Aboriginal Cultural Heritage Management Plan

Sydney Football Stadium

Stage 3 More Park Precinct Village and Car Park

Prepared for Besix Watpac
June 2024

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Document history and status

The original Aboriginal Construction Heritage Management Plan (ACHMP) for the project was prepared by Artefact Heritage for John Holland and updated to incorporate Mod-7 of approval (SSDA-9835 MOD-07).[1] This ACHMP continues on from that plan, incorporating further approved modifications and a new contractor for the Precinct and Village Car Park scope.

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
1	22/05/2024	Jayden van Beek	22/05/2023	Jayden van Beek	First Draft to BESIX Watpac
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[1] Artefact Heritage Services, 18 February 2021. *Sydney Football Stadium Redevelopment Stage 2 Modification 7 (Early Works). Aboriginal Construction Heritage Management Plan SFS-JHG-00-PLN-PM060009 (SSD-9835)*. Rev. 5. Report to John Holland.

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FIGURES

TABLES

1.0 COMPLIANCE MATRIX

The following compliance matrix demonstrates the alignment of this management plan with full understanding of requirements under the Ministers Conditions of Approval and Final Mitigation Measures as outlined in the Submissions Report.[2] The Project was approved as a State Significant Development (SSD) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 6 December 2019 (SSD- 9835). In December 2020 the consent was modified to integrate the Stadium Fitness Facilities (SFF), no additional conditions were noted associated with the modification to the consent. Modification 7 relates to the Precinct and Village Car Park.

Modification 8, approved on 15 December 2023, addresses use of the Stadium and has not added additional conditions or modified approved conditions related to heritage or archaeology.

Table 1: Compliance Matrix: Ministers Conditions of Approval

	Ministers Conditions of Approval	Section reference
B41	An Aboriginal Cultural Heritage Management Plan (ACHMP) must be prepared by a suitably qualified and experienced expert and address, but not be limited to, the following:	This Plan Section 4.14
a	Details of the nominated Excavation Director as recommended in the Aboriginal Cultural Heritage Assessment Report prepared by Curio Projects dated August 2019 (ACHAR)	Section 4.1.4
b	Details of the site identified for monitoring/testing having regard to Aboriginal Cultural Heritage	Section 8.1
c	Details of the archaeological investigation, monitoring and test excavation methodology in accordance with section 6.1 of the ACHAR	Section 8
d	Details consultation procedures with the RAPs identified in the ACHAR during Aboriginal archaeological monitoring	Section 6.2
e	Details of allowance for contamination consideration and Workplace Health and Safety Requirements and procedures to be followed n site (including consultation with RAPs) if any variation to the soil monitoring methodology is required	Section 8.8
f	An Unexpected Finds Protocol for Aboriginal heritage (including unexpected skeletal remains) and associated communications procedure in accordance with the recommendations of the ACHAR	Appendix A
g	Details of a stop -work procedure in case archaeological relics are uncovered during the work (including contacting the EES group of the Department and recommencing works once the approval from the EES Group is obtained); and	Detailed in the Unexpected Finds Procedure Appendix A
h	A contingency plan and reporting procedure (that is consistent with obligations under conditions of this consent) if: (i) Aboriginal objects and Aboriginal places outside the approved disturbance area are damaged; or (ii) Previously unidentified Aboriginal objects or Aboriginal places are found or suspected to be found on site.	(i) Section 8.12 (ii) Detailed in the Unexpected Find Procedure Appendix A
B42	The CHMP must be made publicly available on the Applicants website prior to the commencement of construction.	Section 4.1.1
B45	Prior to the commencement of construction of the stadium structure or public domain works (i.e. during the bulk earth works), the monitoring of Aboriginal archaeological test excavation, recording and salvage (if any) must be undertaken under the supervision of the nominated excavation director, for all impacted areas of the site	Methodology outlined in Section 8

2

	Ministers Conditions of Approval	Section reference
	in accordance with the recommendations of the ACHMP and the ACHAR, and in consultation with the RAPs that have been identified for this project.	

The following table identifies the approved heritage related Final Mitigation Measures documented in the Response to Submissions. The measures have been derived from the assessment undertaken during the SSD Development Application (DA) process and are required to be implemented to mitigate the heritage related impacts associated with the proposed construction works.

Table 2: Compliance Matrix: Final Mitigation Measures

	Final Mitigation Measures	Section reference
	An archaeological induction is to be prepared for all on site contractors, particularly those involved in the bulk excavation works, to familiarise workers with the recommendations and practices outlined in the Archaeological Research Design and Excavation Methodology prepared by Curio Projects (May 2019), and the process should they encounter an unexpected archaeological resource.	Section 9.2 Note that the Archaeological Research Design and Excavation Methodology prepared by Curio Projects (May 2019) is related to non-Aboriginal heritage
	The detailed Construction Environmental Management Plan is to include details of periodic site visits by the project archaeologist during site works, to verify the nature of any subsurface deposit and assess the potential for any potential archaeological resource to exist and be impacted. In zones of moderate archaeological potential, a program of archaeological supervision is to be implemented. A program of archaeological salvage or monitoring is to be implemented if any significant archaeological resource is encountered during the development that alters the level of supervision required, as confirmed by the archaeologist.	This Plan would be a sub-plan to the CEMP Section 8.2 Section 8.3 Section 8.4
	Prepare and educate all on site contractors on the Unexpected Heritage Finds Protocol and Unexpected Aboriginal Finds Policy. Should any suspected archaeological resource/relic be encountered, a stop works would be required in the area of the find, and the project archaeologist contacted.	Section 7.2 and Appendix A

2.0 DEFINITIONS AND ABBREVIATIONS

Definitions and abbreviations to be applied to this Aboriginal Cultural Heritage Management Plan are listed in the following table.

Table 3: Definitions and abbreviations

Term/abbreviation	Definition
ACHMP	Aboriginal Cultural Heritage Management Plan
AHIMS	Aboriginal Heritage Information Management System
Client	Infrastructure NSW
CoA	Conditions of Approval
DPHI	Department of Planning, Housing and Infrastructure
ECP	Environmental Control Plan – defines management measures for a specific environmental aspect
EIS	Environmental Impact Statement
PV&C	Moore Park Precinct Village and Carpark
The Plan	This ACHMP
The Project	Moore Park Precinct Village and Car Park
RAP	Registered Aboriginal Party
SCG	Sydney Cricket Ground
SFS	Sydney Football Stadium
SFF	Sydney Fitness Facility
SSG	Sydney Sports Ground

3.0 INTRODUCTION

3.1 Purpose and application

This section describes the purpose, objectives and targets of this Plan.

3.2 Purpose

The purpose of this Plan is to describe how Aboriginal heritage will be protected and managed during the Project in accordance with the CoA and Mitigation Measures. This Plan is for Stage 3 works for the construction of the Moore Park Precinct Village and Carpark (PV&C).

Stage 1 works were undertaken under a separate management plan by another contractor. Stage 2 works and PV&C – Early Works were also undertaken by another contractor.

The PV&C construction will be undertaken by BesixWatpac.

This Plan would be made publicly available on the Applicant's website prior to the commencement of construction in accordance with condition B42.

3.2.1 Objectives

The key objective of the Plan is to ensure all CoA, Mitigation Measures and licence/permit requirements relevant to Aboriginal heritage are described, scheduled and assigned responsibility as outlined in:

- Football Stadium New Precinct Village and Car Park – MP1 Car Park. Addendum ACHMP (2021)
- The EIS prepared for Sydney Football Stadium (SFS) Stage 2.
- The ACHAR prepared for SFS Stage 2
- The Response to Submissions Report prepared for SFS Stage 2 SSD
- CoA granted to the Project by the Minister for Planning and Public Spaces on 6 December 2019.

Compliance with the SSD approval (as modified) is also an objective of the Plan.

3.2.2 Targets

The following targets have been established for the management of Aboriginal heritage impacts during the Project:

- Comply with the relevant legislative requirements, CoA and Mitigation Measures
- Follow procedure and ensure notification of any heritage objects/places uncovered during construction in accordance with the Unexpected Finds Procedure included in Appendix A
- Provide heritage awareness training to all personnel including sub-contractors as part of the induction training before they start work onsite and in toolbox talks throughout construction
- Ensure Aboriginal Cultural Heritage Awareness Training is provided to all personnel in the form of inductions before they begin work on-site.

3.2.3 Personnel

This Plan has been prepared by Dr Iain Stuart based on an earlier plan by Dr Sandra Wallace both of Artefact Heritage and Environment.[3]

Dr Sandra Wallace.is a suitably qualified and experienced expert in accordance with MCoA B41 (a). Sandra has a PhD in archaeology from the University of Sydney and is Director at Artefact Heritage.

Dr Iain Stuart is a suitably qualified and experienced expert and therefore satisfies the requirements of Condition B41(a). Dr Stuart has a PhD in archaeology from the University of Sydney and is Principal at Artefact Heritage.

The nominated Excavation Director for Aboriginal archaeology would be Ryan Taddeucci, Aboriginal Heritage Team Lead. Ryan has extensive experience in Aboriginal archaeological management and has worked in the Greater Sydney area for over 10 years. He has extensive experience preparing Aboriginal technical reports and cultural heritage assessment reports to support Environmental Impact Statements, Reviews of Environmental Factors and Aboriginal Heritage Impact Permits.

[3] Artefact Heritage Services, Sydney Football Stadium Redevelopment Stage 2. Aboriginal Construction Heritage Management Plan

4.0 CONTEXT OF THE PROJECT

4.1 Project scope

The SFS Redevelopment is an Infrastructure NSW initiative which built a modern stadium replacing the earlier SFS. The Stadium was completed and opened in August 2022. The Project is part of the SCSG Precinct, adjacent to the Sydney Cricket Ground (SCG) and part of the wider Moore Park sports and entertainment precinct, a key economic and cultural contributor to the NSW economy.

4.1.1 Moore Park Precinct Village and Carpark

The PV&C development will deliver a new 1500-space underground multi-level car park and Precinct Village above, linking the SFS at the Public Concourse level. The new development will substitute the former SSDA approved 540-space at-grade carpark, formally operated on this parcel of land prior to the demolition of Allianz Stadium.

Modification 7 of SSD 9835 involves the development of a PV&C which seeks to repurpose the approved 540 space at-grade carpark (MP1) on the western side of the SFS as a master planned PV&C (Figure 1). The PV&C project will be completed in two stages and includes the design and staged construction of an event plaza, an above ground village precinct and 1500 space multi-level carpark below the plaza and landscape zone.

The PV&C project has been designed to align with the conditions and commitment established within SSD 9835 and will include the following elements:

1. 1,500 space multilevel carpark with the following access arrangements:
    a) 1 x access point from Driver Ave, to be used on event and non-event days
    b) 1 x lane at the access point on Driver Ave required to be exclusive for emergency vehicle access and egress
    c) 1 x egress point onto Driver Ave to be used on event and non-event days, with three-lane egress required during events
    d) 1 x egress point onto Moore Park Road to be used on approved event days only (in accordance with SSD conditions of consent)
    e) dedicated area within the car park for operation/servicing vehicles
2. An Outside Broadcast (OB) Compound, located in the position of the OB Compound in the existing MP1 carpark
3. Heavy Vehicle access to the SFS Service Road for delivery, service, maintenance and Emergency Services vehicles, and the OB Compound for broadcast vehicles. Access Roads must be designed and constructed to facilitate Stadium Activities, including those associated with Concert Events, and to allow safe and easy movement and turning of Heavy Vehicles without causing damage
4. Reconfiguration of the currently approved drop off requirements for the elderly and mobility impaired
5. Free flow level pedestrian access to and from the SFS concourse from Driver Ave and Moore Park Road
6. Electric car charging provisions in line with the requirements in the Approved SSD
7. A versatile and community public domain, comprising:
    a) provision for 4 x north-south orientated tennis courts on non-event days with the potential to become an event platform on event days, including provision for a Tennis Clubhouse
    b) children's playground

c) food and beverage (F&B) restaurants with associated amenities in a single storey pavilion plus outdoor dining areas adjacent to the F&B spaces

8. customer service office with ticket window and merchandise display
9. Vertical transport provisions
10. Utilities provision augmentation.

Figure 1: Proposed design of the SFS PV&C (Source John Holland)

4.2 The site

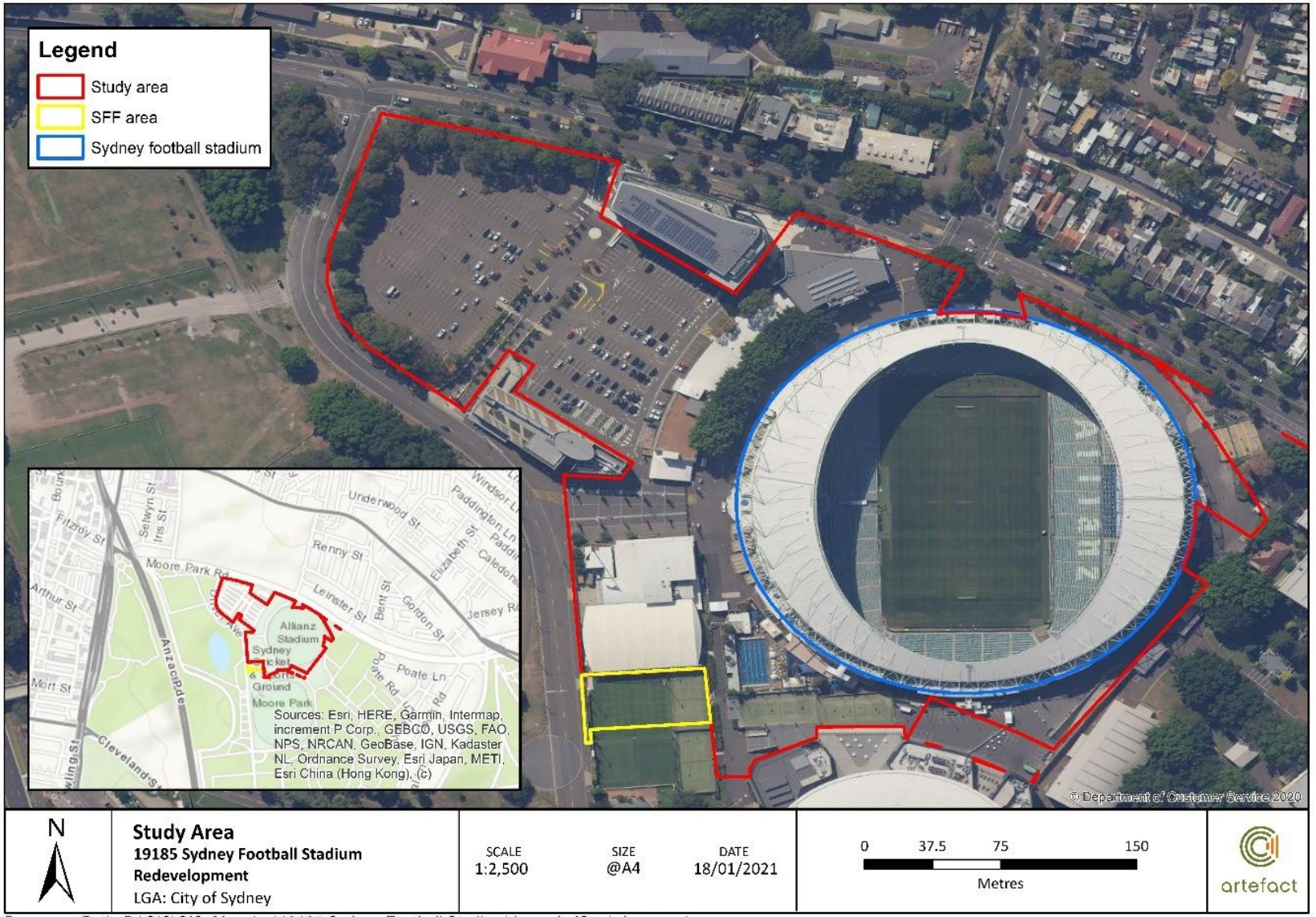
The site is located at 40-44 Driver Avenue, Moore Park within the SCG Precinct bounded by Moore Park Road to the north, Paddington Lane to the east, the existing SCG stadium to the south, Driver Avenue to the west, and is located within the City of Sydney Local Government Area (LGA) (Figure 2).

The site is legally described as Part Lots 1528 and 1530 in Deposited Plan 752011 and Lot 1 in Deposited Plan 205794 and is Crown Land, with the SCSGT designated as the sole trustee under the Sydney Cricket and Sports Ground Act 1978.

The site is largely surrounded by Centennial and Moore Parks, the Fox Studios and Entertainment Quarter precincts and the residential suburb of Paddington (Figure 2).

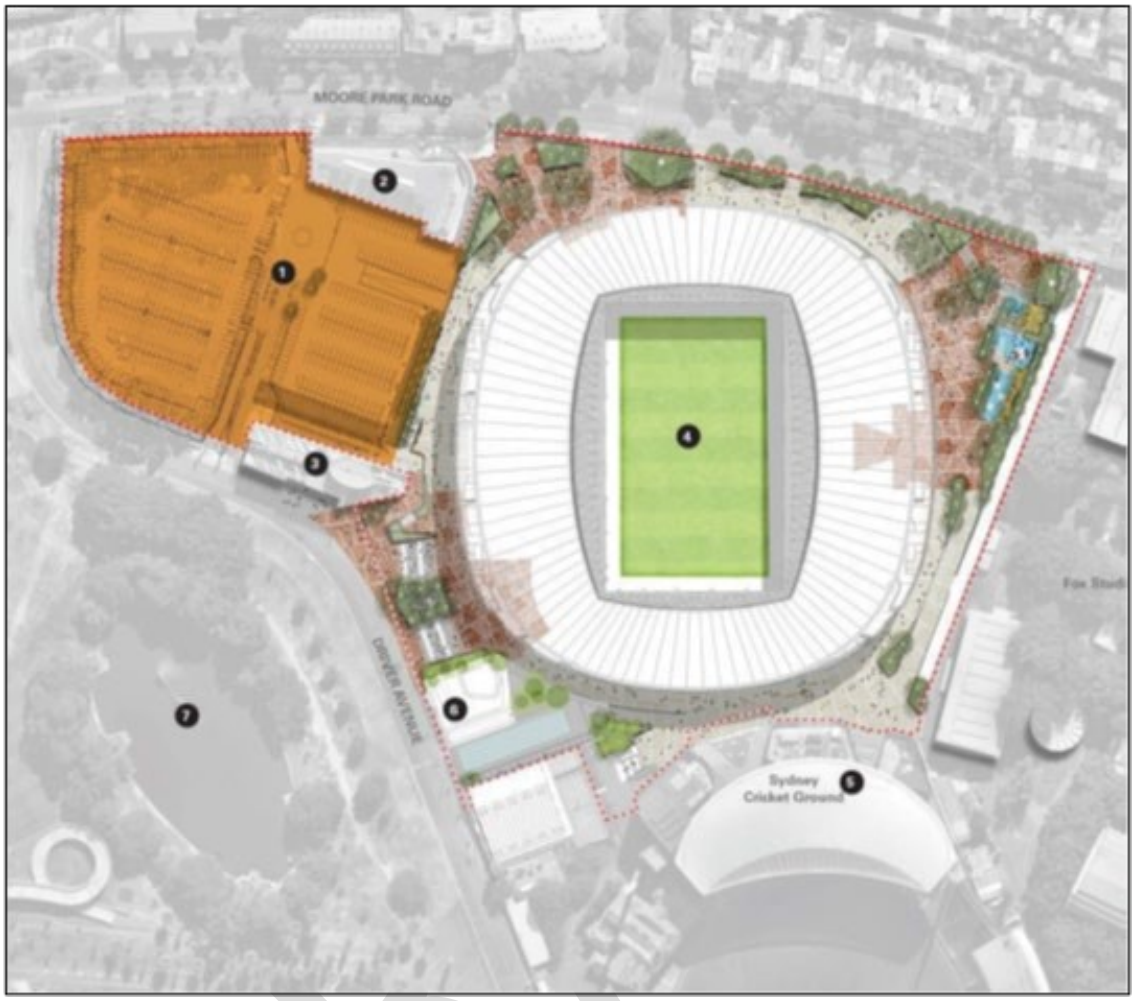
The site is approximately 3km from the Sydney CBD and approximately 2km from Central Station, is connected to Sydney's transport network through existing bus routes and a dedicated stop on the Sydney CBD and South East Light Rail.

Figure 2: Study area



Document Path: D:\GIS\GIS_Mapping\19185 Sydney Football Stadium\AmendedStudyArea.mxd

Figure 3: Precinct Village and Car Park Location



Key

1. *Moore Park Precinct Village and Car Park)*
2. *UTS Sydney Rugby Australia*
3. *National Rugby League Central*
4. *Sydney Football Stadium*
5. *Sydney Cricket Ground*
6. *Sydney Fitness Facility*
7. *Kippax Lake*

5.0 STATUTORY CONTEXT

The Project was approved as a SSD pursuant to Part 4 of the EP&A Act on 6 December 2019 (SSD-9835). Stage 2 of the SFS Redevelopment (SSD 9835) was approved by the Minister for Planning and Public Spaces on 6 December 2019. SSD 9835 has been modified on eight previous occasions as summarised in Table 4.

Table 4: Modifications to conditions of consent (SSD 9835)

Modification	Approved	Description
Modification 1	*3 April 2020*	*Amend Conditions B14 and B15 to enable the condition to be satisfied in accordance with the principles and framework prescribed by the Contaminated Land Management Act 1997.*
Modification 2	*14 December 2020*	*Reinstate fitness facilities that were previously available within the former SFS.*
Modification 3	*7 December 2020*	*Alter the approved mezzanine slabs at the eastern and western stands and relocate the approved administration facilities.* *Design amendments to the southwestern glazed façade.* *Inclusion of an additional stadium signage condition.*
Modification 4	*22 April 2021*	*Relocate the photovoltaic (PV) cells from the stadium's roof to Level 5 (above the eastern and western plant rooms) and a reduction in the amount of kilowatts peak (kWp) generated.*
Modification 5	*8 June 2021*	*Minor modification to correct plan revisions and dates.*
Modification 6	*29 September 2021*	*Fit-out, use and operation of the eastern mezzanine of the stadium for the purpose of a dedicated training and administration facility for the Sydney Roosters NRL football club, known as the Sydney Roosters Centre of Excellence.*
Modification 7	*18 July 2022*	*Construction of a Precinct Village and 1,500 space multi-level carpark adjacent to the new stadium, incorporating a single storey retail pavilion, four tennis courts, landscaping and the reconfiguration of stadium pedestrian and vehicular access.*
Modification 8	*15 December 2023*	*This modification aims to achieve the following:* • *Increase concert events within Sydney Football Stadium from 6 to 20 per year.* • *Increase concert lengths from 5 hours to 10 hours (twice per year).* • *Alter rehearsal and sound test finish time from 7pm to 10pm.* • *Curfew exemption from Mardi Gras.*

SSD 9835 MOD 9 was submitted to the Department of Planning, Housing and Infrastructure (DPHI) on Monday 18 March 2024 seeking approval to:

- Temporarily removal of 186 parking spaces within MP1
- Update the stamped plans with a revised construction staging approach
- Commit to submission of a revised parking strategy pursuant to Condition D50, by way of an updated Event Car Parking Management Plan following the Modification Application's approval.

Public exhibition of SSD 9835 MOD 9 is scheduled from 28 March 2024 to 10 April 2024.

Under the SSD a number of Acts are also relevant to the Project in regard to Aboriginal heritage as outlined in Table 5.

This Plan relates to the Stage 3 approval.

5.1 Legislation

Under the SSD a number of Acts are also relevant to the Project in regard to Aboriginal heritage as outlined in Table 4.

Table 5: Legislation and Planning Instruments

	Ministers Conditions of Approval	Section reference
Environmental Planning and Assessment Act 1979	This Act establishes a system of environmental planning and assessment of development proposals for the State.	The approval conditions and obligations are incorporated into this CHMP.
Environment Protection and Biodiversity Conservation Act 1999 (Cwth)	The main purpose of this Act is to provide for the protection of the environment especially those aspects that are of national environmental importance and to promote ecological sustainable development. Heritage places are listed on the National Heritage List (NHL) for their 'outstanding heritage value to the nation' and are owned by a variety of constituents, including government agencies, organisations or individuals. Only items owned or controlled by the Commonwealth that meet the threshold for national heritage listing under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) are listed on the Commonwealth Heritage List (CHL) and/or the World Heritage List (WHL) and afforded protection under the EPBC Act.	Not relevant as no NHL, CHL or WHL items
National Parks and Wildlife Act 1974	The relevance of this Act is firstly in respect to the protection and preservation of aboriginal artefacts. Discovery of material on site suspected as being of aboriginal origin must be reported and protected pending assessment and direction by the Client's Representative.	An Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974* is not required for this project as it has been approved as SSD under Part 4 of the EP&A Act.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cwth)	This Act provides for the preservation and protection from injury or desecration to areas and objects of particular significance to Aboriginals. Areas and objects can be protected by Ministerial Declaration and it is then an offence to contravene such a declaration.	No areas or objects within the Project have been identified as being subject to such a declaration and this Act is of little relevance to the project.
Coroners Act	This Act enables coroners to investigate certain kinds of deaths or suspected deaths in order to determine the identities of the deceased persons, the times and dates of their deaths and the manner and cause of their deaths.	This Act is relevant if Human Skeletal Remains are located within the project area.

5.2 Guidelines

Additional guidelines and standards relating to the management of Aboriginal cultural heritage include:

- Code of Practice for the archaeological investigation of Aboriginal objects in NSW (OEH 2010)
- Aboriginal cultural heritage consultation requirements for proponents 2010 (OEH 2010)
- Due Diligence Code of practice for protection of Aboriginal objects in NSW (OEH 2010)
- Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2010)
- Assessing Heritage Significance (NSW Heritage Office 2001)
- Levels of Heritage Significance (NSW Heritage Office 2008)
- NSW Government's Aboriginal Participation in Construction Guidelines (2007).
- Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977.

6.0 CONSULTATION

This section describes consultation with Registered Aboriginal Parties (RAPs) that has been undertaken for the Project.

6.1.1 Consultation undertaken to date

Consultation and collaboration with RAPs has been integral to the assessment and management of Aboriginal cultural heritage for the project.

The following RAPs have registered for the project

- Biamanga
- Butucarbin Aboriginal Corporation
- Cullendulla
- Darug Land Observations
- Darug Aboriginal Cultural Heritage Assessments
- Darug Boorooberongal Elders Aboriginal Corporation
- Didge Ngunawal Clan
- Goobah
- Gulaga
- La Perouse Local Aboriginal Land Council
- Murramarang
- Thoorga Nura
- Tocomwall
- Wailwan Aboriginal Digging Group.

Consultation with the RAPs throughout the EIS assessment process is outlined in the ACHAR in Chapter 2.

6.1.2 Consultation requirements during construction

Consultation with the RAPs would be ongoing throughout the construction phase. RAPs would be involved in archaeological supervision and archaeological test and salvage excavation (if required). RAPs would also be notified if an Aboriginal object was unexpectedly identified during construction in accordance with the Unexpected Finds Procedure (Appendix A).

If areas where natural sands are unexpectedly found RAPs would be involved in archaeological supervision of excavation of those sands, which would generally entail periodic site inspections. RAPs who have a cultural connection to the local area (as specified in the ACHAR) would be given the opportunity to attend site on a roster basis, the timing of which would be dependent on construction program. Where test or salvage excavation is required, all RAPs would be given the opportunity to participate. A representative from the La Perouse LALC would be on site during all test and salvage excavation.

7.0 EXISTING ENVIRONMENT

7.1 Aboriginal occupation

Prior to the arrival of Europeans in 1788 and the subsequent appropriation of their land, Aboriginal people lived in small family or clan groups that were associated with particular territories or places with areas of land, known as 'estates' or 'country', in the Sydney Region these groups were associated with named clans[4]. On a daily basis Aboriginal people lived in groups known as bands which were made up of male members of a clan, their wives and children along with unmarried clan members[5].

The Aboriginal population of the Sydney area had access to and utilised a wide range of natural resources including both terrestrial and marine flora and fauna. While Tench indicated that fishing was the ''chief part of a subsistence''[6] terrestrial animals such as kangaroos, possums and various birds were hunted on a regular basis. Aboriginal people within the Sydney area also manipulated the landscape through periodic burning of the undergrowth, this encouraged terrestrial animals to graze and facilitate hunting.[7]

Accounts of Governor Phillip and Phillip Gidley King identified the Gadigal people as the inhabitants of the area between South Head and Darling Harbour, with the Wangal people as the inhabitants of the area from Darling Harbour west to Rose Hill (Parramatta).[8] The Moore Park area is within the land of the Gadigal. [9]

The Gadigal people and other nearby tribes would have been amongst the first to experience the impacts of the arrival of the First Fleet at Sydney Cove, with the physical and social dislocation emergent from the European settlement. Smallpox epidemics also had a large impact on the local tribes with Bennelong estimating in 1790 that more than half of the Aboriginal population of Sydney had died during one outbreak in 1789.[10] European colonisation also had other impacts of the local Aboriginal populations with the loss of access to traditional lands and resources, an increase in intertribal conflict and the breakdown of traditional cultural practices, along with an increase in starvation and disease.

7.2 Geomorphology

The Project area is within the Botany Sands. The Botany Sands are an aeolian (wind-blown) deposit that has formed to considerable depth over the past 12,000 years as sea levels fell and the shoreline retreated in stages to its current location. Behind these stranded shorelines a coastal hinterland formed including large sand sheets, dunes, waterbodies and swamps representing a richly resourced environment for Aboriginal habitation.

The archaeologically sensitive layer of the Botany Sands is primarily those grey sands which once comprised ground surface during Aboriginal habitation of the area. These grey sands are the top unit of the Tuggerah Soil Landscape. This topsoil unit (tg1) is described as a surface of approximately 300mm of organically grey-stained unconsolidated sand, sitting above bleached sands (tg2) of one

[4] Aboriginal Heritage Office [AHO] 2015: 37; Attenbrow 2010: 22-30; Irish 2017: 17
[5] Irish, Paul 2017, Hidden in plain view: The Aboriginal people of coastal Sydney, New South, p17
[6] Tench, Watkin, 1788, A Narrative of the Expedition to Botany Bay, eBooks@Adelaide, p53
[7] CSELR, EIS, 2013, p118
[8] Attenbrow, Val, 2002 Sydney's Aboriginal Past: Investigating the archaeological and historical records, UNSW Press, Sydney, p24
[9] CSELR, EIS, 2013, p137
[10] Attenbrow, Val, 2002 Sydney's Aboriginal Past: Investigating the archaeological and historical records, UNSW Press, Sydney, p21

to two metres in depth. The grey stained colour of tg1 derives from breakdown of surface vegetation. Traces of more recently deposited degrading vegetation may be preserved as an overlying thin darker grey layer above the grey archaeologically sensitive tg1 sands.

The underlying units of Tuggerah soils can continue to tens of metres in depth. They vary in colour and composition largely according to local hydrology and position on landform. Most commonly in the surrounds of the Project they include combinations of stained brown sand (tg3), yellow massive sand often to considerable depths (tg4), and lenses of iron-indurated sand pan (coffee rock) (tg5). These sand units rest on Sydney Basin sedimentaries, primarily sandstone which can degrade to blend into overlying sands.

It is thought that these local dunes and their surrounds remained relatively stable, consolidated by coastal grasses and sclerophyllic scrub until destabilised by devegetation following British invasion. Remnants of the tg1 grey sand topsoils that were the surface inhabited by Aboriginal people in the past may occur buried beneath sands mobilised after colonisation and under historical fill. However, historical processes of excavation or erosion would be expected to have impacted the fragile tg1 grey sand topsoils.

7.3 Historically documented impacts

The study area and Moore Park in general have been subject to very significant levels of ground disturbance. Little historical mapping and very little topographic mapping of natural conditions in the study area is available. The following section therefore uses several 19th-century maps and images in which the study area is captured, to inform an understanding of historical natural ground levels within it.

Mapping from 1875 (Figure 4) shows the future location of the Sydney Football Stadium and the Sydney Cricket Ground (circled in red) as relatively level land, flanked at a distance to the north, east and south by sand dune ridges, and to the west by Anzac Parade, then referred to as either Old Botany Road or Randwick Road. The Victoria Barracks is situated close to the north, located strategically on top of a sand ridge. While the map only portrays flat lands or ridges, it is fairly certain that land would have naturally trended upwards towards these ridges. The red arrow in the top left corner of the image indicates the direction and location from which the panorama shown in Figure 5 was taken.

Taken in 1875 (the same year as the Sydney Water Plan above), Figure 3 illustrates the very large size of the sand dunes that have since been almost totally removed from Moore Park. The future location of the Sydney Football Stadium and Sydney Cricket Ground is only partially captured and is indicated with a red arrow. It comprises land rising to the north and the sand dunes at the Victoria Barracks. To the right are visible ‘Mount Rennie’ and ‘Mount Steele’, both of which were removed through sand mining and for construction of the Moore Park Golf Club. The large dunes to the left of the image have been removed. They may not have been named, but were nevertheless significant rises.

Figure 4: Sydney Water Commission Plan. F. Wells 1875 (TROVE NLA)

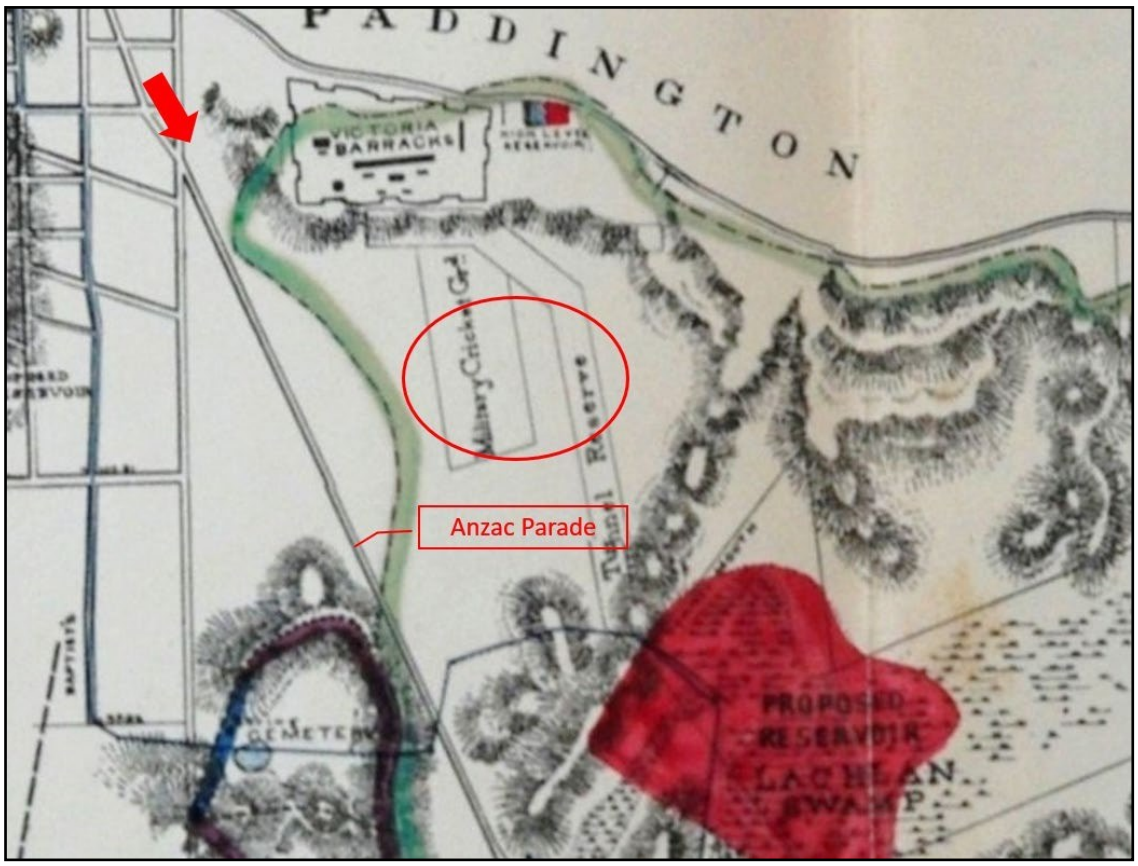
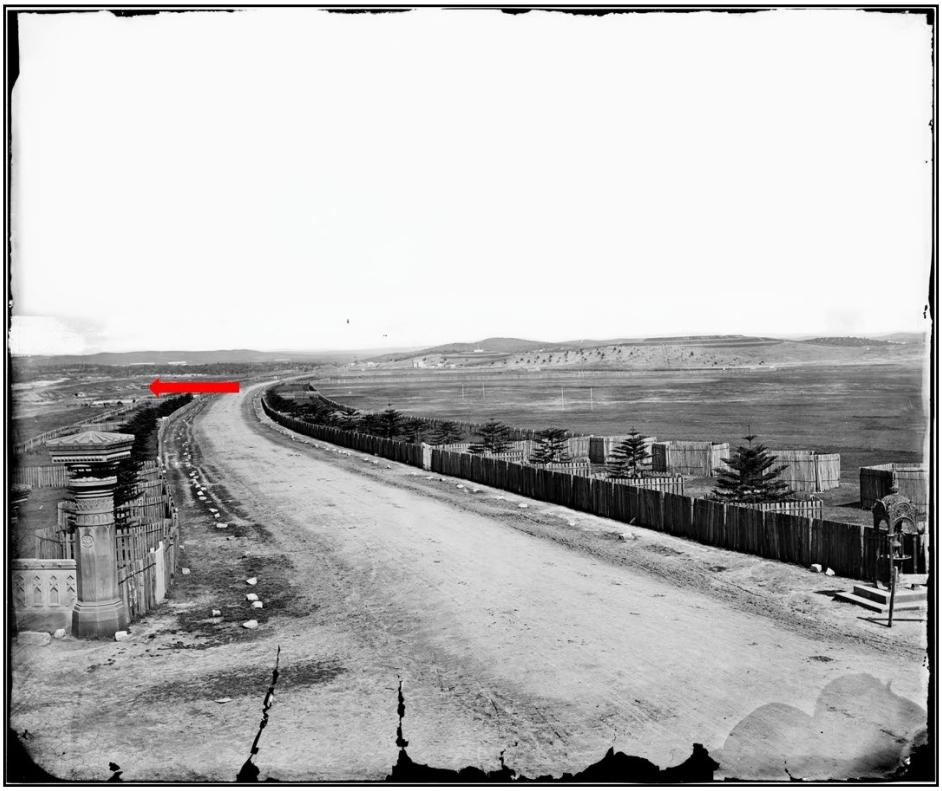


Figure 5: Moore Park from Anzac Parade entry in 1875. View south (SLNSW item 1243367)



In 1875 works commenced to form the Sydney Cricket Ground.[11] A photograph of a cricket test match played at the S Cricket Ground in 1883 shows the future location of the SFS in the background as a raised piece of land, rising upwards to the north west (Figure 7). Two historical photographs from the same day (27 January 1883) have been spliced to create Figure 6 below. The Sydney Cricket Ground Members stand, and the Victoria Barracks remain in situ today, allowing for a definite identification of the Sydney Football Stadium future location from this photograph. The row of conifer trees in the background of Figure 6 is almost certainly the row of trees shown eight years earlier in Figure 5 as juvenile plantings along Anzac Parade.

Figure 6: Cricket match at the SCG 27/1/2019. View north west (Trove NLA)

A photograph of another cricket match played nine years later in 1892 looks slightly more to the west (Figure 7) and is taken from a higher elevation. This image shows the raised ground of the future Sydney Football Stadium and Sydney Sports Ground (SSG), and also illustrates that the Sydney Cricket Ground was likely cut significantly into local dunes to produce banked or bowl like sides as seating.

Figure 7: Cricket match at the SCG in 1892. View west north west (Trove NLA)

This proven technique of excavating a flat playing surface into surrounding dunes appears almost certain to have been followed in construction of the SSG located to the north east of the Sydney Cricket Ground and partly within the footprint of the Sydney Football Stadium. Dedicated in 1899, the SSG was opened in 1903. It had been excavated to depth below the surrounding landscape and

[11] Sydney Cricket Ground Trust (scgt.nsw.gov.au – accessed 16 December 2019)

was formed with high banked earthen sides to provide both informal seating and a facility for motorcycle racing (Figure 8)[12] The depth of excavation carried out to create this sunken bowl is estimated as at least five to six metres, based on the likely height of the two-storey stadium grandstand visible in Figure 8 which does not appear significantly taller than the surrounding earthen stadium walls. It is quite certain that construction of the SSG would have removed all of the archaeologically sensitive grey tg1 soils that would once have formed the upper soil surface here.

Subsequent aerial imaging dating from 1951 indicates that this level of excavation and battering had also been carried out on ancillary ovals located to the south west of the proposed SFS and that archaeologically sensitive tg1 grey soils will have been removed from these locations too (Figure 9). Some added detail of this is visible in aerial imaging dating from 1978 (Figure 10).

Aerial imaging of works in 1986 for the Sydney Football Stadium show levelling and filling across the SFS and in particular, reduction of the banked walls between the Sydney Football Stadium, the Sydney Sports Ground, and the oval to the south west of the Sydney Football Stadium (Figure 11).

Figure 8: Sydney Sports Ground in 1937. View north east (Trove NLA)

[12] *Sydney Mail and NSW Advertiser*, Wednesday 5 August 1903

Figure 9: Project area in 1951, battering indicated with red arrows (Douglas Partners 2019)[13]

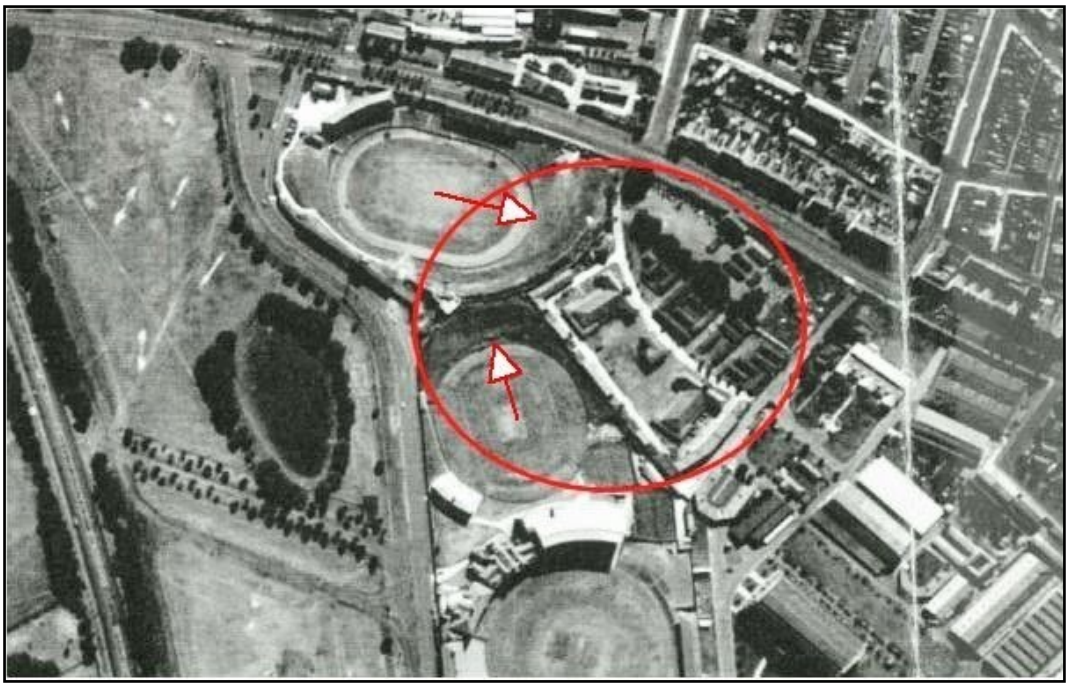
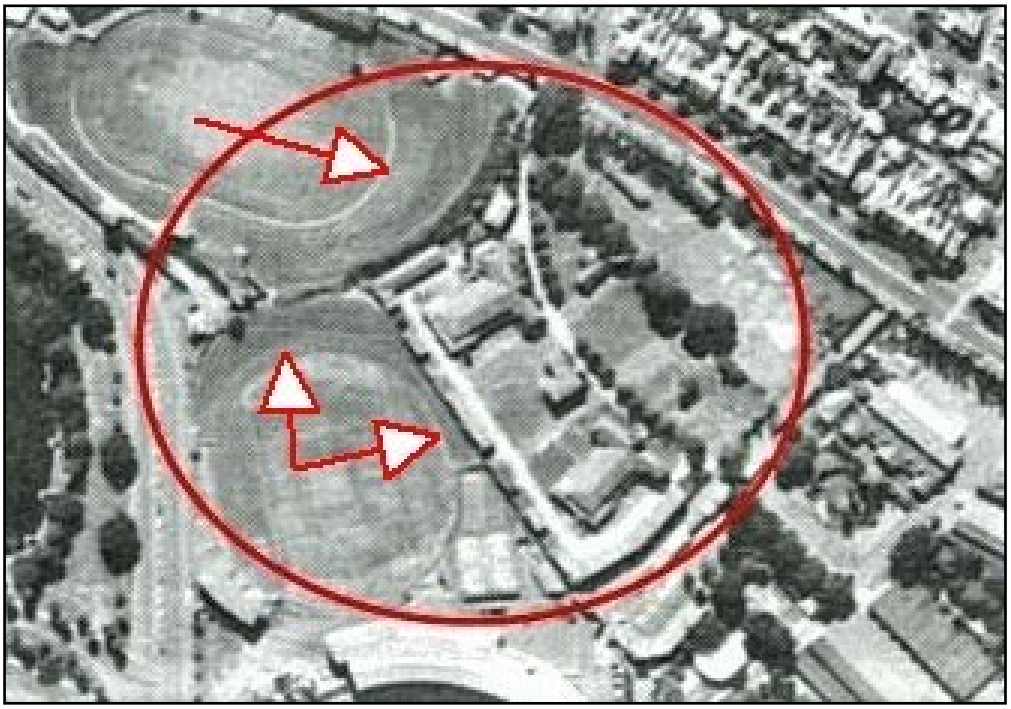
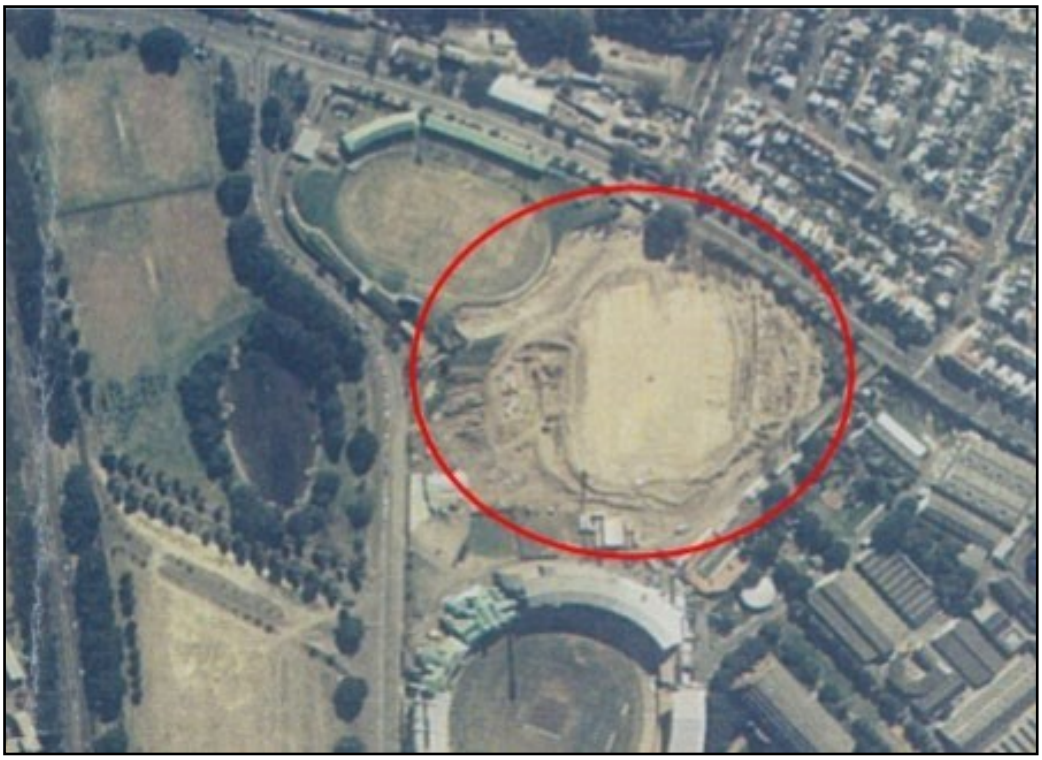


Figure 10: Added detail of excavation and battering visible in 1978 aerial (Douglas Partners 2019)



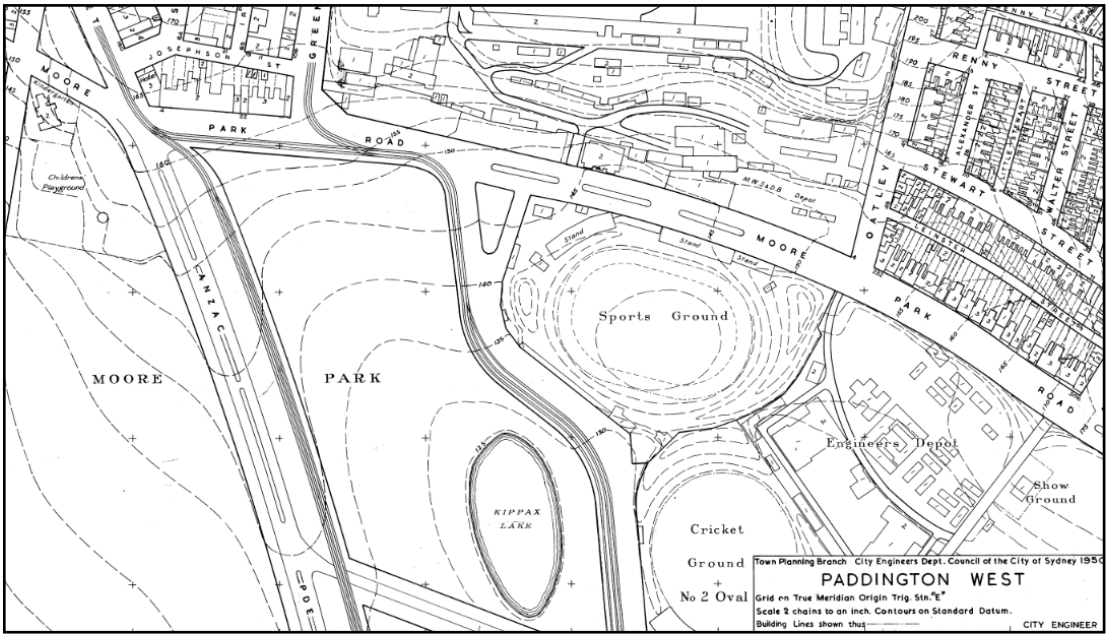
[13] Douglas Partners (May 2019) *Detailed Site Investigation (contamination). Sydney Football Stadium Redevelopment* Report to Lend Lease

Figure 11: Project area in 1986 (Douglas Partners 2019)



Topographic mapping produced in 1950 shows the extent of excavation for the Sydney Sports Ground (Figure 12). It also shows the preserved natural contour lines of the surrounding area, including Anzac Parade. These strongly indicate that the location of the Sydney Sports Ground previously sloped gradually over approximately 400 metres from a low point of 130 metres elevation in the south to a high point of 145 metres elevation in the north west. This gentle rise (4% or 1 in 25) is consistent with the images and their interpretation given above.

Figure 12: Excerpt from topographic map of Paddington West, 1950. (Trove NLA)



7.4 Geotechnical results

During the assessment for the Stage 2 project Artefact reviewed a total of 83 geotechnical borehole results[14]. The preservation of natural soils in the project area would result in cores containing a 300mm-deep mid grey sand (tg1) layer, above a one to two metre deep bleached grey sand (tg2) strata. This is turn would overlie yellow and / brown stained sands to depth, above degrading sandstone which may present as firm and often clayey bleached grey coarse sand.

The colour descriptions used by geotechnical staff may vary from those used in archaeological reporting. Further, the tg1 layer that is of heightened archaeological potential is not deep (~300mm) and may be missed in borehole descriptions. Attention has therefore been paid to the presence or absence of the much larger and more readily detectable tg2 unit in natural sequence (above yellow / orange and / brown sands).

None of the 83 borehole logs examined for Stage 2 project displayed a stratigraphy that positively indicates a preserved in-situ tg1 or tg2 layer. The results of BH107 in the south-eastern corner is inconclusive. Boreholes in the vicinity of the proposed archaeological monitoring and testing zones (BH101, 101A, 101D, 102) contain fill material of between five and seven metres depth, consistent with the backfill of the Sydney Sports Ground in this location. The identification of material as 'fill' in geotechnical reporting is taken here to denote introduced material, not natural to the location. A closer examination of borehole results indicates that much of the project area is filled with large quantities of redeposited natural soil that may be local, but which has lost its archaeological potential through redeposition. An example of this is borehole C5 which is the most westerly of the boreholes for which results were available to this study. Borehole C5 is situated well within what would once have been the void of the Sydney Sports Ground. The contents of borehole C5 comprise 1.68 metres of foreign material (fill), above 3.32 metres of brown sand, overlying 10.7 metres of mixed colour sands and sandy clays above sandstone. This likely constitutes redeposited local soils.[15]

7.5 SFS PAD (AHIMS ID 45-6-3645)

The Project site was registered as an area of Potential Archaeological Deposit (PAD). SFS PAD (AHIMS ID 45-6-3645) was registered in response to Botany Sands that had been identified in bore logs. The archaeological potential of the PAD was listed as low-moderate.

7.6 Archaeological potential as assessed in the ACHAR

The ACHAR equated the existence of Botany Sands in the bore logs with archaeological potential, assuming that any sand deposit, no matter how deep it was within the dune may contain Aboriginal objects. The ACHAR therefore assessed areas where sand was identified as having a low moderate archaeological potential.

The bore logs however, while showing the presence of Botany Sand, did not indicate that the former dune surface (tg1 and tg2) had been preserved. Based on the additional information provided by Artefact the archaeological potential of the Botany Sands at the Project site was revised.[16]

[14] Douglas Partners 2019
[15] Artefact Heritage Services, Sydney Football Stadium Redevelopment Stage 2. Aboriginal Construction Heritage Management Plan SFS-JHG-00-PLN-PM060009 (SSD-9835). Rev. C. Report to John Holland. 2019, p30.
[16] Artefact Heritage Services, Sydney Football Stadium Redevelopment Stage 2. Aboriginal Construction Heritage Management Plan

7.7 Results from archaeological work during construction

No Aboriginal objects or sites were located during the archaeological monitoring for the Stage 2 Stadium construction. The results generally confirmed the disturbed nature of the sediments. It was concluded on the basis of the archaeological monitoring that during the original excavation for the construction of the SSG the upper (tg1, tg2) archaeologically sensitive soil units had been removed.

7.8 Revised assessment of archaeological potential

The Botany Sands were inhabited by Aboriginal people over many millennia. Archaeological investigation of the Botany Sands is limited. From the archaeological reporting available it is evident that Aboriginal objects are found in the upper metre of the sands which represent the original land surface. The uppermost unit of the Botany Sands is grey-stained as a result of degradation of surface vegetation and corresponds to tg1 - the top 300mm of the Tuggerah soil landscape. Where preserved, this grey tg1 sand has elevated archaeological potential. This archaeological potential reduces significantly with depth into the underlying bleached sand (tg2) unit.

Based on the results of The Stage 2 research and the Stage 2 archaeological program the majority of the Project area considered to be of nil to low potential for in-situ Aboriginal objects. A small area in the south-eastern section of the site was thought to have a low-moderate potential for tg1 and tg2 deposit to remain. But the archaeological monitoring program during construction demonstrated that these areas were also disturbed.

7.9 Conclusions and recommendations

These recommendations carry on from the assessment of the Stage 3 project and the Moore Park and Village Precinct and Car Park early works assessment.

- The soil disturbances that have been identified by the SFS ACHMP[17] as present in parts of the SFS footprint, are present and to greater extent in almost the entirety of the Precinct Village and Car Park study area.
- These soil disturbances appear to have removed five to six metres of local soil in excavation of a banked sporting amphitheatre - the SSG.
- It is certain that during such excavation for the SSG the upper (tg1, tg2) archaeologically sensitive soil units will have been removed.
- Areas immediately adjacent to the SSG that may not have been subject to excavation for excavation of the SSG will still have been subject to significant disturbance through the infill and remediation of the SSG.
- Due to the identified high level of historical ground surface and sub-surface disturbance, it is not considered likely that the study area is of more than nil-low levels of Aboriginal archaeological sensitivity.
- The proposed activity may progress under an Unexpected Finds Policy, and without further formal archaeological assessment.

[17] Artefact Heritage 2020

8.0 ARCHAEOLOGICAL MANAGEMENT

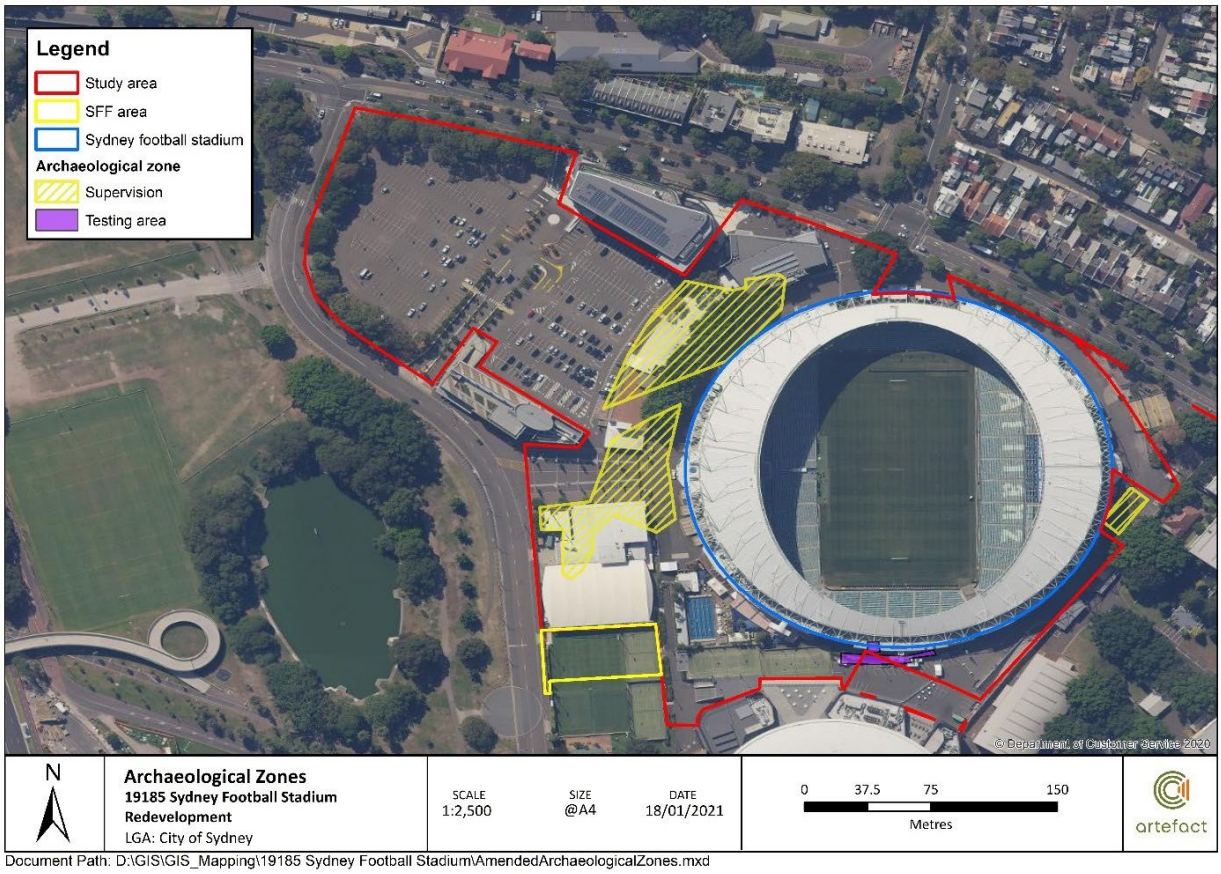
8.1 Archaeological methodology

The proposed archaeological program in relation to the Moore Park PV&C below ground works for the SFS Redevelopment project will consist of three main methods of archaeological investigation as set out below.

As the archaeological potential nil to low potential for in-situ Aboriginal objects it is recommended that periodic archaeological inspections e undertaken during excavation to confirm that this is the case.

If natural upper unit if the Botany Sands is located in an undisturbed context depending on the nature of the deposit either the methodology for Archaeological Test Excavation or Archaeological Salvage excavation would e implemented under the direction of the Excavation Director. Details of the methodologies of these approaches are set out below (see 8.3 & 8.4).

Figure 13: Updated archaeological management zones



Document Path: D:\GIS\GIS_Mapping\19185 Sydney Football Stadium\AmendedArchaeologicalZones.mxd

8.2 Periodic archaeological inspections

The original ACHAR by Curio recommended archaeological supervision of portions of the site assessed as having low – moderate potential for natural sands in the ACHAR. These areas have since been assessed as having nil-low archaeological potential due to extensive historical ground disturbance which would have removed the former dune surface which may have contained Aboriginal objects.

It is therefore suggested that periodic archaeological inspections during the excavation of the ground surface be undertaken. This would entail site inspections of the area designated for monitoring in the ACHAR would be undertaken. In accordance with the recommendations of the ACHAR, RAPs would be engaged to attend the periodic inspections as needed. The timing of inspections would be dependent on excavation program and would focus on area where natural sands may be present (that is, not within layers of known fill).

8.3 Archaeological test excavation

If required Archaeological test excavation would be undertaken in accordance with the methodology outlined in Section 6.14 of the ACHAR.

Test excavation would be required if intact natural sand with the potential to contain Aboriginal objects were located during archaeological supervision (ACHAR page 72) and in the area designated as having archaeological potential in the south-eastern portion of the site (Figure 13).

The methodology for test excavation in areas of natural sand located during archaeological supervision would be undertaken as follows:

Testing would occur in areas of natural sand profile identified during archaeological supervision if:

- The sand deposit was confirmed as being natural and undisturbed
- The sand deposit was confirmed by a geomorphologist as being tg1 or tg2 Botany Sand layers which have been demonstrated to have potential to contain Aboriginal objects.
- The area can be safely accessed and is not contaminated or would pose any risk being in unstable or deep deposits; and
- RAPs have been consulted and agree that archaeological testing should be undertaken

The testing methodology as outlined in Section 6.1 of the ACHAR would be followed. Hand excavation would be undertaken where safe and possible. If hand excavation cannot be undertaken machine excavation or a combination of hand and machine excavation would be undertaken in accordance with Section 6.1.4 of the ACHAR[18].

All deposits would be sieved, the pits recorded, and any artefacts bagged and catalogued.

If no significant Aboriginal archaeological deposits were found during testing the area would be cleared by the Aboriginal Archaeological Excavation Director and managed under the Unexpected Finds Procedure.

8.4 Archaeological salvage excavation

Salvage excavation would be undertaken in accordance with section 6.1.5 of the ACHAR if the triggers outlined in Section 6.1.4 of the ACHAR were met during test excavation. Salvage excavation would commence if more than two Aboriginal artefacts were located in a 1m^2 test pit (or equivalent).

The ACHAR states that OEH (now DPHI) must be notified of the commencement of any salvage excavations.

Salvage excavation would be completed to the extent of the development footprint (including where indirect impacts are likely) and to the depth of sterile deposits. Excavation outside the SSD footprint may present issues with compliance under the planning approval and confirmation would be sought from Infrastructure NSW in consultation with DPHI whether this is permissible. It is unlikely that

[18] all machine excavation works have been considered and are in line with the CNVMP

excavation would be required outside the SSD footprint as generally management is only required where Aboriginal objects would be impacted.

Once salvage has been completed the area would be cleared by the Aboriginal Archaeological Excavation Director and the RAPs and managed under the Unexpected Finds Procedure. RAPs would need to respond to a request for agreement for clearance within 24 hours.

8.5 Historical archaeology

If Aboriginal objects are identified within historical archaeological deposits, the Aboriginal archaeology Excavation Director and project RAPs would be informed. As the objects would be out of context they would be recorded, but would not trigger the need for test excavation. Aboriginal objects within historical contexts would be recorded in their location, and removed, to be catalogued and analysed in accordance with the methodology outlined above.

8.6 Unexpected finds

If Aboriginal objects are unexpectedly identified during construction works, the Unexpected Finds Procedure as appended to this plan would be enacted (Appendix A).

Any confirmed Aboriginal objects would be registered on the AHIMS database in accordance with the notification requirements of the *National Parks and Wildlife Act 1979* which are not 'switched off' by the SSD approval.

8.7 Skeletal remains

Discovery of suspected human remains would be managed under the Unexpected Finds Procedure. All suspected bone must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated.

The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, Infrastructure NSW, DPHI and the project archaeologist. This requirement will form part of the site induction.

If the bones are confirmed to be human, the NSW Police would be notified, and the find referred to the coroner. If the bones are found to be Aboriginal ancestral remains, the RAPs and DPHI would be notified.

8.8 Contamination

Due to the potential for contaminants across the project area, the controlled archaeological excavation would also be undertaken in accordance with the specified work health and safety protocols established for the site, prior to the commencement of works on site. Should the discovery of contaminants on site likely result in the potential harm to archaeological staff working on site, there may be a requirement to deviate from the proposed archaeological methodology, in order to ensure the health and safety of onsite staff. This may include the use of protective clothing, face masks, and specified gloves, additional washing protocols, through to the need to cease hand excavation on site.

Should the requirement to employ mechanical excavation rather than hand excavation arise, archival recording of archaeological material would need to be taken in the form of photographic, recording, from a safe distance (as specified in the work health and safety requirements of the remediation specialists).

8.9 Excavation reporting

An Excavation Report outlining the results of the archaeological supervision and any archaeological testing or salvage undertaken would be prepared in accordance with the ACHAR. The report would include the following:

- Documentation of the Moore Park Precinct Village and Car Park development works, their location and extent
- The basis on which natural soil profiles were identified in these areas
- Basis on which testing was or was not undertaken in each location
- Results of any archaeological works undertaken as part of the Moore Park PV&C development works.

The report would address the research questions as outlined in the ACHAR.

The Excavation Report would be submitted to DPHI and the RAPs.

8.10 Management of Aboriginal objects

Consultation with the RAPs undertaken during preparation of the ACHAR found that the preferred option for long term management of Aboriginal objects if any are located would be to rebury them on site. This would need to be confirmed with the RAPs once the results of the archaeological program are known.

The ACHAR noted that the preferred temporary storage location would be at the La Perouse LALC office although this was not confirmed. It is assumed that the artefacts would be analysed at the Artefact Heritage offices prior to transporting to the LALC office (if this is confirmed during RAP consultation).

8.11 Aboriginal site impact recording form or site card update

Following the completion of all Aboriginal archaeological works, an Aboriginal Site Impact Recording Form (ASIRF) will be completed and submitted to the AHIMS Registrar for the ‘SFS PAD 1’site. If additional Aboriginal objects are located during works this information would be added to the site card.

8.12 Management measures summary

Management measures derived from the Addendum Heritage Impact Assessment, prepared by Artefact Heritage dated 21 December 2021 and addendum assessment.

Table 6: Management measures

ID	Management Action	Trigger/timing	Responsibility	Description of management action
	RAP consultation	Pre-construction and construction	Environmental Manager	Contact RAPs in accordance with the Unexpected Finds Procedure in the case of unexpected finds of an Aboriginal object or potential Aboriginal human skeletal remains and/or Aboriginal burials. RAPs should be consulted prior to periodic inspection, test or salvage excavation commencing in accordance with the project ACHAR and should be given the opportunity to participate in any excavation works in accordance with the ACHAR.
	Unexpected finds procedures for Aboriginal objects.	Identification of potential Aboriginal heritage artefacts or other sensitive cultural values.	Environmental Manager	Following the discovery of new finds of Aboriginal objects – works will cease in the immediate area and the area secured in accordance with the Unexpected Finds Procedure. Assessment of the site/object and subsequent management of the site will be carried out.
	Unexpected finds procedures for human skeletal remains.	Identification of a potential burial or discovery of skeletal remains.	Environmental Manager	Works will immediately cease in that area. The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist. Once confirmation is received from the technical specialist that the remains are of human origin and not of forensic interest notification to the NSW Police will be undertaken. No works to recommence until clearance is provided by EES and/or the NSW Police as per the protocol outlined in Unexpected Finds Procedure.
AH4	Where impacts are identified outside the project area	New impact areas not previously surveyed	Environmental Manager	Non-conformance procedures outlined in the CEMP. Where practicable avoid additional impacts, or confirm appropriate mitigation measures in consultation with DPIE.
	Archaeological supervision	Bulk Excavation	Excavation Director/ Environmental Manager	Periodic site inspections would undertaken when bulk excavation is likely to impact natural soil profiles within the area shaded in yellow in Figure 13.

ID	Management Action	Trigger/timing	Responsibility	Description of management action
	Test excavation, if required	Location of natural sand profile (tg1 and tg2) with the potential to contain Aboriginal objects or subsurface works within the area shown in purple in Figure 13.	Excavation Director/ Environmental Manager	Conduct test excavation in accordance with Section 8.3 of the ACHAR.
	Salvage excavation, if required	Where triggers for salvage excavation outlined in the ACHAR are met during test excavation. Where more than two Aboriginal artefacts per 1m^2 are identified.	Excavation Director/ Environmental Manager	Conduct salvage excavation in accordance with Section 8.4 of the ACHAR.
	Notification to EES of the commencement of salvage excavation	Commencement of salvage excavation	Excavation Director/ Environmental Manager	EES would be notified by email of the commencement of salvage excavations.
	Site card update	Conclusion of archaeological works	Excavation Director	A site card update form for SFS PAD (AHIMS ID 45-6-3645) would be provided to AHIMS to outline the impacts to the PAD and record any Aboriginal objects that were identified during the archaeological program.
	Excavation reporting	Conclusion of archaeological works	Excavation Director	An Excavation report would be prepared in accordance with section 6.19 of the ACHAR.
	Management of Aboriginal objects	Conclusion of archaeological works if Aboriginal objects were located	Excavation Director	RAPs would be consulted as to the preferred long term management of any artefacts located.
	Training and induction	Prior to construction and during regular induction and toolbox talks	Environmental Manager	Information on the sensitive sand in the Botany Sands sheet and identifying Aboriginal objects would be provided in site inductions and regular toolbox talks.
	Update of management locations	During design development	Environment manager,	Where the location and depth of subsurface impacts is revised during design development the location of archaeological

ID	Management Action	Trigger/timing	Responsibility	Description of management action
			Excavation Director	management zones should be updated where required.

9.0 COMPLIANCE MANAGEMENT

This section describes how compliance will be achieved and the responsible parties for all requirements.

9.1 Roles and responsibilities

The Contractor's organisational structure and overall roles and responsibilities are outlined in the CEMP.

Artefact Heritage and the appointed Excavation Director is the engaged advisor to oversee matters related to preparation and compliance with the ACHAR.

9.2 Training

All personnel including sub-contractors working on site will undergo induction training relating to heritage management issues before starting work. The induction training under the Bessix Watpac site induction process will address elements related to heritage management including:

- Existence and requirements of this Plan
- Relevant legislation
- Roles and responsibilities for heritage management
- Location of identified heritage sites and no-go areas
- Proposed heritage management and protection measures
- Procedure to follow in the event of an unexpected heritage find or discovery of human remains.

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