Transport for NSW

Chapter 11 Aboriginal heritage



Parramatta Light Rail Stage 2





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Parramatta Light Rail Stage 2

Environmental impact statement



11. Aboriginal heritage

This chapter provides a summary of the Aboriginal heritage assessment. It describes existing Aboriginal heritage, identifies potential impacts, and provides measures to mitigate and manage the impacts identified. Further information is provided in Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report).

11.1 Approach

A Preliminary Aboriginal Cultural Heritage Assessment Report has been prepared in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011b), the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010a), and the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010b).

The assessment has also been undertaken in accordance with:

- the SEARs (see Appendix A (SEARs compliance table))
- applicable legislation (including the National Parks and Wildlife Act 1974 (NSW), Heritage Act 1977 (NSW), EPBC Act and Native Title Act 1993 (Cth))
- other relevant policies and guidelines, including the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) (Roads and Maritime Services, 2012).

A detailed description of the legislative and policy context for the assessment is provided in section 2 of Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report). An overview of the approach to the assessment is provided below. Further information on the assessment methodology is provided in section 1.4 of Technical Paper 4.

11.1.1 Study area

The assessment considered areas within a 50 metre buffer of the project alignment, which encompassed the project site (as described in Chapter 2 (Location and setting)). It also considered areas with the potential to be affected by alternate alignment options.

11.1.2 Key tasks

The assessment of potential impacts on Aboriginal heritage considers cultural knowledge and the results of background research and field investigations. This includes an assessment of the potential for Aboriginal objects to be located where the ground surface is disturbed, for example, by excavation works. The assessment involved:

- background research on the Aboriginal archaeological and historical context of the study area including:
 - reviewing previous studies/investigations
 - searching the NSW Aboriginal Heritage Information Management System (AHIMS) database to identify registered Aboriginal sites

- an archaeological survey (see below)
- consultation with the Aboriginal community (see below)
- assessing the potential for direct, indirect and cumulative impacts on Aboriginal heritage
- preparing a test excavation methodology (Appendix C of Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report)
- identifying measures to minimise impacts on Aboriginal heritage.

Archaeological survey

An archaeological field survey was undertaken in accordance with stage 2 of the PACHCI (Roads and Maritime Services, 2012). The survey was undertaken on 24 January 2022, with a representative of the Deerubbin Local Aboriginal Land Council, and on 4 February 2022, with a representative of the Metropolitan Local Aboriginal Land Council. The survey considered areas of moderate to high sensitivity for Aboriginal archaeology, from publicly accessible areas (described in section 11.2.3).

A survey of areas of archaeological sensitivity identified in Melrose Park that were not able to be accessed during the previous surveys would be undertaken prior to construction as described in section 11.6.

Aboriginal cultural heritage assessment consultation

Aboriginal consultation has been undertaken in accordance with the PACHCI and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. The purpose of consultation was to provide the Aboriginal community with an opportunity to input to the assessment and the Aboriginal Cultural Heritage Assessment Report. Aboriginal consultation included:

- identifying, notifying and registering Aboriginal parties by:
 - contacting relevant organisations to identify Aboriginal parties with cultural interest/knowledge in the study area
 - placing advertisements in the Koori Mail and local newspapers
 - sending letters to Aboriginal parties to invite them to register their interest in the project a total
 of 29 individuals representing 27 groups registered their interest
- presenting information about the project and assessment at an Aboriginal focus group meeting held in July 2022 and a site visit in August 2022
- sending a PACHCI Stage 2 Archaeological Survey Report and draft excavation methodology to registered Aboriginal parties for review.

Further consultation would be undertaken as part of the planned cultural interviews, field survey and test excavations (see section 11.6).

11.1.3 How potential impacts have been avoided or minimised

The approach to design development included a focus on avoiding and/or minimising the potential for impacts during key phases of the design process. As described in Chapter 5 (Alternatives and options) a project corridor and alignment options assessment process was undertaken to identify the preferred alignment. This process considered a range of factors, including known Aboriginal sites and areas with the potential for Aboriginal archaeology.

The project design has been refined to avoid impacts on Aboriginal heritage where possible, including by:

 maximising use of existing road and rail corridors to minimise the amount of landscape disturbance required to construct the project

- refining the project site to avoid a potential archaeological deposit (PAD) identified in the Melrose Park
 Public School oval
- minimising impact to the Millennium Parklands by locating the alignment close to Hill Road in Sydney Olympic Park and avoiding direct impacts to the Narawang Wetland and Woo-la-ra
- minimising impacts on the banks of the Parramatta River and associated vegetation and landforms
 with Aboriginal sensitivity by locating the proposed bridges to make use of natural gaps in mangrove
 vegetation and proposing use of elevated temporary work platforms to construct the bridges.

11.2 Existing environment

11.2.1 Aboriginal historical and landscape context

The original inhabitants of the Parramatta region are the Burramattagal people, a clan of the Darug people, who first settled on the upper reaches of Parramatta River. The Wangal peoples are also a clan of the Eora and inhabited the southern shore of the Parramatta River.

Parramatta was a resource-rich zone, which supported Aboriginal occupation. Original vegetation would have provided habitats for a variety of animals, as well as food and raw material sources for Aboriginal people. The proximity to saltwater (Parramatta River) would have provided a source of fish, eels and shellfish, while freshwater streams (like Haslams Creek) entering the river are likely to have supported ducks, mullet, crayfish, shellfish and turtles. In addition to being a rich food source, Parramatta River is also culturally significant with gathering and ceremonial places along the river. Eel traps and shell middens associated with the river are considered highly significant for Aboriginal people.

Following colonisation, large parts of the study area have been subject to extensive vegetation clearance, introduction of fill, and land reclamation and remediation. In particular, areas to the south of Parramatta River in Sydney Olympic Park and Camellia have been subject to extensive reclamation and remediation works. However, given the depths of intact soils (greater than one metre at Sydney Olympic Park and 2.6 metres at Camellia), it is possible that areas of potential archaeological deposits (PADs) remain underneath areas of remediated land. Also of note is the presence of the Parramatta Sand Body (a geological formation dating from the Pleistocene associated with significant Aboriginal archaeology), which has been identified within the Parramatta CBD section of the project site.

Aboriginal site types recorded in the Parramatta region frequently include rock shelters with deposits, open campsites and open shell middens. Surface scatters of Aboriginal objects are generally sparse and partially disturbed. Grinding grooves and culturally modified trees have also been recorded. The most common type of Aboriginal objects remaining in the archaeological record of the Sydney region are stone artefacts which can include areas of subsurface archaeological deposit not seen on the surface.

Further information about the Aboriginal historical context is provided in section 5 of Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report).

11.2.2 Recorded Aboriginal sites and places

Two Aboriginal heritage sites are located partially within the Parramatta CBD section of the project site (see Figure 11.1):

- AHIMS 45-6-2977 was registered in 2011 by Comber Consultants as a PAD located in an area where the Parramatta Sand Body was identified with intact soil profiles.
- AHIMS 45-6-4015 was registered by Biosis in 2022. The site includes a PAD within the Parramatta Sand Body, which has potential for Aboriginal heritage and contact archaeology, and may hold evidence for early nineteenth century feast events between Aboriginal and European people.

Thirteen registered sites are located within 200 metres of other sections of the project site. Of these, the closest listed site is a PAD (AHIMS 45-62785) adjacent to Hill Road in the Millennium Parklands, Sydney Olympic Park. Visual inspection of the site confirmed that it is located about 50 metres west of the project site.

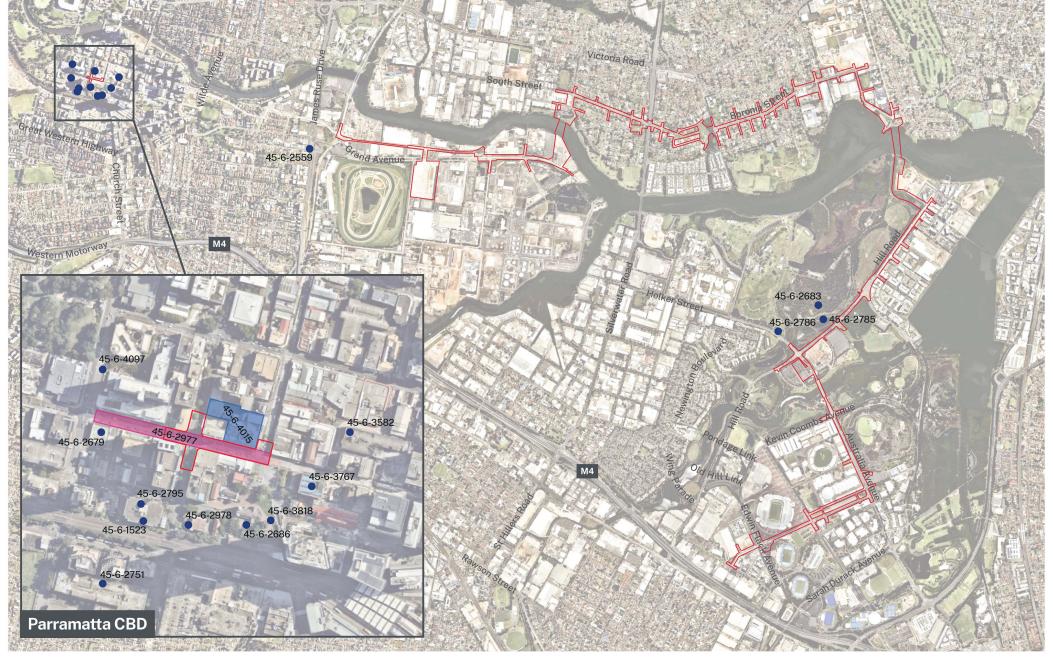
A full list of sites and their locations is provided in Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report). Sites within about 200 metres of the project site are shown on Figure 11.1.

No Aboriginal sites or places listed and protected under the EPBC Act were identified in the study area.

The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth) provides for the protection of intangible Aboriginal heritage within Australia, including places, objects and folklore that that 'are of particular significance to Aboriginals in accordance with Aboriginal tradition'. No places declared under this Act are within the study area.

There are no Aboriginal places declared under section 84 of the *National Parks and Wildlife Act 1974*, or Aboriginal places of heritage significance defined by the Standard Instrument – Principal Local Environmental Plan (2006 EPI 155a) and listed on the Parramatta Local Environmental Plan 2011 and Ryde Local Environmental Plan 2014 located in the study area. Aboriginal heritage sensitivity mapping from the Parramatta Development Control Plan 2011 was considered in the preparation of Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report). This shows areas of low sensitivity mapped at Camellia, with some areas of high sensitivity mapped around Rydalmere Wharf and Ermington Boat Ramp.

The project site is not subject to any native title claims under the *Native Title Act 1993* (Cth) or Aboriginal land claims under the *Aboriginal Land Rights Act 1983* (NSW).



LEGEND

Project site

AHIMS 45-6-4015

Fig 11.1 Registered AHIMS sites within 200 metres of the project site 1.5 1.5km 0.5



11.2.3 Archaeological survey results, potential and significance

While the study 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 project site, archaeological potential is only likely to occur in areas that have not been subject to extensive sub-surface disturbance.

Eight areas with the potential for sub-surface archaeological deposits (PADs) were identified during the archaeological field survey:

- PAD1 Ermington Boat Ramp, Melrose Park (see Figure 11.2)
- PAD2 Melrose Park Public School Oval (see Figure 11.2)
- PAD3 Rydalmere Wharf (see Figure 11.3)
- PAD4 Haslams Creek, Sydney Olympic Park (see Figure 11.4)
- PAD5 Broadoaks Park, Ermington (see Figure 11.3)
- PAD6 Ken Newman Park, Ermington (see Figure 11.3)
- PAD7 Hill Road West, Sydney Olympic Park (see Figure 11.4)
- PAD8 Brickpit, Sydney Olympic Park (see Figure 11.4).

As shown on Figure 11.2 to Figure 11.4 the project site extends through or adjoins sections of these PADs.

Although evidence of surface disturbance was identified at these locations, given the depth of the soil landscapes within the study area (greater than one metre) and the variability in depths of disturbance, it is possible that deeper soils have the potential to contain Aboriginal archaeological deposits. PADs 1 to 4 are considered to have a high potential for archaeological deposits. PADs 5 to 8 are considered to have a moderate potential for archaeological deposits. While the areas around Ken Newman Park and Broadoaks Park are more than 200 metres from a watercourse, they are still considered to have moderate potential for archaeological deposits. This is because these areas may have provided a connection point for Aboriginal people travelling to/from the Parramatta River.

No Aboriginal artefacts were identified during the field survey.

As the nature and presence of Aboriginal objects associated with a PAD are unknown, it is not possible to assess the significance of a PAD without test excavations. Archaeological testing of the PADs would be undertaken in around late 2022 to establish the extent and nature of any subsurface deposits to inform the next stages of design and minimise the potential for impacts as far as possible (see section 11.6).

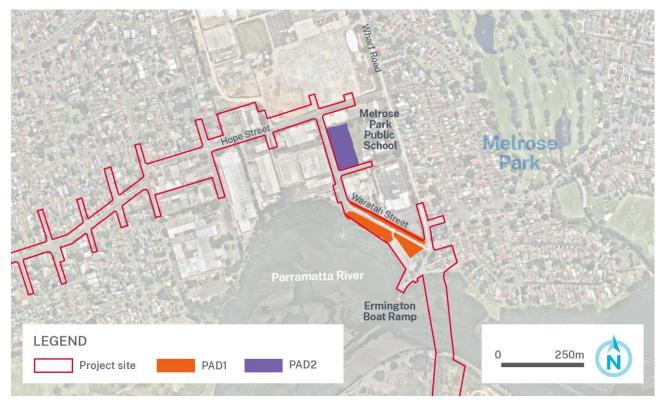


Figure 11.2 Potential archaeological deposits – Melrose Park

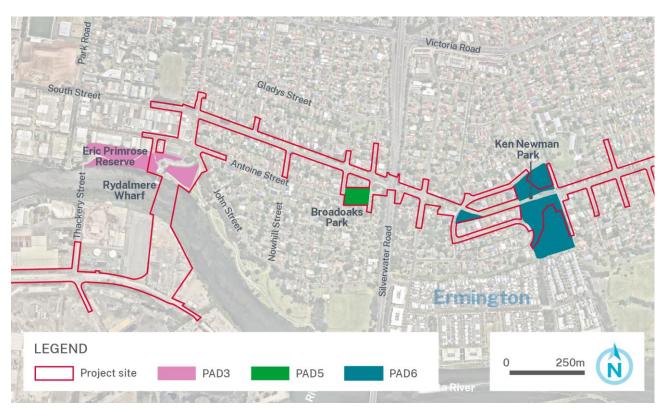


Figure 11.3 Potential archaeological deposits – Rydalmere and Ermington

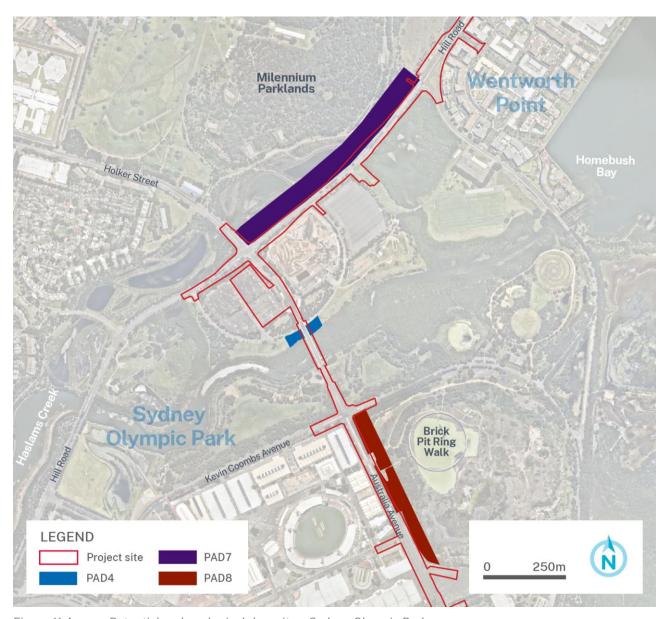


Figure 11.4 Potential archaeological deposits – Sydney Olympic Park

11.3 Preliminary assessment of construction impacts

11.3.1 Impacts on recorded Aboriginal sites and places

Constructing the Macquarie Street turnback facility would involve excavation and subsurface disturbance. Depending on the depths of excavation, this may impact the underlying PADs and Parramatta Sand Body. A preliminary assessment of the potential impacts on the registered AHIMS sites is provided in Table 11.1. Detailed assessment results are provided in Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report).

Table 11.1 Summary of potential impacts on registered Aboriginal sites

AHIMS no.	Degree of impact	Type of impact	Consequence of impact
45-6-2977	Partial – as not all of the PAD is located in the project site	Direct – ground disturbance and excavation as a result of constructing the turnback facility	Partial or total loss of value
45-6-4015	Partial – as only a small part of the PAD overlaps the edge of the project site	Direct – ground disturbance and excavation as a result of constructing the turnback facility	Partial or total loss of value

11.3.2 Impacts on areas with Aboriginal archaeological potential

Construction would disturb the ground within the PADs described in section 11.2.3, with the exception of PAD2 (Melrose Park Public School Oval), which is outside the project site. Potential impacts on these sites/areas may be:

- direct, including:
 - surface impacts resulting from vehicle and plant movement, and/or compaction from site structures and vehicles
 - subsurface impacts resulting from ground disturbing works such as excavation
- indirect, such as impacts on Aboriginal cultural landscapes.

The above impacts could lead to a partial or total loss of value.

The results of the preliminary assessment of the potential impacts on the identified PADs are summarised in Table 11.2. The identified impacts and management responses would be refined (as required) following completion of the proposed additional field survey, test excavation program and consultation with registered Aboriginal parties (see section 11.6).

Table 11.2 Summary of potential impacts on Aboriginal sites and areas

PAD	Degree of impact	Type of impact	Consequence of impact
PAD1 Ermington Boat Ramp, Melrose Park	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
PAD3 Rydalmere Wharf	Partial – as not 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
PAD4 Haslams Creek, Sydney Olympic Park	Partial – as not all of the PAD is located in the project site	Direct – ground disturbance, excavation and vegetation clearing resulting from Holker Busway bridge strengthening works, and vehicle and plant movements	Partial or total loss of value

PAD	Degree of impact	Type of impact	Consequence of impact
PAD5 Broadoaks Park, Ermington	Total – as all of the PAD is located in the project site	Direct – ground disturbance and vehicle and plant movements at the proposed compound site	Partial or total loss of value
PAD6 Ken Newman Park, Ermington	Partial – as not all of the PAD is located in the project site	Direct – ground disturbance, excavation and vegetation clearing, and potential landscaping works, and from vehicle and plant movements	Partial or total loss of value
PAD7 Hill Road West, Sydney Olympic Park	Partial – as not all of the PAD is located in the project site	Direct – ground disturbance, excavation resulting and vegetation clearing from bridge works, installation of light rail, and from vehicle and plant movements	Partial or total loss of value
PAD8 Brickpit, Sydney Olympic Park	Partial – as not all of the PAD is located in the project site	Direct – ground disturbance and excavation resulting from vegetation clearing and installation of light rail, and from vehicle and plant movements	Partial or total loss of value

11.3.3 Impacts on cultural 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.

Consultation with Aboriginal knowledge holders is a key component of the assessment of Aboriginal cultural heritage values. The 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 by stakeholders during consultation undertaken to date with local Aboriginal land councils and registered Aboriginal parties include:

- all Aboriginal objects are important to Aboriginal people and have cultural value
- the project site has been identified as a significant location for gathering, hunting and travelling via the Parramatta River
- the project site is part of a broader cultural landscape
- all Aboriginal objects hold physical, social and cultural value to the past occupation of the area.

To further understand cultural values, and potential impacts to these values, Transport for NSW would undertake a cultural values assessment informed by detailed interviews as part of the updated Aboriginal Cultural Heritage Assessment Report with recommendations to inform design development (see section 11.6).

11.4 Assessment of operation impacts

Impacts on Aboriginal heritage would be limited to the construction stage. No additional impacts on the areas of archaeological potential or cultural values are predicted during operation.

11.5 Cumulative impacts

The main nearby projects with the potential to affect Aboriginal heritage are Sydney Metro West and Parramatta Light Rail Stage 1. The EIS for the Sydney Metro West – Concept and Stage 1 (major civil construction between Westmead and The Bays) assessed the archaeological potential for the Sydney Olympic Park metro station as low. Following test excavations for Parramatta Light Rail Stage 1, a total of five Aboriginal archaeological sites were identified, including two sites with moderate archaeological significance at Camellia/Rosehill.

Aboriginal archaeological remains are a rare and diminishing resource in urban areas. Impacts on any objects of Aboriginal heritage significance present within the PADs and areas of archaeological potential would have a cumulative impact on the regional archaeological landscape, although only confined parts of those areas would be impacted by the project. The Parramatta River is a regionally significant area with high archaeological potential, and impacts associated with bridge construction would have the potential for a cumulative impact on the regional archaeological landscape. The project site through Sydney Olympic Park is mostly limited to current road alignments, meaning a representative sample of this landscape (which includes creek banks that may contain intact soil landscapes) would not be impacted.

Further information about the potential for cumulative impacts is provided in section 9.3 of Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report).

11.6 Mitigation and management measures

11.6.1 Approach to mitigation and management

The desktop research and archaeological survey undertaken to date has identified that the project may impact on Aboriginal archaeological heritage and cultural values. To mitigate these potential impacts, Transport for NSW is committed to undertaking further investigations, commencing around late 2022, including:

- survey of previously inaccessible areas of archaeological sensitivity in Melrose Park
- test excavation program
- cultural values assessment informed by detailed cultural interviews.

The outcomes of these investigations would be incorporated in an updated Aboriginal Cultural Heritage Assessment Report, which would be available with the response to submissions report following completion of public exhibition of the EIS.

Test excavations

A key aim of the test excavations would be to determine the nature (disturbed or intact) and extent (how far a PAD may extend in the landscape) of archaeological deposits. Once property access is available, all investigations would be undertaken in consultation with the registered Aboriginal parties and in accordance with the project's archaeological survey and test excavation methodology. Any findings would undergo detailed analysis along with reporting of any cultural material collected.

Where archaeological testing confirms that a PAD contains Aboriginal objects, options to modify the design and areas of potential disturbance (where practicable) would be investigated during design development and construction planning. Unavoidable impacts would be managed in consultation with registered Aboriginal parties and in accordance with the mitigation measures provided in Table 11.3.

In instances where harm cannot be avoided or minimised through detailed design, salvage may be recommended following testing results. If salvage is recommended, it would be undertaken in accordance with a detailed salvage methodology, prepared by a suitably qualified archaeologist in consultation with registered Aboriginal parties. The salvage methodology would be included in the Aboriginal cultural heritage management plan (see Table 11.3) to ensure that any Aboriginal objects salvaged are managed in accordance with the requirements of the *National Parks and Wildlife Act 1974*.

Managing potential impacts during construction

The potential for impacts during construction would be managed in accordance with a project-specific Aboriginal cultural heritage management plan, prepared and implemented as part of the CEMP. The plan would:

- detail processes and responsibilities to minimise potential impacts on Aboriginal heritage during construction (such as the management of the associated collection of artefacts according to the requirements of the registered Aboriginal parties)
- be prepared in accordance with relevant guidelines, standards and Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report)
- include an unexpected finds procedure.

Further information on the CEMP, including requirements for the heritage management plan, is provided in Chapter 23 (Approach to environmental management and mitigation).

11.6.2 List of mitigation measures

Measures that will be implemented to address potential impacts on Aboriginal heritage are listed in Table 11.3.

Table 11.3 Aboriginal heritage mitigation measures

Impact/issue	Ref	Mitigation measure	Timing
Avoiding and minimising impacts on Aboriginal heritage	AH1	The design will continue to be refined to avoid direct impacts on identified places of Aboriginal heritage as far as reasonably practicable.	Design
Consultation	AH2	Aboriginal consultation will continue to be undertaken through the life of the project in accordance with the <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> (Roads and Maritime Services, 2012) and the <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW, 2010b). This includes managing potential impacts on objects/aspects of cultural significance in consultation with registered Aboriginal parties.	Design, pre- construction, construction
Interpretation	АН3	A heritage interpretation strategy will be developed to guide incorporation of appropriate interpretation and integration of Aboriginal and non-Aboriginal heritage in the design.	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.	
		The design will include appropriate interpretation of Aboriginal heritage in accordance with the heritage interpretation strategy.	

Impact/issue	Ref	Mitigation measure	Timing
Consultation during design	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, <i>Draft Connecting with Country</i> (Government Architect NSW, 2020c) and <i>Designing with Country</i> (Government Architect NSW, 2020d) and in consultation with the Design Review Panel.	Design
Cultural values	AH5	An offer to conduct detailed interviews with cultural knowledge holders will be made to confirm the cultural values associated with the project site and surrounds, and the potential impacts of the project on these values.	Design
		Interviews will be undertaken by a suitably qualified anthropologist. Targeted interview questions will be developed based on a review of ethnographic and archaeological literature. Where practicable, and in a culturally acceptable way:	
		 data collected during the literature review and interviews will be mapped and collated into a report 	
		 specific sites recorded as being significant to Aboriginal people (for spiritual, social, aesthetic or historical reasons) would be identified. 	
		Outcomes and recommendations of the cultural values assessment will be considered as part of the design (mitigation measures AH3 and AH4) and preparation of the Aboriginal cultural heritage management plan (AH8).	
Aboriginal archaeology	AH6	A survey will be undertaken of previously identified areas of Aboriginal archaeological sensitivity in the project site at Melrose Park (subject to arranging property access) in accordance with the requirements of the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010a).	Design
		Test excavations will be undertaken to confirm the nature and extent of any potential archaeological deposits in accordance with the excavation methodology prepared for the project (Appendix C of Technical Paper 4 (Preliminary Aboriginal Cultural Heritage Assessment Report).	
		Where testing confirms that Aboriginal objects are present, options to modify the project will be investigated in accordance with mitigation measure AH1.	
		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 AH7).	
Management of salvaged objects	AH7	A detailed salvage methodology will be prepared (if required) as part of the Final Aboriginal Cultural Heritage Assessment Report following test excavations. The methodology will be prepared by a suitably qualified archaeologist in consultation with registered Aboriginal parties. The salvage methodology will include:	Design
		 the process for consultation with Heritage NSW and registered Aboriginal parties in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010b), 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.	

Impact/issue	Ref	Mitigation measure	Timing
		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 NSW Aboriginal Heritage Information Management System (AHIMS) register and updating site records.	
Protecting Aboriginal heritage and minimising impacts during construction	AH8	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 and AH6)	Pre-construction, construction
		 salvage methodology (mitigation measure AH7) 	
		 requirements for an induction package and cultural awareness training for construction workers and supervisors (mitigation measure AH9) 	
		 unexpected finds procedure (mitigation measure AH10) 	
		 measures to protect sites from inadvertent impacts from vehicles and equipment. 	
Protecting Aboriginal heritage and minimising impacts during construction	АН9	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.	Pre-construction, construction
Unexpected finds	AH10	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 AH8), and recorded on the AHIMS register.	Construction