final repository for finds), and other heritage documents of the CSSI must be prepared.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H27).
E19	The Annotated Index and References must be completed no later than 12 months after the completion of the Work referred to in Condition E14 and submitted to the Planning Secretary, the Heritage Council of NSW, Heritage NSW, LALCs, RAPs and the relevant Council(s) on request. Note: The intent of an Annotated Index and Reference is to collate all heritage related assessments, investigations, recordings, research and excavation reports, and all other heritage related documents prepared for part of this project in a single location.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H27).
E20	Prior to undertaking Work that has the potential to impact upon areas of archaeological significance as defined in the documents listed in Condition A1, a revised Archaeological Research Design and Excavation Methodology must be prepared, if new areas of archaeological significance are impacted, in accordance with the Heritage Council of NSW guidelines and submitted to the Planning Secretary.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H6). The ARDEM, as provided in Appendix B of the Updated Historical Archaeological Assessment (Amendment Report), will be implemented during the PLR2 – EW. The requirement to prepare a Revised ARDEM will be triggered if known or potential State significant archaeological deposits or relics are





NSW CoA	Condition	Plan reference	How addressed
			discovered during the PLR2 – EW, or if new areas of archaeological significance are identified as needing to be impacted by the PLR2 – EW works, for example following test excavations. Where triggered, the Revised ARDEM must be prepared in accordance NSW CoA E20 and Heritage Council of NSW guidelines and submitted to the Planning Secretary.
E21	Prior to undertaking Work that could impact historical archaeology (i.e. non-Aboriginal), a suitably qualified and experienced Excavation Director must be nominated, who complies with Heritage Council of NSW's Criteria for Assessment of Excavation Director (September 2019) to oversee and advise on matters associated with historical archaeology, for the approval of the Planning Secretary in consultation with Heritage NSW. The Excavation Director must be present to oversee excavation, advise on archaeological issues, and advise on the duration and extent of oversight required during archaeological excavations consistent with the Archaeological Research Design and Excavation Methodology.	Section 5.4 Section 6.1	John Holland will ensure the Excavation Director is present to oversee excavation, advise on archaeological issues, and advise on the duration and extent of oversight required during archaeological excavations. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H7).
E22	If known or potential State significant archaeological deposits or relics are discovered during Work, then Work must cease in the affected area and the Heritage Council of NSW must be notified as soon as practicable. If determined to be of heritage significance by the Excavation Director, an archaeological assessment and management strategy may be required (if requested by the Excavation Director) before further Work can continue in that area. Work must only recommence if agreed to by the Excavation Director following consultation with Heritage NSW (under delegation from the Heritage Council of NSW).	Section 5.4	If triggered, John Holland will stop works in the affected area and the Environment and Sustainability Manager will contact Heritage Council of NSW (via Heritage NSW) as soon as practicable. The Excavation Director will determine if a Revised ARDEM is required before work in that area can continue following consultation with Heritage NSW (refer to NSW CoA E20). This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H6 and H8).
E23	Following the completion of the archaeological excavation program, a Final Excavation Report must be prepared and be submitted to the Heritage Council of NSW and the relevant council's local studies unit for information and be made publicly available no later than 12 months after the completion of archaeological excavation. The Final Excavation Report must include:	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H9).





NSW CoA	Condition	Plan reference	How addressed
	(a) details of all archaeological findings; and (b) details of any significant artefacts recovered, where they are located and details of their ongoing conservation and protection.		
E24	An Archival Recording Report must be undertaken of all heritage-listed items and sites assessed to have heritage significance outlined in the documents listed under Condition A1 that will be affected by Work. The archival recording must be prepared in accordance with How to Prepare Archival Recordings of Heritage Items (NSW Heritage, 1998) and Photographic Recording of Heritage items Using Film or Digital Capture (NSW Heritage, 2006). The recordings must capture the potentially affected heritage listed items impacted by Works, and the immediate surrounds, before, during and after the works.	Section 5.4	An Archival Recording Report will be undertaken of all heritage-listed items and sites assessed to have heritage significance as outlined in the Environmental Assessment Documentation that will be affected by work. This may include: - Newington Armament Depot and Nature Reserve (SHR No.01850) - Millennium Parklands Heritage Precinct (SEPP (PCRC) Item No. A) - Ermington Wharf (Parramatta LEP Item No. 182); Wharf (Ryde LEP Item No. 164); Former Pennant Hills Wharf (SEPP (BC) Item No. 40) - Wetlands (Parramatta LEP Item No. 11) This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H10).
E25	The Archival Recording Report must be prepared no later than 12 months after the completion of Construction and a copy must be provided to Heritage NSW and the relevant council and must be submitted as part of the annotated index required by Condition E14.	Section 5.4	The Archival Recording Report will be prepared no later than 12 months after the completion of construction, and a copy must be provided to Heritage NSW and relevant councils, and submitted as part of the Annotated Index and References (NSW CoA E18 and E19). This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H10).
E26	A Removal and Storage Methodology must be prepared to identify the procedure for the recording, tagging, removal and storage of any significant heritage fabric to be removed, modified and/or reused. Significant heritage fabric that is to be removed or modified must be recorded and tagged on site and	Section 5.4 Appendix C	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H11) and detailed in Appendix C.





NSW CoA	Condition	Plan reference	How addressed
	stored securely in accordance with the Removal and Storage Methodology for future use. The Methodology must be included in the Heritage CEMP Sub-Plan required by Condition C14.		
E27	Registered Aboriginal Parties (RAPs) must be kept regularly informed about the CSSI. The RAPs must continue to be provided with the opportunity to be consulted about the Aboriginal cultural heritage management requirements of the CSSI.	Section 1.6.1 Section 1.6.2 Section 5.4	RAPs will be kept regularly informed about the progress of the PLR2 – EW and will be provided with an opportunity to be consulted about the Aboriginal cultural heritage management requirements of the PLR2 – EW in line with the principals of RAP engagement (Section 1.6.2). This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H16).
E28	Aboriginal archaeological testing and excavations must be conducted by a suitably qualified and experienced person in accordance with the requirements of the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010). More than one Excavation Director may be engaged for the CSSI to exercise the functions required under the conditions of this approval.	Section 5.4 Section 6.1	John Holland will ensure that the Excavation Director is a suitably qualified and experienced person in accordance with the requirements of the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010) or will engage an additional Aboriginal heritage Excavation Director to exercise the functions required under the Infrastructure Approval. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H17).
E29	At the completion of Aboriginal cultural heritage test and salvage excavations, an Aboriginal Cultural Heritage Excavation Report(s) must be prepared by a suitably qualified person. The Aboriginal Cultural Heritage Excavation Report(s), must: (a) be prepared in accordance with the Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW, OEH 2011 and the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, DECCW 2010; and (b) document the results of the archaeological test excavations and any subsequent salvage excavations (with artefact analysis and identification of a final repository for finds) and inform	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H18).





NSW CoA	Condition	Plan reference	How addressed
	detailed design to avoid/minimise impacts to historical archaeology and areas of archaeological significance. The RAPs must be given a minimum of 60 days to consider the report and provide comments before the report is finalised. The final report must be provided to the Planning Secretary, Heritage NSW, the relevant Councils, LALC, the interested RAPs and local libraries within 24 months of the completion of the Aboriginal archaeological excavations (both test and salvage). Notes: 1. To ensure cultural knowledge is protected a redacted Aboriginal Cultural Heritage Excavation Report(s) may be provided subject to the agreement of RAPs to publicly share cultural knowledge. 2. Nothing in these conditions prevents the Proponent from preparing combined Final Excavation and Aboriginal Cultural Heritage Excavation report(s) to satisfy Conditions E23 and E29.		
E43	Vibration testing and monitoring must be undertaken before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and attended monitoring shows that the preferred values for vibration are likely to be exceeded, the construction methodology must be reviewed and, if necessary, additional mitigation measures implemented.	NVMP	The requirements of NSW CoA E43 are addressed in the NVMP.
E44	Advice from a heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures before they are installed.	NVMP Section 5.4	The requirements of NSW CoA E44 are addressed in the NVMP and are included in the mitigation and management measures outlined in Section 5.4 (Table 17, H26).
E45	Before conducting at-property treatment at any heritage item identified in the documents listed in Condition A1, the advice of a suitably qualified and experienced built heritage expert must be obtained and implemented to ensure any such work does not have an adverse impact on the heritage significance of the item.	NVMP	The requirements of NSW CoA E45 are addressed in the NVMP.
E87	The Proponent must offer pre-condition surveys, to the owners of surface and sub-surface structures, and other relevant assets identified at risk from vibration, including all listed heritage items and buildings/structures of heritage significance as identified in the documents listed in Condition A1. Where the offer is accepted, the survey must be undertaken by a suitably qualified and experienced engineer and/or building surveyor prior to the commencement of vibration generating works that could impact on the structure/asset. The results of each survey must be documented in a Pre-construction	NVMP	The requirements of NSW CoA E87 are addressed in the NVMP.





NSW CoA	Condition	Plan reference	How addressed
	Condition Survey Report and copies of the report must be provided to the owner of the item(s) surveyed no later than one month before the commencement the impacting work / activity.		
E88	Where Pre-condition surveys have been undertaken in accordance with Condition E87, subsequent post-construction surveys of the structure / asset must be undertaken by a suitably qualified and experienced engineer and/or building surveyor to assess damage that may have resulted from the vibration-generating works. The results of the post-construction surveys must be documented in a Post-construction Condition Survey Report for each item surveyed. Copies of Post-construction Condition Survey Reports must be provided to the owner of the structure / asset surveyed no later than four months following the completion of construction activities that have the potential to impact on the structure / asset.	NVMP	The requirements of NSW CoA E88 are addressed in the NVMP.
E89	Where damage has been determined to occur as a result of the CSSI, the Proponent must carry out rectification at its expense and to the reasonable requirements of the owner of the structure/asset within 12 months of the completion of construction activities that have the potential to create damage unless another timeframe is agreed with the owner. Alternatively, the Proponent may pay compensation for the damage as agreed with the owner.	NVMP	The requirements of NSW CoA E89 are addressed in the NVMP.

Table 19 – Secondary UMMs

UMM	Measure	Plan reference	How addressed
AH1	The design will continue to be refined to avoid direct impacts on identified places of Aboriginal heritage as far as reasonably practicable.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H19).
AH2	Aboriginal consultation will continue to be undertaken through the life of the project in accordance with the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Roads and Maritime Services, 2011) and the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010). This includes managing potential impacts on objects/aspects of cultural significance in consultation with registered Aboriginal parties.	Section 1.6.1 Section 1.6.2 Section 5.2	RAPs will be kept regularly informed about the progress of the PLR2 – EW and will be provided with an opportunity to be consulted about the Aboriginal cultural heritage management requirements of the PLR2 – EW in line with the principals of RAP engagement (Section 1.6.2). This requirement is included in the mitigation and management measures outlined in Section 5.2 (Table 17, H16).





UMM	Measure	Plan reference	How addressed
AH3	A heritage interpretation strategy will be developed to guide incorporation of appropriate interpretation and integration of Aboriginal and non-Aboriginal heritage in the design. The strategy will be prepared and implemented in accordance with Interpreting Heritage Places and Items: Guidelines (NSW Heritage Office, 2005) and the Heritage Interpretation Policy (NSW Heritage Council, 2005). The strategy will include measures to ensure a meaningful design response to Aboriginal heritage and cultural values. It will be developed in consultation with relevant stakeholders, including registered Aboriginal parties, and will take into account the recommendations of the Cultural Values Assessment Report (Appendix G of the Aboriginal Cultural Heritage Assessment Report). The project will include appropriate interpretation of Aboriginal heritage in accordance with the heritage interpretation strategy.	PLR2 Heritage Interpretation Strategy Section 5.4	TfNSW are responsible for preparing the Heritage Interpretation Strategy. John Holland will provide assistance where required including providing the results of any archaeological investigations to inform the update of the Strategy, and will implement the Strategy as part of the design and construction. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H19).
AH4	Aboriginal stakeholders will continue to be consulted and involved during design development in accordance with Transport for NSW's Aboriginal Culture and Heritage Framework, Draft Connecting with Country (Government Architect NSW, 2020) and Designing with Country (Government Architect NSW, 2020) and in consultation with the Design Review Panel.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H20).
AH5	Test excavations will be undertaken to confirm the nature and extent of potential archaeological deposits/shell middens at: - PAD1 Ermington Boat Ramp - PAD3 Rydalmere Wharf - PAD6 Ken Newman Park - Macquarie Street PAD3 (AHIMS 45-6-2977) - Church Street PAD1 (AHIMS 45-6-4015) - Ermington SHL01 (AHIMS 45-6-4078) - Ermington SHL02 (AHIMS 45-6-4079). The excavations will be undertaken in accordance with a project-specific excavation methodology developed as described in section 12.2 of the Aboriginal Cultural Heritage Assessment Report. The test excavation program will be completed prior to the commencement of construction, and any ground disturbing works in these areas. Where testing confirms that Aboriginal objects are present: - options to modify the project will be investigated in accordance with mitigation measure AH1	Section 5.4	Test excavations will be undertaken to confirm the nature and extent of potential archaeological deposits/shell middens at relevant PLR2 – EW locations including: - PAD1 Ermington Boat Ramp - Ermington SHL01 (AHIMS 45-6-4078) - Ermington SHL02 (AHIMS 45-6-4079). The excavations will be undertaken in accordance with a project-specific excavation methodology developed as described in Section 12.2 of the Aboriginal Cultural Heritage Assessment Report. The test excavation program will be completed prior to the commencement of construction, and any ground disturbing works in these areas. Where testing confirms that Aboriginal objects are present the design will be reviewed to consider opportunities to avoid impacts and assessments





UMM	Measure	Plan reference	How addressed
	the assessments of significance provided in the Aboriginal Cultural Heritage Assessment Report will be updated. Unavoidable impacts will be managed in consultation with registered Aboriginal parties. Any salvage required will be undertaken in accordance with the salvage methodology (mitigation measure AH6).		of significance updated and reported in Environmental and Sustainability Design Review Reports. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H21 and H22).
AH6	A detailed salvage methodology will be prepared (if required) following test excavations. The methodology will be prepared by a suitably qualified archaeologist in consultation with registered Aboriginal parties. The salvage methodology will include: - the process for consultation with Heritage NSW and registered Aboriginal parties in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010), and Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) - requirements in relation to the short and long- term management of Aboriginal objects recovered during testing and salvage, including care agreements, where relevant. Where salvage is required, registered Aboriginal parties will be engaged to assist the salvage process, which will be managed by an appropriately qualified archaeologist. Detailed analysis and reporting of cultural material collected will be provided to Heritage NSW in accordance with section 89A of the National Parks and Wildlife Act 1974. This will include recording salvaged objects on the NSW Aboriginal Heritage Information Management System (AHIMS) register and updating site records.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H23).
AH8	A requirement for cultural and historic heritage awareness training will be included in the Aboriginal cultural heritage management plan. Cultural heritage awareness training will be provided by an Aboriginal representative at the commencement of substantial works for the project.	Section 5.4 Section 6.2	Cultural heritage awareness training will be provided by an Aboriginal representative at the commencement of substantial works (i.e. Substage A3) as described in Section 6.2. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H24).
AH9	Where previously unidentified Aboriginal objects are encountered during construction, this will be managed in accordance with Transport for NSW's <i>Unexpected heritage items procedure</i> (2022), included in the heritage interpretation strategy (mitigation measure AH3) and Aboriginal cultural heritage management plan (mitigation measure AH7), and recorded on the AHIMS register.	Section 5.4 Appendix B	Previously unidentified Aboriginal objects will be managed in accordance with the Unexpected Heritage Finds and Human Remains Procedure (Appendix B), reported to TfNSW for inclusion in the PLR2 Heritage Interpretation Strategy and





UMM	Measure	Plan reference	How addressed
			recorded on the AHIMS register. This Plan will be reviewed and updated as required to include management controls for the identified objects. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H25).
NAH1	The design will continue to be refined to avoid direct impacts on items/sites of non-Aboriginal heritage significance and archaeological sites of State significance, and to minimise impacts on archaeological sites of local significance, as far as reasonably practicable.	Section 5.4	The design will continue to be refined to avoid direct impacts on items/sites of non-Aboriginal heritage significance and archaeological sites of State significance, and to minimise impacts on archaeological sites of local significance, as far as reasonably practicable, and reported in Environmental and Sustainability Design Review Reports. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H13).
NAH2	For areas of archaeological significance where harm cannot be avoided, the Research Design and Excavation Methodology will be implemented to ensure there is appropriate management informed by significance and relevant research questions. A management rating system will be adopted based on the approach provided in the Updated Historical Archaeological Assessment, which will be further refined following the outcomes of test excavations and site-specific research.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H14).
NAH3	Test excavations will be undertaken, prior to construction, to clarify significance, extent and integrity of deposits in accordance with the Research Design and Excavation Methodology (see Appendix B of the Updated Historical Archaeological Assessment). Where testing confirms that archaeological resources are present, additional site-specific research will be undertaken to refine the understanding of significance to ensure future management is in line with research values.	Section 5.4	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H12).
NAH4	The design will be prepared in accordance with the urban design requirements and recommendations in the Updated Statement of Heritage Impact.	Section 5.4	The design will be prepared in accordance with the urban design requirements and recommendations in the Updated Statement of Heritage Impact, and will minimise the potential





UMM	Measure	Plan reference	How addressed
	The design will minimise the potential for visual impacts on heritage items by incorporating sympathetic form, fabric and colour, where feasible.		for visual impacts on heritage items by incorporating sympathetic form, fabric and colour, where feasible. The outcomes and assessment of compliance will be reported in Environmental and Sustainability Design Review Reports. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H15).
NAH6	A heritage interpretation strategy will be developed to guide incorporating appropriate interpretation and integration of heritage in the design. The strategy will include interpretation requirements for specific parts of the project, particularly where heritage items will be impacted, or archaeological sites are proposed to be excavated. The strategy will be prepared and implemented in accordance with Interpreting Heritage Places and Items: Guidelines (NSW Heritage Office, 2005) and the Heritage Interpretation Policy (NSW Heritage Council, 2005) and developed in consultation with relevant stakeholders, including City of Parramatta Council and City of Ryde Council, and Sydney Olympic Park Authority. The strategy will provide a framework for interpreting the heritage items impacted by the project, set out the key interpretative themes and identify communication strategies, and the location and form of interpretation. These may include approaches such as interpretative signage, historical/artefact displays at local museums or visitor centres, and online media about heritage items and the history of surrounding suburbs. The design will include appropriate interpretation of non-Aboriginal heritage in accordance with the heritage interpretation strategy.	PLR2 Heritage Interpretation Strategy Section 5.4	TfNSW are responsible for preparing the Heritage Interpretation Strategy. John Holland will provide assistance where required including providing the results of any archaeological investigations to inform the update of the Strategy, and will implement the Strategy as part of the design and construction. This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H4 and H15).
NAH9	An unexpected finds procedure for land and maritime based archaeological resources will be developed as part of the heritage management plan, consistent with Transport for NSW's Unexpected heritage items procedure (2022) and Skeletal remains: guidelines for the management of human skeletal remains under the Heritage Act 1977 (Heritage Office, 1998).	Appendix B	An Unexpected Heritage Finds and Human Remains Procedure is provided in Appendix B.
NAH11	Potential vibration impacts on items of heritage significance will be managed in accordance with the Construction Noise and Vibration Strategy (Transport for NSW, 2019) and mitigation measures NV13 to NV15.	Section 5	This requirement is included in the mitigation and management measures outlined in Section 5.4 (Table 17, H26) and the NVMP.
NV13	Where buildings or structures are predicted to exceed the screening criteria for structural damage, a dilapidation survey will be undertaken prior to any construction works. Where required, the vibration management level will be refined based on the type and condition of the building or structure.	NVMP	The requirements of UMM NV13 are addressed in the NVMP.





UMM	Measure	Plan reference	How addressed
	For heritage buildings and structures, the dilapidation survey will consider the heritage value of the structure in consultation with a structural engineer and heritage specialist.		
NV14	A survey will be undertaken to identify vibration sensitive receivers (including buildings, structures, utilities, remediation infrastructure, heritage items or sites and equipment) within 200 metres of the project site. Vibration criteria will be identified based on relevant standards or manufacturer's data. Where vibration criteria are not available, conservative criteria will be used. Appropriate measures will be developed and implemented where potential exceedances of the criteria are identified.	NVMP	The requirements of UMM NV14 are addressed in the NVMP.
NV15	Vibration generating activities will be managed to minimise the potential for impacts on vibration sensitive receivers, (identified in accordance with mitigation measure NV14). Prior to the commencement of vibration-intensive works within the minimum working distances for cosmetic damage, the potential for impacts will be assessed. This will include a more detailed assessment of potentially affected receivers to assess the susceptibility to damage from vibration. Where there is potential for damage, alternate methods that generate less vibration will be investigated and substituted where feasible and reasonable. For heritage items or sites, the more detailed assessment will consider the sensitivity of the receiver in consultation with a heritage specialist to ensure susceptible components are adequately monitored and managed. Where residual risks remain, vibration monitoring will be undertaken. Vibration monitors will provide real- time notification of exceedances of levels approaching cosmetic damage. Any identified vibration-related damage to the receivers will be rectified, including as recommended by a heritage specialist for heritage items.	NVMP	The requirements of UMM NV15 are addressed in the NVMP.





Appendix B: Unexpected Heritage Finds Procedure and Human Remains Procedure

Unexpected heritage items procedure

July 2022



Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



Document control

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Superseded documents	PN 285 P02 Unexpected heritage items

Versions

Version	Date	Amendment notes
1.0	Nov 2011	First issue
1.1	Jul 2012	Amended to reflect that (a) unexpected finds do not include items covered by a relevant approval; (b) Aboriginal people must be consulted where an unexpected find is likely to be an Aboriginal object; (c) the Department of Planning and Environment must be notified in accordance with Step 5 of this procedure for Part 3A and Part 5.1 projects.
1.2	Oct 2013	Amended to clarify that the procedure applies to all types of unexpected heritage items, not just archaeological items. The procedure introduces the term 'Historic Items' to cover both 'archaeological relics' and 'other historic items' such as works, structures, buildings and movable objects. The title of the document has been amended to better reflect this clarification.
1.3	Mar 2015	The procedure was streamlined to address all project types including maintenance works. The separate maintenance procedure (formerly Appendix B) was removed. Names and titles updated throughout.
1.4	May 2022	Rebranded from Roads and Maritime to Transport for NSW. Minor updates for example to accommodate government department name changes, legislation updates, combining contacts from appendix d with former Section 5 as the new Section 7; adjustment of roles and titles following organisational change; clarification of who the procedure applies to in section 2.

Contacts and further information



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1. Purpose

This procedure has been developed to:

- Provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during activities undertaken by Transport for NSW (Transport) or contractors on behalf of Transport.
- Address Transport's obligations under the *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW).

2. Scope

This procedure assumes that an appropriate level of Aboriginal and non-Aboriginal heritage assessment has been completed before work commences on site. In some cases, such as exempt development, detailed heritage assessment may not be required. Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction works. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator and following Transport for NSW (Transport) internal reporting, if required.

Important: This procedure applies to all Transport construction and maintenance activities.

However, when working for Sydney Trains, Rail Delivery and Sydney Metro divisions within Transport please refer to their separate unexpected finds procedures that will apply.

This procedure applies to:

- The discovery of any unexpected heritage item (usually during construction), where Transport does not have approval to disturb the item or where safeguards for managing the disturbance (apart from this procedure) are not contained in the environmental impact assessment.
- All Transport projects that are approved or determined under, Part 4 (Division 4.7), Part 5 or Division 5.2 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act), or any development that is exempt under the Act.

This procedure applies to staff performing work for Transport. 'Staff' includes all permanent, temporary and casual staff, staff seconded from another organisation and contingent workers including labour hire, professional services contractors and consultants.

This procedure does not apply to:

- The legal discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with Heritage NSW, Department of Planning and Environment *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (2010)*; an Aboriginal Heritage Impact Permit (AHIP) issued under the *National Parks and Wildlife Act 1974* (NSW); or an approval issued under the Heritage Act¹.
- The legal discovery and disturbance of heritage items as a result of investigations (or other activities) that are required to be carried out for the purpose of complying with any environmental assessment requirements under Part 4, including Division 4.7, or Part 5, including Division 5.2 of the EP&A Act.

¹ Transport heritage obligations are incorporated into the conditions of heritage approvals

- The legal discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP²; an approval issued under the *Heritage Act 1977* (NSW); the Minister for Planning's conditions of project approval; or safeguards (apart from this procedure) that are contained in the relevant environmental impact assessment.

All construction environment management plans (CEMPs) must make reference to and/or include this procedure (often included as a heritage sub-plan). Where approved CEMPs exist they must be followed in the first instance. Where there is a difference between approved CEMPs and this procedure, the approved CEMP must be followed. Where an approved CEMP does not provide sufficient detail on particular issues, this procedure should be used as additional guidance. When in doubt always seek environment and legal advice on varying approved CEMPs.

² The Procedure for Aboriginal cultural heritage consultation and investigation (2011) recommends that applicable Part 4 and Part 5 projects that are likely to impact Aboriginal objects during construction seek a whole-of-project AHIP. This type of AHIP generally allows a project to impact known and potential Aboriginal objects within the entire project area, without the need to stop works. It should be noted that an AHIP may exclude impact to certain objects and areas, such as burials or ceremonial sites. In such cases, the project must follow this procedure.

3. Types of unexpected heritage items and their legal protection

The roles of project, field and environmental staff are critical to the early identification and protection of unexpected heritage items. Appendix A illustrates the wide range of heritage discoveries found on Transport projects and provides a useful photographic guide. Subsequent confirmation of heritage discoveries must then be identified and assessed by technical specialists (usually an archaeologist).

An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Transport does not have approval to disturb³ or does not have a safeguard in place (apart from this procedure) to manage the disturbance.

These discoveries are categorised as either:

- a) Aboriginal objects.
- b) Historic (non-Aboriginal) heritage items.
- c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

3.1 Aboriginal Objects

The *National Park and Wildlife Act 1974* (NSW) protects Aboriginal objects which are defined as:

*"any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains"*⁴.

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

Important: All Aboriginal objects, regardless of significance, are protected under law.

If any impact is expected to an Aboriginal object, an Aboriginal Heritage Impact Permit (AHIP) is usually required from Heritage NSW⁵ and when a person becomes aware of an Aboriginal object they must notify the Department of Premier and Cabinet Secretary about its location⁶. Assistance on how to do this is provided in Section 6 (step 5).

3.2 Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological 'relics'.
- Other historic items (i.e., works, structures, buildings or movable objects).

³ Disturbance is considered to be any physical interference with the item EP&A Act that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

⁴ Section 5(1) *National Park and Wildlife Act 1974* (NSW).

⁵ Except when, Division 4.7 of Part 4 or Division 5.2 of Part 5 applies.

⁶ This is required under s89(A) of the *National Park and Wildlife Act 1974* (NSW) and applies to all projects assessed under Division 4.7, Part 4, and Division 5.2 Part 5 of the EP&A Act, including exempt development.

3.2.1 Archaeological relics

The *Heritage Act 1977* (NSW) protects relics which are defined as:

“any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance”⁷

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

Important: All relics are subject to statutory controls and protection.

If a relic is likely to be disturbed, a heritage approval is usually required from the Heritage Council of NSW⁸. When a person discovers a relic, they must notify the Heritage Council of NSW of its location⁹. Advice on how to do this is provided in Section 6 (Step 5).

3.2.2 Other historic items

Some historic heritage items are not considered to be ‘relics’, but are instead referred to as works, buildings, structures or movable objects. Examples of these items that Transport may encounter include culverts, historic road formations, historic pavements, buried roads, retaining walls, tramlines, cisterns, fences, sheds, buildings and conduits. Although an approval under the *Heritage Act 1977* (NSW) (Heritage Act) may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. An archaeological excavation permit under section 140 of the Heritage Act is required to do this. In contrast, ‘other historic items’ either exist above the ground’s surface (e.g., a shed), or they are designed to operate and exist beneath the ground’s surface (e.g., a culvert).

Despite this difference, it should be remembered that relics can often be associated with ‘other heritage items’ such as archaeological deposits within cisterns and underfloor deposits under buildings.

3.3 Human skeletal remains

Human skeletal remains can be classed as:

- Reportable deaths.
- Aboriginal objects.
- Relics.

Where it is suspected that less than 100 years has elapsed since death, human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Under s 35(2) of that Act, a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old¹⁰ regardless of ancestry. Public health controls may also apply.

Where remains are suspected of being more than 100 years old, they are considered to be either Aboriginal objects or non-Aboriginal relics depending on the ancestry of the individual. Aboriginal human remains are

⁷ Section 4(1) *Heritage Act 1977* (NSW).

⁸ Except when Division 4.7 of Part 4 or Division 5.2 of Part 5 of the EP&A Act applies.

⁹ This is required under s146 of the Heritage Act and applies to all projects assessed under, Part 4, including Division 4.7, Part 5 and including Division 5.2 of the EP&A Act, including exempt development.

¹⁰ Under s 19 of the Coroners Act 2009, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

protected under the *National Parks and Wildlife Act 1974*, while non-Aboriginal remains are protected under the *Heritage Act 1977* (NSW).

The approval and notification requirements of these Acts are described above in Sections 3.1 and 3.2. Additionally, the discovery of Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under s 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

Important: All human skeletal remains are subject to statutory controls and protections.

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

Guidance on what to do when suspected human remains are found is in Appendix E.

4. Procedure overview

On discovering something that could be an unexpected heritage item ('the item'), the following procedure must be followed. There are eight steps in the procedure. These steps are summarised in Figure 1 below and explained in detail in Section 6.

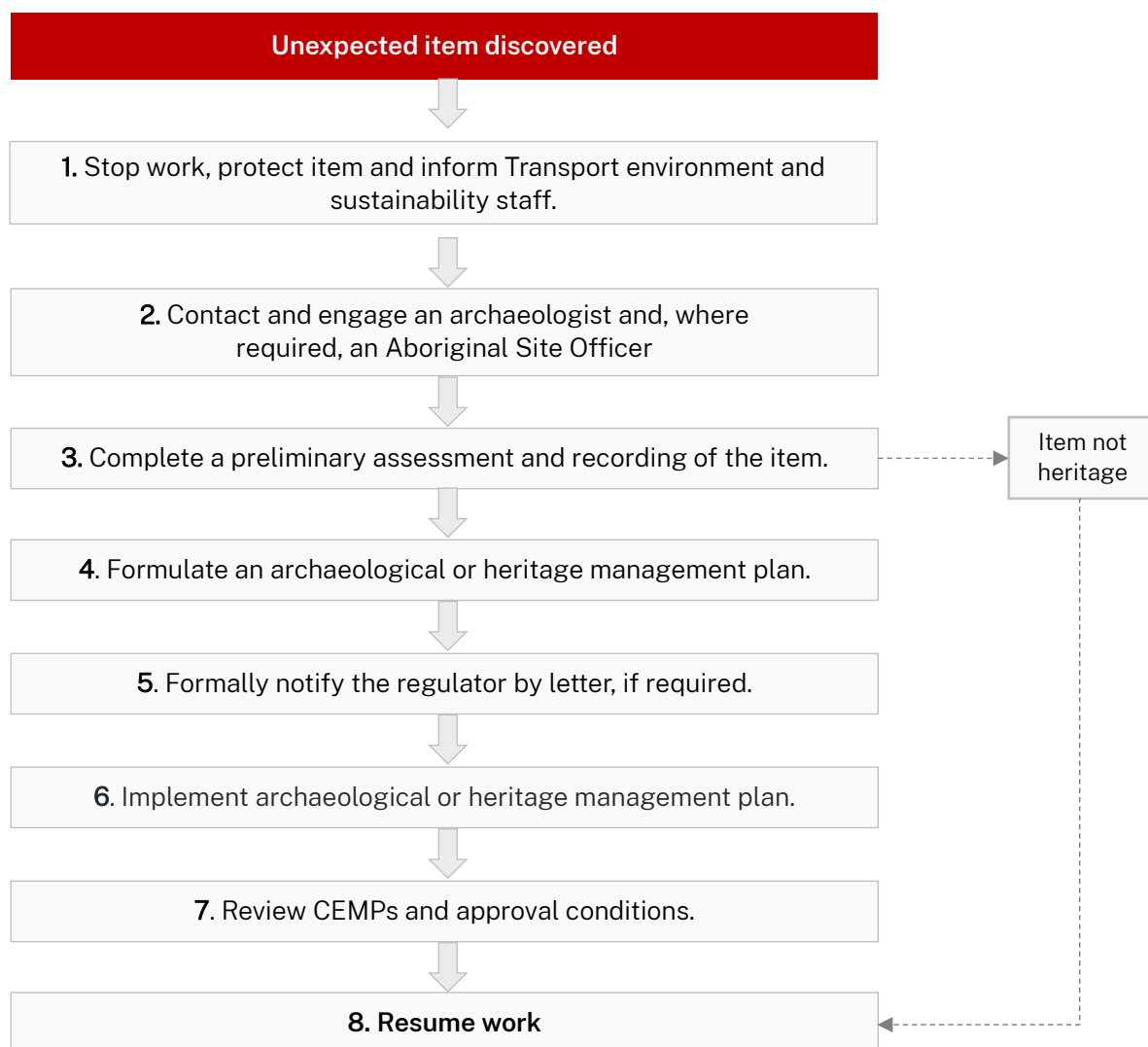


Figure 1: Overview of steps to be undertaken on the discovery of an unexpected heritage item.

Important:

Transport may have approval or specific safeguards in place (apart from this procedure) to impact on certain heritage items during construction. If you discover a heritage item and you are unsure whether an approval or safeguard is in place, **STOP** works and follow this procedure.

5. Related information

5.1 Related Transport policies and framework

- [Transport Environment and Sustainability Policy](#)
- [Environment & Sustainability Management Framework](#)
- Cultural heritage policy

5.2 This procedure should be read in conjunction with:

- Procedure for Aboriginal Cultural Heritage Consultation and Investigation
- EMF-HE-GD-0077 Cultural heritage guidelines
- Environmental Impact Assessment Procedure for Routine and Minor Works EMF-PA-PR-0081
- Environmental Impact Assessment Procedure for Bushfire Hazard Reduction - EIA-P06
- Environmental Impact Assessment Procedure for Review of Environmental Factors EMF-PA-PR-0070
- Environmental Impact Assessment Procedure for State Significant Infrastructure EMF-PA-PR-0072
- EMF-EM-PR-0001 Environmental Incident Procedure

Important:

If you are working under a contract that predates 19 July 2021 under legacy Roads and Maritime work, please contact the Assurance and performance improvement team via nevops@transport.nsw.gov.au

5.3 Other relevant reading material

- NSW Heritage Office (1998), Skeletal remains: guidelines for the management of human skeletal remains.
- Department of Environment and Conservation NSW (2006), Manual for the identification of Aboriginal remains.

6. Unexpected heritage items procedure

6.1 Specific tasks to be implemented following discovery of an unexpected heritage item.

Aboriginal Cultural Heritage Officer (ACHO); Aboriginal Sites Officer (ASO); Archaeologist (A); Project Manager (PM); Environment and sustainability Staff (RS); Registered Aboriginal Parties (RAPs); Senior Specialist (Heritage) (SS(H)); Team leader –Roads and Maintenance or equivalent (TL -RM); Works supervisor –Roads and Maintenance (WS -RM).

Step	Task	Responsibility	Guidance and tools
1	Stop work, protect item and inform Transport environment and sustainability staff		
1.1	Stop all work in the immediate area of the item and notify the Project Manager or Team Leader-RM. (For maintenance activities, the Team Leader is to also notify the Works Supervisor-RM).	All	Appendix A (Identifying unexpected heritage items)
1.2	Establish a ‘no-go zone’ around the item. Use high-visibility fencing where practical.	PM or TL-RM	
1.3	Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.	PM or TL-RM	
1.4	Inspect, document and photograph the item using ‘Unexpected Heritage Item Recording Form (Appendix B).	PM or TL-RM	Appendix B (Unexpected Heritage Item Recording Form) Appendix C (Photographing Unexpected Heritage items)
1.5	Is the item likely to be bone? If yes , follow the steps in Appendix E. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. If no , continue to next step.		Appendix E (Uncovering bones)
1.6	Is the item likely to be: a) A relic? (A relic is evidence of past human activity which has local or state heritage significance. It may include items such as bottles, utensils, remnants of clothing, rockery, personal effects, tools, machinery and domestic or industrial refuse) and/or b) An Aboriginal object? (An Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree).		Appendix A (Identifying heritage items)

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	If yes, proceed directly to Step 1.8 If no, proceed to next step.		
1.7	Is the item likely to be a 'work', building or standing structure? (This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations). If yes, can works avoid further disturbance to the item? (E.g., if historic road base/tram tracks have been exposed, can they be left in place?) If yes, works may proceed without further disturbance to the item. Complete Step 1.8 within 24 hours. If works cannot avoid further disturbance to the item, works must not recommence at this time. Complete the remaining steps in this procedure.		Appendix A (Identifying heritage items)
1.8	Inform relevant Transport Environment and Sustainability staff of item by providing them with the completed Appendix B.	PM or WS-RM (ES)	Section 7 (Seeking advice)
1.9	Environment and Sustainability staff to advise Project Manager or Works Supervisor whether Transport has an approval or safeguard in place (apart from this procedure) to impact on the 'item'. (An approval may include an approval under the Heritage Act, the National Parks and Wildlife Act or the Environmental Planning and Assessment Act). Does Transport have an approval, permit or appropriate safeguard in place to impact on the item? If yes, work may recommence in accordance with the approval, permit or safeguard. There is no further requirement to follow this procedure. If no, continue to next step.		
1.10	Liaise with Traffic Management Centre where the delay is likely to affect traffic flow.	PM or WS-RM	
1.11	Report the item as a 'Reportable Event' in accordance with the Transport <i>Environmental Incident Procedure (EMF-EM-PR-0001)</i> . Implement any additional reporting requirements related to the project's approval and CEMP, where relevant.	PM or WS-RM	Environmental Incident Procedure EMF-EM-PR-0001

Step	Task	Responsibility	Guidance and tools
2	Contact and engage an archaeologist and, where required, an Aboriginal site officer		
2.1	Contact the project (on-call) archaeologist to discuss the location and extent of the item and to arrange a site inspection, if required. The project CEMP may contain contact details of the project archaeologist. OR Where there is no project archaeologist engaged for the works, engage a suitably-qualified and experienced archaeological consultant to assess the find. A list of heritage consultants is available on the Transport contractor panels on the Buy NSW (NSW government) homepage. Environment and sustainability staff and Transport heritage staff can also advise on appropriate consultants.	PM or WS-RM (A; ES; SS(H))	Section 7 (Seeking advice) Buy NSW (NSW government)
2.2	Where the item is likely to be an Aboriginal object, speak with your Aboriginal Cultural Heritage Officer to arrange for an Aboriginal Sites Officer to assess the find. Generally, an Aboriginal Sites Officer would be from the relevant local Aboriginal land council. If an alternative contact person (i.e., a RAP) has been nominated as a result of previous consultation, then that person is to be contacted.	PM or WS-RM (ACHO; ASO)	
2.3	If requested, provide photographs of the item taken at Step 1.4 to the archaeologist, and Aboriginal Sites Officer if relevant.	PM or WS-RM (ES)	Appendix C (Photographing Unexpected Heritage items)
3	Preliminary assessment and recording of the find		
3.1	In a minority of cases, the archaeologist (and Aboriginal Sites Officer, if relevant) may determine from the photographs that no site inspection is required because no archaeological constraint exists for the project (e.g., the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'). Any such advice should be provided in writing (e.g., via email) and confirmed by the Project Manager or Works Supervisor -RM.	A/PM/ASO/ WS-RM	Proceed to Step 8
3.2	Arrange site access for the archaeologist (and Aboriginal Sites Officer, if relevant) to inspect the item as soon as practicable. In most cases, a site inspection is required to conduct a preliminary assessment.	PM or WS-RM	
3.3	Subject to the archaeologist's assessment (and the Aboriginal Sites Officer's assessment, if relevant), work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which has not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established.	A/PM/ASO/ WS-RM	
3.4	The archaeologist (and Aboriginal Sites Officer, if relevant) may provide advice after the site inspection and preliminary assessment that no archaeological constraint exists for the project (e.g., the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'). Any such advice should be provided in writing (e.g., via email) and confirmed by the Project Manager or Works Supervisor -RM.	A/PM/ASO/ WS-RM	Proceed to Step 8

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3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). Environment and sustainability staff and/or Transport heritage staff can provide contacts for such specialist consultants.	ES/SS(H)	Appendix D (Key environmental contacts)
3.6	Where the item has been identified as a 'relic', 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	A	
3.7	The regulator can be notified informally by telephone at this stage by the archaeologist, Project Manager (or delegate) or Works Supervisor -RM. Any verbal conversations with regulators must be noted on the project file for future reference.	PM/A/WS-RM	
4	Prepare an archaeological or heritage management plan		
4.1	The archaeologist must prepare an archaeological or heritage management plan (with input from the Aboriginal Sites Officer, where relevant) shortly after the site inspection. This plan is a brief overview of the following: (a) description of the feature (b) historic context if data is easily accessible (c) likely significance (d) heritage approval and regulatory notification requirements (e) heritage reporting requirements (f) stakeholder consultation requirements (g) relevance to other project approvals and management plans etc.	A/ASO	Appendix F (Archaeological/Heritage Advice Checklist)
4.2	In preparing the plan, the archaeologist with the assistance of environment and sustainability staff must review the CEMP, any heritage sub-plans, any conditions of heritage approvals, conditions of project approval (and or Minister's Conditions of Approval) and heritage assessment documentation (e.g., Aboriginal Cultural Heritage Assessment Report). This will outline if the unexpected item is consistent with previous heritage/project approval(s) and/or previously agreed management strategies. The Project Manager and environment and sustainability staff must provide all relevant documents to the archaeologist to assist with this. Discussions should occur with design engineers to consider if re-design options exist and are appropriate.	A/ES/PM	Appendix F (Archaeological/Heritage Advice Checklist)
4.3	The archaeologist must submit this plan as a letter, brief report or email to the Project Manager outlining all relevant archaeological or heritage issues. This plan should be submitted to the Project Manager as soon as practicable. Given that the archaeological management plan is an overview of all the necessary requirements (and the urgency of the situation), it should take no longer than two working days to submit to the Project Manager.	A	
4.4	The Project Manager or Works Supervisor must review the archaeological or heritage management plan to ensure all requirements can reasonably be implemented. Seek additional advice from environment and sustainability staff and Transport heritage staff, if required.	PM/ES/SS(H)/ WS-RM	

Step	Task	Responsibility	Guidance and tools
5	Notify the regulator, if required.		
5.1	Review the archaeological or heritage management plan to confirm if regulator notification is required. Is notification required? If no , proceed directly to Step 6 If yes , proceed to next step.	PM/ES/SS(H)/WS-RM	
5.2	If notification is required, complete the template notification letter.	PM or WS-RM	Appendix G (Letter notification template)
5.3	Forward the draft notification letter, archaeological or heritage management plan and the site recording form to r environment and sustainability staff and Senior Specialist (Heritage) for review, and consider any suggested amendments.	PM/ES/SS(H)/WS-RM	
5.4	Forward the signed notification letter to the relevant regulator (i.e., notification of relics must be given to the Heritage NSW,) while notification for Aboriginal objects must be given to the relevant Aboriginal section of Heritage NSW. Informal notification (via a phone call or email) to the regulator prior to sending the letter is appropriate. The archaeological management plan and the completed site recording form must be submitted with the notification letter. For Division 4.7 (SSD) and Division 5.2 (SSI) EP&A Act projects, the Department of Planning and Environment must also be notified.	PM or WS-RM	Appendix D (Key environmental contacts)
5.5	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form should be kept on file by the Project Manager or Works Supervisor-RMD and a copy sent to the Senior Environmental Specialist (Heritage).	PM or WS-RM	
6			
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with the regulator.	A/PM or WS-RM (ES)	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this would include such things as a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with registered Aboriginal parties, obtaining heritage approvals etc., if required.	PM or WS-RM (RAPs and ES)	PACHCI Stage 3
6.3	Where heritage approval is required contact environment and sustainability staff for further advice and support material. Please note time constraints associated with heritage approval preparation and processing. Project scheduling may need to be revised where extensive delays are expected.	PM/ES/WS-RM	
6.4	For Division 4.7 (SSD) and Division 5.2 (SSI) EP&A Act projects, assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment. Seek advice from environment and sustainability staff and Environment and Sustainability specialist staff if unsure.	PM/ES	

Transport
for NSW

6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	PM or WS-RM	
6.6	Where statutory approval (or Division 4.7 (SSD)/ Division 5.2 (SSI) of the EP&A Act project modification) is not required and where recording is recommended by the archaeologist, sufficient time must be allowed for this to occur.	PM or WS-RM	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material is removed from site, where required. Interested third parties (e.g., museums or local councils) should be consulted on this issue. Contact environment and sustainability staff and Senior Specialist (Heritage) for advice on this matter, if required.	PM or WS-RM	
7	Review CEMPs and approval conditions		
7.1	Check whether written notification is required to be sent to the regulator before recommencing work. Where this is not explicit in heritage approval conditions, expectations should be clarified directly with the regulator	PM	
7.2	Update the CEMP, site mapping and project delivery program as appropriate with any project changes resulting from final heritage management (e.g., retention of heritage item, salvage of item). Updated CEMPs must incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant. Include any changes to CEMP in site induction material and update site workers during toolbox talks.	PM	
8	To resume work		
8.1	Seek written clearance to resume project work from environment and sustainability staff and the archaeologist (and regulator, if required). Clearance would only be given once all archaeological excavation and/or heritage recommendations (where required) are complete. Resumption of project work must be in accordance with all relevant project/heritage approvals/determinations.	ES/A/PM/WS-RM	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.	PM/A/WS-RM	
8.3	Forward all heritage/archaeological assessments, heritage location data and its ownership status to the Senior Specialist (Heritage). They will ensure all heritage items in Transport's ownership and/or control are considered for the Transport S170 Heritage and Conservation Register.	PM/SS(H)/ WS-RM	
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	PM/TL-RM	

7. Seeking advice

Advice on this procedure should be sought from Transport's Environment and Sustainability heritage staff (see contact details below). Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Environment and sustainability staff can assist non-Transport project environment managers with enquires concerning this procedure.

Important: Transport staff and contractors must not seek advice on this procedure directly from Heritage NSW without first seeking advice from Environment and Sustainability heritage staff or environment and sustainability staff.

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from the contracted archaeologist. Technical specialist advice can also be sought from heritage staff within Environment and Sustainability to assist with the preliminary archaeological identification and technical reviews of heritage/archaeological reports.

Key environmental contacts

Region	Role	Phone
Northern region (including the Hunter)	[REDACTED] - Snr Manager, Aboriginal Engagement (North)	[REDACTED]
South and West region	[REDACTED] - Snr Manager, Aboriginal Engagement South & West	[REDACTED]
Sydney region	[REDACTED] Aboriginal Engagement Specialist (Sydney)	[REDACTED]
Environment and Sustainability	[REDACTED] Senior Specialist (Heritage) [REDACTED]@transport.nsw.gov.au Please cc the following email: es_heritage@transport.nsw.gov.au	[REDACTED]

Heritage regulators

Department/Office	Contact	Phone
Heritage NSW, Department of Planning and Environment	Heritage NSW	(02) 9873 8500
Department of Agriculture, Water and the Environment (DAWE) (Commonwealth)	DAWE	(02) 6272 3933

Project-specific contacts

Position	Name	Phone
Project Manager		
Site/Alliance Environment Manager		
Environmental Officer		
Aboriginal Cultural Heritage Officer		
Consultant Archaeologist		
Local Police Station		
Environment Line		131 555

8. Definitions

<INSTRUCTION: Do not include words or terms that have a commonly understood meaning -delete message.>

Term	Definition
Archaeologist	Archaeologist
ACHO	Aboriginal Cultural Heritage Officer
AHIP	Aboriginal Heritage Impact Permit
ASO	Aboriginal Site Officer
CEMP	Construction Environment Management Plan
HNSW	Heritage NSW, Department of Planning and Environment
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
PM	Project Manager
RAP	Registered Aboriginal Parties
E&S	Environment and Sustainability (branch)
SS(H)	Senior Specialist (Heritage)
TL-RM	Team Leader –Roads and Maintenance or equivalent role
Transport	Transport for NSW
WS-RM	Works Supervisor –Roads and Maintenance or equivalent role

9. Accountabilities

Role	Responsibility
Aboriginal Cultural Heritage Officer (ACHO)	Provides Aboriginal cultural heritage advice to project teams. Acts as Aboriginal community liaison for projects on cultural heritage matters. Engages and consults with the Aboriginal community as per the <i>Transport Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Aboriginal Sites Officer (ASO)	Is an appropriately trained and skilled Aboriginal person whose role is to identify and assess Aboriginal objects and cultural values. For details on engaging Aboriginal Sites Officers, refer to <i>Transport Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Archaeologist (A)	Professional consultant, contracted on a case-by-case basis to provide heritage and archaeological advice and technical services (such as reports, heritage approval documentation, etc.). Major projects with complex heritage issues often have an on-call project archaeologist.
Project Management (PM)	Ensures all aspects of this procedure are implemented. The PM can delegate specific tasks to a construction environment manager, Transport site representatives or environment and sustainability staff, where appropriate.
Environment and sustainability staff (ES)	Provide advice on this procedure to project teams. Ensuring this procedure is implemented consistently by supporting the PM. Supporting project teams during the uncovering of unexpected finds. Reviewing archaeological management plans and liaising with heritage staff and archaeological consultants as needed.
Registered Aboriginal Parties (RAPs)	RAPs are Aboriginal people who have registered with Transport to be consulted about a proposed project or activity in accordance with OEH's Aboriginal cultural heritage consultation requirements for proponents (2010).
Senior Specialist (Heritage)	Provides technical assistance on this procedure and archaeological technical matters, as required. Reviewing the archaeological management plans and facilitating heritage approval applications, where required. Assists with regulator engagement, where required.
Team Leader - Roads and Maintenance (TL-RM)	Ensures Maintenance staff stop work in the vicinity of an unexpected heritage item. Completes <i>Unexpected Heritage Item Recording Form in Appendix B</i> and notifies WS-RM.
Technical Specialist	Professional consultant contracted to provide specific technical advice that relates to the specific type of unexpected heritage find (for example a forensic or physical anthropologist who can identify and analyse human skeletal remains).
Works Supervisor - Roads and Maintenance (WS-M)	Ensures Roads and Maintenance staff are aware of this procedure. Supports the Team Leader - Roads and Maintenance during the implementation of this procedure and ensures reporting of unexpected heritage items through environment management systems.

Appendix A: Identifying unexpected heritage items

The following images can be used to assist in the preliminary identification of potential unexpected items (both Aboriginal and non-Aboriginal) during construction and maintenance works. Please note this is not a comprehensive typology.



Figures: Top left hand picture continuing clockwise: stock camp remnants (Hume Highway Bypass at Tarcutta); linear archaeological feature with post holes (Hume Highway Duplication), animal bones (Hume Highway Bypass at Woomargama); cut wooden stake; glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area).



Figures: Top left hand picture continuing clockwise: woodstave water pipe with tar and wire sealing (Horsley drive); tram tracks (Sydney); brick lined cistern (Clyde); retaining wall (Great Western Highway, Leura).



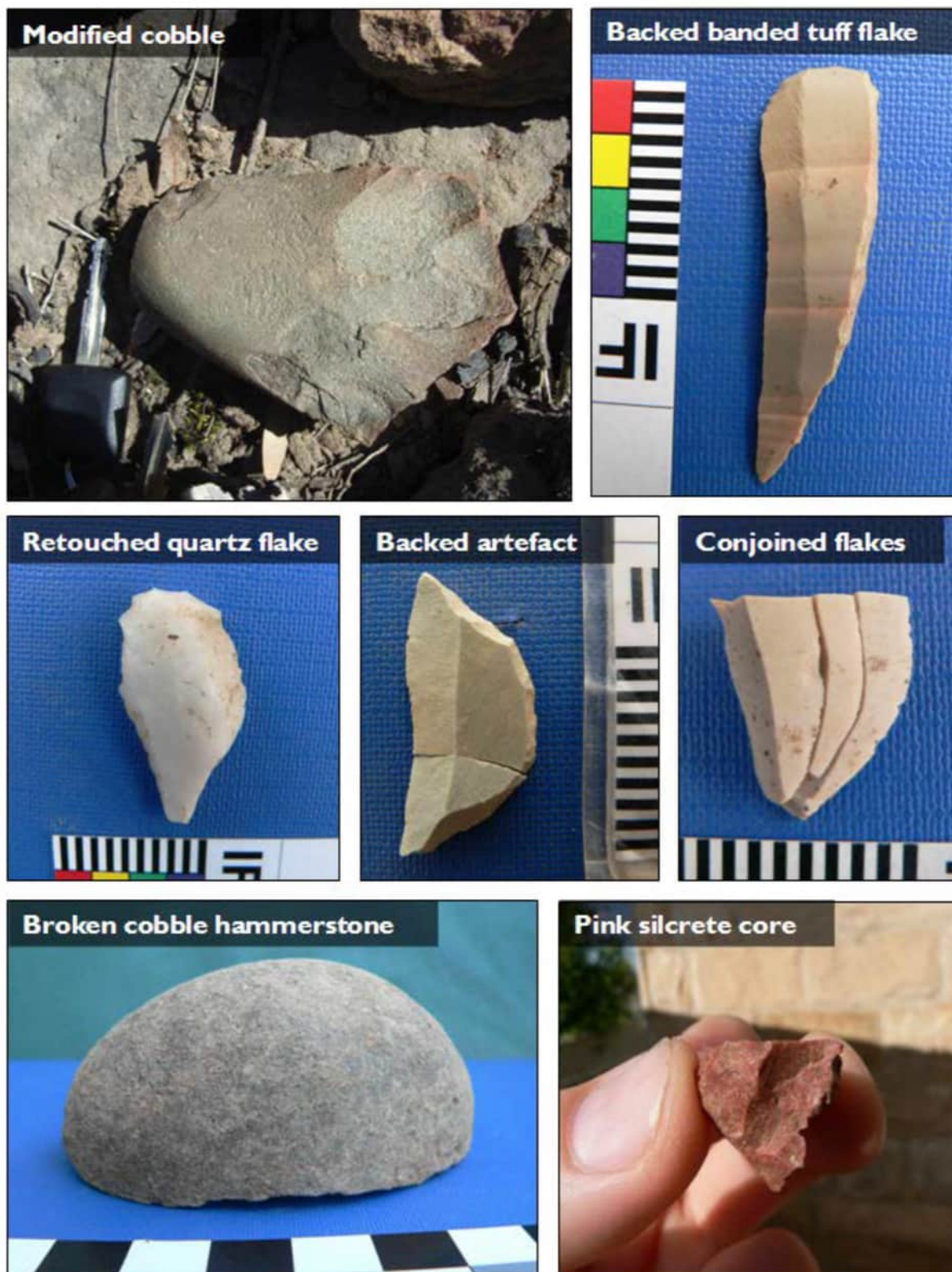
Figures: Top left-hand picture continuing clockwise: road pavement (Great Western Highway, Lawson); sandstone kerbing (Parramatta Road, Mays Hill); Telford sandstone road base (Great Western Highway, Leura); ceramic conduit and sandstone culvert headwall (Blue Mountains, NSW); corduroy timber road base (Entrance Road, Wamberal).



Figures: Top left-hand corner continuing clockwise: alignment pin (Great Western Highway, Wentworth Falls); survey tree (MR7, Albury); survey tree (Kidman Way, Darlington Point, Murrumbidgee); survey tree (Cobb Highway, Deniliquin); milestone (Great Western Highway, Kingswood, Penrith); alignment stone (near Guntawong Road, Riverstone). Please note survey marks may have additional statutory protection under the *Surveying and Spatial Information Act 2002*.



Figures: Top left-hand corner continuing clockwise: remnant bridge piers (Putty Road, Bulga); wooden boundary fence (Campbelltown Road, Denham Court); dairy shed (Ballina); *Golden Arrow Mine Shaft Act 2002*.



Figures: Top left-hand corner: culturally-modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The remaining images show a selection of stone artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010

Appendix B: Unexpected heritage item recording form

TRANSPORT FOR NSW - UNEXPECTED HERITAGE ITEM			
Date		Recorded by	Name Position
Project name			
Description of works being undertaken (e.g., removal of failed pavement by excavation and pouring concrete slabs in 1m x 1m replacement sections).			
Description of exact location of item (e.g., Within the road formation on Parramatta Road, east bound lane, at the corner of Johnston Street, Annandale, Sydney)			
Description of item found (What type of item is it likely to be? Tick the relevant boxes)			
A. Relic	☐	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottles, utensils, plates, cups, household items, tools, implements, and similar items.	
B. 'Work, building or structure'	☐	'Work' can generally be defined as a form of infrastructure such as tram tracks, a culvert, road base, a bridge pier, kerbing, and similar items.	
C. An Aboriginal object	☐	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones.	
D. Bone	☐	Bones can either be human or animal remains. Remember that you must contact the local police immediately by telephone if you are certain that the bone(s) are human remains	
E. Other	☐		
Provide a short description of item (e.g., Metal tram tracks running parallel to road alignment. Good condition. Tracks set in concrete, approximately 10cms (100 mm) below the current ground surface).			

Unexpected heritage item recording form

Sketch

(Provide a sketch map of item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken).

Action taken (tick either A or B)

A. Unexpected item **would not** be further impacted by works ☐

Describe how works would avoid impact on the item

(e.g., the tram tracks will be left in situ, and recovered with road paving).

B. Unexpected item **would** be further impacted by works ☐

Describe how works would impact on the item

(e.g., milling is required to be continued to 200 mm depth to ensure road pavement requirements are met. Tram tracks will need to be removed).

Project manager / works supervisor signature

Appendix C: Photographing unexpected heritage items

Photographs of unexpected items in their current context (in situ) may assist heritage staff and archaeologists to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin) and a note describing the direction of the photograph.

Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add much value to the subsequent detailed photographs also required (Figure 2).



Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008.



Figure 4: Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

Photographing distinguishing features

Where unexpected items have a distinguishing feature, close-up detailed photographs must be taken of this, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 as examples.



Figure 3: Ceramic bottle artefact with stamp.



Figure 4: Detail of the stamp allows 'Tooth & Co Limited' to be made out. This is helpful to a specialist in gauging the artefact's origin,

Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, Transport must contact the police immediately (see Appendix F for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. Heritage staff in Environment and Sustainability Branch can confirm if bones are human or non-human if provided with appropriate photographs.

Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed. Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.



Figure 5: Bone concealed by foliage.



Figure 6: Bone covered in sediment.

Ensure that all close-up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the epiphysis, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.



Figure 7: Photograph showing complete bone.



Figure 8: Close up of a long bone's epiphysis.

Appendix E: Uncovering bones

This appendix provides project managers with:

- (1) advice on what to do when bones are discovered.
- (2) guidance on the notification pathways.
- (3) additional considerations and requirements when managing the discovery of human remains.

1. First uncovering bones

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. Therefore, they must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist. These specialist consultants can be sought by contacting environment and sustainability staff and/or Environment and Sustainability heritage staff.

On the very rare occasion where it is instantly obvious from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and clothing are present.



Figure 1: Schematic of complete skeleton that is obviously human¹¹.



Figure 2: Disarticulated bones that require assessment to determine species.

This preliminary phone call is to let the police know that Transport is undertaking a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not 'obvious' that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix C. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly

¹¹ After Department of Environment and Conservation NSW (2006), Manual for the identification of Aboriginal Remains:

always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur. Preliminary telephone or verbal notification by the Project Manager or environment and sustainability staff is considered appropriate. This must be followed up later by Transport's formal letter notification as per Appendix G when a management plan has been developed and agreed to by the relevant parties.

2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

a) Human bones are from a recently-deceased person (less than 100 years old).

Action

A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the Coroners Act 2009 (NSW). It should be assumed the police will then take command of the site until otherwise directed.

b) Human bones are archaeological in nature (more than 100 years old) and are likely to be Aboriginal remains.

Action

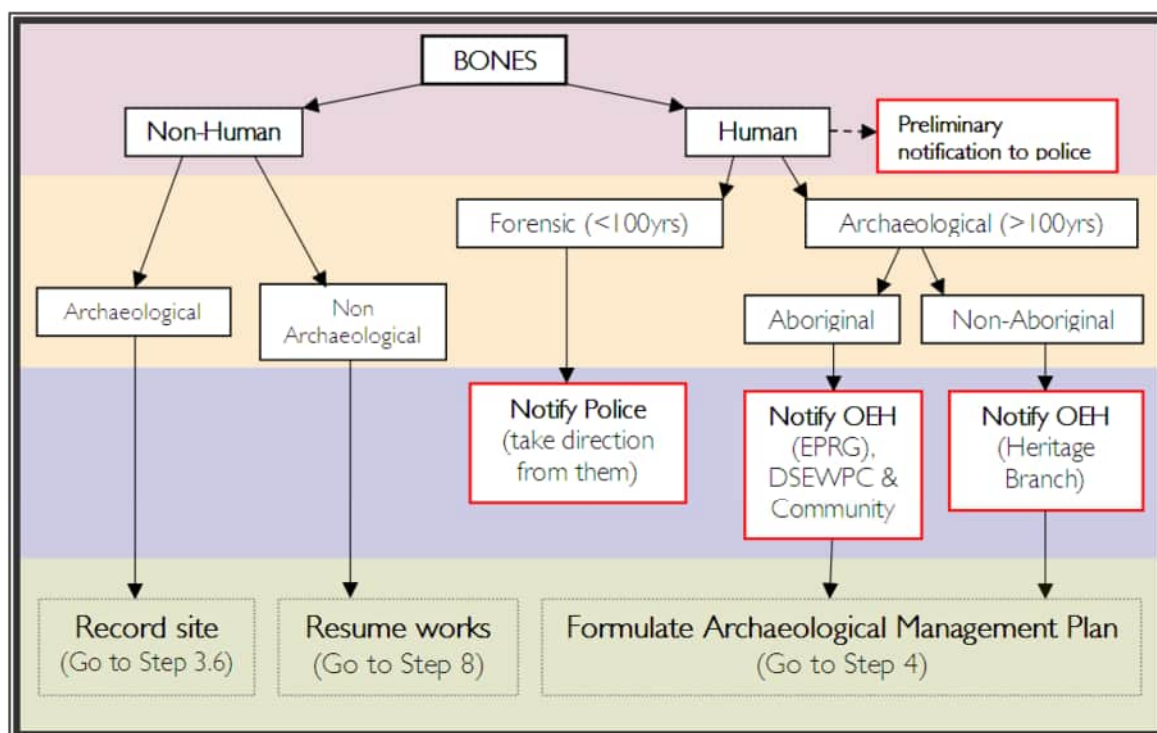
The Heritage NSW and the Transport Aboriginal Cultural Heritage Officer (ACHO) must be notified immediately. The ACHO must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. Relevant stakeholders are determined by Transport's Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI).

c) Human bones are archaeological in nature (more than 100 years old) and likely to be non-Aboriginal remains.

Action

Heritage NSW must be notified immediately.

The diagram below summarises the notification pathways on finding bones.



After the appropriate verbal notifications (as described in B and C), the Project Manager must proceed through the Unexpected Heritage Items Procedure to formulate an archaeological management plan (Step 4). Note no archaeological management plan is required for forensic cases (A), as all future management is a police matter.

Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to recording the find as per Step 3.6.

3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Transport's ACHO can provide advice on this and how to engage with the relevant Aboriginal community. Project Managers, more generally, may also need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains. Project

Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 2010* (NSW). Specifically, Transport is required to apply to the Director General of NSW Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health Regulation 2012* (NSW)¹².

Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at [NSW Health](#).

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

¹² This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

Appendix F: Archaeological Heritage Advice Checklist

The following checklist can be used by the Project Manager and the archaeologist to ensure all relevant archaeological issues are considered when developing the management plan required at Step 4 of this procedure.

An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance.

Assessment and Investigation	Required	Outcomes/notes
Assessment of significance.	Yes/No	
Assessment of heritage impact.	Yes/No	
Archaeological excavation.	Yes/No	
Archival photographic recording.	Yes/No	
Heritage approvals and notifications.		
AHIPs, s 140, s 139 exceptions, s 60, etc.	Yes/No	
Regulator relics/objects notification.	Yes/No	
Transport's S170 Heritage and Conservation Register listing requirements.	Yes/No	
Compliance with CEMP or other project heritage approvals.	Yes/No	
Stakeholder consultation.		
Aboriginal stakeholder consultation requirements and how it relates to Transport's <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> (PACHCI).	Yes/No	
Advice from Environment and sustainability staff, Aboriginal Cultural Heritage Advisor, Transport heritage team.	Yes/No	
Artefact/heritage item management.		
Retention or conservation strategy (e.g., items may be subject to long conservation and interpretation) Disposal strategy (e.g., former road pavement) Short-term and permanent storage locations (interested third parties to be consulted on this issue).	Yes/No	
Control Agreement for Aboriginal objects.	Yes/No	
Program and budget.		
Time estimate associated with archaeological or heritage conservation work.		
Total cost of archaeological heritage work.		

Appendix G: Notification letter template

Drafting guidance: Paste the details below into a Transport for NSW letter template.

[Insert date]

[Insert reference number]

[Insert file number]

[Insert recipient's name and address, see Appendix D]

[Insert salutation and name],

Re: Unexpected heritage item discovered during Transport for NSW (Transport) works.

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Transport works at [insert location] on [insert date]. [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

This letter is in accordance with the notification requirement under [select: section 146 of the *Heritage Act 1977* (NSW) or section 89(A) of the *National Parks and Wildlife Act 1974* (NSW)].

NB: There may be not be statutory requirement to notify of the discovery of a 'heritage Item that is not a relic or Aboriginal object].

Drafting guidance

On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for the Department of Agriculture, Water and the Environment (DAWE) in accordance with notification requirements under section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

[Provide a brief overview of the project or maintenance works background and area. Provide a summary of the description and location of the item, including a map and image where possible. Include how the works were assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (e.g., Part 5). Include any project approval number, if available].

Transport [or contractor on behalf of Transport] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Resulting from these preliminary findings, Transport [or contractor on behalf of Transport] is proposing [provide a summary of the proposed archaeological/heritage approach (eg develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Please contact me if you have any input on this approach or if you require any further information.

Yours sincerely

[Sender name and position]

[Attach the archaeological/heritage management plan and site recording form].



Appendix C: Removal and Storage Methodology

Parramatta Light Rail Stage 2—Enabling Works

Removal and Storage Methodology

Purpose

This Removal and Storage Methodology has been prepared for the Parramatta Light Rail Stage 2 Enabling Works (PLR2-EW). It provides the procedure for removal, recording and storing of significant heritage fabric should this be required for the PLR2-EW. It has been prepared in accordance with Condition of Approval E26:

A Removal and Storage Methodology must be prepared to identify the procedure for the recording, tagging, removal and storage of any significant heritage fabric to be removed, modified and/or reused. Significant heritage fabric that is to be removed or modified must be recorded and tagged on site and stored securely in accordance with the Removal and Storage Methodology for future use. The Methodology must be included in the Heritage CEMP Sub-Plan required by Condition C14.

Significant heritage fabric

In the context of the PLR2-EW, heritage fabric refers to building materials, fixtures and decorative elements associated with listed heritage items, historical archaeological structural remains and unexpected heritage finds that are of local or state significance.

Examples of heritage fabric include sandstone blocks, bricks, tiles, railings, staircases, pressed metal, decorative plasterwork, window frames etc. Heritage fabric can also include road and landscape elements, such as sandstone kerbing and retaining walls.

Heritage context

The PLR2-EW includes all or part of four listed heritage items and one Historical Archaeological Management Unit (HAMU) with potential for significant archaeology (Figure 1 and Figure 2).

Technical papers prepared for the Environmental Impact Statement and the Amendment Report identify the heritage and archaeological impacts relevant to the PLR2-EW. In summary, the Project will have little to no direct impact to the listed heritage items and will have a potential major impact to significant archaeological resource.

The relevant heritage items and archaeological sites, significance grading and summary of the assessed impacts are provided in Table 1.

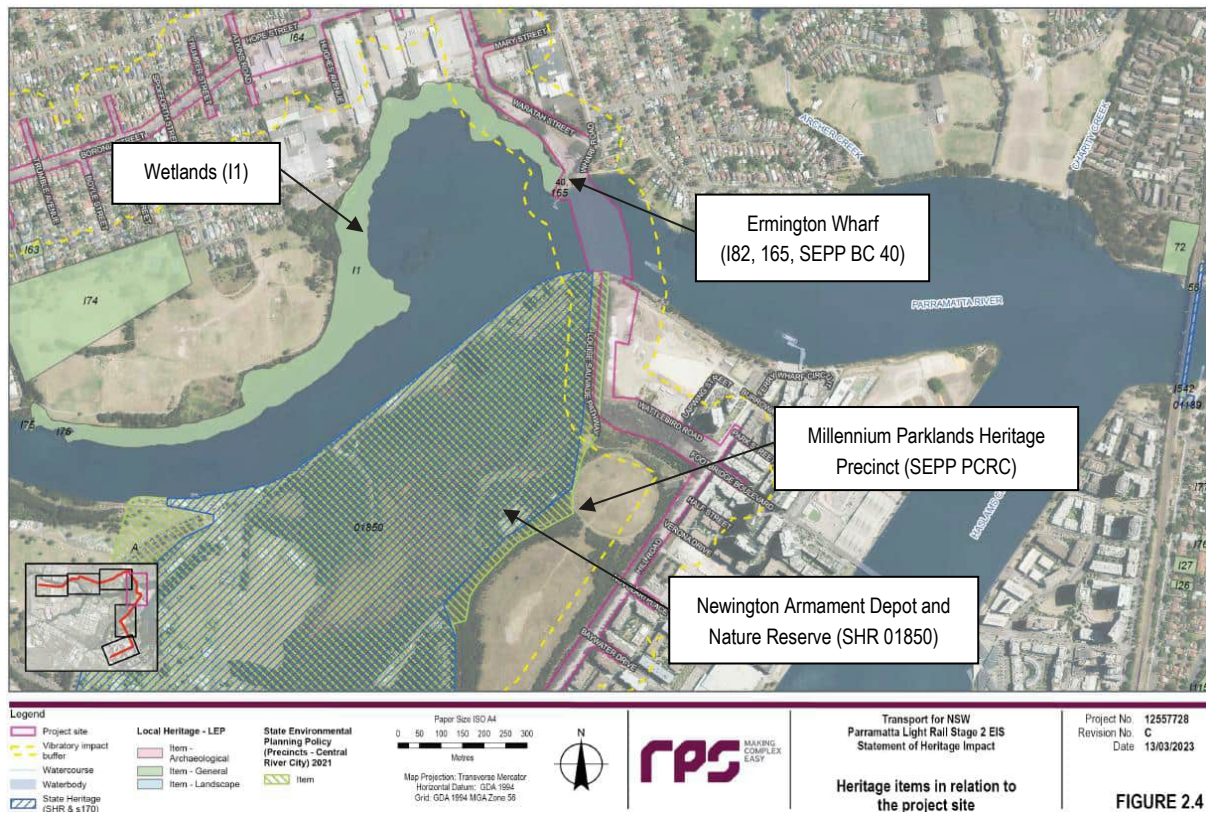


Figure 1 Listed heritage items affected by the PLR2-EW project (Source: RPS 2022, GML annotation)



Figure 1 HAMU 15 Ermington Wharf and Archer Park within the PLR2-EW project (Source: RPS 2022)

Table 1 Heritage items and archaeological sites relevant to the PLR2-EW project and a summary of the assessed impact.

Heritage item / archaeological site	Significance	Assessed impact
<i>Ermington Wharf</i> (Parramatta LEP Item I82) <i>Wharf</i> (Ryde LEP 2014 Item No 165) <i>Pennant Hills Wharf</i> (SEPP Item No 40)	Local	Little to no direct impact Encroachment of heritage curtilage but no impact on significant fabric
<i>Wetlands</i> (Parramatta LEP Item I1)	Local	Minor direct impact Potential impact to mangroves due to construction of new bridge
<i>Millenium Parklands Heritage Precinct</i> (SEPP (PCRC) Item No A)	State	Minor direct impact Encroaches on heritage curtilage
<i>Newington Armament Depot and Nature Reserve</i> (SHR No 01850)	State	Little to no direct impact Works outside the curtilage
<i>HAMU 15 Ermington Wharf and Archer Park</i>	Local / State	Major direct impact Construction of new bridge likely to result in major impact to archaeological resource

Step 1—Assessment

Generally, salvage of heritage fabric would be undertaken to mitigate an unavoidable direct impact to a built heritage item or certain significant archaeological structural remains. The Project's Heritage Consultant or Excavation Director will assess the heritage fabric, in consultation with the Environment and Sustainability Manager, to determine its suitability for salvage, storage and potential for reuse. Specialist Conservator advice will also be sought where required. Considerations for the initial assessment step are outlined below.

Built heritage item

- What is the significance of the heritage item and is the fabric a contributing element?
- Have all options to minimise or avoid impact to heritage fabric been considered?
- Is the removal temporary and will the fabric be re-instated following completion of works?
- Is the fabric in good condition and can it be removed in intact units and without damaging fabric to be retained in situ?
- Can the asset owner or local council, store and reuse the fabric?

Archaeological structural remains / unexpected heritage find

- Are the archaeological structural remains State significant, include rare or unusual building materials?
- Are the building materials in good condition and have good potential for reuse or heritage interpretation?

Step 2—Removal

The methodology for removal, or salvage, of heritage fabric is outlined below.

- Undertake a site inspection of the item and identify elements to be salvaged. The site inspection will be attended by the Heritage Consultant, John Holland project team representatives, a Conservator or other specialists as required.
- Prepare a detailed plan specific to the item and fabric to be salvaged. This will include:
 - Survey and photographs of the fabric to be removed
 - Individual unit numbers for fabric elements as required
 - Label or tag materials, such as Tyvek, and attachment method
 - Tools and equipment needed
 - Specialists needed during removal
 - Temporary and longer-term storage locations
 - Storage or conservation requirements specific to the fabric type and/or condition
 - Additional documentation recommendations, such as updates to heritage impact assessments, archival recordings or conservation plans
 - Consult with heritage asset owner, local council and other stakeholders as required
 - Future use options and recommendations – either reinstatement/reconstruction, interpretation or reuse.
- Remove fabric in accordance with the detailed plan and document the process.

Step 3—Storage

Storage of salvaged heritage fabric will be in accordance with the detailed plan developed as part of Step 2 above. The general approach for storage is outlined below.

- Salvaged fabric will be placed on pallets, or similar, to facilitate transport and storage. Each pallet will be labelled.
- The salvaged fabric will be secured and protected using materials such as geofabric, plastic wrap or bubble wrap. The method and material used will be appropriate to the building material type and condition.
- Temporary storage on site will be in a secure and dry location.
- Transport to the long-term storage location will be undertaken with care to ensure the fabric is not damaged.
- Location for long-term storage of salvaged heritage fabric from the PLR2-EW will be documented.



Appendix D: Consultation Report



Consultation Report Heritage Sub-Plan

Project Name: Parramatta Light Rail Stage 2 Enabling Works

Contract Number: PD-22-12894

Document Number: PLR2EW-JHGRP-NWW-EV-RPT-000001

Revision: 0

Revision Date: 23 January 2025





Document Control

The controlled master version of this document will be maintained on the Project Data and Collaboration System (PDCS). All circulated hard copies are deemed to be uncontrolled.

Document History and Status

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1. Introduction

1.1. Purpose

Transport for New South Wales (TfNSW) have engaged John Holland to design and construct the Parramatta Light Rail Stage 2 Enabling Works (PLR2 – EW or the ‘Project’) as part of the Stage 2 extension of the Parramatta Light Rail network.

Reflecting the requirements of the SSI 10035 Infrastructure Approval (Infrastructure Approval), this report has been prepared to provide evidence of consultation with identified parties during the development of the Heritage Management Sub-plan (PLR2EW-JHGRP-NWW-PM-PLN-000028 Heritage Sub-Plan), Revision A (Subject Document).

1.2. Consultation requirements

1.2.1. Ministers Conditions of Approval

The conditions of approval (NSW CoA) of relevance to stakeholder consultation on the Subject Document are listed in Table 1.

Table 1 – Conditions of Approval

CoA	Condition
A12	Where the terms of this approval require a document or monitoring program to be prepared, or a review to be undertaken in consultation with relevant parties, evidence of the consultation undertaken must be submitted to the Planning Secretary and ER (as relevant) with the corresponding documentation. The evidence must include: (a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval; (b) a log of the dates of engagement or attempted engagement with the identified party (c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations; (d) outline of the issues raised by the identified party and how they have been addressed; and (e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.
C14	Except as provided by Condition C1, the following CEMP Sub-plans must be prepared in consultation with the relevant government agencies and council(s) identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A12. (a) Traffic, Transport and Access – Relevant council(s), relevant road relevant Emergency Services, SOPA (b) Maritime works and Navigation – Relevant council(s), Ferry operator, Transport for NSW (maritime operations), SOPA (c) Noise and Vibration – Relevant council(s), SOPA (d) Heritage (including Aboriginal and non-Aboriginal heritage) – Relevant council(s), SOPA, LALCs, Heritage NSW, and RAPs (e) Flora and Fauna – Relevant council(s), AG DCCEEW, DPI Fisheries, NPWS, NSW DCCEEW– Water Group, BCS and SOPA (f) Soil and water – Relevant council(s), NSW DCCEEW– Water Group, DPI Fisheries, SOPA and Heritage NSW Notes: 1. CEMP Sub-plan(s) may reflect the Construction of the project through geographical activities, temporal activities or activity based contracting and staging.





CoA	Condition
	2. Nothing in this condition prevents the Proponent from combining any of the above CEMP Sub-plans. 3. Where reviewed by an EPA accredited Site Auditor, the Planning Secretary will consider Interim Audit Advice or a Section B Site Audit Statement provided with CEMP sub-plans for approval. 4. Consultation with SOPA is only relevant where there is SOPA affected lands being impacted. 5. The Flora and Fauna CEMP Sub-Plan must be consistent with goals and objectives, mitigation measures and monitoring requirements of the Commonwealth approved conservation advice and any Recovery Plans for all Matters of National Environmental Significance.
E15	An Unexpected Heritage Finds and Human Remains Procedure must be prepared: (a) by a suitably qualified and experienced heritage specialist in consultation with Heritage NSW and the Heritage Council of NSW; (b) in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW in relation to Environmental, Aboriginal cultural heritage and human remains; (c) to include provisions for hold points or stop work in the event of an unexpected heritage or human remains find to consult with RAPs, an independent expert for advice relevant to the type of unexpected find or, in the case of human remains other relevant stakeholders; (d) to include provision to recommence Work following permission from Heritage NSW; (e) the procedure must be included within the Heritage CEMP Sub-Plan required by Condition C14; and (f) no later than one (1) month before the commencement of Work and submitted to the Planning Secretary and Heritage NSW upon request. The Unexpected Heritage Finds and Human Remains Procedure must be implemented for the duration of Work. Note: Human remains that are found unexpectedly during the carrying out of work may be under the jurisdiction of the NSW State Coroner and must be reported.

1.2.2. Updated Mitigation Measures

The Updated Mitigation Measures (UMM) of relevance to stakeholder consultation on the Subject Document are listed in Table 2.

Table 2 – Updated Mitigation Measures

UMM	Requirement
NAH8	A heritage management plan will be prepared and implemented as part of the CEMP. The plan will include measures to manage non-Aboriginal heritage and minimise the potential for impacts during construction. The plan will be prepared in consultation with relevant heritage agencies (Heritage NSW, Sydney Olympic Park Authority, City of Parramatta Council and City of Ryde Council) and take into account the outcomes of further investigations, including test excavations and the Research Design and Excavation Methodology. The heritage management plan will define a requirement for non-Aboriginal historical heritage awareness training for site workers prior to commencement of construction works. The awareness training will promote an understanding of heritage items that may be impacted during the works.





2. Consultation summary

In accordance with the Infrastructure Approval, the Subject Document has been prepared in consultation with the identified parties. A summary of the consultation is provided in Table 3. Detailed consultation records are provided in the appendices of this report.

Table 3 – Consultation Summary

Stakeholder	Consultation Summary	Status	Reference
City of Ryde Council	Issues raised have been adequately addressed in the Subject Document; there are no outstanding issues.	Addressed and closed.	Appendix A: City of Ryde Council Consultation Evidence
City of Parramatta Council	Issues raised have been adequately addressed in the Subject Document; there are no outstanding issues.	Addressed and closed.	Appendix B: City of Parramatta Council Consultation Evidence
Sydney Olympic Park Authority	Stakeholder confirmed no comments on the Subject Document.	N/A	Appendix C: Appendix C: Sydney Olympic Park Authority consultation evidence
Local Aboriginal Land Council	Stakeholder confirmed no comments on the Subject Document.	N/A	Appendix D: Local Aboriginal Land Councils consultation evidence
Heritage NSW	Issues raised have been adequately addressed in the Subject Document; there are no outstanding issues.	Addressed and closed.	Appendix E: Heritage NSW consultation evidence
Registered Aboriginal Parties (RAPs)	Issues raised have been adequately addressed in the Subject Document; there are no outstanding issues.	Addressed and closed.	Appendix F: Registered Aboriginal Parties consultation evidence





Appendix A: City of Ryde Council Consultation Evidence

Table 4 – Consultation Log

In/out	Date	Medium	Details of contact
Out	29/11/2024	Letter	Subject Document provided to stakeholder for review and comment
In	06/12/2024	Letter	Stakeholder provided comments on the Subject Document
Out	23/01/2025	Email	Revised Subject Document provided to stakeholder for information

Table 5 – Issues raised by Stakeholder

No.	Issues raised	How addressed	Subject Document Reference
Heritage Management Sub-plan			
1	Adoption of an <i>Artefact Conservation Management Plan</i> is noted, as an appropriate means of providing guidance for the protection of both aboriginal and non-aboriginal heritage.	Section 5.3 (Artefact Conservation Management Plan) has been removed. A Removal and Storage Methodology is now included in Appendix C as required by NSW CoAE26.	Section 5.3 (Artefact Conservation Management Plan) Appendix C (Removal and Storage Methodology)
2	Appropriate training for all employees, contractors and sub-contractors on relevant legislation and guidelines, location of heritage sites, cultural awareness and inadvertent impacts from vehicles and equipment, is appropriate.	Comment noted.	No changes required to Subject Document.
3	Measures to use barrier fencing, with appropriate signage, to delineate heritage structures to be protected are supported.	Comment noted.	No changes required to Subject Document.





Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - City of Ryde Response

To: [redacted] <[redacted]@ryde.nsw.gov.au>
JHG

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Fri 6/12/2024 2:43 PM

This sender [redacted]@ryde.nsw.gov.au is from outside your organization.



From: [redacted] JHG <[redacted]@jhg.com.au>

Sent: Friday, 29 November 2024 9:31 AM

To: [redacted] <[redacted]@ryde.nsw.gov.au>

Subject: RE: Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - City of Ryde

EXTERNAL EMAIL - This email was sent by a person from outside our organisation. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Hi [redacted]

Thanks for reaching out and thank you for striving to meet the proposed timeframe. Appreciate the early consultation with regards to the proposed timeframe and we are happy to continue to receive review comments up until the end of next week (Fri 6 Dec 2024).

Please feel free to send through completed reviews for individual CEMP Sub-plans as they become available.

Regards,

[redacted]

[redacted]

Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
M. [redacted]
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To

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PLR-S2ResponseBridgeConstructionFinal1124.pdf

.pdf File

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⋮

Fri 6/12/2024 2:43 PM

Hello

Please find attached a response to the CEMP Sub-plans, as requested.

I look forward to on-going consultation on this important public infrastructure project.

Regards

Senior Coordinator Transport Planning
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W

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The City of Ryde wishes to acknowledge the Traditional Custodians of the Land on which we work and pay our respect to the Elders past, present and emerging, and extend that respect to all Aboriginal and Torres Strait Islander peoples.

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3 December 2024

Mr [REDACTED]

Environment and Approvals Manager
John Holland

Parramatta Light Rail Stage 2 Enabling Works
Sub – Plans for Consultation
Ref. PLR2EW-JHGRP-LET-0002

I refer to your letter dated 12 November 2024 to me in my capacity of Parramatta Light Rail – Stage 2 Community Reference Group (City of Ryde representative) inviting comments and feedback on various sub-plans in relation to the construction of a new bridge across the Parramatta River between Melrose Park and Wentworth Point.

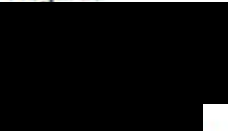
The construction of a new Parramatta River crossing and approaches (1.2 kilometres) is an important step forward in providing an integrated light rail service, capable of increasing public and active transport while reducing reliance on private vehicles for a variety of trips. Parramatta Light Rail – Stage 2 has the potential to influence the travel behaviour of new residents in high-density developments, while providing access to a wide range of employment opportunities.

The sub-plans released for review are comprehensive, with a strong focus on planning, consultation and mitigation strategies to address any issues that may arise. Please find attached a response to the following sub-plans, including:

- Traffic and Transport Management Plan
- Marine Works and Navigation Management Plan
- Noise and Vibration Management Plan
- Heritage Management Plan
- Flora and Fauna Management Plan
- Soil and Water Management Plan.

May I take this opportunity to congratulate John Holland on being selected as the preferred builder for this important public transport infrastructure. In the interest of our residents, City of Ryde looks forward to on-going consultation for the successful delivery of this important public infrastructure project.

Regards



Senior Coordinator – Transport Planning

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Response to PLR2-EW sub-plans

Traffic & Transport Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000015)

- The staged delivery plans for the PLR-S2 project are noted, with construction of a bridge spanning Parramatta River between Melrose Park and Wentworth Point to occur as Stage A. Construction of the approaches on either side of the bridge as part of Stage A are supported, providing the capacity to use the bridge as a new public and active transport link should there be any delay to the construction of PLR-S2 rail infrastructure.
- Final route selection that has avoided the need to acquire private property and demolish existing homes on Wharf Road is acknowledged, while retaining sensitive mangrove eco-systems. It is anticipated that the community will benefit from plans to restore the existing Ermington Boat Ramp at the end of Wharf Road, while infrastructure improvements are provided along the Parramatta River foreshore. Additional information regarding City of Ryde's input into planning of the PLR-S2 project are available in two previous submissions made during the EIS stage.
- The proposed plan to take an overarching traffic management approach in order to minimise disruption to the existing road / path networks, minimise the impact on vehicular traffic during peak periods, minimise the impact on local public transport operations, while minimising the impact on the local community, is supported.
- Section 3.1 - Traffic volumes reference surveys dated 2019. Updated surveys are required (outside of school days) to determine if there are any fluctuations to traffic demand on the public road network, which may influence the measures proposed in the CTTAMP.
- On-going construction activity associated with new developments located to the west of Wharf Road are already generating significant heavy vehicle traffic along this important local road. In order to minimise the concentration of construction vehicle movements on Wharf Road, it is recommended that vehicles arriving / departing to or from the east use Wharf Road and vehicles arriving / departing to or from the west use Spurway Street, Boronia Street, Atkins Road, Hope Street and Waratah Street (see illustration following for reference). Significant PLR-S2 construction traffic volumes of up to 175 light vehicles and 50 heavy vehicles along Wharf Road daily are noted.

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- Any temporary traffic and parking changes on Wharf Road and / or other local streets within City of Ryde to facilitate construction works associated with PLR2 – EW proposed to be longer than 12 months will need to be referred to the Ryde Local Traffic Committee and a subsequent Council meeting for consideration and approval.
- The contractor will be required to apply for relevant road activity permits for various construction activities that impact on different road users on the public road network. Please refer to Council's *Road Activity Checklist* which can be found on Council's website via the following link, under the Construction and Mandatory Inspections tab:
<https://www.ryde.nsw.gov.au/Council/Forms-and-Documents-Library>
- Proposed arrangements to allow on-going public access to the existing boat ramp during weekends and public holidays, including a temporary trailer parking facility, is supported. Maintaining access to public facilities and private property, while minimising the traffic impacts on the Melrose Park, have been key community issues associated with the PLR-S2 project to date. Efforts to monitor and address cumulative transport, traffic and access impacts in consultation with a wide range of key stakeholders, including City of Ryde, are supported.

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- The CTTAMP provides insufficient information on the peak parking demand and specific measures to mitigate parking impacts. Section 6.4 of the document suggests that this matter will be further investigated once construction has commenced. Council does not consider this to be an acceptable approach and requests that the CTTAMP be updated to incorporate committed parking measures / strategies (e.g. provision of a dedicated off-street carpark close to the site, park and ride treatments, etc.) to address parking issues caused by associated construction works. These measures / strategies need to be in place prior to the commencement of construction.
- In relation to heavy vehicle compliance with speed limits, local residents have recently reported excessive speeding associated with construction of new high density residential developments occurring to west of Wharf Road, Melrose Park. These concerns have been communicated to the Police Local Area Command resulting in increased monitoring and enforcement activity, in the interests of maintaining local road safety. Planned efforts to communicate compliance expectations to all employees, including heavy vehicle operators, are appreciated.
- The planned preparation of a *Construction Parking Strategy*, including strategies to minimise parking on public roads and minimising idling / queueing of construction vehicles, is supported on all roads, including local roads. The identification of additional locations for off-street parking for the workforce, as well as providing shuttle bus services from public transport hubs to help limit the use of private vehicles, is supported. Proposed efforts to survey the travel routes of workers as a means of assessing parking requirements and demand for additional services is acknowledged, as is the provision of end-of-journey facilities such as showers and bicycle storage to encourage active transport use. Plans to promote of car-pooling are noted.
- Proposed plans to address repeat worker behaviour impacting the amenity of local residents, including inappropriate parking of private vehicles, by requiring re-attendance at induction training and exposure to possible sanctions, are supported.
- Provision of alternative pedestrian and vehicular access routes due to construction activities is noted, including providing ongoing access to Archer Park and Melrose Park playground. Not allowing the queueing of delivery vehicles outside the construction site before construction hours, while only using lay-bys, is a sensible requirement assisting local communities.
- Adoption of a 'no surprise' approach to traffic management will benefit the local community, including key stakeholders and the general public. The commitment to engage in 'pro-active' consultation with all key stakeholders, including local communities and relevant Councils, prior to any changes to traffic management is appropriate.

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- In terms of stakeholder communication and engagement, the proposed formation of both a *Traffic and Transport Liaison Group* and a *Traffic Coordination Group* should provide the structure necessary to identify and address emerging issues in an efficient and timely matter. City of Ryde welcomes the opportunity to participate on both groups, along with other key stakeholders. City of Ryde has previously recognised and acknowledged the efforts of Transport for New South Wales to release interactive information about the PLR-S2 project, while engaging in collaborative consultation.

Marine Works & Navigation Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000026)

- Deed of Variation

There is a Deed of Variation between Transport for NSW and the City of Ryde concerning the Ermington Boat Ramp. This agreement is currently under review and has not been finalised to date. Ongoing consultation with Transport for NSW is essential to address related terms and conditions and ensure alignment with the proposed works.

- Public domain recommendations

A Pre-Construction Dilapidation Report ensures Council's infrastructure is adequately protected. A pre-construction dilapidation report on the existing public infrastructure in the vicinity of the Wharf Road corridor and along the travel routes of all construction vehicles (up to 100m either side of the development site), is to be submitted to Council.

The report shall detail, but not be limited to, the location, description and photographic record (in colour) of any observable defects to the following infrastructure, where applicable, road pavement, kerb and gutter, footpath, drainage pits, traffic signs, and any other relevant infrastructure. The report is to be dated and submitted to Council's City Infrastructure Group, prior to any work commencing.

- Public utilities and service alterations

All mains, services, poles, etc., which require alteration due to works associated with the site, shall be altered at the applicant's expense. The applicant shall comply with the requirements (including financial costs) of the relevant utility provider (e.g. Energy Australia, Sydney Water, Telstra, RMS, Council, etc) in relation to any connections, works, repairs, relocation, replacement and/or adjustments to public infrastructure or services affected by the development.

With the increased residential and commercial demand for the precinct and expectancy to high user demand to utility service connections, the applicant is requested to provide a concept utility connection plan. The plan is to demonstrate proposed connections in locations and areas where existing systems are expecting upgrades.

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From public domain perspective, City of Ryde council will not be supportive of any newly constructed overhead poles for utilities and / or sub-station kiosks within the local road reserve.

- Public areas and restoration works

Public areas must be maintained in a safe condition at all times. Restoration of disturbed road and footway areas for the purpose of connection to public utilities, including repairs of damaged infrastructure as a result of the construction works associated with this development site, shall be undertaken by the applicant in accordance with Council's standards and specifications, and DCP 2014 Part 8.5 Public Civil Works, to the satisfaction of Council. Any proposed road closures and footpath closures within the road reserve of City of Ryde must be consulted and approved through Council's Traffic Services Department. Council's standards and specifications are available on the Council website.

These recommendations are aligned with City of Ryde's standard conditions for public domain works and aim to ensure minimal impact on Council assets and the community. Please contact City of Ryde should further clarification or support be required.

Noise & Vibration Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000027)

- The key objectives of the plan, including minimisation of noise and vibration on residents and businesses, avoidance of damage to buildings and heritage items, while maintaining 'positive and cooperative' relationships with all key stakeholders, are supported. The proposed development and use of a construction noise and vibration tool, allowing defined work areas and activities to be planned, is appropriate.
- Plans to schedule work activities between approved standard hours, where possible, are noted. The use of a hierarchy for preferred work hours outside of normal work hours is appropriate, unless otherwise agreed with affected community through consultation.
- Plans for regular engagement with the community, with consideration of the likely impact on community amenity, are noted. Efforts to keep the community informed of the dates of intended works, sequencing, timing and levels of noisy or vibration intensive events (at least seven days in advance of the activity being undertaken) is supported. In terms of community notifications, it would be beneficial to letter box drop (or email) directly impacted residents, rather than rely on providing details on Transport for NSW website or public notices in newspapers.
- The option of arranging alternative accommodation in special circumstances involving prolonged and excessive noise levels is welcomed.

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Heritage Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000028)

- Adoption of an *Artefact Conservation Management Plan* is noted, as an appropriate means of providing guidance for the protection of both aboriginal and non-aboriginal heritage.
- Appropriate training for all employees, contractors and sub-contractors on relevant legislation and guidelines, location of heritage sites, cultural awareness and inadvertent impacts from vehicles and equipment, is appropriate.
- Measures to use barrier fencing, with appropriate signage, to delineate heritage structures to be protected are supported.

Flora and Fauna Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000029)

- Adoption of a comprehensive *Environment and Sustainability Management System* is noted, as an appropriate means of achieving desired flora and fauna outcomes.
- Plans to identify, monitor and protect the existing bio-diverse systems are noted, including preservation of protected and sensitive lands, are noted. Current environmental practices such as conducting post clearing surveys, reuse of timber and vegetation, fauna rescue and release programs, weed and pest management, are appropriate to the project.
- Measures to washdown and inspect all vehicles prior to leaving the site, as part of the pathogen management strategy, are appropriate. Measures to use a 'closed' washdown area, preventing any water or soil from entering the surrounding area, are supported. Similarly, training and education on the need to wash boots to minimise the risk of spreading disease to local fauna are noted.
- Measures to rehabilitate and reinstate areas affected by construction activity, guided by a *Habitat Restoration and Revegetation Plan*, are supported.

Soil and Water Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000030)

- Adoption of an *Environment and Sustainability Management System* is noted, as a means of achieving desired environmental performance outcomes.


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- The *Soil and Management Plan* notes that, following site investigations, reportable concentrations of dioxins were considered to be representative of background concentrations in the Parramatta River and likely due to former industrial activities. The Plan further notes that there are no established criteria for this type of contaminant, indicating that specialised local procedures will be needed deal with these types of hazardous chemicals.
- Measure SW26 relating to the establishment of suitable areas within the approved boundary to allow contingent management of 'unexpected contaminated' materials (designed to be impervious to the ground and covered to avoid cross-contamination / run-off) is considered an appropriate strategy.

(ends)

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From: [REDACTED]-JHG <[REDACTED]@jhg.com.au>
Sent on: Thursday, January 23, 2025 4:46:18 AM
To: [REDACTED] <[REDACTED]@ryde.nsw.gov.au>
CC: [REDACTED] JHG <[REDACTED]@jhg.com.au>; [REDACTED]
JHG <[REDACTED]@jhg.com.au>
Subject: PLR2 Enabling Works - HMP (Rev B) - City of Ryde Council
Attachments: PLR2EW-JHGRP-NWW-PM-PLN-000028 Heritage Sub-plan_Rev
B_Clean.pdf (5.18 MB)

Hi [REDACTED]

Following the consultation period for the Heritage Management Plan, John Holland have revised the document in response to comments received, which is attached for your information. Specifically, please see the Consultation Report in Appendix D, which provides details of any changes made and responses to consultation undertaken.

At this time, nothing further is required, and I thank you for your time during the recent consultation efforts.

Regards,

[REDACTED]

[REDACTED]

Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
M. [REDACTED]
W. johnholland.com.au





Appendix B: City of Parramatta Council Consultation Evidence

Table 6 – Consultation Log

In/out	Date	Medium	Details of contact
Out	12/11/2024	Letter	Subject Document provided to stakeholder for review and comment
Out	15/11/2024	Teambinder Transmittal	Subject Document re-sent to stakeholder via Teambinder Transmittal
Out	29/11/2024	Teambinder General Correspondence	Request to provide comments on the Subject Document by 3 December 2024. An offer was extended to City of Parramatta Council to meet with technical experts to discuss the Subject Document.
Out	12/12/2024	Email	Reminder email send to stakeholder, asking for comments to be received by 13 December 2024 and providing an extension of the consultation period.
In	20/12/2024	Teambinder General Correspondence	Stakeholder provided comments on the Subject Document
Out	23/01/2025	Email	Revised Subject Document provided to stakeholder for information

Table 7 – Issues raised by Stakeholder

No.	Issues raised	How addressed	Subject Document Reference
Heritage Management Sub-plan			
1	Note the presence of an intact well in Archer Park associated with the Ermington Wharf Period (1820s - c.1930). Whilst not currently listed as an LEP heritage item it has potential heritage significance and requires archival recording as per listed items.	Table 17 (Environmental Management and Mitigation Measures), measure H10 has been revised to include the Archer Park intact well in the Archival Recording Report.	Table 17 (Environmental Management and Mitigation Measures), measure H10





Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - City of Parramatta Council

 JHG
To 
Cc  JHG;  JHG

 PLR2EW-JHGRP-LET-0001 - CoPC Consultation Letter.pdf
.pdf File

 Reply  Reply All  Forward 

Tue 12/11/2024 6:21 PM

Dear 

As part of the Parramatta Light Rail Stage 2 – Enabling Works (PLR2 - EW) project involving the design and construction of a new bridge over the Parramatta River between Melrose Park and Wentworth Point, John Holland are preparing the Construction Environmental Management Plan (CEMP), and its Sub-plans and Monitoring Programs. With the aim of preparing these documents collaboratively, and to ensure compliance with the Project Approval (SSI-10035) and Updated Mitigation Measures (UMMs), John Holland provide the below link to documents for consultation and invite comments from your agency.

 [CoPC Documentation](#)

It is requested that comments (or confirmation of no comments) are provided by **3 December 2024**. In addition, if you would like to discuss the sub-plan details, please advise and we can arrange a specific meeting with our technical specialists.

Please contact the undersigned if you have any queries on the consultation process or would like to request a meeting to discuss the PLR2 - EW project.

Regards


Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
M. 
W. johnholland.com.au





Document Transmittal

Transmittal No: PLR2EW-JHGRP-TX-000047

Date: 15 November 2024 04:29 PM
Reason for Issue: Issued For Review
Subject: PLR2EW - CEMP Sub-plans for Consultation - CoPC
Contract No: PLR2EW - Enabling Works Detailed Design and Construction
Message:

Des: [REDACTED]

Following previous email correspondence sent on 12 November 2024 (email titled, *Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - City of Parramatta Council*), please accept this Teambinder transmittal detailing the request for consultation with City of Parramatta Council (CoPC) on the following CEMP Sub-plans and Monitoring Programs. This consultation and review of documents is undertaken in accordance with Condition C14 and C20 of the Infrastructure Approval (SSI-10035) and the Updated Mitigation Measures (UMMs) from the PLR2 Environmental Impact Statement (EIS), Submissions Report and Amendment Report:

- Traffic and Transport Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000015)
- Marine Works and Navigation Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000026)
- Noise and Vibration Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000027)
 - Noise and Vibration Monitoring Program (PLR2EW-JHGRP-NWW-NV-PLN-000001), included in Appendix B of the Noise and Vibration Management Plan
- Heritage Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000028), detailing both Aboriginal heritage and non-Aboriginal heritage
- Flora and Fauna Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000029), also referred to as Biodiversity Management Plan
- Soil and Water Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000030)
 - Water Quality Monitoring Program (PLR2EW-JHGRP-NWW-WA-PLN-000001), included in Appendix B of the Soil and Water Management Plan

As per previous email correspondence mentioned above (and letter attached that accompanied that email correspondence), John Holland request that comments (or confirmation of no comments) are provided by 3 December 2024, utilising the attached comments sheet. In addition, if you would like to discuss the sub-plan details, please advise and we can arrange a specific meeting with our technical specialists.

Regards,

[REDACTED]

Contractors Representative

Please submit your comments by 03 December 2024



Transmitted to:

Company	Name
City of Parramatta Council	[REDACTED]

Transmitted cc:

Company	Name
City of Parramatta Council	[REDACTED]
Transport for NSW	[REDACTED]
Transport for NSW	[REDACTED]
Transport for NSW	[REDACTED]
John Holland Group	[REDACTED]
John Holland Group	[REDACTED]
Transport for NSW	[REDACTED]
Transport for NSW	[REDACTED]

[Click here to download all Transmittal files.](#)

Click on Document Nos to download them individually.

Item	Document No	Rev	Sts	Title	Contract No	Design Package No
1	PLR2EW-JHGRP-NWWW-PM-PLN-000015	B.01	S3	Parramatta Light Rail - Stage 2 - Enabling Works - Construction Traffic, Transport and Access Management Plan	PLR2EW	
2	PLR2EW-JHGRP-NWWW-PM-PLN-000026	B.01	S3	Parramatta Light Rail - Stage 2 - Enabling Works - Maritime Works and Navigation Management Sub-plan	PLR2EW	
3	PLR2EW-JHGRP-NWWW-PM-PLN-000027	A.01	S3	Parramatta Light Rail - Stage 2 - Enabling Works - Noise and Vibration Management Sub-plan	PLR2EW	
4	PLR2EW-JHGRP-NWWW-PM-PLN-000028	A.01	S3	Parramatta Light Rail - Stage 2 - Enabling Works - Heritage Management Plan	PLR2EW	
5	PLR2EW-JHGRP-NWWW-PM-PLN-000029	A.01	S3	Parramatta Light Rail - Stage 2 - Enabling Works - Flora and Fauna Management Sub-plan	PLR2EW	
6	PLR2EW-JHGRP-NWWW-PM-PLN-000030	B.01	S3	Parramatta Light Rail - Stage 2 - Enabling Works - Soil and Water Management Sub-plan	PLR2EW	

Transmitted by: [REDACTED] John Holland Group

General Correspondence

Reference No.: PLR2EW-JHGRP-COP-CORR-000001
Contract No: PLR2EW - Enabling Works Detailed Design and Construction

Date: 29 November 2024, 09:51
To: [REDACTED] City of Parramatta Council
Cc: [REDACTED] City of Parramatta Council
[REDACTED] Transport for NSW
[REDACTED] Transport for NSW
[REDACTED] Transport for NSW
[REDACTED] John Holland Group
[REDACTED] Transport for NSW
[REDACTED] Transport for NSW
[REDACTED] John Holland Group
[REDACTED] John Holland Group
From: [REDACTED] John Holland Group
Subject: RE: PLR2EW - CEMP Sub-plans for Consultation - CoPC

Following on from my previous email correspondence sent on 12 November 2024, which was followed up with the below Document Transmittal (PLR2EW-JHGRP-TX-000047), I wanted to check in to see how the review of the CEMP Sub-plans is progressing, noting that the proposed consultation period of 3 December 2024 ends next Tuesday. I also wanted to provide a reminder that we are open to arranging a meeting to facilitate the consultation process. If that is something you think would be beneficial, please let

Regards,
[REDACTED]



RE: Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - City of Parramatta Council

To: [Redacted] JHG
Cc: [Redacted] JHG; [Redacted] JHG; [Redacted] JHG; [Redacted] JHG

[Reply](#) [Reply All](#) [Forward](#) [...](#)

Thu 12/12/2024 2:11 PM

Hi [Redacted]

Hope you're well.

I wanted to reach out to follow up on the below email sent on 12 November 2024, as well as the two Teambinder correspondences, sent on 15 November (PLR2EW-JHGRP-TX-000047) and 29 November (PLR2EW-JHGRP-COP-CORR-000001), and request that any comments, or confirmation of no comments, are received by this Friday (13 December 2024) so that we can ensure they are incorporated into the CEMP Sub-plan documentation.

If we receive any commentary after that date, we can ensure it is considered in the next revision of the documentation.

Regards,

[Redacted]

[Redacted]

Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**



General Correspondence

Reference No.: PLR2EW-COP-JHGRP-CORR-000001
Contract No: PLR2EW - Enabling Works Detailed Design and Construction

Date: 20 December 2024, 12:15
To: [REDACTED] John Holland Group
Cc: [REDACTED] City of Parramatta Council
[REDACTED] John Holland Group
[REDACTED] John Holland Group
[REDACTED] Transport for NSW
[REDACTED] Transport for NSW
[REDACTED] Transport for NSW
[REDACTED] Transport for NSW
From: [REDACTED] City of Parramatta Council
Subject: RE: PLR2EW - CEMP Sub-plans for Consultation - CoPC reply

I refer to below Document Transmittal (PLR2EW-JHGRP-TX-000047) in regard to the CEMP Sub-plans from John Holland and request that comments (or confirmation of no comments) are provided by 3 December 2024, utilising the attached comments sheet.

Please note the only documents found to download was 6 CEMP plans as tabled below, and we found no attached Comments sheets. In-lieu of this, CoPC has prepared its own and attached these.

Item	Document No.	Rev	Qty	Title
1	PLR2EW-JHGRP-NWW-PM-PLN-000010	B.01	03	Parramatta Light Rail - Stage 2 - Enabling Works - Construction Traffic, Transport and Access Management Plan
2	PLR2EW-JHGRP-NWW-PM-PLN-000026	B.01	03	Parramatta Light Rail - Stage 2 - Enabling Works - Maritime Works and Navigation Management Sub-plan
3	PLR2EW-JHGRP-NWW-PM-PLN-000027	A.01	03	Parramatta Light Rail - Stage 2 - Enabling Works - Noise and Vibration Management Sub-plan
4	PLR2EW-JHGRP-NWW-PM-PLN-000028	A.01	03	Parramatta Light Rail - Stage 2 - Enabling Works - Heritage Management Plan
5	PLR2EW-JHGRP-NWW-PM-PLN-000029	A.01	03	Parramatta Light Rail - Stage 2 - Enabling Works - Flora and Fauna Management Sub-plan
6	PLR2EW-JHGRP-NWW-PM-PLN-000030	B.01	03	Parramatta Light Rail - Stage 2 - Enabling Works - Soil and Water Management Sub-plan

It is noted Council's comments on the Traffic and Transport Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000015) was provided by email on 3 December. This response via Teambinder provides an official record of this.

Please find attached returned Comment Sheets for the following (by exception where comment was made)

- Construction Traffic, Transport and Access Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000015)
- Construction Heritage Sub-Plan (PLR2EW-JHGRP-NWW-PM-PLN-000028 HMP)
- Construction Soil and Water Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000030 SWMP)

Regards

[REDACTED]
Rail Projects Interface Manager | Infrastructure Planning and Design
City of Parramatta Council

Contract:		Infrastructure		ISSUED FOR REVIEW						***** TO BE COMPLETED BY IC		
DP Ref:		PLR2EW-JHGRP-NWW-PM-PLN-000028 HMP		SUBMISSION		REVISION	TIME ISSUED	DATE ISSUED			COMPLIANCE STATUS LEGEND	
		Construction Heritage Sub-Plan		Stakeholder Consultat		A	Wednesday, 13 November 2024			O Observation / Comment		
Design Package Title:										N Non-Compliant (must provide reference to a Project Deed / SPR requirement)		
Design Report:												
Drawing List:				N/A								
Nr	Stag	PACKAGE	Re	Reviewer Name	Initial Comment Date	Discipline	Organisation	Document Reference	Reviewer Initial Comment	Project Decision	Compliance Status	Proposed Action - HQ
1	PLR2-EW	Construction Heritage Sub-plan	A		03-Dec-2024	Parks and Open Space	CoP	PLR2EW-JHGRP-NWW-PM-PLN-000028	Note the presence of an intact well in Archer Park associated with the Ermington Wharf Period (1820s - c.1930). Whilst not currently listed as an LEP heritage item it has potential heritage significance and requires archival recording as per listed items.		0	HMP to be updated to include specific reference to Archer Park well for the Archival Recording Report (H10)



From: [REDACTED]-JHG <[REDACTED]@jhg.com.au>
Sent on: Thursday, January 23, 2025 4:46:15 AM
To: [REDACTED] <[REDACTED]@cityofparramatta.nsw.gov.au>
CC: [REDACTED]-JHG <[REDACTED]@jhg.com.au>; [REDACTED]
JHG <[REDACTED]@jhg.com.au>
Subject: PLR2 Enabling Works - HMP (Rev B) - City of Parramatta Council
Attachments: PLR2EW-JHGRP-NWW-PM-PLN-000028 Heritage Sub-plan_Rev
B_Clean.pdf (5.18 MB)

Hi [REDACTED]

Following the consultation period for the Heritage Management Plan, John Holland have revised the document in response to comments received, which is attached for your information. Specifically, please see the Consultation Report in Appendix D, which provides details of any changes made and responses to consultation undertaken.

At this time, nothing further is required, and I thank you for your time during the recent consultation efforts.

Regards,

[REDACTED]

[REDACTED]

Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009

M. [REDACTED]
W. johnholland.com.au





Appendix C: Sydney Olympic Park Authority consultation evidence

Table 8 – Consultation Log

In/out	Date	Medium	Details of contact
Out	12/11/2024	Letter	Subject Document provided to stakeholder for review and comment
Out	15/11/2024	Teambinder	Subject Document provided to stakeholder for review and comment
Out	29/11/2024	Teambinder	Subject Document provided to stakeholder for review and comment
In	03/12/2024	Email	Stakeholder did not provide comments on the Subject Document



Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - SOPA

To: [Redacted] JHG
Cc: [Redacted] JHG; [Redacted] JHG

Reply Reply All Forward ...

Tue 12/11/2024 6:29 PM

PLR2EW-JHGRP-LET-0011 - SOPA Consultation Letter.pdf
.pdf File

Dear [Redacted]

As part of the Parramatta Light Rail Stage 2 – Enabling Works (PLR2 - EW) project involving the design and construction of a new bridge over the Parramatta River between Melrose Park and Wentworth Point, John Holland are preparing the Construction Environmental Management Plan (CEMP), and its Sub-plans and Monitoring Programs. With the aim of preparing these documents collaboratively, and to ensure compliance with the Project Approval (SSI-10035) and Updated Mitigation Measures (UMMs), John Holland provide the below link to documents for consultation and invite comments from your agency.

[SOPA Documentation](#)

It is requested that comments (or confirmation of no comments) are provided by **3 December 2024**. In addition, if you would like to discuss the sub-plan details, please advise and we can arrange a specific meeting with our technical specialists.

Please contact the undersigned if you have any queries on the consultation process or would like to request a meeting to discuss the PLR2 - EW project.

Regards

[Redacted]
Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
M: [Redacted]
W: johnholland.com.au





Document Transmittal

Transmittal No: PLR2EW-JHGRP-TX-000046

Date: 15 November 2024 04:26 PM

Reason for Issue: Issued For Review

Subject: PLR2EW - CEMP Sub-plans for Consultation - SOPA

Contract No: PLR2EW - Enabling Works Detailed Design and Construction

Message:

Dear [REDACTED]

2

Following previous email correspondence sent to Vivienne Albin on 12 November 2024 (email titled, *Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - SOPA*), please accept this Teambinder transmittal detailing the request for consultation with Sydney Olympic Park Authority (SOPA) on the following CEMP Sub-plans and Monitoring Programs. This consultation and review of documents is undertaken in accordance with Condition C14 and C20 of the Infrastructure Approval (SSI-10035) and the Updated Mitigation Measures (UMMs) from the PLR2 Environmental Impact Statement (EIS), Submissions Report and Amendment Report:

- Traffic and Transport Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000015)
- Marine Works and Navigation Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000026)
- Noise and Vibration Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000027)
 - Noise and Vibration Monitoring Program (PLR2EW-JHGRP-NWW-NV-PLN-000001), included in Appendix B of the Noise and Vibration Management Plan
- Heritage Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000028), detailing both Aboriginal heritage and non-Aboriginal heritage
- Flora and Fauna Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000029), also referred to as Biodiversity Management Plan
- Soil and Water Management Plan (PLR2EW-JHGRP-NWW-PM-PLN-000030)
 - Water Quality Monitoring Program (PLR2EW-JHGRP-NWW-WA-PLN-000001), included in Appendix B of the Soil and Water Management Plan

As per previous email correspondence mentioned above (and letter attached that accompanied that email correspondence), John Holland request that comments (or confirmation of no comments) are provided by 3 December 2024, utilising the attached comments sheet. In addition, if you would like to discuss the sub-plan details, please advise and we can arrange a specific meeting with our technical specialists.

Regards,



General Correspondence

Reference No.: PLR2EW-JHGRP-SOP-CORR-000001
Contract No: PLR2EW - Enabling Works Detailed Design and Construction

Date: 29 November 2024, 17:54
To: [REDACTED] Sydney Olympic Park Authority
Cc: [REDACTED] Sydney Olympic Park Authority
[REDACTED] Sydney Olympic Park Authority
[REDACTED] Transport for NSW
[REDACTED] Transport for NSW
[REDACTED] John Holland Group
[REDACTED] Transport for NSW

1

[REDACTED] John Holland Group
PLR2 Delivery Document Control, Transport for NSW
[REDACTED] Transport for NSW
[REDACTED] John Holland Group
From: [REDACTED] John Holland Group
Subject: RE: PLR2EW - CEMP Sub-plans for Consultation - SOPA

Hi [REDACTED]

Following on from my previous email correspondence sent on 12 November 2024, as well as the below Document Transmittal (PLR2EW-JHGRP-TX-000046), I am following up to see if you had any questions about the review process, noting the proposed consultation period ends next week. If not, please send through any queries or comments you may have.

Alternatively, if you could please confirm that you have no comments in reply to the previous Document Transmittal (PLR2EW-JHGRP-TX-000046) or this General Correspondence, that would be appreciated.

Regards,

[REDACTED]



From: [REDACTED] <[REDACTED]@sopa.nsw.gov.au>
Sent: Tuesday, 3 December 2024 2:36 PM
To: [REDACTED] JHG
Cc: [REDACTED] JHG; [REDACTED] JHG; [REDACTED]
Subject: RE: PLR2EW - CEMP Sub-plans for Consultation - SOPA
Attachments: PLR2EW - CEMP Document Comments_SOPA_03122024.xlsx

Hi [REDACTED]

I am trying to send the comments register for the CEMP documents through TeamBinder, but I'm having difficulty finding where/ how to do it. I don't have time today to scroll through the tutorials to figure it out.

I am happy to load it up once I have time or if someone from JH could talk me through it.

In the meantime, the comments are attached. We only received 2 sets of comments – from Manager Environment – [REDACTED] and Manager Remediated Lands – [REDACTED]

Thanks,

[REDACTED]
Principal Public Domain Designer

M [REDACTED]



REVIEW COMMENTS SHEET

NSW for NSW

WORK PACKAGE	CONTRACT NO.	DOCUMENT NO.	TITLE	STATUS	DATE	COMPA	RAISED BY	REVIEW DOC. NO.	ALL DOCS RELAT TO WORK PACKAGE	REFERENCE	DEED REF	COMMENTS / RESPONSE	COMMENT CATEGORY	CLOSED ON	Doc No
		Appendix B5	Flora & Fauna subplan		26/11/2024	SOPA				2.1.2		National Light Pollution Guidelines for Wildlife were updated in 2023 - update reference in plans and in design development			6
		Appendix B5	Flora & Fauna subplan		26/11/2024	SOPA				5.7		permanent as well as temporary noise barriers should be considered adjacent to Newington Nature Reserve			7
		Appendix B5	Flora & Fauna subplan		26/11/2024	SOPA				5.7		temporary frog fencing will be required on at least the western and southern boundaries of the worksite at Sydney Olympic Park - the wording of this section currently limits temporary frog fencing to where permanent fencing is impacted - there is no permanent fencing in this location			8
		Appendix B5	Flora & Fauna subplan		26/11/2024	SOPA				5.7 p43		This section says that ecological impacts of construction noise and vibration will be managed in accordance with the NVMP and CNVIS - that will be very easy to do since these plans are silent on recognising the existence of ecological impacts of noise and vibration, and they do not contain any mitigation measures so there is nothing to comply with. This is a gaping hole in addressing what will be very real and significant impacts.			
		Appendix B5	Flora & Fauna subplan		26/11/2024	SOPA				table 16, FF19		Management of noise and light impacts to the Parramatta River and Newington Nature Reserve refers to both design and construction phases - the scope of works includes tall light poles and capacity for overhead wiring, indicating that these decisions have been made and opportunities to mitigate lost, without due consideration of impacts and consultation with SOPA.			9
		Appendix B5	Flora & Fauna subplan		26/11/2024	SOPA				6.1.2		Role of the Project Herpetologist includes providing advice to manage noise, light and vibration impacts - see comment above			10
												The plan states that lighting will be directed down and away from Newington Nature Reserve - how will this be checked and audited			
		Appendix B5	Flora & Fauna subplan		26/11/2024	SOPA				Appendix C	clearing and grubbing work method statement	This plan has all the right words but is also the step where the greatest harm to biodiversity can occur during construction if mistakes are made or confusion arises. There will need to be very close coordination and integration of scheduling of the steps and arranging timely project ecologist and herpetologist attendances. A lot of things are identified as the site supervisor responsibility - this should be reviewed and potentially elevated to provide a higher level of management.			11





		Appendix B5	Flora & Fauna subplan				26/11/2024	SOPA			Appendix C	clearing and grubbing work method statement	The western boundary of the vegetation to be cleared will need close collaboration with SOPA when this is marked on the ground and protections of retained vegetation are installed. The diagram should be updated to show all retained vegetation to the west of the area to be cleared as 'vegetation to be protected'. Boundary fences, sediment fences and frog fences will need to be positioned and maintained to ensure this vegetation is protected throughout the construction period.			12
		Appendix B3	Construction noise and vibration				26/11/2024	SOPA					The consultants working on the flora and fauna subplan and the noise and vibration subplan need to get together and sort out how noise and vibration impacts to ecological receivers within Newington Nature Reserve and the riverine corridor will be addressed, mitigated and monitored - see Flora and fauna report table 16 FF19 and BD7, and in the noise and vibration report see Table 25 NV6 and Table 26 BD7			13
		Appendix B3	Construction noise and vibration				26/11/2024	SOPA			2.8		This plan is silent on recognising or mitigating impacts to ecological receivers, despite having a nature reserve and riverine corridor just metres away. Human residential limits are typically used as surrogates for ecological limits, and the Plan should be revised to specifically address identification, mitigation and monitoring of impacts to Newington Nature Reserve based on those levels.			14
		Appendix B3	Construction noise and vibration				26/11/2024	SOPA			Appendix B	noise and vibration monitoring program	This needs to be revised to include monitoring of impacts at Newington Nature Reserve (labelled NCA-1 in figure 1), with a specific noise monitoring location added.			15
		Appendix B6	Construction soil and water				26/11/2024	SOPA					Installation and management of sediment controls on the western boundary will be particularly important due to proximity to Newington Nature Reserve boundary, and for protection of vegetation to be retained on the edge of the construction footprint. This area needs to be marked on site with SOPA.			17
Enabling Works	PD-22-12894	PLR2EW-JHGRP-NV-V-PM	Traffic & Transport				11th November 2	SOPA					Figure 8 showing indicative compounds - SOPA reminds TNSV and the contractor that areas in and adjacent to P5 carpark may not be acceptable. To avoid any confusion, this should be acknowledge in the sub-plan and it should be indicated that alternative sites will need to be identified in consultation with SOPA. Compounds for the purposes of delivering the enabling works are provided for under the TNSV/SQPA Development Agreement - which is not reference in this document and it is unclear if the contractor has been made aware of the approved construction compound for the EV.			18





			Traffic & Transport												construction of the enabling works. Staging drawings are not provided for southern portion on SOPA lands. Impacts on pathways, pedestrian and cyclist movements etc. must be addressed within this sub-plan and detailed staging drawings provided.			19
Enabling Works	PD-22-12894	PLR2EV-JHGRP-MVW-PM	Traffic & Transport				11th November 2	SOPA							Consultation Requirements - The role of Site Auditor in review and approval of plans should be made clear in both Table 3 (incl. the Landfill Gas Subplan) and below. Reference is made to Environmental Representative (ER) but there are 2 different approval processes required. On SOPA land final sign-off of all sub-plans for work pertaining to SOPA land must be provided by the Site Auditor and cannot be amended without Site Auditor approval. Please amend to accurately reflect the correct process for works on SOPA land.			20
Enabling Works	PD-22-12894	PLR2EV-JHGRP-MVW-PM	Construction Noise & Vibration				30/10/2024	SOPA							The Sub-plan focus is on buildings and residential receivers and ecology. Vibration impacts on utilities including sensitive remediated lands gravity drains regulated by the NSW EPA under CLM Act Notice is not specifically addressed. While SOPA has been advised that the minimum offset distance to the gravity drain of 5m either side will be applied in relation to placement of piles, this is a minimum offset. The type of pile and expected vibration zone of impact must be specifically assessed to determine if the 5m offset is sufficient for proposed methodology or if a greater offset distance needs to be provided to protect the SOPA assets. The leachate drain present a high risk of damage from vibration and should be specifically called out in the Sub-Plan key principles, monitoring and assessment requirements and safe working distances to ensure adequate consideration and protection. These assets cannot be relocated. Any damage must also be immediately reported to both SOPA and the NSW EPA which should be a clear requirement under the Sub-plan.			21
Enabling Works	PD-22-12894	PLR2EV-JHGRP-MVW-PM	Soil and Water Management				1/11/2024	SOPA							Section 16.2 - is reference to environmental representative is this actually a reference to the Site Auditor? If so, the document should be amended to make this clear or to provide a clear distinction between the role of ER vs Site Auditor - Noting that the definition of ER under planning approval does not indicate that this is a Site Auditor role. All relevant subplan can be reviewed by an environmental representative / consultant but for SOPA land, as work is being undertaken on a regulated contaminated site, final approval must be provided by Site auditor. Please amend to make it clear how the approval of sub-plans will be undertaken to ensure compliance with requirements of the CLM Act Notice as planning approval.			22





PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management				1/11/2024	SOPA								Section 2.7 objective - in relation to SOPA land, in accordance with waste regulation, must clearly include requirement to manage all groundwater and all surface water that comes into contact with waste to be managed as leachate.		23
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management				1/11/2024	SOPA								Table 10 drawing appears to show an old (incorrect) PLR Stage 2 alignment		24
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management				1/11/2024	SOPA								Table 16 - Ventworth Point - Groundwater - table should be amended to include a statement that, regardless of any testing results, in accordance with current EPA waste guidelines, all groundwater generated on regulated SOPA's Triangle Transport site is defined as leachate and must be managed as leachate. Leachate cannot be discharge to the stormwater system or to receiving waters.		25
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management				1/11/2024	SOPA								Table 17 - Must be amended to specifically address management of leachates - ie any groundwater generated on the TT site and any water that comes into contact with waste on that site. Leachate cannot be discharge to receiving waters or the stormwater system unless this is specifically provided for under the EPA licence issues in relation to the construction of light rail.		26
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management				1/11/2024	SOPA								Table 17 - soil stockpiles - please amend to include covering stockpiles of excavated contaminated spoil to prevent generation of leachates and / or cross reference to relevant sections of the RAP.		27
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management				1/11/2024	SOPA								Table 17 - Waste Quality - should include need on TT site to direct surface runoff away from contaminated spoil, cover open trenches at the end of each day to minimise leachate generation and implement controls to ensure leachate does not enter waterways of the stormwater system - again cross reference to the RAP if it is relevant		28
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management				1/11/2024	SOPA								Table 17 - Water Discharge and Reuse Guidelines - should again state that leachate cannot be discharged from the TT site. It must be contained, and tankered off-site to a facility that can lawfully receive that waste. Note: It is not acceptable to develop a RAP and CEMP and sub-plan that do not cross reference each other including without introducing significant risks of non-compliance with the environmental requirements. It is strongly recommended that cross referencing be included across all CEMP documents to ensure clarity and consolidate the need to understand and operate across all these plans during construction.		29





PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 17 - SV19 - DSI for TT site is likely to need approval of the Site Auditor - please amend			30
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 17 - SV20 - Cross reference to SV22 required for any remediation on TT site - please add			31
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 17 - SV22 and SV23 and SV25 - responsibility for ensuring all procedures of the RAP are implemented on site may be with the consultant day to day but the Site Auditor must sign off that the works have been completed in accordance with the RAP - as requirements of CLM Act Notice - please amend			32
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 17 - SV24 - SAS and Section A1 or A2 - can only be prepared and provided by a Site Auditor - please amend			33
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table SV26 - should cross reference to other relevant document such as RAP. Responsibility to ensure these areas are appropriate should be with environmental consultant and ultimately Site Auditor for TT site			34
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 17 - SV27 - responsibility on TT site is also with Site Auditor			35
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 18 - site shutdown protocol - must address stockpile generated on TT site - these must be removed from site prior to shutdown and disposed of to a facility that can lawfully receive that waste, trenches must be backfilled if possible or covered to minimize generation of leachate and prevent leachate runoff into adjacent recovering waters or the stormwater system. Please cross reference any relevant procedures that may be contained in the RAP.			36
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 19 - inspections - should include site inspection of works being undertaken on TT site by Site Auditor as required by the Site Auditor			37
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Table 20 - in relation to TT site the issuing of site audit statement and reports and interim audit advice are the responsibility of the Site Auditor. Others may facilitate the process but cannot influence the auditor in assessing or issuing these documents.			38
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						General Comment: There is a lack of clarity on the CoA around the site auditors role with the conditions of consent drafted (noting there are secondary conditions that speak directly to the requirements for the TT site). The subplans need to be clear and contain a level of adequate detail in relation to all requirements for works on the TT site being overseen by the Site Auditor. An ER cannot amend final document approved by the auditor before submission to the Minister for approval. The process needs to be clearly set out in the CEMP and subplans to ensure regulated lands are managed as required and in accordance with independent site audits advice and approvals and avoid confusion for both the certifier and the construction team / contractor. Many of the comments provided are intended to provide better detail in the sub-plans.			39
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Appendix C - Acid Sulfate Management Plan - please state if plan is consistent with the relevant NSW EPA guidelines, requirements of CML Act Notice 28040 and the RAP developed for the TT site and has been reviewed and approved by the Site Auditor to the extent that the plan applies to the TT site			40
PD-22-12894	PLR2EV-JHGRP-NV/V-PM	Soil and Water Management			1/11/2024	SOPA						Appendix D Unsuspected Contaminated Finds Procedure - please state if plan is consistent with the relevant NSW EPA guidelines, requirements of CML Act Notice 28040 and the RAP developed for the TT site and has been reviewed and approved by the Site Auditor to the extent that the plan applies to the TT site			41





Appendix D: Local Aboriginal Land Council consultation evidence

Table 9 – Consultation Log

In/out	Date	Medium	Details of contact
Out	12/11/2024	Letter	Subject Document provided to stakeholder for review and comment
Out	29/11/2024	Email	Follow up email to query whether the Metro Local Aboriginal Land Council have any comments on the Subject Document
In	02/12/2024	Email	Stakeholder confirmed there were no comments on the Subject Document



Attn: Jordan Marr - Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - Metro LALC

To: [REDACTED] JHG
Cc: [REDACTED] @metrolalc.org.au'; [REDACTED] @metrolalc.org.au'; [REDACTED] JHG

Reply Reply All Forward ...

Tue 12/11/2024 6:01 PM

PLR2EW-JHGRP-LET-0014 - Metro LALC Consultation Letter.pdf .pdf File
PLR2EW-JHGRP-NWW-PM-PLN-000028 HMP_Rev A.pdf .pdf File

Dear [REDACTED]

We have not been introduced, but as part of the Parramatta Light Rail Stage 2 – Enabling Works (PLR2 - EW) project involving the design and construction of a new bridge over the Parramatta River between Melrose Park and Wentworth Point, John Holland are preparing the Construction Environmental Management Plan (CEMP), and its Sub-plans and Monitoring Programs. With the aim of preparing these documents collaboratively, and to ensure compliance with the Project Approval (SSI-10035) and Updated Mitigation Measures (UMMs), John Holland provide the attached Heritage Management Plan for consultation and invite comments from Metro LALC.

It is requested that comments (or confirmation of no comments) are provided by **3 December 2024**. In addition, if you would like to discuss the sub-plan details, please advise and we can arrange a specific meeting with our technical specialists.

Please contact the undersigned if you have any queries on the consultation process or would like to request a meeting to discuss the PLR2 - EW project.

Regards

[REDACTED]
Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
M. [REDACTED]
W. johnholland.com.au





[Redacted] <[Redacted]@metrolalc.org.au>
To: [Redacted] JHG

Reply Reply All Forward ...
Mon 2/12/2024 9:55 AM

This sender culturalofficer@metrolalc.org.au is from outside your organization.

Hey [Redacted]

No worries as per the call, no i didnt have any comments to add to that thanks brother

Kind Regards,
Cultural Officer

From: [Redacted] JHG <[Redacted]@jhgc.com.au>
Sent: Friday, November 29, 2024 4:09 PM
To: [Redacted] <[Redacted]@metrolalc.org.au>
Cc: [Redacted] <[Redacted]@metrolalc.org.au>; [Redacted] <[Redacted]@metrolalc.org.au>; [Redacted] JHG <[Redacted]@jhgc.com.au>; [Redacted] JHG <[Redacted]@jhgc.com.au>
Subject: RE: Attn: [Redacted] - Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - Metro LALC

Hi [Redacted]

Thanks for the quick call after you received the below email – I just wanted to check in to see if you had any questions about the review process, noting the proposed consultation period ends next week. If not, please send through any queries or comments you may have.

Alternatively, if you could please confirm that you have no comments in reply to this email, that would be appreciated.

Regards,

[Redacted]
Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
M. [Redacted]
W. johnholland.com.au





Appendix E: Heritage NSW consultation evidence

Table 10 – Consultation Log

In/out	Date	Medium	Details of contact
Out	12/11/2024	Letter	Subject Document provided to stakeholder for review and comment
Out	13/11/2024	Letter	Subject Document provided by TfNSW Environment Manager to Heritage NSW via the Major Projects Planning Portal
In	29/11/2024	Letter	Stakeholder provided comments on the Subject Document
Out	23/01/2025	Email	Revised Subject Document provided to stakeholder for information

Table 11 – Issues raised by Stakeholder

No.	Issues raised	How addressed	Subject Document Reference
Heritage Management Sub-Plan			
1	Update consultation information upon receiving comments from the RAPs	Consultation responses were received from four RAPs which are detailed in Appendix F of this Consultation Report.	Consultation Report, Appendix F
2	The Draft HMP should be updated to include consideration of Condition of Approval A13 (Archaeological Remediation) in Sections 1.5.1, 5, 6, and/or Appendix A the HMP as relevant. Provision should also be made for a monitoring methodology as required.	NSW CoA A13 has been added to Appendix A of the Heritage Management Sub-plan (Table 18). Section 6.3 (Inspections and Monitoring) has been updated to include archaeological monitoring requirements.	Heritage Management Sub-plan, Appendix A (Table 18) and Section 6.3 (Inspections and Monitoring)
3	Update Section 5.1.1 to include provision for a site-specific test excavation methodology to be developed for PAD1 Ermington Boat Ramp and the two recorded shell middens, AHIMS 45-6-4078 (Ermington SHL 01) and AHIMS 45-6-4079 (Ermington SHL 02), in accordance with the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010). Alternatively, clarify that this methodology will be developed as part of the Environmental Work Method Statement (EWMS). Based on available information, it is understood that the EWMS relates specifically to asbestos management and safe working requirements.	Section 5.1.1 (Test Excavations and Salvage Methodology) has been updated to confirm that site-specific test excavation methodology will be developed in accordance with the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010).	Heritage Management Sub-plan, Section 5.1.1 (Test Excavations and Salvage Methodology)
4	The HMP should be updated to include triggers or a description of the process that will be implemented following test excavations to determine whether salvage excavation is required.	A new Section 5.1.2 (Salvage Methodology) and Section 5.1.3 (Triggers for Salvage Excavation) have been	Heritage Management Sub-plan, Section 5.1.2 (Salvage Methodology) and Section 5.1.3



No.	Issues raised	How addressed	Subject Document Reference
		developed to define the triggers and process for salvage excavation.	(Triggers for Salvage Excavation)
5	Where significant Aboriginal cultural heritage values are identified, we highly recommend that design development and construction planning avoid or minimise impacts on these value as much as possible, as outlined in the Draft HMP.	Comment noted. Section 5.2.8 (Design review and construction planning) includes a process for design review and construction planning in the event of State significant archaeological resources being identified.	No changes required to Subject Document.
6	Vibration Impacts However, the works will require the use of an excavator and rock break attachment and vibratory roller within proximity to the State Heritage listed Ermington Wharf. Initial vibration modelling carried out indicates that there is potential for indirect cosmetic damage to the heritage listed Ermington Wharf. While there is reference to the adoption of the Construction Noise and Vibration Management sub-plan (NVMP) to undertake vibration testing and monitoring before and during vibration generating activities, it is recommended that the Ermington Wharf be monitored during vibratory works to ensure that any impacts are immediately identified and managed appropriately.	Section 6.1 of the Noise and Vibration Monitoring Program (Table 15) notes that where a vibration generating activity has the potential to impact on heritage items (including the Ermington Wharf), vibration monitoring must be undertaken before and during the works. In the event that the vibration testing and attended vibration monitoring shows that the preferred values for vibration are likely to be exceeded, the construction methodology will be reviewed and, if necessary, additional mitigation measures will be implemented. Section 1.5.1 (Interactions with Other Plans) has been revised to clarify the inclusion of the above requirement in the Heritage Management Sub-plan.	Heritage Management Sub-plan, Section 1.5.1 (Interactions with Other Plans)
7	Heritage NSW requests that details of the qualified and suitably experienced Historical Archaeological Excavation Director are outlined in the HMP and provided to HNSW for our records	Section 6.1.2 (Excavation Director, non-Aboriginal archaeology) and Section 6.1.3 (Excavation Director, Aboriginal archaeology) have been revised to include the details of the qualified and suitably experienced Excavation Directors.	Heritage Management Sub-plan, Section 6.1.2 (Excavation Director, non-Aboriginal archaeology) and Section 6.1.3 (Excavation Director, Aboriginal archaeology)





No.	Issues raised	How addressed	Subject Document Reference
8	It is noted that Condition A13 of the project approval (also reference in the Soil & Water Management Plan) requires monitoring of any remediation in areas subject to archaeological excavations. This requirement should be explicitly included into the HMP so that the need/triggers/methodology employed for monitoring are clear in the HMP.	NSW CoA A13 has been added to Appendix A of the Heritage Management Sub-plan (Table 18). Section 6.3 (Inspections and Monitoring) has been updated to include archaeological monitoring requirements.	Heritage Management Sub-plan, Appendix A (Table 18) and Section 6.3 (Inspections and Monitoring)
9	An archaeological monitoring methodology should be included in the HMP and referenced in the Soil & Water Management Plan.	Section 6.3 (Inspections and Monitoring) has been updated to include archaeological monitoring requirements. A cross-reference has been added to the Soil and Water Management Sub-plan (Section 1.5.1).	Heritage Management Sub-plan, Appendix A (Table 18) and Section 6.3 (Inspections and Monitoring) Soil and Water Management Sub-plan (Section 1.5.1)
10	The Draft HMP should be updated to include consideration of Condition of Approval A13 in Sections 1.5.1, 5, 6, and/or Appendix A the HMP as relevant.	NSW CoA A13 has been added to Appendix A of the Heritage Management Sub-plan (Table 18). Section 6.3 (Inspections and Monitoring) has been updated to include archaeological monitoring requirements. A cross-reference to the Soil and Water Management Sub-plan has been added to Section 1.5.1. Section 5.1.1 (Test Excavations and Salvage Methodology) has been updated to confirm that the EWMS will include the site-specific test excavation methodology.	Heritage Management Sub-plan, Appendix A (Table 18), Section 6.3 (Inspections and Monitoring), Section 1.5.1 (Interactions with other plans) and Section 5.1.1 (Test Excavations and Salvage Methodology)
11	The HMP should be updated to include the triggers and a methodology outlining the process that will be implemented following monitoring/test excavations to determine whether archaeological salvage excavation is required and to assist with planning for the management of potential finds.	A new Section 5.2.6 (Archaeological Methodology) has been added to the Heritage Management Sub-plan detailing the triggers and methodology to determine whether archaeological salvage excavation is required.	Heritage Management Sub-plan, Section 5.2.6 (Archaeological Methodology)
12	The HMP should include a methodology for archaeological salvage.	A new Section 5.2.6 (Archaeological	Heritage Management Sub-plan, Section 5.2.6





No.	Issues raised	How addressed	Subject Document Reference
		Methodology) has been added to the Heritage Management Sub-plan detailing the methodology for archaeological salvage excavation. The archaeological methodology for monitoring (section 4.4), test (section 4.5) and salvage excavation (section 4.5) provided in the ARDEM (included as Appendix B Updated Historical Archaeological Assessment) will be implemented by John Holland.	(Archaeological Methodology)
13	It is noted that the HMP contains an Unexpected Finds Recording Form and Identification document but contains no methodology for when use of these documents will be triggered. The HMP must be updated to include an unexpected finds protocol which outlines specifically what steps will be taken when an unexpected find is recorded at any point during the project works.	The Heritage Management Sub-plan includes a detailed Unexpected Heritage Finds Procedure (Appendix B) which was developed by TfNSW. Section 5.3 (Unexpected Heritage Finds and Human Remains Procedure) of the Heritage Management Sub-plan has been revised to include a summary of the procedure.	Heritage Management Sub-plan, Section 5.3 (Unexpected Heritage Finds and Human Remains Procedure)
14	Heritage NSW requests to review the updated HMP once our comments have been incorporated.	The updated Heritage Management Sub-plan will be provided to Heritage NSW for information.	No changes required to Subject Document.





Parramatta Light Rail Stage 2 Enabling Works - External CEMP Consultation - Heritage NSW

To: [REDACTED] JHG
Cc: [REDACTED]@environment.nsw.gov.au; [REDACTED]@transport.nsw.gov.au; [REDACTED] JHG; [REDACTED] JHG

Reply Reply All Forward ...

Tue 12/11/2024 6:07 PM

PLR2EW-JHGRP-LET-0015 - Heritage NSW Consultation Letter.pdf
.pdf File

Dear [REDACTED]

As part of the Parramatta Light Rail Stage 2 – Enabling Works (PLR2 - EW) project involving the design and construction of a new bridge over the Parramatta River between Melrose Park and Wentworth Point, John Holland are preparing the Construction Environmental Management Plan (CEMP), and its Sub-plans and Monitoring Programs. With the aim of preparing these documents collaboratively, and to ensure compliance with the Project Approval (SSI-10035) and Updated Mitigation Measures (UMMs), John Holland provide the below documents for consultation and invite comments from your agency.

[Heritage NSW Documentation](#)

It is requested that comments (or confirmation of no comments) are provided by **3 December 2024**. In addition, if you would like to discuss the sub-plan details, please advise and we can arrange a specific meeting with our technical specialists.

Please contact the undersigned if you have any queries on the consultation process or would like to request a meeting to discuss the PLR2 - EW project.

Regards

[REDACTED]
Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
M. [REDACTED]
W. johnholland.com.au





Department of Climate Change,
Energy, the Environment and Water



Our ref: HMS ID 7902

██████████
Senior Manager Environment and Sustainability
Transport for NSW
megan.haberley@transport.gov.au

Letter uploaded to the Major Projects Planning Portal

**Construction Heritage Sub-plan and Construction Soil and Water Management Sub-plan-
State Significant Infrastructure**

Proposal: Parramatta Light Rail Stage 2

Major Project reference: SSI-10035-PA-13, SSI-10035-PA-14

Received: 13 November 2024

Dear ██████████

Thank you for your referral seeking advice on the Construction Heritage Sub-plan (HMP) Construction Soil and Water Management Sub-plan (SWMP) for the Parramatta Light Rail Stage 2 Enabling Works. Thank you for the continued opportunity to comment on the project.

Unfortunately, the HMP provided to Heritage NSW (version dated 7 November 2024) does not include comments from the Registered Aboriginal Parties (RAPs). Once the HMP has been updated to include RAP comments and address any comments raised, then the plan can be resubmitted to Heritage NSW for comment.

Based on a preliminary review of the Draft HMP, Heritage NSW recommends the following amendments to the document

- Update consultation information upon receiving comments from the RAPs.
- The Draft HMP should be updated to include consideration of Condition of Approval A13 (Archaeological Remediation) in Sections 1.5.1, 5, 6, and/or Appendix A the HMP as relevant. Provision should also be made for a monitoring methodology as required.
- Update Section 5.1.1 to include provision for a site-specific test excavation methodology to be developed for PAD1 Ermington Boat Ramp and the two recorded shell middens, AHIMS 45-6-4078 (Ermington SHL 01) and AHIMS 45-6-4079 (Ermington SHL 02), in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010). Alternatively, clarify that this methodology will be developed as a part of the Environmental Work Method Statement (EWMS). Based on available information, it is understood that the EWMS relates specifically to asbestos management and safe working requirements.

4PSQ, 12 Darcy Street, Parramatta NSW, 2150
Locked Bag 5020, Parramatta 2124

(02) 9873 8500

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1



- The HMP should be updated to include triggers or a description of the process that will be implemented following test excavations to determine whether salvage excavation is required.

Where significant Aboriginal cultural heritage values are identified, we highly recommend that design development and construction planning avoid or minimise impacts on these values as much as possible, as outlined in the Draft HMP.

Following revision of the HMP to address the above comments, please resubmit the Plan to Heritage NSW for comment.

Heritage NSW has no comment on the SWMP.

Please note that the above comments relate only to Aboriginal cultural heritage regulation matters.

If you have any questions about this correspondence, please contact [REDACTED] Senior Assessments Officer at Heritage NSW on (02) 9873 8500 or heritagemailbox@environment.nsw.gov.au

Yours sincerely,

[REDACTED]
[REDACTED]

A/ Strategic Manager
Major Projects
Heritage NSW
Department of Climate Change, Energy, the Environment and Water
As Delegate under *National Parks and Wildlife Act 1974*
29 November 2024



Department of Climate Change, Energy, the Environment and
Water



Our ref: HMS ID 7908

Department of Planning, Housing and Infrastructure
megan.haberley@transport.gov.au

Letter uploaded to the Major Projects Planning Portal

**PARRAMATTA LIGHT RAIL STAGE 2 – ENABLING WORKS (CSSI-10035) - Construction
Heritage Sub-plan (HMP) – Environmental Heritage & Non-Aboriginal Archaeology**

Dear [REDACTED]

I refer to your request dated 14 November 2024, inviting the Heritage Council to provide comment on the Construction Heritage Sub-plan (HMP) for the Parramatta Light Rail Stage 2 Enabling Works (PLR2 – EW). This referral is in accordance with Condition C14 of the Conditions of the SSI-10035 Planning Approval and Condition NAH8 in the Updated Mitigation Measures (UMMs) identified in the Environmental Impact Statement (EIS), Response to Submissions Report and Amendment report.

Heritage for NSW understands that Transport for NSW have engaged John Holland to design and construct the Parramatta Light Rail Stage 2 Enabling Works (PLR2-EW), as part of the Stage 2 extension, comprising of the construction of a transport bridge across Parramatta River and approaches from Wentworth Point and Melrose Park. The bridge construction requires a 320m span over a bend on the Parramatta River.

After review of *Appendix B4, Construction Heritage Sub-plan (HMP), Parramatta Light Rail Stage 2 Enabling Works Revision A*, dated 7 November 2024 (Revision A) it is considered that in general, the HMP, including the unexpected finds procedure, is sufficiently detailed to address the management of non-Aboriginal cultural heritage and historical archaeology for the PLR2 – EW site.

It is noted that there will be no physical heritage impact and limited visual heritage impact on the state listed heritage items within vicinity of the PLR2-EW project, including the adjacent Newington Armoury Depot and Nature Reserve (SHR No. 01850) and Ermington Wharf (SEPP BC 40).

Vibration Impacts

However, the works will require use of an excavator and rock breaker attachment and vibratory roller within proximity to the State Heritage listed Ermington Wharf. Initial vibration modelling carried out indicates that there is potential for indirect cosmetic damage to the heritage listed Ermington Wharf.

- While there is reference to the adoption of the Construction Noise and Vibration Management Sub-plan (NVMP) to undertake vibration testing and monitoring before and

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Locked Bag 5020, Parramatta 2124

(02) 9873 8500

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1



during vibration generating activities, it is recommended that the Ermington Wharf be monitored during vibratory works to ensure that any impacts are immediately identified and managed appropriately.

Historical Archaeology

The Environmental Assessment Documentation divided the PLR2 – EW site into five individual Historical Archaeological Management Units (HAMU) across the project area. Historical archaeology within these HAMUS is assessed as being of state and local heritage significance depending on their location.

A suitably qualified and experienced Excavation Director has been nominated to oversee the archaeological program and advise on matters associated with historical archaeology, however no details of an individual have been included in the HMP.

- Heritage NSW requests that details of the qualified and suitably experienced and Historical Archaeological Excavation Director are outlined in the HMP and provided to HNSW for our records.

It is understood that test excavation was planned at various HAMUs within the PLR State 2 boundary, including the Ermington Wharf site to clarify the potential for this archaeology, however, the archaeological testing was suspended due to asbestos contamination. Therefore, archaeological potential has been determined based on consideration of the likely nature of the resource in conjunction with examining the historical record for any indications of past activity that may have contributed to the creation or destruction of the resource.

The following comments are provided to assist in refining the future archaeological program for historical archaeology in all the HAMUs.

- It is noted that Condition A13 of the project approval (also referenced in the Soil & Water Management Plan) requires monitoring of any remediation in areas subject to archaeological excavations. This requirement should be explicitly included into the HMP so that the need/triggers/methodology employed for monitoring are clear in the HMP.
- An archaeological monitoring methodology should be included in the HMP and referenced in the Soil & Water Management Plan.
- The Draft HMP should be updated to include consideration of Condition of Approval A13 in Sections 1.5.1, 5, 6, and/or Appendix A the HMP as relevant.
- The HMP should be updated to include the triggers and a methodology outlining the process that will be implemented following monitoring/test excavations to determine whether archaeological salvage excavation is required and to assist with planning for the management of potential finds.
- The HMP should include a methodology for archaeological salvage.
- It is noted that the HMP contains an Unexpected Finds Recording Form and Identification document but contains no methodology for when use of these documents will be triggered. The HMP must be updated to include an unexpected finds protocol which outlines specifically what steps will be taken when an unexpected find is recorded at any point during the project works.
- Heritage NSW requests to review the updated HMP once our comments have been incorporated.

4PSQ, 12 Darcy Street, Parramatta NSW, 2150
 Locked Bag 5020, Parramatta 2124

(02) 9873 8500

www.environment.nsw.gov.au/topics/heritage





If you have any questions about this correspondence, please contact [REDACTED] Senior Assessments Officer - TfNSW at Heritage NSW on (02) 9873 8500 or heritagemailbox@environment.nsw.gov.au

Yours sincerely

[REDACTED]

[REDACTED]

Manager Assessments, TfNSW & Metro MOU Team
Heritage NSW
Department of Climate Change, Energy, the Environment and Water
As Delegate of the Heritage Council of NSW

29/11/2024

4PSQ, 12 Darcy Street, Parramatta NSW, 2150
Locked Bag 5020, Parramatta 2124

(02) 9873 8500

www.environment.nsw.gov.au/topics/heritage

3





From: [REDACTED]-JHG <[REDACTED]@jhg.com.au>
Sent on: Thursday, January 23, 2025 4:46:20 AM
To: [REDACTED] <[REDACTED]@environment.nsw.gov.au>
CC: [REDACTED]-JHG <[REDACTED]@jhg.com.au>; [REDACTED]
JHG <[REDACTED]@jhg.com.au>; [REDACTED]
[REDACTED] <[REDACTED]@transport.nsw.gov.au>
Subject: PLR2 Enabling Works - HMP (Rev B) - Heritage NSW
Attachments: PLR2EW-JHGRP-NWW-PM-PLN-000028 Heritage Sub-plan_Rev
B_Clean.pdf (5.18 MB)

Hi [REDACTED]

Following the consultation period for the Heritage Management Plan, John Holland have revised the document in response to comments received, which is attached for your information. Specifically, please see the Consultation Report in Appendix D, which provides details of any changes made and responses to consultation undertaken.

At this time, nothing further is required, and I thank you for your time during the recent consultation efforts.

Regards,

[REDACTED]

[REDACTED]

Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009

M. [REDACTED]

W. johnholland.com.au





Appendix F: Registered Aboriginal Parties consultation evidence

Table 12 – Consultation Log

In/out	Date	Medium	Details of contact
Out	12/11/2024	Letter	Subject Document provided to all Registered Aboriginal Parties for review and comment
Out	29/11/2024	Email	Reminder email sent to all Registered Aboriginal Parties
Out	11/12/2024	Email	Reminder email sent to all Registered Aboriginal Parties
Darug Custodian Aboriginal Corporation			
In	12/12/2024	Email	Stakeholder confirmed no comments on the Subject Document
Kamilaroi Yankuntjatjara Working Group			
In	12/12/2024	Email	Stakeholder confirmed no comments on the Subject Document
Wailwan Aboriginal Group			
In	07/12/2024	Email	Stakeholder provided comments on the Subject Document
Out	23/01/2025	Email	Revised Subject Document provided to stakeholder for information

Table 13 – Issues raised by Stakeholder

No.	Issues raised	How addressed	Subject Document Reference
Heritage Management Sub-plan			
1	Wailwan Aboriginal Group As the documents you have provided details that works directly impact existing AHIMS sites and the comments given by other groups about the potential archaeology in the areas directly within the project corridor Wailwan group must advocate for extensive mitigation works to occur. Furthermore, the potential for Midden deposits underneath the Ermington boat ramp and surrounds must be investigated and salvaged. We would like to be included in all stages of work including further surveys to point out areas of concern and to be present for monitoring and excavations especially in areas adjacent to the Parramatta River.	As detailed in Section 5.1.1 (Test excavations and salvage methodology), test excavations will be undertaken prior to ground disturbance in any of the areas requiring Aboriginal archaeological management. A site-specific test excavation methodology will be prepared in consultation with RAPs. Following Aboriginal test excavations, the Heritage Management Sub-plan will be reviewed to ensure that the mitigation measures are appropriate. Where harm cannot be avoided to Aboriginal archaeology, a salvage methodology will be prepared in	Heritage Management Sub-plan, Section 5.1.2 (Salvage Methodology) and Section 5.1.3 (Triggers for Salvage Excavation)





No.	Issues raised	How addressed	Subject Document Reference
		consultation with RAPs to ensure appropriate management of significant values. A new Section 5.1.2 (Salvage Methodology) and Section 5.1.3 (Triggers for Salvage Excavation) has been added to the Heritage Management Sub-plan. As noted in Section 5.1.2, where harm cannot be avoided to Aboriginal archaeology, a salvage methodology will be prepared in consultation with RAPs.	





RE: Parramatta Light Rail Stage 2 Enabling Works - External HMP Consultation - RAPs

To: [REDACTED] JHG
Cc: [REDACTED]
Bcc: [REDACTED]@live.com; [REDACTED]@y7mail.com;
[REDACTED]@gmail.com; [REDACTED]@gmail.com; [REDACTED]

Reply Reply All Forward ...

Wed 11/12/2024 5:05 PM



From: [REDACTED] JHG
Sent: Tuesday, 12 November 2024 7:26 PM
Subject: Parramatta Light Rail Stage 2 Enabling Works - External HMP Consultation - RAPs

Dear Registered Aboriginal Parties,

I am reaching out as you have previously expressed an interest in the Parramatta Light Rail Stage 2 project with Transport for NSW throughout the environmental assessment process. As part of the Parramatta Light Rail Stage 2 – Enabling Works (PLR2 - EW) project involving the design and construction of a new bridge over the Parramatta River between Melrose Park and Wentworth Point, John Holland are preparing the Construction Environmental Management Plan (CEMP), and its Sub-plans and Monitoring Programs. With the aim of preparing these documents collaboratively, and to ensure compliance with the Project Approval (SSI-10035) and Updated Mitigation Measures (UMMs), John Holland provide the attached **Heritage Management Plan** for consultation and invite you to provide review comments and/or queries.

It is kindly requested that comments (or confirmation of no comments) are provided by **3 December 2024**. In addition, if you would like to discuss the sub-plan details, please advise and we can arrange a specific meeting with our heritage specialists.

Please let me know if you have any queries on the consultation process or would like to request a meeting to discuss the PLR2 - EW project.

Regards

[REDACTED]
Environment & Approvals Manager
Infrastructure NSW/ACT

From: [REDACTED] JHG
Sent: Friday, 29 November 2024 5:33 PM
Cc: [REDACTED]@transport.nsw.gov.au; [REDACTED]@transport.nsw.gov.au
Subject: RE: Parramatta Light Rail Stage 2 Enabling Works - External HMP Consultation - RAPs

Hi there,

I am following up the below email to see if you had any questions about the review process or consultation request for the **Heritage Management Plan**, noting the proposed consultation period ends next week. If not, please send through any queries or comments you may have.

Alternatively, if you could please confirm that you have no comments in reply to this email, that would be appreciated.

Regards,

[REDACTED]
Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**



[Redacted] -JHG
To [Redacted]
Cc [Redacted]
Bcc [Redacted]@live.com; [Redacted]@y7mail.com;
[Redacted]@gmail.com; [Redacted]@gmail.com; [Redacted]

Reply Reply All Forward ...
Wed 11/12/2024 5:05 PM

Hi there,

Just wanted to reach out and highlight that if you're able to provide comments, or confirmation of no comments, by this Friday (13 December 2024), we can ensure they are incorporated into the Heritage Management Plan.

If we receive any commentary after that date, we can ensure it is considered in the next revision of the documentation.

Regards,

[Redacted]

[Redacted]

Environment & Approvals Manager
Infrastructure NSW/ACT

From: [Redacted]@ihq.com.au>

To:

Cc:

[Redacted]@transport.nsw.gov.au> [Redacted]@transport.nsw.gov.au>

Sent:

Wed, 11 Dec 2024 06:05:03 +0000

Subject:

RE: Parramatta Light Rail Stage 2 Enabling Works - External HMP Consultation - RAPs

Hi there,

Just wanted to reach out and highlight that if you're able to provide comments, or confirmation of no comments, by this Friday (13 December 2024), we can ensure they are incorporated into the Heritage Management Plan.

If we receive any commentary after that date, we can ensure it is considered in the next revision of the documentation.

Regards,

[Redacted]

[Redacted]

Environment & Approvals Manager
Infrastructure NSW/ACT

Darug Custodian Aboriginal Corporation

RE: Parramatta Light Rail Stage 2 Enabling Works - External HMP Consultation - RAPs

[Redacted]@optusnet.com.au

To [Redacted] JHG

Reply

This sender [Redacted]@optusnet.com.au is from outside your organization.

If there are problems with how this message is displayed, click here to view it in a web browser.

Warami

I have had a look at the Heritage Management Plan. I have nothing to add at this time.

Yanu

[Redacted]



Kamilaroi Yankuntjatjara Working Group

[Redacted] <[Redacted]@live.com.au>
To: [Redacted] JHG

Reply Reply All Forward ...
Tue 3/12/2024 10:43 AM

This sender [Redacted]@live.com.au is from outside your organization.
If there are problems with how this message is displayed, click here to view it in a web browser.

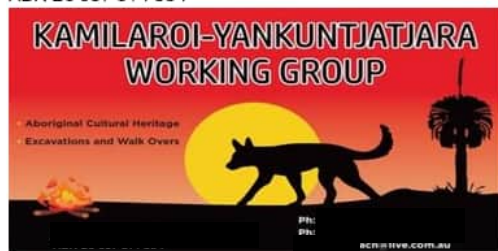
Hi [Redacted]

We have no further comments to add, have a great day.

Kind Regards

[Redacted] Director

[Redacted]
E: [Redacted]@live.com.au
ABN 26 637 314 384



Wailwan Aboriginal Group

Parramatta Light Rail Stage 2

[Redacted] <[Redacted]@outlook.com>
To: [Redacted] JHG

Reply Reply All Forward ...
Sat 7/12/2024 6:16 PM

This sender [Redacted]@outlook.com is from outside your organization.
If there are problems with how this message is displayed, click here to view it in a web browser.

Hello [Redacted]

Thank you for reaching out to Wailwan Aboriginal Group for comment on the works for the Parramatta light rail stage 2,

As the documents you have provided details that works directly impact existing AHIMS sites and the comments given by other groups about the potential archaeology in the areas directly within the project corridor Wailwan group must advocate for extensive mitigation works to occur. Furthermore the potential for Midden deposits underneath the Ermington boat ramp and surrounds must be investigated and salvaged. We would like to be included in all stages of work including further surveys to point out areas of concern and to be present for monitoring and excavations especially in areas adjacent to the Parramatta River.

Thank you for taking the time to contact us and listen to our concerns and we look forward to working with you in the near future.

[Redacted]
Wailwan Aboriginal Group
Via email: [Redacted]@outlook.com





From: [REDACTED]-JHG <[REDACTED]@jhg.com.au>
Sent on: Thursday, January 23, 2025 4:46:13 AM
To:
BCC: [REDACTED] JHG <[REDACTED]@jhg.com.au>; [REDACTED]
JHG <[REDACTED]@jhg.com.au>; [REDACTED] <[REDACTED]@outlook.com>
Subject: PLR2 Enabling Works - HMP (Rev B) - RAPs
Attachments: PLR2EW-JHGRP-NWW-PM-PLN-000028 Heritage Sub-plan_Rev
B_Clean.pdf (5.18 MB)

Hi there,

Following the consultation period for the Heritage Management Plan, John Holland have revised the document in response to comments received, which is attached for your information. Specifically, please see the Consultation Report in Appendix D, which provides details of any changes made and responses to consultation undertaken.

At this time, nothing further is required, and I thank you for your time during the recent consultation efforts.

Regards,

[REDACTED]

[REDACTED]

Environment & Approvals Manager
Infrastructure NSW/ACT

**JOHN
HOLLAND**

Level 3, 65 Pirrama Rd,
Pyrmont NSW 2009
W. johnholland.com.au





Appendix E: ER Endorsement



The APP Group is now
proudly part of Bureau Veritas

REF: A01044 PLREW HMP rev1 endorsement 260907

Monday 7th September 2026

[REDACTED]
Senior Manager Environment
Transport for NSW
Parramatta Light Rail

Re: Appendix B4 Construction Heritage Sub-plan (HMP)

Pursuant to SSI10035 Condition of Approval A30 (d) ii), as the approved Environmental Representative, I confirm that I have reviewed the updated Appendix B4 Construction Heritage Management Sub-plan (PLR2EW-JHGRP-NWW-PM-PLN-000028), revision 1, dated 26 August 2026, prepared by John Holland Group, for consistency with the requirements of the Conditions of Approval.

In my opinion the aforementioned updated document remains consistent with the requirements included in or required under the terms of the Conditions of Approval for the Parramatta Light Rail (Stage 2) development.

The plan has been updated to reflect changes to the staging of the project as per the Staging Report. This is classified as an administrative nature and therefore the amendment is classified as minor and is approved in accordance with Condition of Approval A30 (j).

Yours sincerely,

[REDACTED]

[REDACTED]

Environmental Representative
Bureau Veritas Buildings and Infrastructure

[REDACTED]

[REDACTED] [@bureauveritas.com](mailto:[REDACTED]@bureauveritas.com)