

1&2 Murray Rose Avenue, Sydney Olympic Park

Aboriginal Cultural Heritage
Assessment Report

Report to CSR

Auburn Local Government Area

October 2018



Artefact Heritage
ABN 73 144 973 526
Level 4, Building B
35 Saunders Street
Pyrmont NSW 2009
Australia

+61 2 9518 8411
office@artefact.net.au

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Project manager:	Ryan Taddeucci
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EXECUTIVE SUMMARY

Background

Austino Property Group are proposing a residential development at 1&2 Murray Rose Avenue, Sydney Olympic Park. The proposed development has been assessed as a State Significant Development, and Secretary's Environmental Assessment Requirements (SEARs) have been issued for the site (SSD_9403). The requirements for heritage are as follows:

- Prepare a Historical Archaeological Assessment (HAA) detailing the likely impacts and outline the proposed management and mitigation measures to protect and preserve the non-Aboriginal archaeology (Artefact Heritage 2018c)
- Prepare a Heritage Impact Statement (HIS) addressing impacts of the proposed development on any state or local heritage Items in the vicinity (Artefact Heritage 2018b)
- Prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) identifying any cultural heritage values, impacts and mitigation measures.

Artefact Heritage Services Pty Ltd (Artefact Heritage) have been engaged by Austino Property Group to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the proposed development at 1&2 Murray Rose Avenue, Sydney Olympic Park. Key issue 1 of SSD_9403 states that the assessment must be completed in compliance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (Code of Practice) (Department of Environment, Climate Change & Water [DECCW] 2010a) and the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (the Guide) (Office of Environment & Heritage 2011).

The HAA (Artefact Heritage 2018c) and HIS (Artefact Heritage 2018b) have been provided in separate reports to meet the remaining heritage requirements of SSD_9403.

Consultation

Aboriginal community consultation has been conducted in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Consultation Requirements) (DECCW 2010b). A consultation log has been maintained which details all correspondence with the registered Aboriginal parties for the project (Appendix 1). Full records of consultation have also been provided in Appendix 2.

Recommendations

- To keep consultation current, in the event of unexpected finds, the registered Aboriginal parties should be sent an update on the project everything six months until construction is complete
- A Heritage Interpretation Strategy should be prepared for the study area, in consultation with Aboriginal stakeholders. This plan would include methods of incorporating identified Aboriginal heritage values into the design process, such as use of native vegetation in replanting, use of local Aboriginal place names and interpretative signage providing information on Aboriginal land-use

within the study area and surrounding area. This recommendation is in line with the Ecologically Sustainable Development principles described in section 9.4.

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ABBREVIATIONS

ACHAR	Aboriginal Cultural Heritage Assessment Report
AHC	Australian Heritage Council
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System
ALR Act	<i>Aboriginal Land Rights Act 1983</i>
Artefact Heritage	Artefact Heritage Services Pty Ltd
ASR	Archaeological Survey Report
ATSIHP Act	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>
BP	Before Present (that is 1950)
CHL	Commonwealth Heritage List
Code of Practice	Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010
Commonwealth Act	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>
Consultation Requirements	Aboriginal cultural heritage consultation requirements for proponents 2010
DECCW	Department of Environment, Climate Change and Water (now OEH)
DNC	Didge Ngunawal Clan
DLO	Darug Land Observations
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Diversity Conservation Act 1999</i>
g	grams
GPS	Global Positioning System
Guide	Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW
ha	hectares
HAA	Historical Archaeological Assessment
HIS	Heritage Impact Statement
JMCHM	Jo McDonald Cultural Heritage Management
km	kilometres
LALC	Local Aboriginal Land Council

LEP	Local Environmental Plan
LGA	Local Government Area
m	metres
mm	millimetres
NHL	National Heritage List
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NTSCorp	Native Title Service Provider for Aboriginal Traditional Owners in New South Wales and the Australian Capital Territory
OEH	Office of Environment and Heritage
PAD	Potential Archaeological Deposit
RAP	Registered Aboriginal Party
RNE	Register of the National Estate
SEARs	Secretary's Environmental Assessment Requirements
SSD	State Significant Development
SU	Survey unit

1.0 INTRODUCTION

1.1 Project description

Austino Property Group are proposing a residential development at 1&2 Murray Rose Avenue, Sydney Olympic Park. The proposed development has been assessed as a State Significant Development, and Secretary's Environmental Assessment Requirements (SEARs) have been issued for the site (SSD_9403). The requirements for heritage are as follows:

- Prepare a Historical Archaeological Assessment (HAA) detailing the likely impacts and outline the proposed management and mitigation measures to protect and preserve the non-Aboriginal archaeology (Artefact Heritage 2018c)
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The HAA (Artefact Heritage 2018c) and HIS (Artefact Heritage 2018b) have been provided in separate reports to meet the remaining heritage requirements of SSD_9403.

1.2 Project approval framework

SSD_9403 was issued to Austino Property Group on 6 July 2018 for 1&2 Murray Rose Avenue, Sydney Olympic Park. The SEARs are for the preparation of an Environmental Impact Statement (EIS).

Sydney Olympic Park is a State Significant Precinct and is subject to a number of specialised pieces of legislation. This report has been produced in compliance with the following documents:

- Auburn City Council LEP 2010
- State Environmental Planning Policy (Major Development) [SEPP] 2005
- Sydney Olympic Park Authority Act 2001
- Sydney Olympic Park Master Plan 2030

Key issue 1 of SSD_9403 states that the ACHAR must be completed in compliance with the following documents:

- Code of Practice for Archaeological Investigation of Aboriginal objects in New South Wales (Code of Practice) (Department of Environment, Climate Change & Water [DECCW] 2010a)

- Aboriginal cultural heritage consultation requirements for proponents 2010 (Consultation Requirements) (Department of Environment, Climate Change & Water [DECCW] 2010b).
- The guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (the Guide) (Office of Environment & Heritage [OEH] 2011).

As this project is being assessed under 75W of the *Environment Planning & Assessment Act 1979* (EP&A Act), permits issued under the *National Parks & Wildlife Act 1974* (NPW Act), principally an Aboriginal Heritage Impact Permit (AHIP), under Section 90 of the NPW Act will not be not required.

1.3 Study area

The study area consists of 1 Murray Rose Avenue (Lot 1/DP1185060) and 2 Murray Rose Avenue (Lot 2/DP1185060), located in the suburb of Sydney Olympic Park (Figure 1.1). The study area is located in the Local Government Area (LGA) of Auburn and the Metropolitan Local Aboriginal Land Council (LALC). The study area is within the Parish of St John and County of Cumberland.

1.4 Background

Lot 1/ DP1185060 and Lot 2/ DP1185969 are on opposite sides of Murray Rose Avenue and were previously used as carparks. Geotechnical investigations at Lot 2/ DP1185969 have been previously conducted and found that there is no natural deposit as the site was altered by past cut and fill earthworks.

1.5 Study objectives

The objectives of this report are to:

- Assess the Aboriginal cultural heritage values of the study area, including archaeological and community cultural values, and the significance of identified values. This is also a requirement of the Secretary Environmental Assessment Requirements (SEARs).
- Identify Aboriginal cultural heritage values that may be impacted by the proposed works, including consideration of cumulative impacts, and measures to avoid significant impacts. This is also a requirement of the SEARs.
- Ensure appropriate Aboriginal community consultation in the assessment process, as required by the SEARs.
- Identify any recommended further investigations, mitigation and management measures required, in compliance the SEARs, should the project proceed.
- To detail the results of the physical test excavation which investigated the areas of archaeological sensitivity and archaeological content of the study area, as required by the SEARs.

1.6 Limitations

This ACHAR is based on the previous ASR (Artefact Heritage 2018a) and the Aboriginal consultation process undertaken by Artefact Heritage (Section 3.0, Appendix 1 and 2) for the proposed residential development.

1.7 Authors and contributors

This ACHAR was prepared by Ryan Taddeucci (Heritage Consultant, Artefact Heritage) with management input and review from Vanessa Edmonds (Principal, Artefact Heritage).

Ryan Taddeucci (Senior Heritage Consultant, Artefact Heritage) prepared this ACHAR. Ryan has a Bachelor of Arts with Honours in Archaeology and a Masters of Museum Studies. Ryan has over five years' experience in Aboriginal cultural heritage management in NSW, WA and QLD.

Vanessa Edmonds (Principal, Artefact Heritage) directed the project, reviewed this report and provided management input and advice. Vanessa has a Bachelor of Arts in Australian Prehistory and a Master of Letters in Archaeology and Palaeoanthropology. Vanessa has over 30 years of experience Aboriginal cultural heritage management nationally.

1.8 Report structure

The purpose of this report is to document the results of an investigation of Aboriginal heritage at the study area. As such, the structure of this report includes:

- Section 1 – Introduction
- Section 2 – Legislative context: outlines relevant legislation for this assessment
- Section 3 – Consultation: provides information on the Aboriginal consultation process and results
- Section 4 – Environmental context: provides an overview of the environmental conditions to provide context for the predictive model
- Section 5 – Aboriginal context: presents the results of the background ethnohistoric and literature research and database searches. This section also presents a predictive model as background to the survey sampling strategy
- Section 6 – Archaeological survey: presents the methodology and results of the Aboriginal archaeological survey
- Section 7 – Aboriginal cultural heritage assessment: outlines the methodology for conducting an Aboriginal cultural heritage assessment and the identified heritage values, based on stakeholder consultation.
- Section 8 – Significance assessment: full assessment of significance based on consultation with stakeholders following the review of this ACHAR and the ATER.
- Section 9 – Impact assessment: discussion of how the proposed works will impact the identified Aboriginal site and how to mitigate against the loss of heritage value.
- Section 10 – Management and mitigation measures: Outlines the proposed method of mitigating against loss of cultural value.
- Section 11 – Recommendations: summary of recommendations for further investigations and mitigation against loss of heritage values.
- Section 12 – References

Figure 1.1: Location of study area



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2.0 LEGISLATIVE CONTEXT

2.1 State legislation

2.1.1 *National Parks and Wildlife Act 1974*

The NPW Act, administered by the OEH provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW) under Section 90 of the NPW Act, and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community) under Section 84.

The protection provided to Aboriginal objects applies irrespective of the level of their significance or issues of land tenure. However, areas are only gazetted as Aboriginal Places if the Minister is satisfied that sufficient evidence exists to demonstrate that the location was and/or is, of special significance to Aboriginal culture.

The NPW Act was amended in 2010 and as a result the legislative structure for seeking permission to impact on heritage items has changed. A Section 90 permit is now the only Aboriginal Heritage Impact Permit (AHIP) available and is granted by the OEH. Various factors are considered by OEH in the AHIP application process, such as site significance, Aboriginal consultation requirements, Ecologically Sustainable Development principles, project justification and consideration of alternatives. The penalties and fines for damaging or defacing an Aboriginal object have also increased.

As this project is being assessed under Part 4 Division 4.1 of the EP&A Act 1979 permits issued under the NPW Act are not required.

2.1.2 *Native Title Act 1994*

The *Native Title Act 1994* was introduced to work in conjunction with the Commonwealth *Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act. There are no Native Title claims currently registered in the study area.

2.1.3 *Aboriginal Lands Right Act 1983*

The *Aboriginal Land Rights Act 1983* (ALR Act) established Aboriginal Land Councils (at State and Local levels). These bodies have a statutory obligation under the ALR Act to:

- (a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and
- (b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

There are no Registered Aboriginal Owners pursuant to Division 3 of the ALR Act for the project study area. The study area is within the boundary of the Metropolitan Local Aboriginal Land Council (LALC).

2.1.4 *Environmental Planning & Assessment Act 1979*

The proposal will be assessed under Part 4, Division 4.1 of the EP&A Act, which establishes an assessment and approval regime for State Significant Development (SSD). Part 4, Division 4.1 applies to development that is declared to be SSD by a State Environmental Planning Policy (SEPP).

Section 4.41 (previously section 89J(c)) of the EP&A Act specifies that approvals or permits under section 90 of the NPW Act 1974 are not required for approved SSD.

2.2 Commonwealth legislation

2.2.1 *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment and Heritage Legislation Amendment Act (No.1) 2003* amends the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to include 'national heritage' as a matter of National Environmental Significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL).

The *Australian Heritage Council Act 2003* (AHC Act) establishes a heritage advisory body - the Australian Heritage Council (AHC), to the Minister for the Environment and Heritage and retains the Register of the National Estate (RNE).

The *Australian Heritage Council (Consequential and Transitional Provisions) Act 2003* repeals the *Australian Heritage Commission Act 1975*, amends various Acts as a consequence of this repeal and allows the transition to the current heritage system.

Together, the above three Acts provide protection for Australia's natural, Indigenous and non-Indigenous heritage. The features include:

- A new NHL of places of national heritage significance
- A new CHL of heritage places owned or managed by the Commonwealth
- The creation of the AHC, an independent expert body to advise the Minister on the listing and protection of heritage places
- Continued management of the Register of the National Estate (RNE).

National Heritage List

The NHL is a list of places with outstanding heritage value to the nation, including places which have Indigenous heritage values. The heritage values of these places are so important that they are protected under the EPBC Act. This means that a person cannot take an action that has, will have, or is likely to have, a significant impact on the national heritage values of a national heritage place without the approval of the Australian Government Minister for the Environment and Energy. It is a criminal offence not to comply with this law and there are significant penalties. There are no places listed on the NHL within the study area.

Commonwealth Heritage List

The CHL is a list of places managed or owned by the Australian Government. There are no places listed on the CHL within the study area.

Register of the National Estate

The Register of the National Estate (RNE) is an evolving record of Australia's natural, cultural and Aboriginal heritage places that are worth keeping for the future. The AHC compiles and maintains the RNE under the *Australian Heritage Council Act 2003*. Places on the RNE that are in Commonwealth areas, or subject to actions by the Australian Government, are protected under the EPBC Act by the same provisions that protect Commonwealth heritage places (see above).

Following amendments to the *Australian Heritage Council Act 2003*, the RNE was frozen on 19 February 2007, meaning no new places can be added, or removed. From 2012 all references to the RNE were removed from the EPBC Act and the AHC Act. The RNE is now maintained on a non-statutory basis as a publicly available archive. No Aboriginal sites were listed for Olympic Park on the RNE.

2.2.2 *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*

The Commonwealth *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (ATSIHP Act), deals with Aboriginal cultural property (intangible heritage) in a wider sense. Such intangible heritage includes any places, objects and folklore that 'are of particular significance to Aboriginals in accordance with Aboriginal tradition'. These values are not currently protected under the NPW Act.

There is no cut-off date and the ATSIHP Act may apply to contemporary Aboriginal cultural property as well as ancient sites. The ATSIHP Act takes precedence over state cultural heritage legislation where there is conflict. The Commonwealth Minister who is responsible for administering the ATSIHP Act can make declarations to protect these areas and objects from specific threats of injury or desecration. The responsible Minister may make a declaration under Section 10 of the Commonwealth Act in situations where state or territory laws do not provide adequate protection of intangible heritage.

Where an Aboriginal individual or organisation is concerned that intangible values within the proposal are not being adequately protected they can apply to the Minister for a declaration over a place. No intangible places were identified during any stage of the heritage investigations undertaken by Artefact Heritage.

3.0 CONSULTATION

Aboriginal community consultation has been conducted in accordance with the Consultation Requirements. A consultation log has been maintained which details all correspondence with the registered Aboriginal parties for the project (Appendix 1). Full records of consultation have also been provided in Appendix 2.

3.1 Registration of Aboriginal parties

In accordance with step 4.1.2 of the Consultation Requirements, Artefact Heritage corresponded with the following organisations by letter and email on the 14 September 2018 requesting the details of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the local area:

- Greater Sydney Local Land Services
- Parramatta City Council
- Native Title Service Corporation
- Metropolitan LALC
- Office of Environment and Heritage – Greater Sydney Office
- National Native Title Tribunal
- Office of the Registrar, *Aboriginal Land Rights Act 1983*

In addition to this, and in accordance with Step 4.1.3 of the Consultation Requirements, an advertisement was placed in the Parramatta Advertiser on the 14 September 2018, inviting the participation of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the local area.

In accordance with Step 4.1.3 of the Consultation Requirements, on 18 September 2018, emails or letters were sent to all Aboriginal persons or organisations identified through advertisement or through responses from agencies contacted as part of Step 4.1.2. In accordance with Step 4.2 the letters provided details about the location and nature of the proposal, as well as an invitation to register as an Aboriginal stakeholder.

As a result of that process 17 groups and individuals registered their interest (Table 3.1). A copy of the proposed assessment methodology was sent to registered Aboriginal parties (RAPs) by email and post on 2 October 2018, requesting comments by 30 October 2018. At the end of this period, 11 RAPs had responded, supporting the methodology. Jamie Workman (Darug Land Observations) commented that any artefacts retrieved during the project should be reburied on country (the study area).

Table 3.1: Registered Aboriginal parties for the study area

Contact	Organisation
Lilly Carroll	Didge Ngunawal Clan
Amanda Dezwart	Amanda Hickey Cultural Services

Contact	Organisation
Marilyn Carroll-Johnson	Corroboree Aboriginal Corporation
Gordon Workman	Darug Boorooberongal Elders Aboriginal Corporation
Jesse Johnson	Muragadi Heritage Indigenous Corporation
Scott Franks	Tocomwall
Andrew Williams	Aboriginal Archaeology Service Incorporated
Justine Coplin	Darug Custodian Aboriginal Corporation
Lee Field	Barraby Cultural Services
Arika Jalomaki	Yulay Cultural Services
Bo Field	Yurrandaali Cultural Services
Carolyn Hickey	A1 Indigenous Services
Anna Workman	Darug Land Observations
Steven Hickey	Widescope Indigenous Group
Desmond Dyer	Darug Aboriginal Landcare Inc
Jody Kulakowski	Barking Owl Aboriginal Corporation
Philip Boney	Wailwan Aboriginal Digging Group

3.2 Participation in survey

Metropolitan LALC was engaged to participate in the archaeological survey. Kevin Telford (Aboriginal Site Officer, Metropolitan LALC) participated in the survey on 24 September 2018. Kevin noted that the study area had been significantly modified and that the natural undulation of the land was still visible east of the study area in the Badu Mangroves. Kevin mentioned that due to the high levels of disturbance the study area was unlikely to retain Aboriginal objects.

3.3 Review of reports

On 30 October 2018 a copy of the ASR (Artefact Heritage 2018a) and this report was forwarded to the RAPs for a 28-day review. By the end of the review period four groups had provided comment, see Table 3.2 for a summary of the RAP comments.

Table 3.2: Summary of RAP comments

Organisation	Comments
Justine Coplin (Darug Custodian Aboriginal Corporation)	The study area is significant to the Darug people due to the evidence of continued occupation, within close proximity to this project site there is a complex of significant sites. Darug sites are all connected and are part of a complex that hold heritage and history. Due to the rapid development of Sydney many sites have been destroyed. These sites are thousands of years old and within the short period of time that Australia has been developed pre-contact sites have disappeared.
Desmond Dyer (Darug Aboriginal Landcare Inc)	Any artefacts recovered should be reburied on site out of harm's way or in the local museum or displayed in the foyer of new building with signage on where they came from.
Amanda Dezwart (Amanda Hickey Cultural Services)	Agrees with the findings of the report
Marilyn Carroll-Johnson (Corroboree Aboriginal Corporation)	Update contact details

4.0 ENVIRONMENTAL CONTEXT

The following information is primarily derived from Artefact Heritage (2018a).

4.1 Geotechnical investigations

1 Murray Rose Avenue

Geotechnical investigations were conducted on 1 and 5 September 2017 and was comprised of the auger drilling of four boreholes (BH1 to BH4) to depths between 5.64 metres (m) and 7.94 m below existing surface levels using a Tungsten Carbide ('TC') bit (JK Geotechnics 2017). The investigation found that the subsurface profile was generally comprised of a sandy and clayey fill over residual silty clay and shale bedrock. The depth of fill ranged from 0.9 m (BH4) to 3.3 m (BH1 and BH3). Natural residual clays were encountered below the fill extending to the underlying bedrock. The natural silty clays were generally of medium to high plasticity and were assessed as very stiff to hard strength. The clays contained varying amounts of fine to medium grained ironstone gravel.

2 Murray Rose Avenue

Geotechnical investigations were conducted on 9 and 10 September 2017 and was comprised of the auger drilling of four boreholes (BH1 to BH4) to depths between 5.68 m and 6.77 m below existing surface levels using a Tungsten Carbide ('TC') bit (JK Geotechnics 2017). The investigation found that the subsurface profile was generally comprised of a sandy and clayey fill over residual silty clay and shale bedrock. Fill was encountered at the surface in all boreholes and extended to depths ranging from 1.2 m (BH2 and BH3) to 1.4 m (BH1). Natural residual clays were encountered below the fill and extended to the underlying shale bedrock. The natural silty clays were generally of medium to high plasticity and were assessed to be of very stiff to hard strength. The clays contained varying amounts of fine to medium grained ironstone and shale gravel.

4.2 Landscape, geology and soils

The study area is located on a mild southward sloping hill located near to Homebush Bay. The local area has low relief with slopes usually less than <5 per cent. The underlying geology of the study area consists of middle Triassic epoch black to dark-grey shale and laminate deposits belonging to the Wianamatta Group.

The study area was originally located on Blacktown soils. The Blacktown soils are shallow (<1000 mm) hard setting mottled red and brown podzolic soils on crests and yellow podzolic soils on lower slopes and along drainage lines. The Blacktown soil landscape is generally associated with gently undulating rises. The soils are primarily poorly drained with very little erosional activity with minor sheet and gully erosion in zones stripped of vegetation.

The study area today has had extensive modern ground disturbance however, and the natural Blacktown soil profile is almost entirely absent from the area. The soils in the study area, from geotechnical studies, are predominantly degrading organic landfill deposits. Areas of Blacktown soil profiles may still exist in isolated areas of the study area, but these would be at considerable depth.

4.3 Hydrology

The study area is located less than 50 m west from the Bennelong Pond, which is serviced by Powell's Creek and 755 m south of Haslam's Creek.

Prior to the use of the Homebush Bay area as a landfill in the late twentieth century, A tributary of Powells Boundary Creek, Boundary Creek, was present to the south of the study area. The study area is located approximately 887 m north of the present course of Boundary Creek. The present course of Boundary Creek is located between landfill mounds and is not an intact natural creek bank (Figure 4.1, Figure 4.2).

Figure 4.1: View of modified creek banks of Boundary Creek, west aspect



Figure 4.2: Boundary Creek with artificial retaining embankment, northeast aspect



4.4 Vegetation

All of the vegetation zones which are likely to have characterised the pre - European environmental context of the region have been reduced during the post-contact period, much of this impact having occurred during comparatively recent periods (Steele and Carney 1997: 13). The original landscape included eucalyptus forest on Wianamatta shale soils and wetlands in the lower reaches of Haslams Creek and Powells Creek and on the shores of Homebush Bay and the Parramatta River. Remnants of the Ironbark and scribbly gum eucalyptus forest and Aboriginal archaeological sites are preserved in the Newington Armoury (Dictionary of Sydney – Homebush 2015). The first European observations of the land recorded trees far apart and noted there was long grass and no underwood.

The vegetation fringing the mangrove and saltmarsh wetlands included Casurina (Swamp oak), Maleluca (paper bark) and leptospermum (tea tree) species. In the late 19th century extensive salt marsh and mud flats dominated the estuary and mangrove was widespread. The silt and alluvial deposits from Powells and Haslams Creek and the original shoreline of the bay and river are now completely overlain by reclamation fill (Fox and Assoc 1986: 5).

During the site visit the subject site's vegetation was observed to have a majority native tree canopy, with a native shrub midstorey and a native groundcover layer. Plantings within the car park consist of native grasses and shrubs and semi-mature Ficus, Sheoak, Spotted Gum and Ironbark trees. The majority of plantings on the site are the result of landscaping during the 1980s and 90s.

Arboreport Vegetation Management Consultants (2015) identified three significant trees on the site which include a mature Morton Bay Fig on the western boundary and a mature Morton Bay Fig and Port Jackson Fig on the northeast corner (Fig and Australia Streets). These trees could be around 100 years old as they are present in 1943 aerial images of the site and appear to be mature specimens at that time.

4.5 Natural resources

Aboriginal people were highly mobile hunter-gatherers utilising different landscapes and resource strategies across the Sydney basin. Different resources may have been available seasonally,

necessitating movement or trade across the landscape (Attenbrow 2010: 78). Aboriginal people hunted kangaroo and wallaby and snared possums and other small animals and birds for food and skins. Plants were likewise an important source of nutrition for past Aboriginal peoples with numerous plant species utilised for food, manufacture and medicinal purposes (Attenbrow 2010: 41).

Given the location of the study area within close proximity to fresh water sources as well as the shore of Homebush Bay it is likely that Aboriginal people would have employed a range of subsistence activities to take advantage of their local environment. Coastal resources such as saltwater fish and shellfish would have been available to groups as well as small animals, plants, freshwater fish and eels (Tench 1793:230; Kohen 1986:77). Banksia flowers, wild honey, varieties of wild yam and Burrawong nut were recorded as important food sources, particularly for inland groups. Small animals such as bandicoots and wallabies were hunted with traps and snares (Collins 1798, Kohen 1985:9).

4.6 Land use

4.6.1 Overview

A full overview of the history of the study area has been provided in the HAA (Artefact Heritage 2018c). The HAA identified four major phases of land use associated with the study area:

- Phase 1: Vegetation clearance for European farming, including the construction of a farmhouse and horse racing track, and later subdivision.
- Phase 2: The area was part of the State Abattoir and continued to be used as a cleared farming area up until the mid- twentieth century.
- Phase 3: Used for waste disposal in the late twentieth century.
- Phase 4: Remediation of contaminated landfill involved extensive earthworks in the study area. Subsequently redeveloped into a carpark prior to the 2000 Olympic Games, with excavation for services and surface landscaping.

The most pertinent land-use activities to the Aboriginal archaeological are the phases of waste disposal and the remediation works.

4.6.2 Twentieth century industries 1907-1988

An area of Homebush was resumed for the State Abattoir in 1907 and was built on the site in 1910 after the Glebe Island Abattoir was deemed as publicly unsafe following the plague. This saw development of servicing roads for the abattoir and associated buildings. A branch railway line through the abattoir site was constructed by 1908, which included the levelling of the site (GML 1990: 5). This railway line was further developed in 1910, with site levelling, excavating, and roadways and platforms being constructed. After poor management practices the abattoir ran into a deficit and closed in 1988.

Figure 4.3: 1916 St John Parish map of area with approximate study area shown in red. State Abattoir located to the southwest, and the brick works to the north (Source: LPI)



A State Brick Works was located at the northern side of Homebush from 1911. Access roads were constructed, and a railway line was developed to provide access to the Brick Works. The Brick Works was used until its closure in 1940, when it was taken over by the Naval Armament Depot as a munitions store. It was later reopened following the end of World War Two until it ceased trading in 1988. The area has been rehabilitated as a wetland area with a raised walkway for visitors.

The Newington Armament Depot, which lay to the north of Homebush, was expanded after World War One, and took over some of the facilities in Homebush such as the Brick Works pit and some land that was part of the State Abattoir for storage of munitions.

As industrial development in Sydney expanded in the mid-twentieth century, locations to discard industrial waste were required. Homebush, at that time relatively undeveloped, was chosen as a dumping location for toxic waste, including waste from factories such as Timbrol and Union Carbide that were located nearby in Rhodes. Wentworth Bay was filled in with industrial waste and the natural ecology of the area was severely damaged. The area nearest Homebush Bay became a shipbreaking yard in 1966, with many of the wrecks still visible today. By 1988, there was an estimated 9 million cubic metres of waste and contaminated soils spread over 400-hectares (ha) within the 760 ha site (Figure 4.4).

Figure 4.4: View of the waste deposited in Homebush Bay taken in 1972 (Source: State Library of NSW)



Figure 4.5: View of the study area in 1943 (Source: Six Maps)



4.6.3 Sydney Olympic Park Redevelopment 1990s

The southern portion of Homebush was developed as Sydney Olympic Park following the 1993 successful bid for Sydney to host the 2000 Olympic and Paralympic Games. Part of this development was the construction of sports facilities, competitor housing, roads, and rejuvenation of parklands and

streetscapes. Rehabilitation and stabilisation of the area was conducted due to the contamination from prior industrial use.

In July 2001, the Sydney Olympic Park Authority was established, a statutory body of the NSW Government under the *Sydney Olympic Park Authority Act 2001*. The Authority's charter is to manage and promote the 640-hectare Sydney Olympic Park site, including protection of the 425-hectare Millennium Parklands, which included the Newington Armament Depot and Nature Reserve.

From at least 2002 up until 2014, the study area was used as a car park when Murray Rose Avenue was constructed.

Figure 4.6: View of the study area in 2005 (Source: Google Earth)



Figure 4.7: View of the study area in 2014 (Source: Google Earth)



5.0 ARCHAEOLOGICAL CONTEXT

Assumptions about Aboriginal land use patterns are made on the basis of archaeological information gained from the local area, from observations made by colonists and settlers after settlement of the area, and from information known about available natural resources. The following information is primarily derived from Artefact Heritage (2018a).

5.1 Aboriginal ethnohistorical context

Prior to the appropriation of their land by Europeans, Aboriginal people lived in small family or clan groups that were associated with particular territories or places. It seems that territorial boundaries were fairly fluid, although details are not known. The language group spoken across Sydney was known as Darug (Dharruk – alternate spelling). The first written use of this term was in 1900, as before the late 1800s language groups or dialects were not discussed in the literature (Mathews and Everitt 1900). The Darug language group is thought to have extended from Appin in the south to the Hawkesbury River, west of the Georges River, Parramatta, the Lane Cove River and to Berowra Creek (Attenbrow 2010: 34). This area was home to a number of different clan groups throughout the Cumberland Plain.

Early historical accounts of Aboriginal people are inevitably subject to the writer's bias, however, they do provide valuable observations of Aboriginal customs and life during the early period of European occupation. Language dialects varied across the Cumberland Plain, although early Europeans recorded observations of interaction and mutual intelligibility between Darug speakers from different regions. Captain Watkin Tench detailed an interaction between two Aboriginal men, one from the coast and one from inland, and noted the range of variability between dialects. Tench observed that though the men conversed on par and understood each other perfectly, many words for common things bore no similarities, yet other words were only slightly different (Tench 1793:122).

There are two possible groups or clans associated with the local area. Bediagal or Bidjigal were observed in association with Arrowanelly 'Island at the Flats' an island originally on the western side of Botany Bay near the mouth of the Bay (Attenbrow 2010: 24). Alternatively, Wangal, Wann-gal or Won-gal were observed from the southern shore of the Parramatta River from near Darling Harbour to Rose Hill (Attenbrow 2010: 26). Woollarawarre Bennelong (c. 1764 – 3 January 1813), the first Aboriginal man to visit Europe and return, was a member of the Wangal. He was captured in November 1789 and brought to the settlement at Sydney Cove by order of Governor Arthur Phillip, who hoped to learn more about Aboriginal customs and language (Australian Dictionary of Biography).

The existing archaeological record is limited to certain materials and objects that were able to withstand degradation and decay. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts, followed by bone and shell. The locality of the study area along an undulating landscape within close proximity to fresh water sources indicates that the predominant site type would be stone artefact sites and open camp sites.

5.2 Regional archaeological context

The archaeological understanding of the early Aboriginal settlement of the Sydney Basin and surrounds is constantly expanding and developing. The oldest evidence of human occupation in the vicinity of the study area comes from RTA-G1 (AHIMS ID 45-6-2673), Parramatta, located 4.9 km north west of the study area (Attenbrow 2010: 18-20). RTA-G1 (AHIMS ID 45-6-2673), Parramatta has been dated to 30,735 years Before Present (BP) (WK-17435).

The existing archaeological record is limited to certain materials and objects that were able to withstand degradation and decay. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts. Archaeological analyses of these artefacts in their contexts have provided the basis for the interpretation of change in material culture over time. Technologies used for making tools changed, along with preference of raw material. Different types of tools appeared at certain times, for example ground stone hatchets are first observed in the archaeological record around 4,000 years BP in the Sydney region (Attenbrow 2010: 102). It is argued that these changes in material culture were an indication of changes in social organisation and behaviour.

The Eastern Regional Sequence was first developed by McCarthy in 1948, to explain the typological differences he was seeing in stone tool technology in different stratigraphic levels during excavations such as Lapstone Creek near the foot of the Blue Mountains (McCarthy 1948). The sequence had three phases that corresponded to different technologies and tool types (the Capertian, Bondaian and Eloueran). The categories have been refined through the interpretation of further excavation data and radiocarbon dates (Hiscock and Attenbrow 2005; JMCHM 2005). It is now thought that prior to 8,500 years BP tool technology remained fairly static with a preference for silicified tuff, quartz and some unheated silcrete. Bipolar flaking was rare with unifacial flaking predominant. No backed artefacts have been found of this antiquity.

After 8,500 years BP silcrete was more dominant as a raw material, and bifacial flaking became the most common technique for tool manufacture. From about 4,000 years BP to 1,000 years BP backed artefacts appear more frequently. Tool manufacture techniques become more complex and bipolar flaking increases (JMCHM 2006). It has been argued that from 1,400 to 1,000 years before contact there is evidence of a decline in tool manufacture. This reduction may be the result of decreased tool making, an increase in the use of organic materials, changes in the way tools were made, or changes in what types of tools were preferred (Attenbrow 2010:102). The reduction in evidence coincides with the reduction in frequency of backed blades as a percentage of the assemblage.

After European colonisation Aboriginal people of the Cumberland Plain often continued to manufacture tools, sometimes with new materials such as bottle glass or ceramics. There are a number of sites in Western Sydney where flaked glass has been recorded, for example at Prospect (Ngara Consulting 2003) and Oran Park (JMCHM 2007).

5.3 Registered Aboriginal sites

The location of Aboriginal sites is considered culturally sensitive information. It is advised that this information, including the Aboriginal Heritage Information Management System (AHIMS) data appearing on the heritage map for the proposal be removed from this report if it is to enter the public domain.

An extensive search of the AHIMS database was undertaken on the 14 September 2018 (AHIMS search ID 370866).

An area of approximately 4 km surrounding the study area was included in the search. The AHIMS search provides archaeological context for the area and identifies whether any previously recorded Aboriginal sites are located within or near the study area. The parameters of the search were as follows:

GDA 1994 MGA 56	E 319938 - 323938 N 6251485 - 6255485
Buffer	0 m
Number of sites	7
AHIMS Search ID	370866

A total of seven sites are listed on the AHIMS database within the search area. The distribution of recorded sites within the AHIMS search area is shown in Figure 5.1. OEH lists 20 standard site features that can be used to describe a site registered with AHIMS, and more than one feature can be used for each site. The frequency of recorded site types is summarised in Table 5.1 below. For the seven sites within the search area, three site features were recorded. The majority of site features recorded were PAD (n=5, 71.4 per cent), with lesser numbers of art sites (n=1, 14.3 per cent) and modified trees (n=1, 14.3 per cent).

The nature and location of the registered sites is a reflection of the past Aboriginal occupation from which they derive, but is also influenced by historical land-use, and the nature and extent of previous archaeological investigations. Although Aboriginal occupation covered the whole of the landscape, the availability of fresh water, and associated resources, was a significant factor in repeated and long-term occupation of specific areas within the landscape. Certain site types, such as culturally modified trees, are particularly vulnerable to destruction through historical occupation, while others, such as stone artefacts, are more resilient. Previous archaeological investigation has consisted of broad-scale survey. This type of survey is likely to target areas of high potential, such as land near water, and areas of high visibility, and to result in the identification of surface sites.

Table 5.1: Frequency of site features within the AHIMS extensive search results

Site Feature	Frequency	Per cent
Art (Pigment or Engraved)	1	14.3
Modified Tree (Carved or Scarred)	1	14.3
PAD	5	71.4
Total	7	100

The data available indicates that past Aboriginal occupation of the immediate region was focussed on the natural resources of Haslams Creek and Brays Bay. This is reflected in the predominance of PADs located in the vicinity of these watercourses. However, these watercourses have not been subject to significant modification. While the watercourses within the immediate vicinity of the study area have been heavily altered.

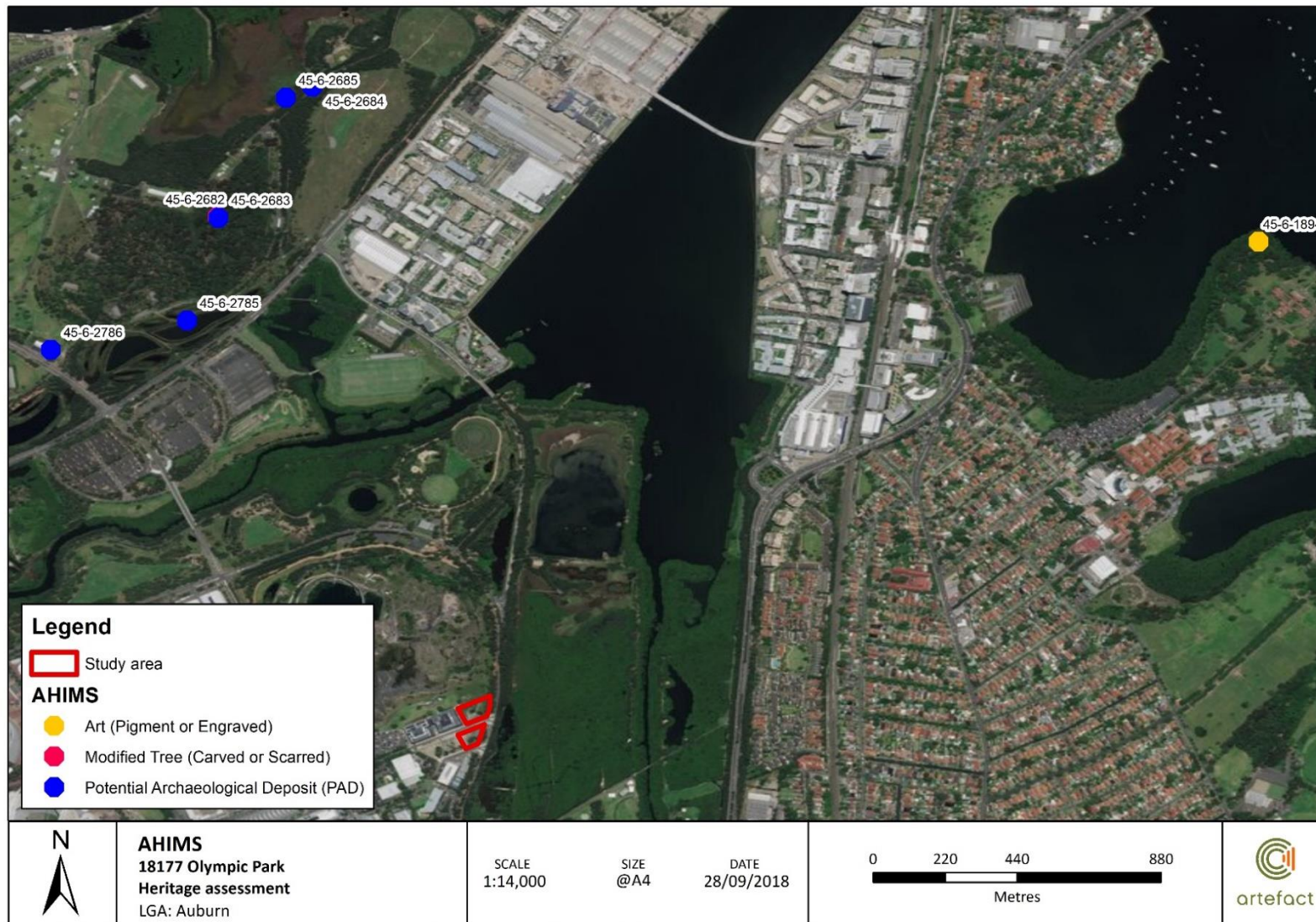
Irish 2004 recorded all of six of the identified AHIMS sites within Newington area. The 2004 report and the names of the sites demonstrates that the site details have been incorrectly entered into the AHIMS database (Table 5.2). There are only two PADs identified within the Newington area, and the remaining three sites are isolated artefacts. Irish (2004) identified the PADs within an environmental conservation area, and due to the low level of disturbance, concluded that the area held potential to retain intact deposits of Aboriginal artefacts.

Table 5.2: Newington sites

Site ID	Site name
45-6-2682	Wanngal Woodland Axe-Marked Tree
45-6-2683	Wanngal Woodland IF1
45-6-2684	Wanngal Woodland IF2

45-6-2685	Wanngal Woodland IF3
45-6-2785	Wanngal Woodland PAD2
45-6-2786	Wanngal Woodland PAD1

Figure 5.1: Distribution of AHIMS sites within extensive search area



5.4 Local archaeological context

A full description of previous studies was provided in the ASR (Artefact Heritage 2018a). Table 5.3 provides a summary of previous studies within close proximity of the study area. Overall, the results of the previous Aboriginal archaeological investigations within the wider area have identified that there is low potential for intact Aboriginal archaeological deposits to be identified due to high levels of past disturbance.

Table 5.3: Summary of key studies

Author and date	Title
Urbis 2015	2 Figtree Drive, Sydney Olympic Park, Historic and Aboriginal Archaeological Assessment, prepared for Mirvac.
AMBS 2012	Newington Armament Depot & Nature Reserve, Sydney Olympic Park, Aboriginal Heritage Assessment. Prepared for Tanner Architects Pty Ltd.
Paul Irish 2004	Aboriginal Archaeological Assessment Report Newington Armory Adaptive Re-Use and Rail Extension Project, Sydney Olympic Park, NSW. Report to the Sydney Olympic Park Authority.
Helen Brayshaw 1997	Olympic Village Site, Newington, Homebush Bay, Aboriginal Archaeology, Report to MIRVAC Village Consortium
Dominic Steele & Martin Carney Archaeological Management & Consulting Group Pty 1997	Aboriginal Heritage, Australia Avenue, Fig Tree Circuit, 2000 Olympic Site, Homebush, N.S.W. For The Olympic Co-Ordination Authority.

5.5 Predictive model

Urbis (2015) produced the following predictive model which is applicable for the study area:

Resource distribution and availability such as the presence of drinking water, plant and animal foods, raw materials of stone, wood and vegetable fibre used for tool production and maintenance is strongly influenced by the nature of soils, the composition of vegetation cover and the climactic characteristics of a given region. The location of site-types such as open camp-sites and middens are strongly influenced by these factors, which are specific to different land systems and bedrock geologies. Understanding the environmental context of any given region is therefore an integral component necessary to modelling past Aboriginal land-use practices and/or predicting site distribution patterns within any given landscape (Carney and Steele 1997:12).

Current land use practices have the potential to affect the visibility of archaeological material; they may obscure or expose archaeological sites. In addition, previous disturbances may have also exposed archaeological material, such as excavation for dams or other ground disturbance. It is important that such factors are also considered in making assessments of archaeological resources in an area and understanding the distribution of observed sites. The majority of registered AHIMS sites in the region of the study area are stone artefact sites and middens, which occur along Sydney Harbour (AMBS 2001:16).

Aboriginal occupation was often focussed on prominent landforms such as ridges, which were favourable locations for camping and travelling, and from which surrounding plant and animal resources could be viewed. However, they also camped on lower, elevated areas adjacent to reliable water sources, such as the Parramatta River. The subject site is located on high ground approximately 600 m to the west of Powells Creek and the same distance to the mangroves of Homebush Bay.

The land was extensively cleared before the 1840s resulting in the loss of the original topsoil. In addition, given the extensive disturbance to the original land surface within the current study area, it is considered that the site does not have any archaeological potential for Aboriginal heritage deposits. The site is not expected to contain Aboriginal cultural objects as the excavation and development of the site would have removed such items.

6.0 ARCHAEOLOGICAL SURVEY

6.1 Aims

The aims of the archaeological survey were to:

- cover a representative sample of the study area and to include all landforms that will potentially be impacted by the proposed works
- record the landform, general soil information, surface conditions and vegetation conditions encountered during the survey and how these impact on the visibility of objects
- record any Aboriginal objects/sites observed during the survey
- to identify areas of potential archaeological deposit (PAD) that may be present in areas that have had no or minimal disturbance
- to collect information to ascertain whether further archaeological investigations are required.

6.2 Timing and personnel

The archaeological survey was undertaken over one day on the 24 September 2018. The survey was undertaken by Ryan Taddeucci (Senior Heritage Consultant, Artefact Heritage), Jennifer Norfolk (Heritage consultant, Artefact Heritage), and Kevin Telford (Aboriginal Site Officer, Metropolitan LALC).

6.3 Survey strategy and methodology

The study area comprised of two Survey Units (SUs), defined by property boundary and landform (Figure 6.1).

The survey units were traversed on foot. A handheld Global Positioning System (GPS) was used to track the path of the survey team and record the coordinates of survey transects. The coordinate system projection used for all site recording was GDA94 MGA 56.

All ground exposures were examined for Aboriginal objects (stone artefacts, imported shell, or other traces of Aboriginal occupation). Old growth trees were examined for signs of cultural scarring and marking.

A photographic record was kept during the survey. Photographs were taken to record aspects of survey units including stone outcrops, stone platforms, vegetation, disturbance and recorded Aboriginal sites. Scales were used for photographs where appropriate.

Figure 6.1: Location of survey units.



7.0 ABORIGINAL CULTURAL HERITAGE ASSESSMENT

7.1 Methodology

The cultural assessment in this report includes information collected through desktop assessment, consultation during the survey and through the consultation period for the RAP review of the ASR (Artefact Heritage 2018a). This information was collected by Ryan Taddeucci (Heritage Consultant, Artefact Heritage).

7.2 Cultural landscape

The World Heritage Convention of United Nations Educational, Scientific and Cultural Organisation (UNESCO) defines a cultural landscape as one which has 'powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent' (UNESCO 1991). The relationship between Aboriginal Australians and the land is conceived in spiritual terms rather than primarily in material terms (Andrews et al 2006). Aboriginal cultural knowledge has been defined as:

Accumulated knowledge which encompasses spiritual relationships, relationships with the natural environment and the sustainable use of natural resources, and relationships between people, which are reflected in language, narratives, social organisation, values, beliefs and cultural laws and custom (Andrews et al 2006).

Aboriginal cultural knowledge was traditionally bequeathed through oral traditions from generation to generation. Within all Aboriginal communities there was a time of dislocation and upheaval associated with the arrival of colonial settlers. This widespread disruption resulted in much of the detailed knowledge and understanding of many of the elements of the cultural landscape being lost from the Aboriginal community, nonetheless many Aboriginal people maintain a strong connection to the land of their ancestors and collectively possess a wealth of knowledge passed down through the generations.

7.3 Identified Aboriginal cultural heritage values

Table 7.1 provides a summary of the Aboriginal cultural heritage values associated with the study area.

Table 7.1: Cultural heritage values identified for the study and surroundings

Cultural heritage value	Description	Source
Woollarawarre Bennelong	The study area is home to the Wangal (Wanngal or Wahngal) clan, of whom Woollarawarre Bennelong (c. 1764 – 3 January 1813) was a member. Bennelong was the first Aboriginal man to visit Europe and return. He was captured in November 1789 and brought to the settlement at Sydney Cove by order of Governor Arthur Phillip, who hoped to learn more about Aboriginal customs and language. The study area is bordered to the east by Bennelong Road, which was named after Woollarawarre Bennelong.	Australian Dictionary of Biography

Cultural heritage value	Description	Source
Aboriginal stone artefacts	Aboriginal stone artefacts are representative of a tangible link between Aboriginal people and the land. The AMBS 2012 ACHAR found that AHIMS sites listed in section 5.3, to the northwest of the study area, are of local significance to Aboriginal people.	AMBS 2012
Landscape	Landscapes and landforms are significant to Aboriginal people for the information that it holds and the connection to Darug people.	Justine Coplin (Darug Custodian Aboriginal Corporation)

8.0 SIGNIFICANCE ASSESSMENT

No Aboriginal sites or areas of PAD have been identified throughout the pedestrian survey. A significance assessment of the scientific, social, historic and aesthetic values of the study area is included below.

8.1 Significance assessment criteria

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. The Guide (OEH 2011: 10) provides guidelines, in accordance with the Burra Charter (Australia ICOMOS 2013) for significance assessment with assessments being required to consider the following criteria:

- Social values – does the area have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
- Historic values – is the area important to the cultural or natural history of the local area and/or region and/or state
- Scientific values - does the area have the potential to yield information that will contribute to an understanding of the cultural and natural history of the local area and/or region and/or state
- Aesthetic values – is the area important in demonstrating aesthetic characteristics in the local and/or region and/or state.

Scientific values should be considered in light of the following criteria:

- Research potential - does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
- Representativeness - how much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?
- Rarity - is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- Education potential - does the subject area contain teaching sites or sites that might have teaching potential?

It is important to note that heritage significance is a dynamic value.

8.2 Significance assessment

8.2.1 Social and cultural value

Social/cultural heritage significance should be addressed by the Aboriginal people who have a connection to, or interest in, the area. As part of the consultation process the registered Aboriginal stakeholder groups were asked to provide appropriate information on the cultural significance of the study area.

The results of the consultation with the RAPs (Table 3.2) has identified that the wider landscape surrounding the study area is a significant cultural heritage value to Aboriginal people. However, no specific social or cultural values were identified for the study area.

8.2.2 Historic value

Historic values refer to the association of the place with aspects of Aboriginal history. Historic values are not necessarily reflected in physical objects, but may be intangible and relate to memories, stories or experiences.

The study area is home to the Wangal (Wanngal or Wahngal) clan, of whom Woollarawarre Bennelong (c. 1764 – 3 January 1813) was a member. Bennelong was the first Aboriginal man to visit Europe and return. He was captured in November 1789 and brought to the settlement at Sydney Cove by order of Governor Arthur Phillip, who hoped to learn more about Aboriginal customs and language (Australian Dictionary of Biography).

The study area is known to be associated with people, events and activities of historical importance to the Aboriginal community. Therefore, the study area is considered to possess moderate historic significance.

8.2.3 Aesthetic value

Aesthetic values refer to the sensory, scenic, architectural and creative aspects of the place. These values may be related to the landscape and are often closely associated with social/cultural values. The study area has undergone significant alteration and clearance from construction and demolition of past structures. Due to this construction and modification the study area no longer demonstrates aesthetic significance.

Portions of Sydney Olympic Park, which remain undeveloped, border the study area to the west across Bennelong Road. Those areas, which do not include the study area, demonstrate high aesthetic values and significance.

8.2.4 Scientific value

The ASR (Artefact Heritage 2018a) did not identify any Aboriginal sites or areas of PAD. Therefore, the study area is not considered to hold any scientific significance.

8.3 Statement of significance

As no Aboriginal archaeological sites or areas of PAD were identified within the study area, the study area possesses low scientific significance. The study area has been subject to significant development and the current aesthetic is artificial, as a result the study area is of low aesthetic significance. The study area has a major connection to Bennelong and has been assessed as possessing moderate historical significance. No specific cultural values associated within the study area were identified. Overall, the study area is considered to be of low significance.

9.0 IMPACT ASSESSMENT

9.1 Proposed development

It is proposed that a 15 storey residential development, including three basement levels with a bulk excavation level of approximately 1.85 m will occur at 1 Murray Rose Avenue. A similar development is planned for 2 Murray Rose Avenue; however, the basement will only have two levels with a bulk excavation level of approximately 0.4 m.

The geotechnical investigations found that 1 Murray Rose Avenue has a fill depth of 0.9 m and 2 Murray Rose Avenue has a fill depth of 1.2 m. It was found that natural deposits were located immediately below the fill layer. Therefore, it is very unlikely that the proposed works will encounter intact historical deposits.

9.2 Potential Aboriginal heritage impact

The definition of harm is limited to impacts which ‘...destroys, defaces, damages an object or place or in relation to an object – moves the object from land on which it has been situated.’ (s5 NPW Act).

As the proposal would not result in impacts to identified Aboriginal objects or a registered Aboriginal place the proposed works would not result in harm as identified under the NPW Act.

A summary of the proposed impact is provided in Table 9.1.

Table 9.1: Summary of impact

Site name	Type of harm	Degree of harm	Consequence of harm
1&2 Murray Rose Avenue, Sydney Olympic Park	None	None	No loss of value

It is acknowledged that the continued development of the Auburn LGA has the potential to result in a cumulative negative impact on the cultural values of the region. Potential measures to incorporate the cultural values of the study area are included in Section 10.0, below.

9.3 Management and mitigation measures

The overall guiding principle for cultural heritage management is that where possible Aboriginal sites should be conserved. The current study area is not considered to contain Aboriginal archaeological potential and subsequently management and mitigation measures related to this aspect of cultural heritage is not required.

The study area is located within a culturally significant precinct with regards to both pre-contact and post contact use of the region. This connection to the region resulted in high cultural values being ascribed to the Auburn region.

The proposed management measures, outlined below, are based on the assessed levels of cultural significance and the potential for ongoing development to detract from the cultural significance of the Auburn region.

9.3.1 Heritage interpretation strategy

The key aim of heritage interpretation would be to connect to contemporary experience of residents and the public with the Aboriginal cultural values associated with the Auburn region. Heritage interpretation would be undertaken in consultation with the RAPs to inform on appropriate.

- Incorporating Aboriginal design into the built form through design features such as: Client had agreed to engage Aboriginal artist. And would prefer to limit the extend of the artwork to the public domain
 - Facades
 - Paving
 - Murals
 - Artwork
- Incorporating local Aboriginal language words into naming conventions within the building (room names, floor names)
- Incorporating native plant species into any plantings including bush tucker species
- Providing interpretive information regarding the Aboriginal history of the site within common areas

Any strategy for interpretation must be developed and implemented in consultation with the RAPs.

9.3.2 Changes to the proposed works

This ACHAR is based upon the most recent information made available to Artefact Heritage as of the date of preparation of this report. Any changes made to the proposal should be assessed by an archaeologist in consultation with the registered Aboriginal stakeholder groups. Any changes that may impact areas not assessed during the current study may warrant further investigation and result in changes to the recommended management and mitigation measures.

9.3.3 Unexpected finds

Unexpected Aboriginal objects remain protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered during works, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and OEH and Metropolitan LALC must be notified.

9.4 Ecologically Sustainable Development principles

In accordance with the guide, Ecologically Sustainable Development principles have been considered in preparation of this ACHAR, including options to avoid impacts to Aboriginal cultural heritage, assessment of unavoidable impacts, identification of mitigation and management measures, and taking account of Aboriginal community views. The principles of Ecologically Sustainable Development are detailed in the NSW *Protection of the Environment Administration Act 1991*. Ecologically Sustainable Development principles relevant to assessment of the current proposal as it relates to Aboriginal cultural heritage are considered below.

9.4.1 The integration principle

Decision-making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations (the 'integration principle'). The proposal would comply with the integration principle in regard to Aboriginal heritage. There are no identified areas archaeological significance within the study area that will be impacted.

An in-depth assessment of cultural values of the region was included during the consultation process for the current ACHAR. During detailed design, an interpretive strategy will be developed to assess potential ways to incorporate cultural values into the built environment of the study area.

9.4.2 The precautionary principle

If there are threats of serious or irreversible environmental damage, lack of full scientific confidence should not be used as a reason for postponing measures to prevent environmental degradation (the 'precautionary principle'). Current and previous assessments of the study area have identified the study area as heavily disturbed and subsequently demonstrating low archaeological potential. Due to the regional nature of the cultural values associated with Redfern the proposed development will not result in significant impacts to the cultural values of the region.

9.4.3 The principle of intergenerational equity

The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the 'principle of intergenerational equity').

The implementation of interpretive elements to the design of the built environment will enhance the potential dissemination of information regarding the cultural values

9.5 Cumulative impacts

A cumulative impact is an impact on Aboriginal cultural heritage resulting from the incremental impact of the action/s of a development when added to other past, present and reasonably foreseeable future actions.

While no evidence of tangible cultural heritage is likely to be present within the study area, the study area contains identified intangible heritage values. To mitigate against the loss of heritage values, as a result of past, present and future developments, it is recommended that a heritage interpretation strategy be implemented.

10.0 MANAGEMENT AND MITIGATION MEASURES

The overall guiding principle for cultural heritage management is that where possible Aboriginal sites should be conserved.

Where unavoidable impacts occur then measures to mitigate and manage impacts are proposed. Mitigation measures primarily concern preserving the heritage values of sites beyond the physical existence of the site. The most common methods involve detailed recording of Aboriginal objects, archaeological test and salvage excavations, artefact analysis and, where appropriate, reburial of Aboriginal objects in a location determined by the registered Aboriginal parties.

Mitigation measures vary depending on the assessment of archaeological significance of a particular Aboriginal site and are based on its research potential, rarity, representativeness and educational value. In general, the significance of a site would influence the choice of preferred conservation outcomes and appropriate mitigation measures, usually on the following basis:

- Low archaeological significance- Conservation where possible, but usually no mitigation required if impacts are unavoidable.
- Moderate archaeological significance- Conservation where possible. If conservation is not practicable, salvage excavations or similar mechanisms determined in consultation with the Aboriginal community may be necessary.
- High archaeological significance- conservation as a priority. Only if all practicable alternatives have been exhausted would impacts be considered justified. Comprehensive salvage excavations may be necessary.

No evidence of Aboriginal cultural heritage material has been identified within the study area. Therefore, no further archaeological investigations will be required.

10.1 Discovery of human remains

If any human remains are discovered and/or harmed in, on or under the land, the following actions must be taken:

- The remains must not be harmed/ further harmed
- Immediately cease all works at the particular location
- Secure the area so as to avoid further harm to the remains
- Notify the NSW Police and OEH's Environment Line on 131 555 as soon as practicable and provide any available details of the remains and their location
- Do not recommence any work at the particular location unless authorised in writing by OEH.

10.2 Changes to the proposed works

This ACHAR is based upon the most recent information made available to Artefact Heritage as of the date of preparation of this report. Any changes made to the proposal should be assessed by an archaeologist in consultation with the registered Aboriginal stakeholder groups. Any changes that may impact on Aboriginal sites not assessed during the current study may warrant further investigation and result in changes to the recommended management and mitigation measures.

10.3 Heritage interpretation strategy

Impacts to intangible heritage can be mitigated through interpretation that acknowledges the Aboriginal occupation and utilisation of the study area. In consultation with RAPs, a Heritage Interpretation Strategy should be prepared, and the plan implemented, which addresses the cultural significance of this location within the Darug landscape. Methods of incorporating identified Aboriginal heritage values into the design process could include interpretive displays and artistic elements within the new premises, and external elements such as paving components and plantings, providing information on Aboriginal land-use and life-ways within the study area and surrounds. Samples or reconstructions of the archaeological finds could be considered for incorporation into the internal interpretive elements.

10.4 Ongoing consultation with Aboriginal stakeholder groups

Consultation with the registered Aboriginal stakeholders would continue throughout the life of the project, as necessary. Ongoing consultation with registered Aboriginal stakeholders will take place throughout all facets of the project, in the event of any unexpected Aboriginal objects being identified during works. To keep consultation current, the registered Aboriginal parties should be sent an update on the project everything six months.

11.0 RECOMMENDATIONS

The following recommendations are based on consideration of:

- Statutory requirements under the NPW Act
- SEARs SSD_9403
- The results of the ACHAR and ASR
- The interests of the Aboriginal stakeholder groups
- The likely impacts of the proposed development.

It was found that:

- No Aboriginal sites or areas of PAD were identified within the study area.
- Intangible heritage values have been identified within the wider landscape.

The following recommendations are made:

- To keep consultation current, in the event of unexpected finds, the registered Aboriginal parties should be sent an update on the project everything six months until construction is complete
- Any strategy for interpretation must be developed in consultation with the RAPs. A Heritage Interpretation Strategy should be prepared, and a plan implemented, for the study area in consultation with Aboriginal stakeholders. This plan would include methods of incorporating identified Aboriginal heritage values into the design process, such as interpretative elements, signage and plantings providing information on Aboriginal lifeways within the study area and surrounding area. This recommendation is in line with the Ecologically Sustainable Development principles described in section 9.4.

12.0 REFERENCES

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13.0 APPENDICES

APPENDIX 1 – CURRENT CONSULTATION LOG

APPENDIX 2 – FULL CONSULTATION RECORDS

APPENDIX 3 – ARCHAEOLOGICAL SURVEY REPORT

APPENDIX 4 – AHIMS SEARCH DATA

APPENDIX 5 – SECRETARY’S ENVIRONMENTAL ASSESSMENT REQUIREMENTS SSD_9403



artefact

Artefact Heritage

ABN 73 144 973 526

Level 4, Building B

35 Saunders Street

Pymont NSW 2009

Australia

+61 2 9518 8411

office@artefact.net.au

www.artefact.net.au