URBIS

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

74 EDINBURGH ROAD, MARRICKVILLE

Prepared for
WOOLWORTHS GROUP LIMITED
14 October 2020

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

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Project Code	P0026069
Report Number	D001

Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge in each of our offices the Traditional Owners on whose land we stand.

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{TO BE INCLUDED UPON FINALISATION OF ACHAR}

1. INTRODUCTION

1.1. PROPOSED ACTIVITY

Urbis has been commissioned by Woolworths Group Limited (the **Applicant**) to prepare this report in accordance with the technical requirements of the Secretary's Environmental Assessment Requirements (**SEARs**), and in support of the SSD- 10468 for the design, construction and operation of a warehouse and distribution centre with associated offices at 74 Edinburgh Road, Marrickville (**the Site**).

The warehouse will be fitted out for the purposes of a speculative warehouse(s) and Customer Fulfillment Centre which will service the inner west and city suburbs.

Specifically, this report addresses the following SEARs:

Table 1 – SEARs and relevant report sections

SEARs Item – 14. Aboriginal and non-Aboriginal Cultural Heritage	**Report Section**
Identify and describe Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011).	Section 5
Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.	Section 3
Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.	Sections 6 & 7

1.2. DESCRIPTION OF SITE

The Site is legally described as Lot 202 in DP 1133999, Lot 3 in DP 318232 and Lot 3 in DP 180969, commonly known as 74 Edinburgh Road, Marrickville (see Figure 1). The Site has an area of approximately 27,315sqm and has frontages to both Edinburgh Road (north) and Sydney Steel Road (east).

- The key elements within and surrounding the Site include:
- The Site is located within the industrial area of Marrickville and currently accommodates several large freestanding industrial buildings and associated car parking and loading areas;
- Vehicular access to the Site is via an existing entry and exit driveway at the Edinburgh Road frontage. Access is also available from Sydney Steel Road;
- The Site contains minimal vegetation which is fragmented by buildings and areas of hardstand surfaces. Vegetation is limited to scattered trees and shrubs within the Site and planted within the nature strip;

- Is located within 1km of Sydenham Railway Station, which is currently being upgraded as part of the Sydney Metro Chatswood to Bankstown metro line; and
- The Site is well positioned in terms of access to arterial and main roads, public transport modes of bus and rail, Sydney Airport and the retail centre of Marrickville.

1.3. THE SITE AND THE SURROUNDING CONTEXT

The Site is well positioned in terms of access to arterial and main roads, public transport modes of bus and rail, Sydney Airport and the retail centre of Marrickville. The Site is located on the northern periphery of the Sydenham Precinct which is part of the Sydenham to Bankstown Urban Renewal Corridor, earmarked for significant employment growth.

The Site also forms part of a large industrial precinct bounded by Edinburgh Road to the north, Railway Parade and the railway line to the east, Marrickville Road/the railway line to the south and Meeks Road/Farr Street/Shepherd Street to the west. The Industrial precinct includes:

- Large free stranding industrial buildings;
- Industrial estates including smaller individual warehouse buildings to the south and east;
- Manufacturing, freight and logistics uses and includes storage facilities, car smash repairs, warehousing and factories.

The Marrickville Metro Shopping Centre also lies to north of the Site. Residential uses are well separated from the Site to the south and east. The Site is also physically separated from residential dwellings to the north and north-west by Edinburgh Road.

1.4. PROJECT DESCRIPTION

The proposed works comprise the following:

- Demolition of the existing buildings, associated structures and landscaping;
- Construction of a two-storey warehouse comprising a speculative warehouse at level 1 (ground level) and Customer Fulfillment Centre (CFC) at level 2;
- Construction of associated offices across five levels to be used by Woolworths in conjunction with the warehouse and CFC;
- Two storey car park adjacent to Edinburgh Road;
- Two storey hardstand loading and delivery area adjacent Sydney Steel Road;
- Private vehicle access from two points on Edinburgh Road;
- Heavy vehicle / loading vehicle access from four points on Sydney Steel Road; and
- Tree removal and landscaping works.

Use of the warehouse will be on a 24-hour, 7-day basis, consistent with surrounding operations.

Figure 1 – Aerial view of the Site
Source: Six Maps

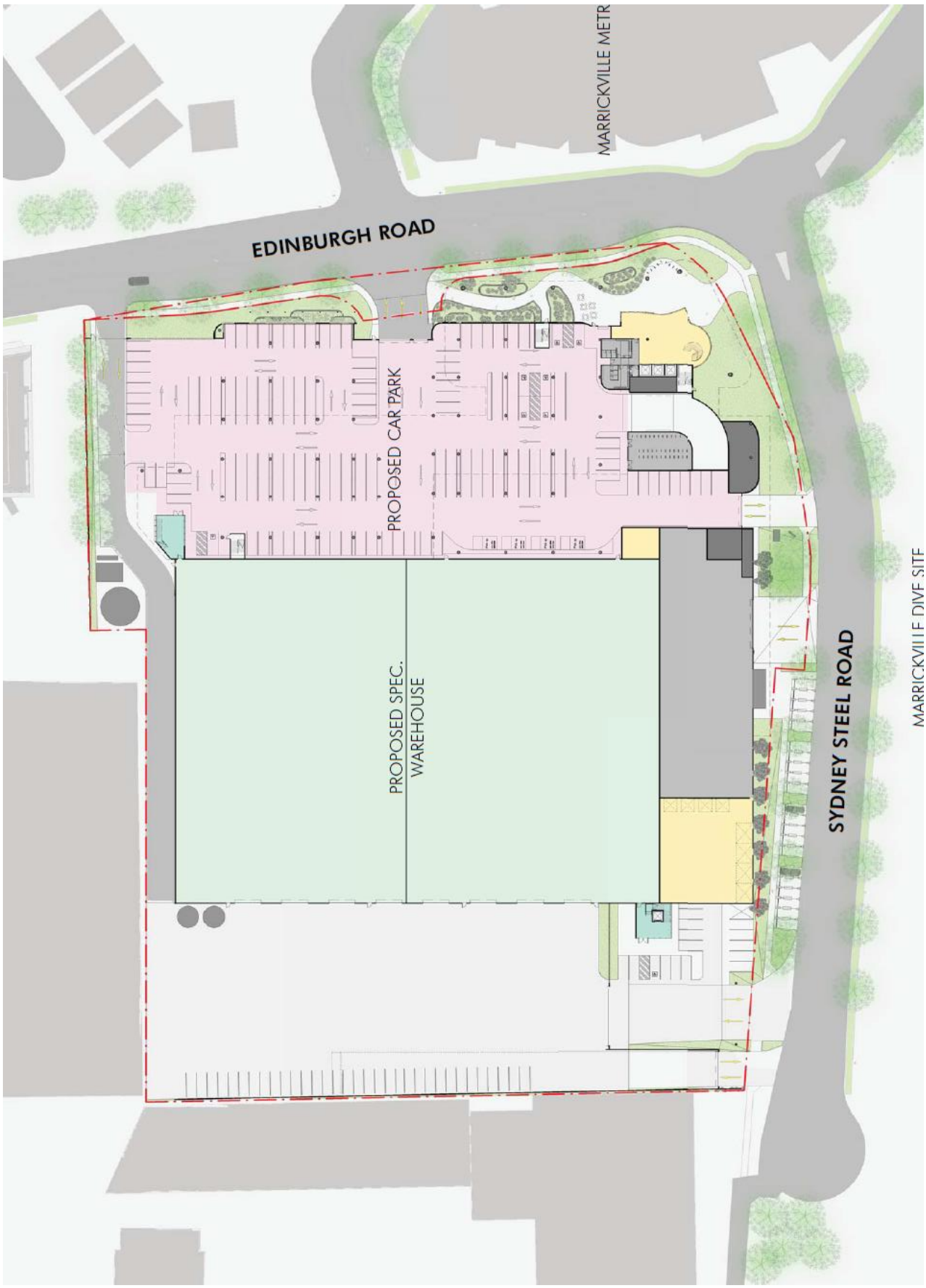
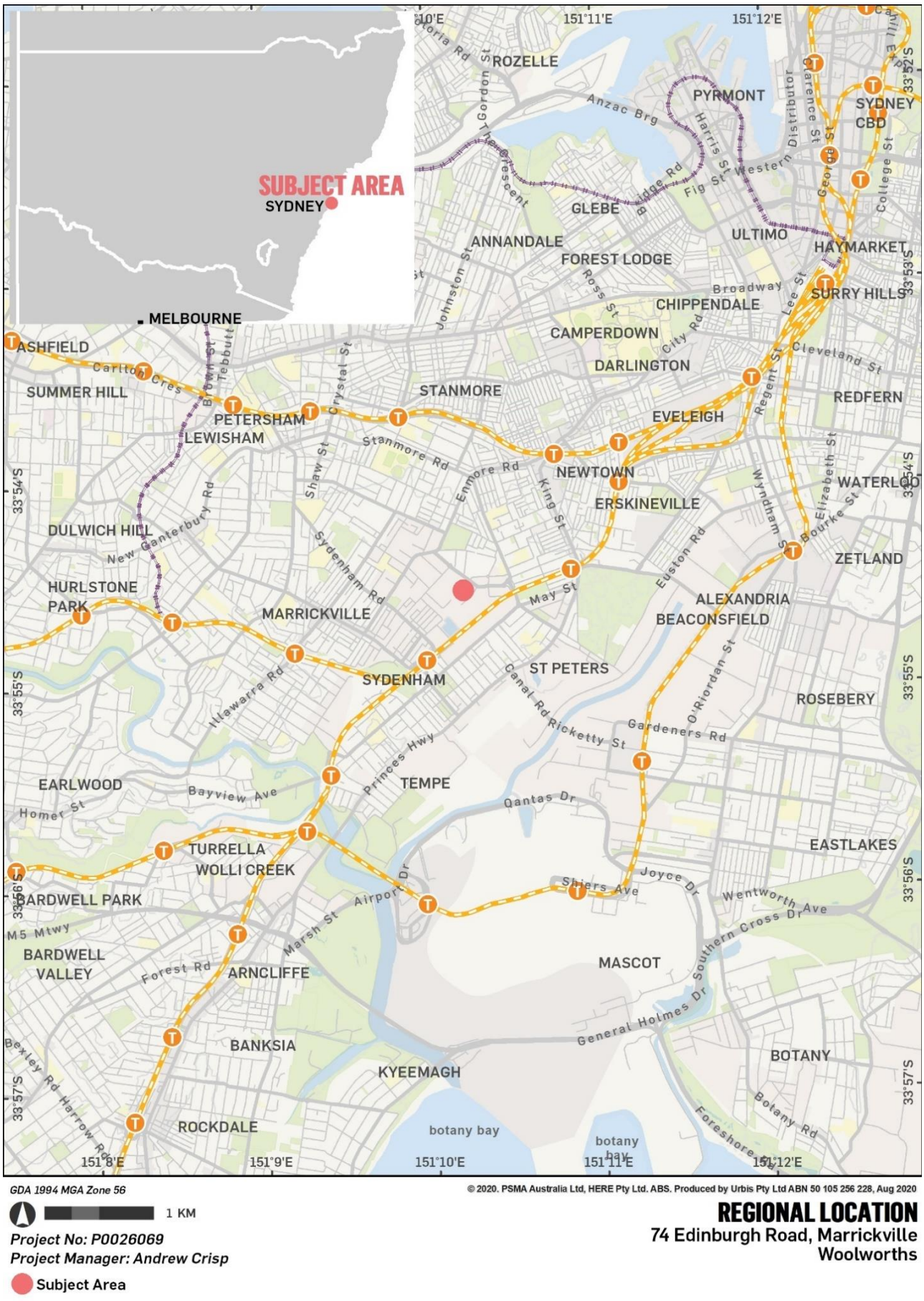


Figure 2 - The Site: Location of proposed warehouse and Customer Fulfillment Centre
Source: Nettleton Tribe



GDA 1994 MGA Zone 56

1 KM

Project No: P0026069
Project Manager: Andrew Crisp

Subject Area

REGIONAL LOCATION
74 Edinburgh Road, Marrickville
Woolworths

Figure 3 – Regional Location

Figure 4 – Location of the Subject Area

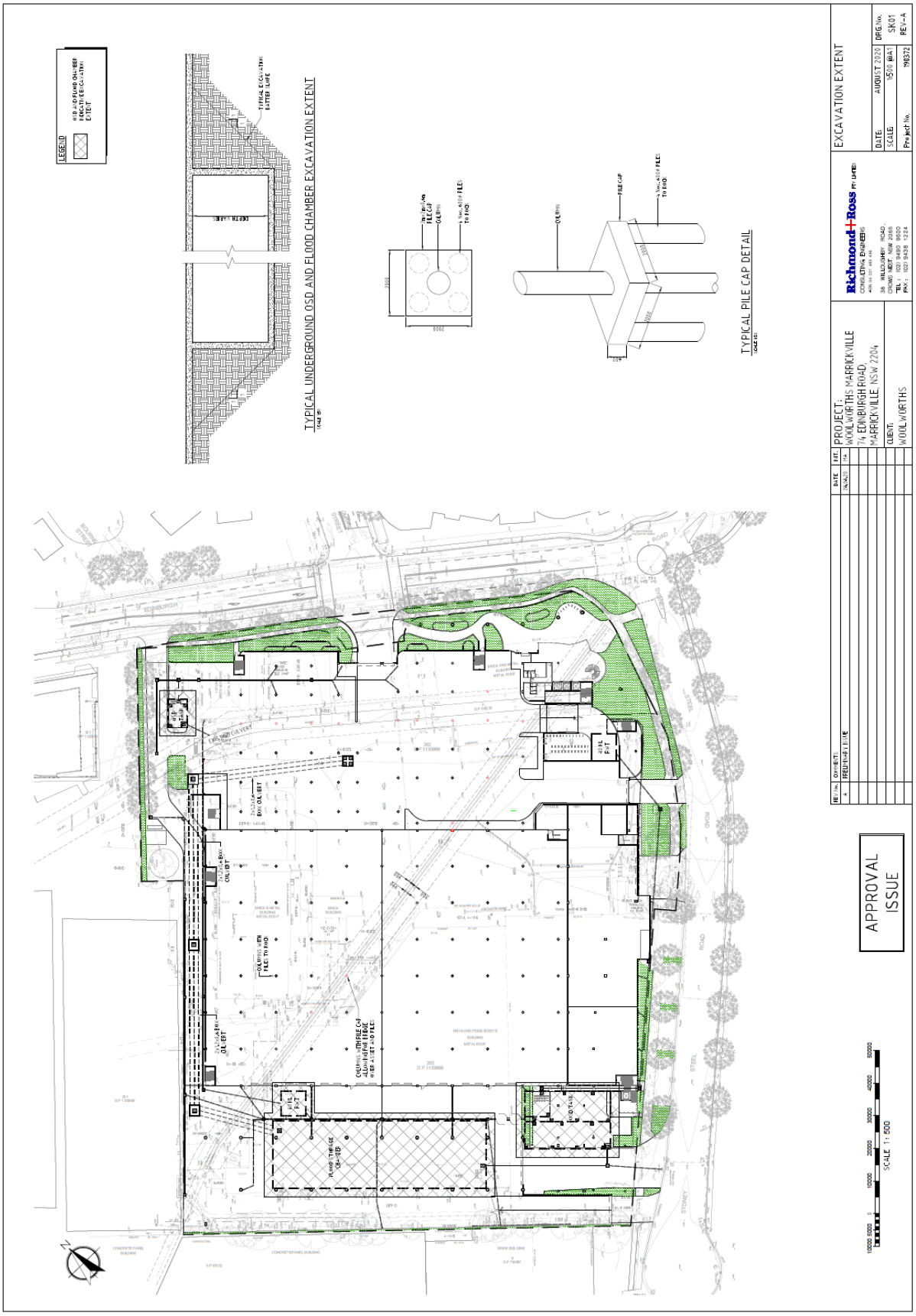


Figure 5 – Plan of subsurface impacts of proposed works
Source: Richmond+Ross

1.5. STATUTORY CONTROLS

Management of Aboriginal objects is under the statutory control of the *National Parks and Wildlife Act 1974 (NPW Act)* further regulation of the process is outlined in the *National Parks and Wildlife Regulations 2009 (NPW Reg).* This ACHA has been carried out in accordance with Part 6 of the NPW Act and Part 8A of the NPW Reg. The ACHAR was prepared the statutory guidelines under the NPW Act including:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (Department of Environment, Climate Change and Water (DECCW), 2010) (the Consultation Guidelines).
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage 2011) (the Assessment Guidelines).
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010).
- *The Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013 (Burra Charter.*

The ACHA is to accompany the State Significant Development Application (SSDA) for a new warehouse facility and associated infrastructure within the subject area. The ACHA is to be carried out in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011)*.

1.5.1. Marrickville Local Environment Plan 2011

As legislated by the Environmental Planning and Assessment Act 1979 (EP & A Act), each LGA is legally obliged to produce a Local Environment Plan (LEP). Within each LEP, Schedule 5 provides relevant information on locally listed heritage items, identifying items and areas of local heritage significance, and outlining consent requirements.

The subject area falls within the Inner West Local Government Area (LGA) and is subject to the Marrickville Local Environmental Plan (LEP) 2011. Under the Marrickville LEP 2011 (Clause 5.10(2)) development consent is required for:

(i) Demolishing or moving or altering the exterior of a heritage item, an Aboriginal object, or a building, work, relic or tree within a heritage conservation area;

(ii) Altering a heritage item or a building, work, relic or place within a heritage conservation area, including (in the case of a building) making changes to the detail, fabric, finish or appearance of its exterior;

(iii) Altering a heritage item that is a building by making structural changes to its interior;

(iv) Disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed;

(v) Disturbing or excavating a heritage conservation area that is a place of Aboriginal heritage significance;

(vi) Erecting a building on land on which a heritage item is located or that is within a heritage conservation area; or

(vii) Subdividing land on which a heritage item is located or that is within a heritage conservation area.

A search of the Marrickville LEP Schedule 5 was undertaken on 13 August 2020. This search did not identify any heritage or archaeological items within the curtilage of the subject area. The following heritage items were identified in proximity to the subject area (within an approximate 500m radius) (Figure *7*):

- Item 74: ‘Enmore Box and Case Factory, including interiors’ at Empire Lane (southern corner of Shelley Lane), Marrickville.
- Item 81: ‘Flood storage reserve and brick drain (Sydenham Pit and Drainage Pumping Station 1)’ at Garden Street, Marrickville (also listed on the NSW State Heritage Register as SHR 01644).
- Item 98: ’Brick paving’ at sections of Juliett Street, Llewellyn Street, Enmore Road, Victoria Road, Bourne Street, Lynch Avenue and Murray Street, Marrickville.

- Item 124: ‘Mill House, including interiors’ at 34 Victoria Road (part), Marrickville.
- Item 125: ‘Stead House (circa 1850s, also known as Frankfort Villa and Waterloo Villa), including interiors’ at 12 Leicester Street, Marrickville.
- Item 147: ‘St Pius Church, Church Hall and Presbytery, including interiors’ at 290 Edgeware Road, Newtown.
- Item 160: ‘Terrace housing, including interiors’ at 2–24 Laura Street, Newtown.
- Item 175: ‘Group of Victorian italianate and Federation period transitional style terraces, including interiors’ at 29–37 Trade Street, Newtown.
- Item 178: ‘Federation period shop including original shopfront and original interior detailing, including interiors’ at 110 Audley Street, Petersham.
- Item 280: ‘Waugh & Josephson industrial buildings former — Inter-war Functionalist Showroom and offices and workshop, including interiors’ at 1–7 Unwins Bridge Road, St Peters.
- Item 281: ‘Town and Country Hotel, including interiors’ at 2 Unwins Bridge Road (corner Campbell Road), St Peters.
- Item 282: ‘Group of Victorian filigree and Victorian italianate terrace houses — “Narara”, including interiors’ at 4–18 Unwins Bridge Road, St Peters.
- Item 336: ‘Electricity substation No 42 (whole site)’ at Fitzroy Street, Marrickville.

The nearest of the above heritage items to the subject area are Item 336, approximately 170m to the north west of the subject area, and Item 81, approximately 175m to the south-west of the subject area.

1.5.1. Marrickville Development Control Plan 2011

As legislated by the EP & A Act, each LGA is legally obliged to produce a Development Control Plan (DCP). Not all LGAs provide information regarding Aboriginal cultural heritage and specific development controls to protect Aboriginal cultural heritage.

The subject area is encompassed by the Marrickville Development Control Plan (DCP) 2011. Part 8 of the Marrickville DCP addresses heritage items, heritage conservation areas (HCAs), archaeological sites and Aboriginal heritage and identifies controls to minimise negative impacts of development on such heritage items.

Controls relating to Aboriginal cultural heritage from the Marrickville DCP 2011 and are outlined in Table 2 below.

The Marrickville DCP 2011 also identifies Heritage Conservation Areas, as indicated in Figure 6 below. The present subject area is not located within a Heritage Conservation Area. The subject area falls within the Sydney Steel Precinct (Precinct 43) of the Marrickville DCP 2011.

Table 2 – Marrickville DCP 2011 Aboriginal cultural heritage controls

Section	Text	Response
Part 8.1.11 - Places of Aboriginal heritage significance	C23 Known and potential Aboriginal places and objects must be preserved and protected when development occurs.	This report is prepared to identify any known or potential Aboriginal places and objects within or near the subject area.
Part 8.1.11 - Places of Aboriginal heritage significance	C24 No excavation of ground surfaces can occur in areas surrounding a known or potential Aboriginal site.	This report is prepared to identify any known or potential Aboriginal sites within or near the subject area.

Part 8.1.11 - Places of Aboriginal heritage significance	C25 Building or landscaping works, paths and driveways must be located away from Aboriginal sites to allow for in-situ preservation of artefacts	This report is prepared to identify any known or potential Aboriginal sites within or near the subject area.

1.6. OBJECTIVES

The objectives of this ACHAR are to:

- Investigate the presence, or absence, of Aboriginal objects and/or places within and in close proximity to the subject area, and whether those objects and/or places would be impacted by the proposed development.
- Investigate the presence, or absence, of any landscape features that may have the potential to contain Aboriginal objects and/or sites and whether those objects and/or sites would be impacted by the proposed development.
- Document the nature, extent and significance of any Aboriginal objects and/or place and sites that may located within the subject area.
- Document consultation with the Registered Aboriginal Parties (RAPs) with the aim to identify any spiritual, traditional, historical or contemporary associations or attachments to the subject area and any Aboriginal objects and/or places that might be identified within the subject area.
- Provide management strategies for any identified Aboriginal objects and/or places or cultural heritage values.
- Provide recommendations for the implementation of the identified management strategies.
- Prepare a final Aboriginal Cultural Heritage Assessment Report (ACHAR) to accompany SSD 10468.

1.7. AUTHORSHIP

This ACHAR has been prepared by Aaron Olsen, Urbis Assistant Archaeologist, and Andrew Crisp, Urbis Senior Archaeologist, with review and quality control undertaken by Balazs Hansel, Urbis Associate Director Archaeology.

Aaron Olsen holds a Bachelor of Science (Honours – First Class in Chemistry) and PhD (Chemistry) from the University of Newcastle and a Master of Industrial Property from the University of Technology Sydney and is currently completing a Diploma of Arts (Archaeology) at the University of Sydney. Andrew Crisp holds a Bachelor of Arts (Honours – First Class in Archaeology) from the University of Sydney. Balazs Hansel holds a Masters (History) from the University of Szeged in addition to Masters (Archaeology and Museum Studies) from the University of Szeged.

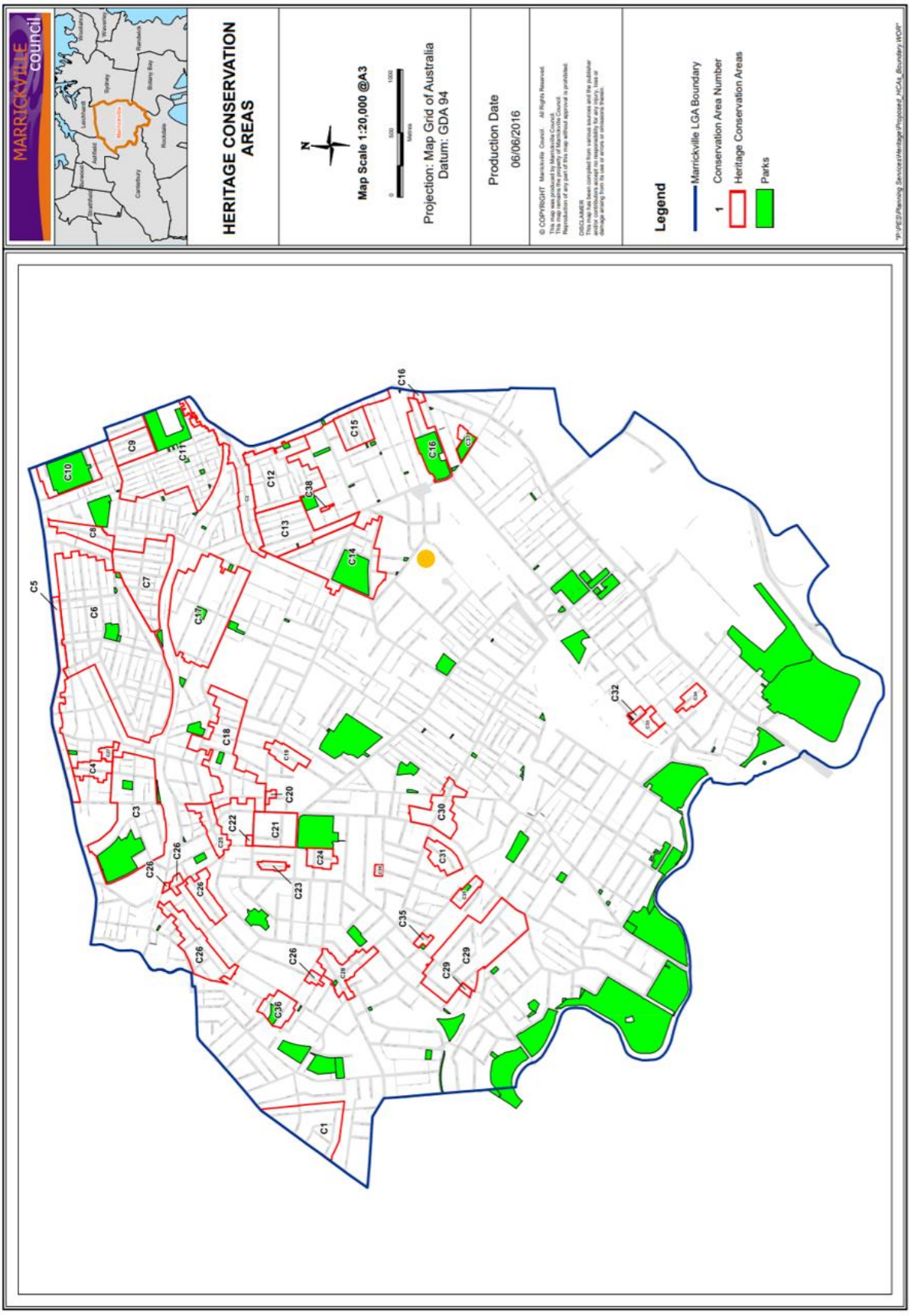


Figure 6 – Heritage Conservation Areas encompassed by Marrickville DCP 2011with approximate location of subject area indicated by the yellow dot.
Source: Marrickville DCP 2011

Figure 7 – Historical Heritage Items in the vicinity of the Subject Area.

2. ARCHAEOLOGICAL CONTEXT

2.1. ABORIGINAL ARCHAEOLOGICAL BACKGROUND

This section comprises the summary of the archaeological background research for Aboriginal cultural heritage resources. This includes the search of the Aboriginal Heritage Information Management System (AHIMS), previous archaeological investigations pertinent to the subject area and landscape analysis.

2.1.1. Aboriginal Heritage Information Management System

The AHIMS database comprises previously registered Aboriginal archaeological objects and cultural heritage places in NSW and it is managed by the Department of Premier and Cabinet (DPC) under Section 90Q of the *National Parks and Wildlife Act 1974* (NPW Act). Aboriginal objects are the official terminology in AHIMS for Aboriginal archaeological sites. Henceforth, we will use the term of 'Aboriginal site(s)', 'AHIMS site(s)', 'archaeological site(s)' or 'sites' to refer and to describe the nature and spatial distribution of archaeological resources in relation to the subject area.

An extensive search of the AHIMS database was carried out on the 11th August 2020 (AHIMS Client Service ID: 526644) for an area of approximately 10 km^2. The basic and extensive AHIMS search results are included in Appendix A. A summary of all previously registered Aboriginal sites within the extensive search area is provided in Table 3 and Figure 8 and the spatial distribution of the sites is shown in Figure 9.

The AHIMS search identified no Aboriginal sites or Aboriginal places within, or in close proximity to, the subject area.

The nearest registered Aboriginal site to the subject area is AHIMS ID# 45-6-2654 (Figure 9). It is located in [redacted] is adjacent to the same tributary of the Cooks River as the present subject area is located. There is no available site card for AHIMS ID# 45-6-2654, but it is identified as a Potential Archaeological Deposit (PAD) in the AHIMS search results. A Permit to Carry Out Preliminary Research was issued for the site under s. 87(1) NPW Act 1974 (Permit #1639) to conduct small test excavations. Those excavations are described in McIntyre-Tamwoy (2003), which identifies the site as a shell deposit and potential midden. The excavation report concluded that the shell deposit is natural and therefore not a midden. The report recommends that the shell deposit be recorded in AHIMS as 'not a site'.

In the broader Extensive AHIMS search area a total of 70 Aboriginal sites are registered. In addition to AHIMS ID# 45-6-2654, four additional search results were subsequently identified as 'not a site' and two were identified as a 'duplicate'. These have been excluded from the analysis, reducing the number of sites in the extensive search area to 63 (see Table 3 and Figure 8).

Identified sites in the extensive search area include both open context and closed context sites, consistent with the varied landforms across the search area. The most common site types identified in the search are potential archaeological deposits (PADs), which represent 33% (n=21) of search results, and artefact scatters, which represent 14% (n=9) of search results. The high proportion of PADs is consistent with an urban environment, in which early development occurred on top of areas that may have been previously utilised by Aboriginal people. The relatively low to moderate ground disturbance associated with such early development may have acted to preserve underlying archaeological deposits. The densities of the artefact scatters vary from small scatters of as few as two objects to large scatters of hundreds of objects. Spatially, objects within the search area tend to be located primarily within proximity of waterways, especially Wolli Creek and the Cooks River, which are the major waterways in the area.

These results reflect an environment in which confirmed sites are mostly occurring as surface artefacts exposures and reinforces the generic predictive model for the Cumberland Plain, which suggests that Aboriginal objects are anticipated to occur in higher frequency and density within 200m of high order streams. Artefact scatters are also anticipated within 200m of lower order streams, but these are generally low density, background scatters and generally reflective of less prolonged, transitional use of the landscape.

It should be noted that the AHIMS register does not represent a comprehensive list of all Aboriginal objects or sites in a specified area as it lists recorded sites only identified during previous archaeological survey effort. The wider surroundings of the subject area and in general the Cumberland Plain area have been the subject of various levels and intensity of archaeological investigations during the last few decades. Most of the registered sites have been identified through targeted, pre-development surveys for infrastructure and maintenance works, with the restrictions on extent and scope of those developments.

Table 3 – AHIMS search results (Client Service ID: 526644)

Site Type	Context	Total	Percentage
PAD	Open	21	33%
Artefact Scatter	Open	9	14%
Shelter	Closed	7	11%
Midden	Open	6	10%
Shelter with Midden	Closed	5	8%
Isolated Find	Open	3	5%
Aboriginal Gathering	Open	2	3%
Artefact Scatter with Non-human Organic Material	Open	1	2%
Contact Site with Artefact Scatter	Open	1	2%
Grinding Groove	Open	1	2%
Midden with Artefact Scatter	Open	1	2%
Modified Tree	Open	1	2%
Shelter with Art	Closed	1	2%
Shelter with Art, Artefact Scatter and Midden	Closed	1	2%
Shelter with Burial and Midden	Closed	1	2%
Shelter with PAD	Closed	1	2%
Water Hole	Open	1	2%
Total		63	100%

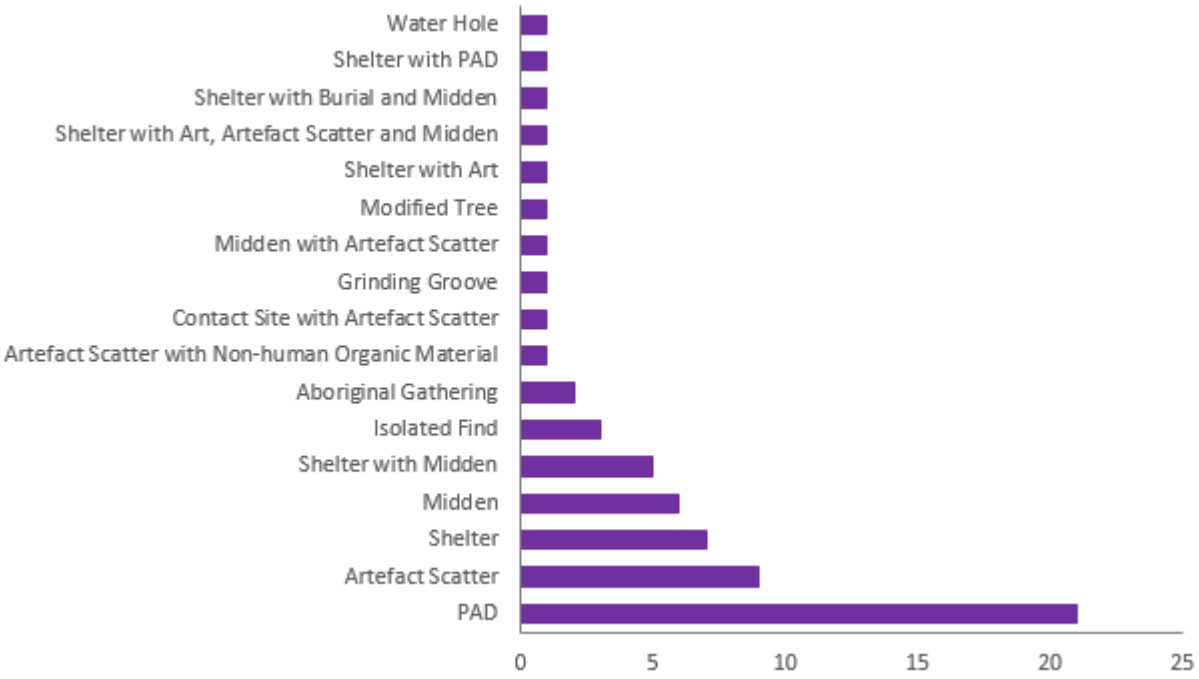


Figure 8 – Graph showing the results of AHIMS Search for Client Service ID: 526644

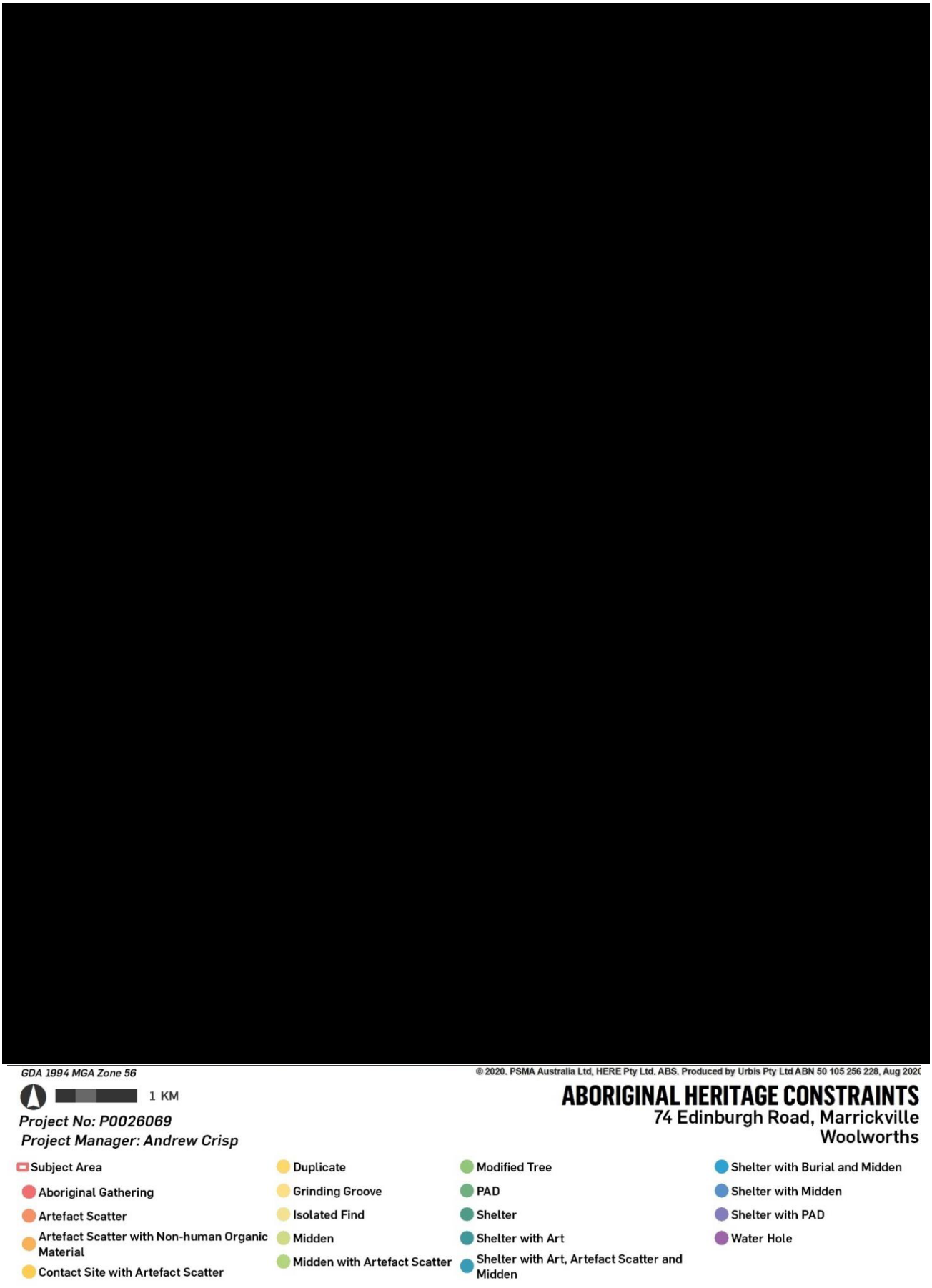


Figure 9 – Registered AHIMS sites

2.1.2. Regional Archaeological Context

Previous archaeological assessments across the Cumberland Plain provide important data on Aboriginal archaeological site distribution and typology. From this an understanding of the archaeological landscape within the subject area can be developed.

Aboriginal occupation in the Sydney region encompasses at least 20,000 years, with dates of 13,000 before present (BP) at Shaws Creek in the Blue Mountain foothills, 11,000 BP at Mangrove Creek and Loggers Shelter and c. 20,000 BP at Burrill Lake on the NSW South Coast (Attenbrow 2010). The majority of sites in the Sydney region have been dated to within the last 3,000 to 5,000 years. Many researchers propose that occupation the apparent intensification of occupation during this period may have been influenced by rising sea levels at the end of the Pleistocene epoch (the last 'ice age'), with sea levels reaching current levels by about 6,500 BP. Radiocarbon dating of charcoal samples from sand sheet contexts in proximity to the Cooks River have indicated occupation to the late Pleistocene (JMCHM 2005b). Older occupation sites along the now submerged coastline would have been flooded, with subsequent occupation concentrating and utilising resources along the current coastlines and changing ecological systems in the hinterland and the Cumberland Plain (Attenbrow 2010).

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 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.

After 8,500 BP silcrete was more dominant as a raw material and bifacial flaking became the most common technique for tool manufacture. From about 4,000 BP to 1,000 BP backed artefacts appear more frequently. Tool manufacture techniques become more varied 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). The reduction in evidence coincides with the reduction in frequency of backed blades as a percentage of the assemblage.

The archaeological evidence indicates that Aboriginal people were occupying the region around the subject area well before the arrival of the First Fleet in 1788. In the 1890s, dugong bones were discovered at Shea Creek during the construction of the Alexandra Canal, St Peters, approximately 1.4km south-west of the present subject area. The bones exhibited transverse and oblique cuts, which have been attributed to butchering by Aboriginal people (Etheridge et al. 1896). The dugong bones have been dated to around 5520±70 BP (Haworth et al. 2004). A shell midden was also found nearby at the St Peters Brickworks Quarry site , a In close proximity to the site of the dugong bone finding, suggesting the area was frequented by Aboriginal people for obtaining food (Moran & Conyers 1983).

After European colonisation, Aboriginal people of the Sydney region continued to manufacture tools, sometimes with new materials such as bottle glass, flint from ship ballast or ceramics. Flaked glass has been recorded at a number of sites across the Sydney region, for example, Prospect (Ngara Consulting 2003) and Ultimo (AHIMS ID# 45-6-2663). Evidence of Aboriginal occupation and resource use continues to exist in some urban sites that contain remnant portions of the original soil profile.

Based on the above background, it is possible that similar evidence of Aboriginal occupation will also be present within original and/or intact topsoils throughout the Sydney urban area, including the region surrounding the present subject area.

Figure 10 – Lower jaw of Dugong with cut marks, discovered at Shea's Creek, St Peters.
Source: Etheridge et al., 1896.

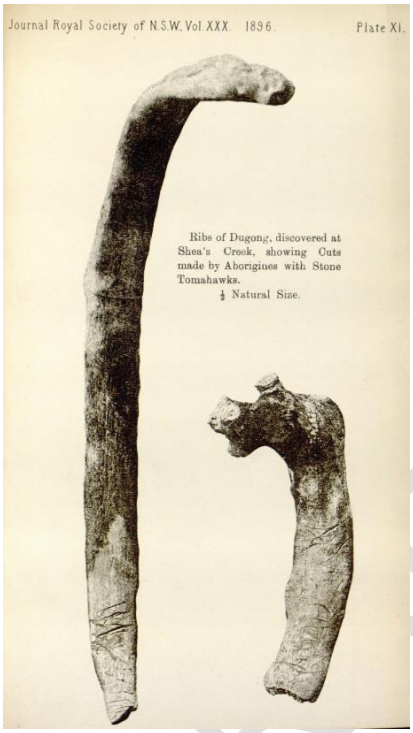


Figure 11 – Ribs of Dugong with cut marks, discovered at Shea's Creek, St Peters.
Source: Etheridge et al., 1896.

2.1.3. Local Archaeological Context

Previous archaeological investigations have provided invaluable information on the spatial distribution, nature and extent of archaeological resources in a given area. While there were no readily available previous assessments of the subject area itself, there have been several previous studies of a Sydney Metro City & Southwest site located on the opposite side of Sydney Steel Road. These studies are summarised in detail below. There have also been numerous archaeological investigations carried out in the surrounding area during the last 30 years. A number of these reports have been sourced from the AHIMS register. A summary of findings of the most pertinent to the subject area is provided in Table 4.

Artefact, May 2016. Sydney Metro Chatswood to Sydenham, Aboriginal Heritage – Archaeological Assessment.

As part of the Sydney Metro City & Southwest Chatswood to Sydenham project (SSI 7400), an Aboriginal archaeological assessment of the proposed dive site at Marrickville was undertaken by Artefact in May 2016. The Marrickville dive site is located adjacent of the present subject area, on the opposite side of Sydney Steel Road (Figure 12).

The report notes that the site is likely to have been originally located on the margin of a low-lying drainage channel, which was canalised during industrial and commercial development of the area (Figure 13 and Figure 14). Given the discovery of butchered dugong bones in nearby Shea Creek during the construction Alexandra Canal in the 1890s (Etheridge et al. 1896), the area may have been a tidally influenced estuary utilised by Aboriginal people for its resources.

Geotechnical information from boreholes placed in the nearby Murray Street road easement and the Edgeware Road easement indicate a soil profile consisting of between 0.7–1.3 m of fill overlying a 0.6 m of thick silty clay alluvium layer, which overlies residual sediments to a depth of 7.5 m. Despite an extensive built environment and drainage modification, the deep nature of the residual underlying sediments indicates that there is likely to be some remaining archaeological potential at the site. The report concludes that there is moderate-high archaeological potential for Aboriginal objects in sub-surface contexts where there have not been extensive sub-surface impacts.

The report recommended further archaeological investigation of the site, potentially including archaeological test and salvage excavation, where surviving natural soils are identified.

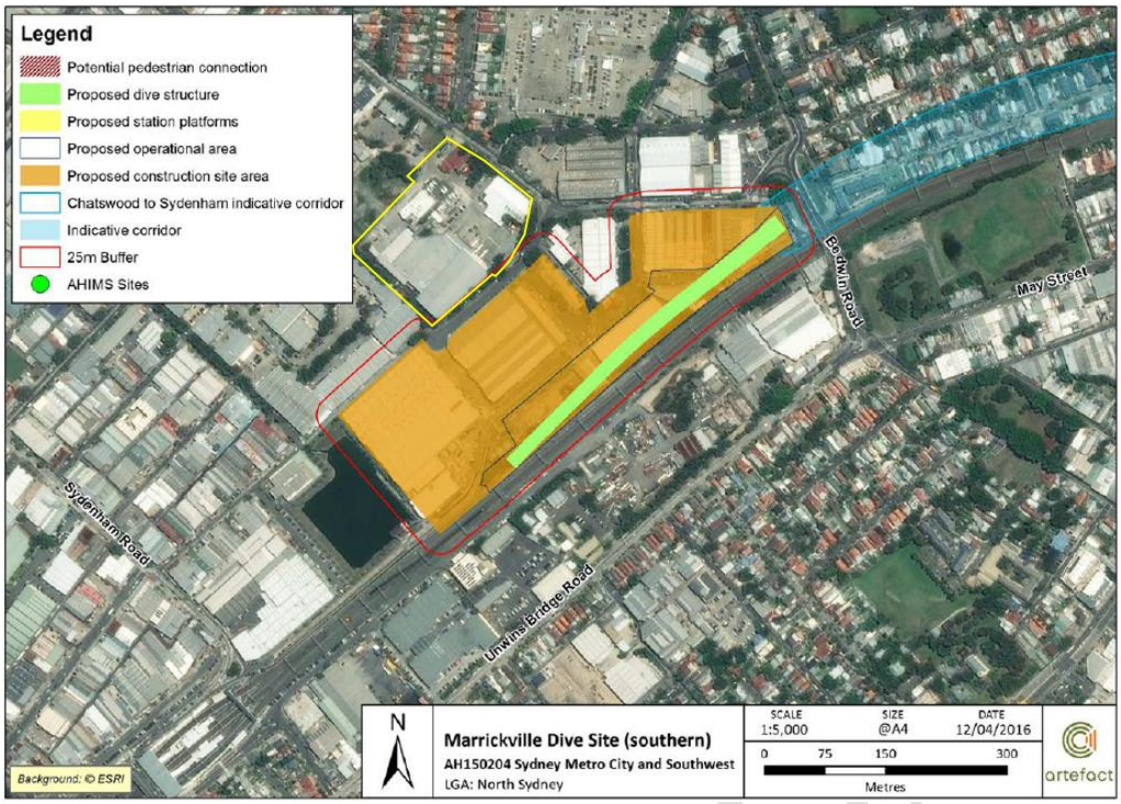


Figure 12 – Location of the Proposed Marrickville dive site for the Sydney Metro City & Southwest with the present subject area indicated by yellow outline
Source: Artefact, May 2016.

Figure 13 – View south-west of Murray Street showing canal
Source: Artefact, May 2016.

Figure 14 – View south across Sydenham Drainage Pit and Pumping Station
Source: Artefact, May 2016.

Artefact, October 2016. Sydney Metro Chatswood to Sydenham, Aboriginal Cultural Heritage Assessment.

An Aboriginal Cultural Heritage Assessment Report (ACHAR) was produced for the Sydney Metro City & Southwest Chatswood to Sydenham project (SSI 7400), subsequent to the Aboriginal Archaeological Assessment (Artefact, May 2016). The ACHAR encompassed the Marrickville dive site, located adjacent of the present subject area on the opposite side of Sydney Steel Road (Figure 12).

The ACHAR reiterated the finding that the site had moderate to high archaeological potential, based on the presence of natural sediments below built structures. Archaeological test excavation was recommended as a harm mitigation measure where intact soil profiles are encountered with the potential to contain archaeological deposits.

Table 4 – Summary of previous Aboriginal archaeological assessments

Report	Summary	Analysis	Key learnings
Artefact, 2017. Sydney Metro City & Sydenham to Bankstown Upgrade, Technical Paper 4, Aboriginal Heritage Impact Assessment.	Aboriginal Heritage Impact Assessment for the Sydney Metro City & Sydenham to Bankstown Upgrade, which runs from Marrickville Station to Bankstown Station. The study area includes Marrickville Station, approximately 1.5 km south-west of the present subject area and approximately 1 km from the nearest waterway (the Cooks River). The Marrickville Station site was assessed to have been largely disturbed by construction of Marrickville Station, the existing commuter and goods railway lines and surrounding residential and commercial buildings. The archaeological potential of the Marrickville Station site was assessed to be nil to low due to its distance from the nearest water and extensive historical ground disturbance that would have impacted any surface or subsurface Aboriginal sites.	• Proximity to waterways is correlated with archaeological potential. • Historical ground disturbance may significantly reduce the archaeological potential of a site.	• The location of the subject area at the confluence of two waterways indicates a high archaeological potential, although this may be reduced by historical ground disturbance.
GML, 2015. Stages 11, 12 and 13, Discovery Point, Aboriginal Heritage Due Diligence Report.	Aboriginal Heritage Due Diligence Report for the Discovery Point Development Precinct, approximately 2.5 km south-west of the present subject area. Geotechnical coring indicated that the subject area consisted of historical fill overlaying waterlogged estuarine mud, which was unlikely to have been inhabited by Aboriginal people. Additionally, it was determined to be unlikely that any original land surface or archaeological deposit remains intact above the water table, due to historical land disturbance. The assessment found that it was unlikely that any Aboriginal objects would be found in the study area.	• Aboriginal objects may be preserved below historical fill in soil landscapes likely to have been frequented by Aboriginal people. • Historical ground disturbance may reduce the archaeological potential of a site.	• Historical fill in the subject area may preserve archaeological deposits in underlying intact natural soils.

GML, 2014. 200 George Street, Sydney Aboriginal Archaeological Excavation.	Report for Aboriginal test excavation undertaken on an area of identified PAD at 200 George Street. The assessment was triggered by the identification of natural soils during historical archaeological investigations. No Aboriginal objects or sites were identified during test excavation. This is attributed to the pre-colonisation landscape and environmental conditions being unsuitable for Aboriginal occupation in this area.	• Intact natural soil may remain even in urban, highly developed areas. • While the presence of natural soils does not necessarily indicate the presence of Aboriginal objects, it does identify a need for further investigation. • Landscape and environmental factors play a significant role in determinations of archaeological potential.	• Intact natural soil may remain within the subject area.
Biosis, 2012. The Quay Project, Haymarket: Aboriginal Cultural Heritage Assessment Final Report	Aboriginal Cultural Heritage Assessment resulting from the identification of intact natural soil during historical archaeological salvage excavations. Biosis concluded that significant and extensive modification of the landscape since the late 18th Century would likely have removed all traces of Aboriginal occupation through the removal of the soil profile. During historic excavations, remnant deposits of natural soil were encountered triggering the need for further Aboriginal archaeological assessment. No artefacts were identified within the remnant soils during test excavation. During historical salvage excavation of a European post hole, a single lithic artefact was identified. This was clearly in a disturbed context and did not change the conclusion that the archaeological potential of the site was considered to be low with the artefact determined to be of low significance.	• Intact natural soil may remain even in urban, highly developed areas. • While Aboriginal objects may occur in areas of high disturbance, this disturbance will likely impact on the associated significance. • While the presence of natural soils does not necessarily indicate the presence of Aboriginal objects, it does identify a need for further investigation.	• Aboriginal archaeological deposits may remain within the subject area despite historical ground disturbance.

Biosis, 2012. 445-473 Wattle St, Ultimo: Proposed Student Accommodation Development, Aboriginal Cultural Heritage Assessment Report.	Aboriginal Cultural Heritage Assessment in relation to the potential for Aboriginal objects or areas of sensitivity in Ultimo. Disturbance across the subject site included single-storey brick commercial buildings as well as concreting and asphalting, all of which reduced ground surface visibility during the field survey. Biosis argued that, despite the development on the site, it was likely that deep portions of alluvial soils would be retained across the area beneath European fill and that these soils, at a depth of approximately 7m, would have moderate-high archaeological potential due to the other landscape features present (namely the proximity of Blackwattle Creek).	• Highly developed urban environment. • Suggests artefact bearing soils may still be present at great depth despite the presence of development and imported fill.	• Aboriginal archaeological deposits may remain within the subject area despite historical ground disturbance.
Comber Consultants Pty Ltd, 2009. Draft Aboriginal Cultural Heritage Assessment, Sydney Metro Network Stage 2 (Central-Westmead)	Draft Aboriginal Cultural Heritage Assessment for Sydney Metro Network Stage 2 (Central-Westmead). The study area includes Broadway-Sydney University, approximately 3.25 km north-east of the present subject area. A field survey of the study area did not identify any Aboriginal objects. Previous excavations indicated that the study area had been subjected to ground disturbance, due to historical agricultural use and subsequent construction of the university buildings and landscaping. The original land surface would have been cut and filled for construction purposes, causing significant disturbance. As a result of historical ground disturbance, it was expected that no sub-surface evidence of Aboriginal occupation would remain.	• Aboriginal archaeological deposits may not remain in areas where historical ground disturbance has impacted the subsurface.	• Aboriginal archaeological deposits may remain within the subject area where historical ground disturbance is relatively superficial.
JMCHM, 2006. Archaeological salvage of a stormwater easement and testing within the	Archaeological report for salvage excavations at Tempe House, Discovery Point, approximately 2.7 km south-west of the present subject area.	• Aboriginal archaeological deposits may remain in areas of historical disturbance.	• Aboriginal archaeological deposits may remain within the subject area despite historical

State Heritage Register Conservation Precinct at the former Tempe House, Discovery Point.	Despite considerable historical ground disturbance, the excavation recovered artefacts associated with stone tool manufacture and gathering of shellfish. Shells were recovered that were likely to have been collected by Aboriginal people from the mudflats at the margins of the Cooks River. The shells were dated to between 3,570-4,940 cal BP (calibrated years before present). Stone tools were recovered that were made from stone not likely to have been sourced in the local area. The evidence suggests short term use of the subject area for sourcing food.	• Waterways in the area were used as a source of food by Aboriginal people.	ground disturbance. • The location of the subject area near a waterway may be indicative of Aboriginal occupation.
JMCHM, 2006. Sydney University Campus 2010, Test Excavations at The University of Sydney Central Site, Darlington Campus.	Archaeological test excavations at The University of Sydney Darlington Campus, approximately 2.8 km north-east of the present subject area. The test excavation yielded a single flaked silicified tuff artefact from an intact B horizon below fill deposits and a buried A horizon.	• Intact natural soil may remain even in urban, highly developed areas. • While the presence of natural soils does not necessarily indicate the presence of Aboriginal objects, it does identify a need for further investigation. • Suggests artefact bearing soils may still be present at great depth despite the presence of development and imported fill.	• Aboriginal archaeological deposits may remain within the subject area despite historical ground disturbance.
Dominic Steele Consulting Archaeology, 2006. Aboriginal Archaeological Excavation Report, The KENS Site.	Archaeological Assessment for the KENS site (Kent, Erskine, Napoleon and Sussex Streets), involving excavation. These excavations were primarily focused at identifying European archaeological materials. A subsurface stone artefact assemblage was recovered during excavation despite high levels of disturbance associated with post-	• Highly developed urban environment. • Suggests that disturbance does impact potential, but that remnant natural soil in highly disturbed environments retains	• Aboriginal archaeological deposits may remain within the subject area despite historical ground disturbance.

	settlement development including 19th century terraces, hotels, garages, and a multi-storey carpark, as well as vacant lots and a section of the Western Distributor. The lithics were identified in an area to the north east below the basement floor level in an area of remnant natural soil. The stratigraphic record of the site identified that natural soil profiles were truncated and rapidly buried in the subject site in the early days of development.	archaeological potential.	
JMCHM, 2005. Archaeological Testing and Salvage Excavation at Discovery Point, Site #45-6-2737 in the former grounds of Tempe House, NSW.	Archaeological report for salvage excavations at Tempe House, Discovery Point, approximately 2.7 km south-west of the present subject area. Despite high levels of historical disturbance, evidence of an intact prehistoric occupation site was discovered in the sand body adjacent to the former Tempe House. A charcoal feature associated with stone artefacts was radiocarbon dated to 10,700 cal BP. Corresponding to the late Pleistocene, this was the earliest date found for an occupation site in the eastern coastal part of the Sydney Basin at the time.	• Aboriginal archaeological deposits may remain in areas of historical disturbance. • The region around the subject area was occupied by Aboriginal people for at least 10,000 years before European arrival. • Waterways in the area are associated with Aboriginal occupation sites.	• Aboriginal archaeological deposits may remain within the subject area despite historical ground disturbance. • The location of the subject area near a waterway may be indicative of Aboriginal occupation.
Dominic Steele Consulting Archaeology, 2002. Aboriginal Archaeological Assessment Report, the KENS Site	Aboriginal archaeological assessment report evaluating the likelihood for Aboriginal archaeological deposits to be present within the KENS site (discussed above), where heavy development had taken place post-settlement. The development included 19th century terraces, hotels, garages, and a multi-storey carpark, as well as vacant lots and a section of the Western Distributor. The assessment concluded that the area would likely have been utilised by Aboriginal people prior to European occupation, however, European occupation may limit the potential for intact Aboriginal materials to be located on the	• Highly developed urban environment. • Suggests that while disturbance may impact the likelihood for Aboriginal archaeological materials to survive on the surface *in situ* deposits may remain below imported fill in areas where soil has not been	• Aboriginal archaeological deposits may remain within the subject area despite historical ground disturbance.

	surface. DSCA suggested that below imported fill associated with this occupation and development, subsurface evidence of Aboriginal utilisation of the area may occur.	completely removed.	
Dominic Steele Consulting Archaeology, 2002. Salvage Excavation Potential Aboriginal Site, 589-593 George Street, Sydney.	Salvage excavation report for a potential midden site, AHIMS ID# 45-6-2637. This site was identified during historic archaeological excavations for a range of 19th century terraces that documented the early European occupation of 'Brickfield Hill'. The potential site was described as a thin band of shell that was present below European deposits. No associated Aboriginal archaeological features were found with the shell and it was determined that the shells related to the European use of the site, with the shells representing mortar practices.	• Provides methodology for determining origin of midden sites. • Concluded lack of Aboriginal objects suggests non-Aboriginal origin for shell deposit.	• It is considered unlikely that middens will occur within the subject area on the basis of the landscape features present.
Godden Mackay Heritage Consultants, 1997. Angel Place Final Excavation Report.	Salvage excavation report for the excavation of AHIMS ID#45-5-2581, an open camp site identified adjacent to the central Sydney Tank Stream. This was undertaken through a consent to destroy permit. The salvage excavation identified fifty-four flaked stone artefacts within the area. GML identified that the site was the first to be located in the Tank Stream easement, however they concluded that this was due to the high amount of disturbance post-settlement in this area of Sydney and, further, that the distribution of artefacts recovered suggests a contiguous distribution of lithics on the banks of the tank stream, from continuous or repetitive periods of occupation.	• Disturbed urban environment located in close proximity to a major water source. • Results suggesting that disturbance may not necessarily entirely remove the potential for Aboriginal objects to be recovered from what would have been originally a high potential landform but may impact density.	• Aboriginal archaeological deposits may remain within the subject area despite historical ground disturbance.

2.1.4. Summary of Previous Archaeological Investigations

The conclusions drawn from the archaeological background information, including AHIMS results and previous pertinent archaeological investigations are the following:

- There are no registered Aboriginal sites located within, or in proximity to, the subject area.
- The nearest registered Aboriginal site to the subject area is AHIMS ID# 45-6-2654, which is located approximately 900m to the south-west adjacent to the same ephemeral waterway as the subject area. It is recorded as a Potential Archaeological Deposit (PAD), although a later publication indicates it is not a site.
- While the location of previously identified archaeological sites may indicate a likelihood of identification of further archaeological sites in the same area, an absence of sites is not a reliable indicator of low archaeological potential as this may merely reflect a low number of archaeological investigations.
- Archaeological sites can be found on a variety of landscape features throughout the Sydney Basin, with higher frequency in the vicinity of waterways.
- Level of ground disturbance is likely to correlate with the potential for Aboriginal objects and/or sites to be identified, with higher disturbance generally lowering archaeological potential. However, intact archaeological deposits may be found in remnant natural soils beneath historic fill deposits or where the natural soil profile is deep.
- The potential for sub-surface archaeological deposits may exist where there is no visible surface evidence and in areas of ground disturbance.

2.2. GEOLOGY AND SOILS

The subject area is located within the Sydney Basin bioregion and entirely within the Birrong Soil Landscape (bg), although in close proximity to the Blacktown Soil Landscape (bt) (Figure 15).

The Birrong Soil Landscape is described as residing on level to gently undulating alluvial floodplain draining Wianamatta Group shales. Soils are described as deep (>250 cm) Yellow Podzolic Soils (Dy2.42, Dy3.12) and Yellow Solodic Soils (Dy3.42) on older alluvial terraces, or deep (>250 cm) Solodic Soils (Dy3.42) and Yellow Solonetz (Dy3.43) on current floodplains. Dominant soil materials include dark brown pedal silty clay loam, bleached hard setting clay loam, orange mottled silty clay, brown mottled clay, and light grey mottled saline clay.

The lower slopes of Blacktown soil landscape (bt) adjoin and occasionally overlap the Birrong soil landscape. The Blacktown Soil Landscape is described as residing upon gently undulating rises on Wianamatta Group shales and Hawkesbury shale. Soils are described as shallow to moderately deep (<100 cm) Red and Brown Podzolic Soils (Dr3.21, Dr3.11, Db2.11) on crests, upper slopes and well-drained areas; deep (150-300 cm) Yellow Podzolic Soils and Soloths (Dy2.11, Dy3.11) on lower slopes and in areas of poor drainage. Dominant soil materials include friable brownish-black loam, hard setting brown clay loam, strongly pedal mottled brown light clay, and light grey plastic mottled clays.

The Birrong Soil Landscape is prone to localised flooding and seasonal waterlogging. It is likely that the subject area was part of the Gumbramorra Swamp, which once occupied the Marrickville valley (Meader 2008). However, given its proximity to the Blacktown Soil Landscape and the fluctuation in size of the Gumbramorra Swamp (Meader 2008), the subject area was probably at its margins.

The depth of natural soils is relevant to the potential for archaeological materials to be present, especially in areas where disturbance is high. In general, as disturbance level increases, the integrity of any potential archaeological resource decreases. However, disturbance might not remove the archaeological potential even if it decreases integrity of the resources substantially. Although located close to the shallow Blacktown Soil Landscape, the relatively deep soils of the Birrong Soil Landscape in which the subject area is located may mitigate the effects of ground disturbance on archaeological potential.

As discussed in Section 2.8 below, disturbance is determined to be moderate to high across the subject area, resulting from vegetation clearance, historical commercial and industrial activities and the construction of the canal. However, any impact of ground disturbing activities may be restricted to the upper portions of the natural soil profile. It is considered that archaeological potential may remain in sub-surface deposits where the natural soil profile is intact.

2.3. VEGETATION AND RESOURCES

Although the subject area includes a number of mature trees, there is no remnant vegetation currently present due to historical land clearance (see Section 2.8 below). At the time of European settlement, the subject area would likely have been covered in native forest and woodland vegetation consistent with the Birrong soil landscape, including ironbark *Eucalyptus paniculata*, turpentine *Syncarpia glomulifera*, and Sydney blue gum *E. saligna*.

Resources would include a variety of floral and faunal species that may have been utilised by Aboriginal people for medicinal, ceremonial and subsistence purposes.

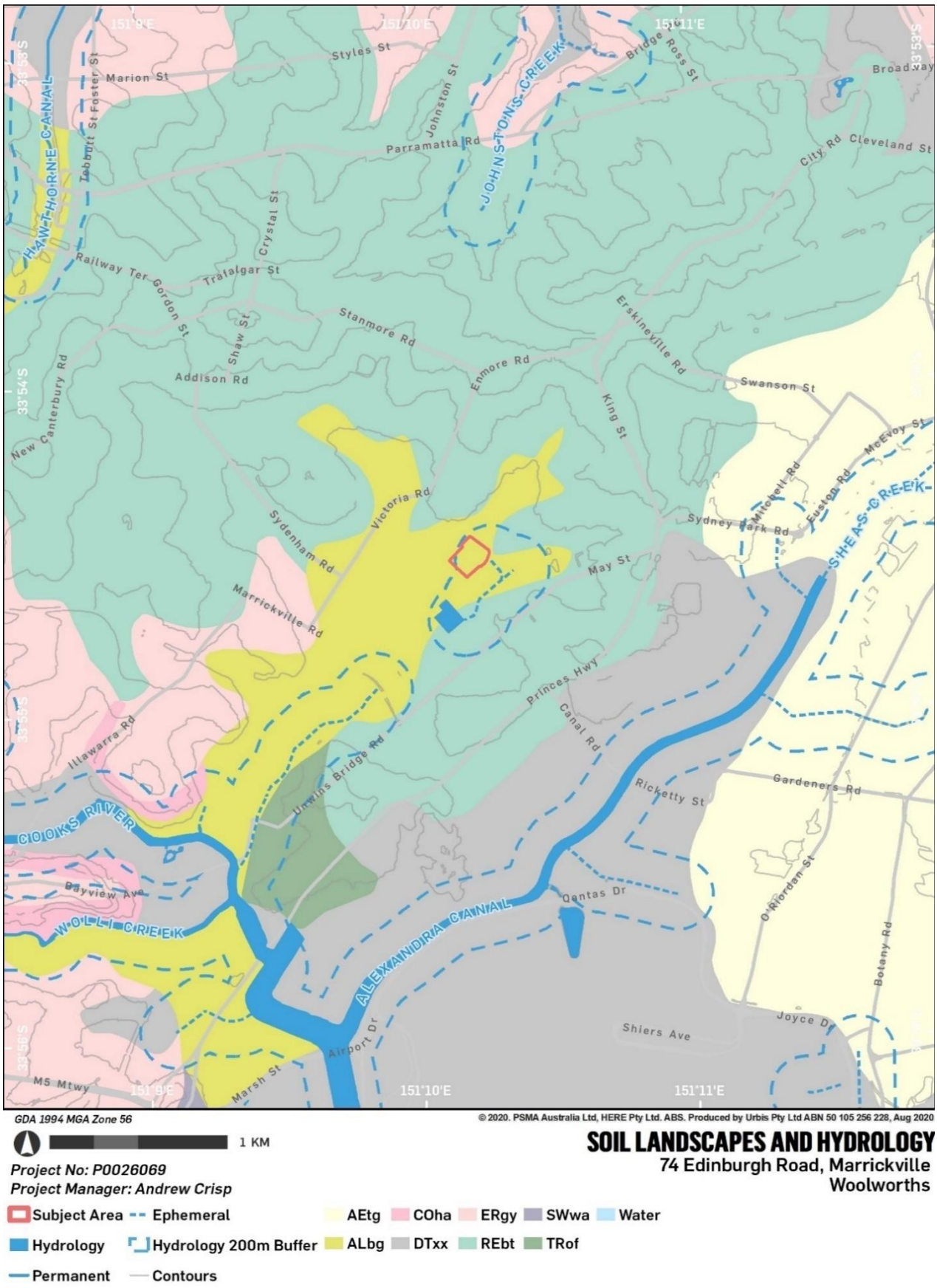


Figure 15 – Soil Landscapes and Hydrology

2.4. HYDROLOGY

The subject area lies within 200m of a bifurcated concrete-lined canal running in a south-westerly direction towards the Cooks River, approximately 2km away. The canal flows into the Sydenham Pit and Drainage Pumping Station 1 (see Section 1.5.1 above) south-west of the subject, after which it continues underground for approximately 500m before re-emerging as an aboveground canal for the remainder of the distance to the Cooks River. One arm of the canal runs underneath Lot 101 DP 1237269 of the subject area, which is the linear parcel of land dividing the separate portions of Lot 202 DP 1133999 (Figure 4).

As indicated by the 'Plan of Storm Water Drainage Scheme, Marrickville' of 1892 (Figure 16), the canal has replaced a former natural tributary of the Cooks River. The tributary was likely part of the natural drainage system for Gumbramorra Swamp. The arm of the canal running underneath Lot 101 DP 1237269 of the subject area follows a northerly diversion of the natural waterway, while the main line of the canal runs to the east of both the natural waterway and the planned drain of Figure 16. The natural waterway appears to have originally marked the southern and eastern boundaries of the present subject area (Figure 16).

From the AHIMS search results (see Section 2.1.1**Error! Reference source not found.** and Figure 9) and the generic predictive model for the Cumberland Plain, sites can be anticipated to be higher in frequency and density in proximity to waterways. The proximity of the subject area to the confluence of two natural tributaries suggests a moderate to high potential for finding Aboriginal objects in the subject area.

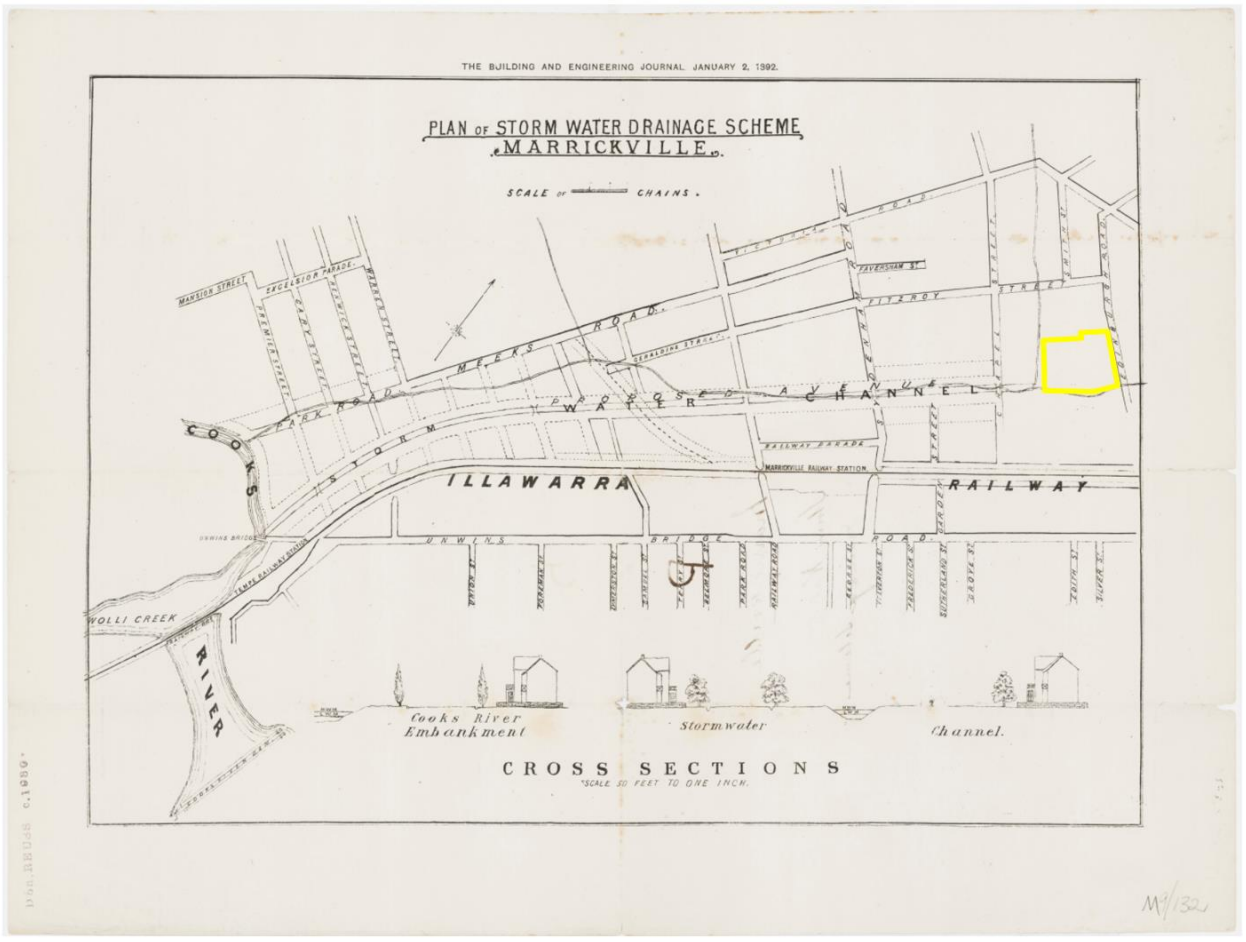


Figure 16 – 'Plan of Storm Water Drainage Scheme, Marrickville' from 1892 with approximate location of subject area indicated by yellow outline
Source: State Library of NSW

2.5. LANDFORM

2.5.1. Assessment Framework

There are varying morphological types of Landform elements (see Figure 17 and Figure 18). The Australian Soil and Land Survey Field Handbook (CSIRO, 2009) identifies ten landform element types. These types are described in Table 5 below.

Table 5 – Landform Definitions

Type	Definition
Crest (C)	Landform element that stands above all, or almost all, points in the adjacent terrain. It is characteristically smoothly convex upwards in downslope profile or in contour, or both. The margin of a crest element should be drawn at the limit of observed curvature.
Hillock (H)	Compound landform element comprising a narrow crest and short adjoining slopes, the crest length being less than the width of the landform element.
Ridge (R)	compound landform element comprising a narrow crest and short adjoining slopes, the crest length being greater than the width of the landform element.
Simple Slope (S)	Slope element adjacent below a crest or flat and adjacent above a flat or depression.
Upper Slope (U)	Slope element adjacent below a crest or flat but not adjacent above a flat or depression.
Mid Slope (M)	Slope element not adjacent below a crest or flat and not adjacent above a flat or depression.
Lower Slope (L)	Slope element not adjacent below a crest or flat but adjacent above a flat or depression.
Flat (F)	planar landform element that is neither a crest nor a depression and is level or very gently inclined (<3% tangent approximately).
Open Depression (vale) (V)	Landform element that stands below all, or almost all, points in the adjacent terrain. A closed depression stands below all such points; an open depression extends at the same elevation, or lower, beyond the locality where it is observed. Many depressions are concave upwards and their margins should be drawn at the limit of observed curvature.
Closed Depression (D)	Landform element that stands below all, or almost all, points in the adjacent terrain. A closed depression stands below all such points; an open depression extends at the same elevation, or lower, beyond the locality where it is observed. Many depressions are concave upwards and their margins should be drawn at the limit of observed curvature.

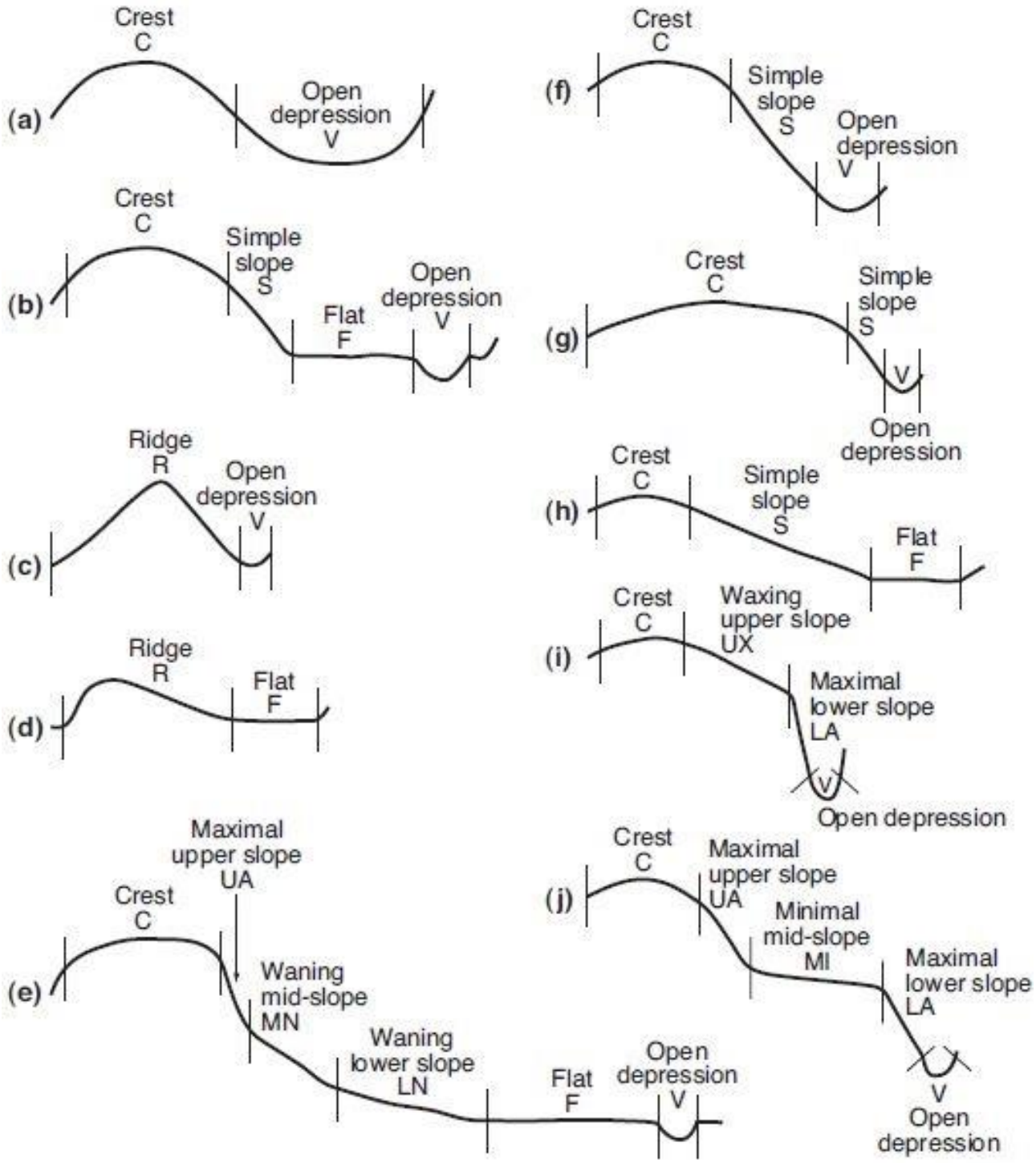


Figure 17 – Landform types
Source: CSIRO, 2009

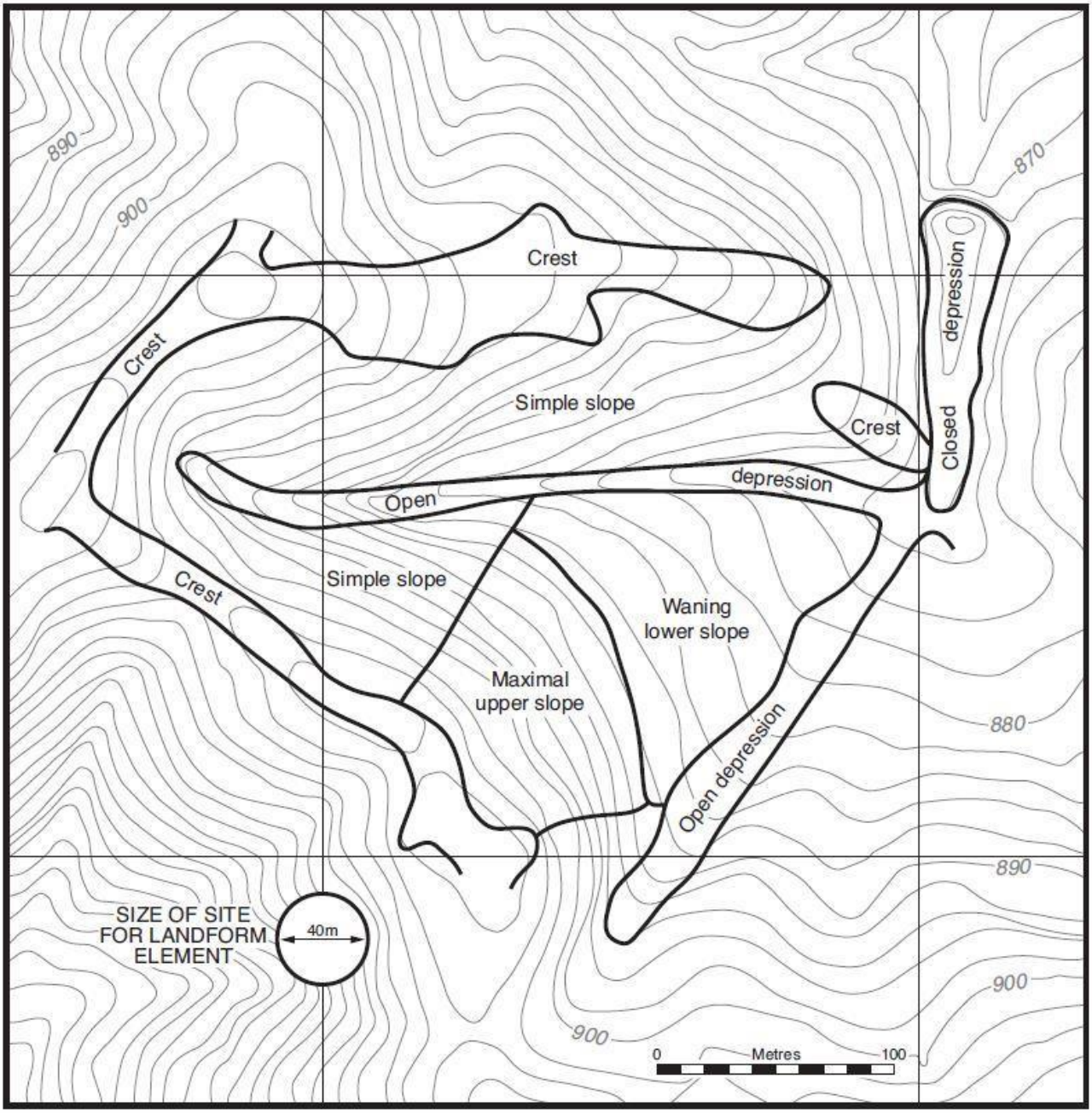


Figure 18 – Landform Patterns.
Source: CSIRO, 2009

2.5.2. Landform Assessment of the Subject Area

The present subject area is generally flat. The flat landform element is neither a crest nor a depression, with only a slight incline in a south-westerly direction in the case of the present subject area. This landform element is not associated with a high potential for Aboriginal objects.

2.6. GEOTECHNICAL ANALYSIS

A geotechnical analysis was undertaken in the subject area by JK Geotechnics (2015). The geotechnical analysis provided information on the subsurface conditions as a basis for an acid sulfate soil assessment and management plan for the subject area undertaken by Environmental Investigation Services (2015) for Masters Home Improvement.

Soil samples were obtained from eleven boreholes (BH1 to BH11), the locations of which are shown in Figure 14. The boreholes were drilled to total depths ranging from 1.95m to 12m below the existing ground surface. Borehole logs and are reproduced within Appendix A of this report. The results of the borehole tests are provided in Table 5 below.

The boreholes generally encountered concrete-capped surface fill overlaying natural silty clay that graded into shale bedrock. The silty clay is described as having medium to high plasticity, with colours including orange brown, red brown, light grey or grey mottled orange brown, grey mottled red brown, grey and dark grey. In the five boreholes that encountered bedrock (BH1, BH3, BH4, BH7 and BH8), the thickness of the silty clay layer ranged from 2.5m (BH7) to 9.2m (BH4). Standing water level was measured in the selected boreholes at depths of 2.5 to 8.8 mbgl.

These findings are consistent with Urbis' assessment that the subject area is located in the Birrong Soil Landscape, with ground disturbance likely being limited to the upper fraction of the natural soil profile.

Table 6 – Subsurface conditions encountered in the boreholes

Material	Description
Concrete/Asphaltic Concrete	Surface paving to a maximum depth of approximately 0.3m below ground level (bgl)
Fill	Sandy gravel, silty clay or gravelly silty sand, with gravel or brick inclusions in some cases. Maximum depths are in the range 0.3 to >6mbgl.
Silty Clay	Medium to high plasticity, with colours including orange brown, red brown, grey mottled orange brown, grey mottled red brown, grey and dark grey. Minimum depths range from 0.3 to 1.4 mbgl and maximum depths range from 9.1 to 10.6 mbgl.
Shale Bedrock	Generally grey or dark grey, with iron indurated bands and clay bands. Minimum depths ranging from 4.8 to 10.6 mbgl.

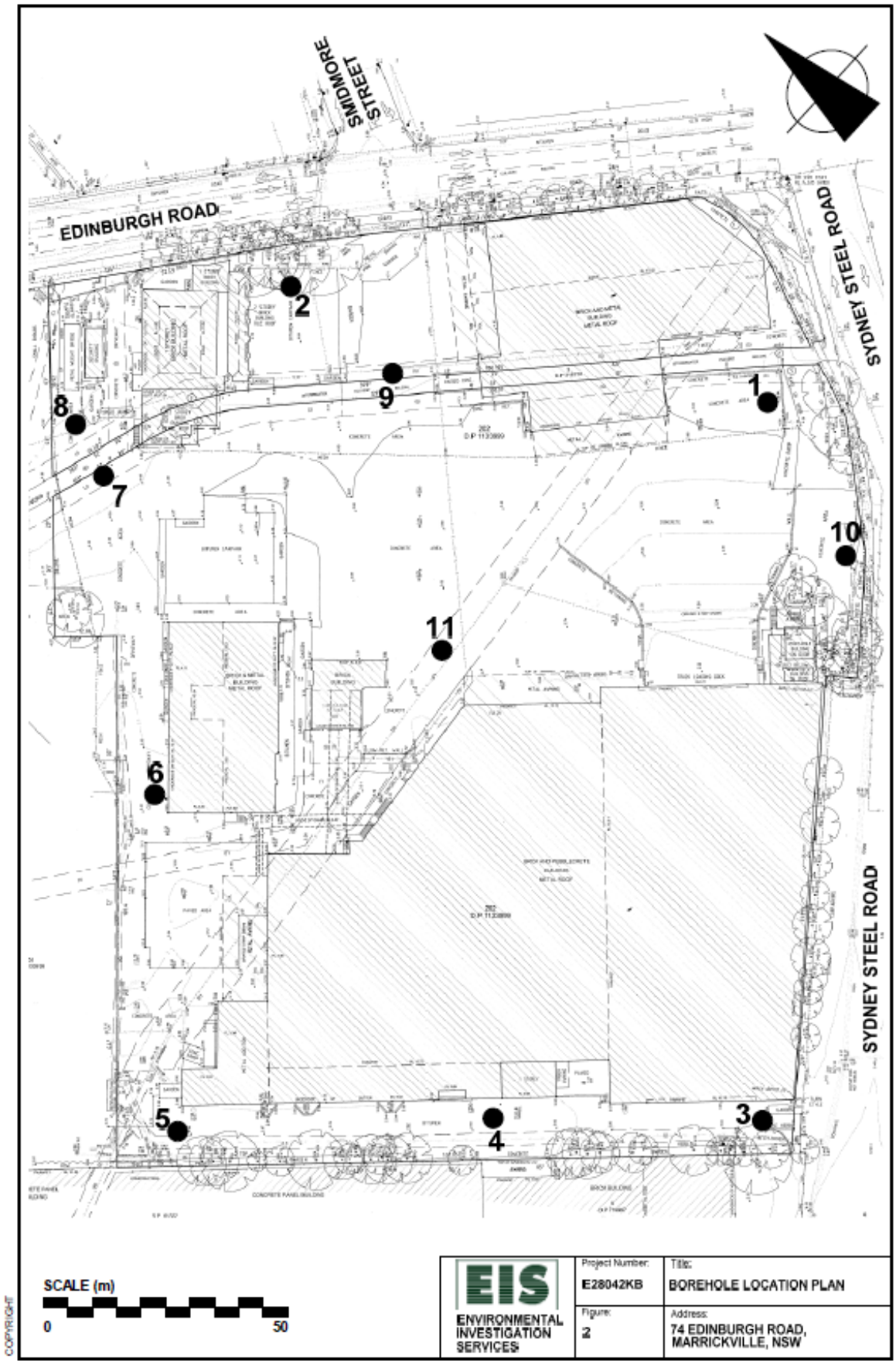


Figure 19 – Geotechnical investigation location plan
Source: Environmental Investigation Services, 2015

2.7. PAST ABORIGINAL LAND USE

Due to the absence of written records, it is difficult to infer what Aboriginal life was like prior to the arrival of European settlers. Much of our understanding of Aboriginal life pre-colonisation is informed by the histories documented in the late 18th and early 19th century by European observers. These histories provide an inherently biased interpretation of Aboriginal life both from the perspective of the observer but also through the act of observation. The social functions, activities and rituals recorded by Europeans may have been impacted by the Observer Effect, also known as the Hawthorne Effect. The Observer/Hawthorne Effect essentially states that individuals will modify their behaviour in response to their awareness of being observed. With this in mind, by comparing/contrasting these early observations with archaeological evidence one can establish a general understanding of the customs, social structure, languages, beliefs and general of the Aboriginal inhabitants of the Sydney Basin (Attenbrow 2010).

Aboriginal people have inhabited the Sydney Basin region since at least 20,000 BP, with some evidence of potential occupation as early as 40,000 years ago (JMCHM 2005a). The Aboriginal population around Sydney at time of first contact has been estimated at between 2000 to 3000 people, with the greater Sydney region estimated at somewhere between 4000 and 8000. Given the early contact with Aboriginal tribes in the Sydney region, more is known about these groups than those which inhabited regional areas. The land of the Sydney region was occupied by the clans of the Eora tribe. The meaning of 'Eora' is unknown, but their land is documented to extend from the Hawkesbury River plateau margins in the north to Botany Bay and the Georges River in the south. There is some controversy regarding the linguistic origins of the Eora People. Some argue that the Eora People were a part of the Darug language group (Kohen, 1993), while others suggest the Eora People formed a distinct and separate language group (Hughes, 1987). The various clans of the Eora people include the Kameraigal, Wanegal, Borogegal and Gadigal. The Gadigal, also known as Cadigal, are believed to have occupied the area bounded by the Cooks River in the south and Port Jackson in the North, extending from Darling Harbour to South Head (Tindale, 1974; Turbett, 1989). This area includes Marrickville and the present subject area.

Prior to European colonisation and development, the lands of the Gadigal people were abundant in resources. The rivers and streams provided both fresh water and edible resources for Aboriginal groups. The diet of the Gadigal people consisted primarily of fish, shellfish and other aquatic animals. The importance of aquatic resources is attested to in the archaeological record, with middens providing evidence of dietary practices located along the coast and waterways. The Gadigal people also sourced roots and foraged for food within the Lachlan Swamplands, now Centennial Park (Tench, 1789). The Gumbramorra Swamp, which once occupied the Marrickville valley, was likely also an important source of plants and animals (Meader 2008). The swamp would have supported a dense growth of thatch reed, which would have provided a suitable habitat for a variety of birds (Meader 2008).

There is abundant evidence throughout the Sydney area of contact between the Gadigal people and European settlers. This evidence exists in the form of contact sites, with material remains including knapped ceramic and glass, European materials in middens, and rock engravings depicting European arrival. The Gumbramorra Swamp provided a refuge for runaway convicts (Meader 2008), potentially bringing about contact and interaction between Aboriginal people and Europeans within or near the present subject area.

Aboriginal people were eventually forced away from their lands and the resources they relied upon. European settlement around the coast drove faunal resources further inland, reducing the traditional hunting grounds of local Aboriginal groups (Evidence, 1835). Diseases including smallpox and conflicts between local Aboriginals and colonisers decimated their population. Rather than accepting fault for this, some colonisers attributed this population decline to the introduction of alcohol and other vices (Dredge, 1845). In 1789, an epidemic believed to be smallpox and called gal-galla by the local Aboriginal people resulted in a significant population decrease (Attenbrow, 2010). Early colonial accounts state:

> '*From the great number of dead Natives found in every part of the harbour, it appears that the small pox had made dreadful havoc among them'* (Bradley, 1789).

Other historic accounts of the epidemic state that it resulted in the near complete decimation of the Gadigal clan, with only three people reportedly remaining – two of which were Colbee and Nanbaree (Collins, 1798).

2.8. HISTORICAL LAND USE

The history of the subject area is briefly addressed below in Table 7 and is further elaborated in the Historical Archaeological Assessment (HAA) produced by Urbis (2020) for the for the SSDA (10468) and the HIS prepared by Urbis in August 2020 and appended to the EIS.

Table 7 – Historical overview

Year	Activity
1799	Thomas Moore receives Crown Grant, inclusive of the subject site (Figure 20 and Figure 21). The subject site was overgrown and swampy at this time. Moore was known to use his landholdings in Marrickville as a source of timber, with no built elements or agricultural endeavours known to have taken place on the site during this time.
1870 – 1903	Daniel Bulman purchased the site before selling to his business partner, Christopher Newton. Newton sold to the owners of Wright, Davenport and Co, who operated a tannery from the main street frontage on Victoria Road. There is no evidence that the subject site was developed in this period but may have been used for the purposes of the tannery or as vacant land.
1897	The government drained the Gumbramorra Swamps, improving the area for the purposes of residential and industrial development.
1901	Portion of the site is resumed for drainage under the Public Works Act 1888, for drainage. This followed the draining of the Gumbramorra Swamps.
1903 – 1908	Ashton & Jagelmann Pottery operating on at least the eastern portion of the subject area.
1909 – 1911	James Brough Pottery (and tenants) operating on the eastern portion of subject area, south of stormwater easement (~3 acres).
1908 – 1940	Marrickville Margarine Company, Ltd (aka, Marrickville Margarine Ltd, Marrickville Holdings Limited, Nut Foods Ltd) operating on western portion of subject area. Marrickville Margarine was a notable company established in 1908 by Charles Abel as a response to butter shortages.
1913 – 1940	Richard Taylor Limited operating on the eastern portion of subject area, south of stormwater easement.
1940 –1980s	Marrickville Margarine Ltd (MML) operates from the subject site (Figure 22) and rents out eastern portion until c.1950s. During World War II, the north eastern portion of the subject site was used to house silt trenches. Should the factories or surrounding residential properties require evacuation due to an air raid, these trenches were intended to provide safety. The trenches are visible in ab aerial photograph from 1943 (see Figure 23)
1990s	By the 1990s, Unilever owned the site.

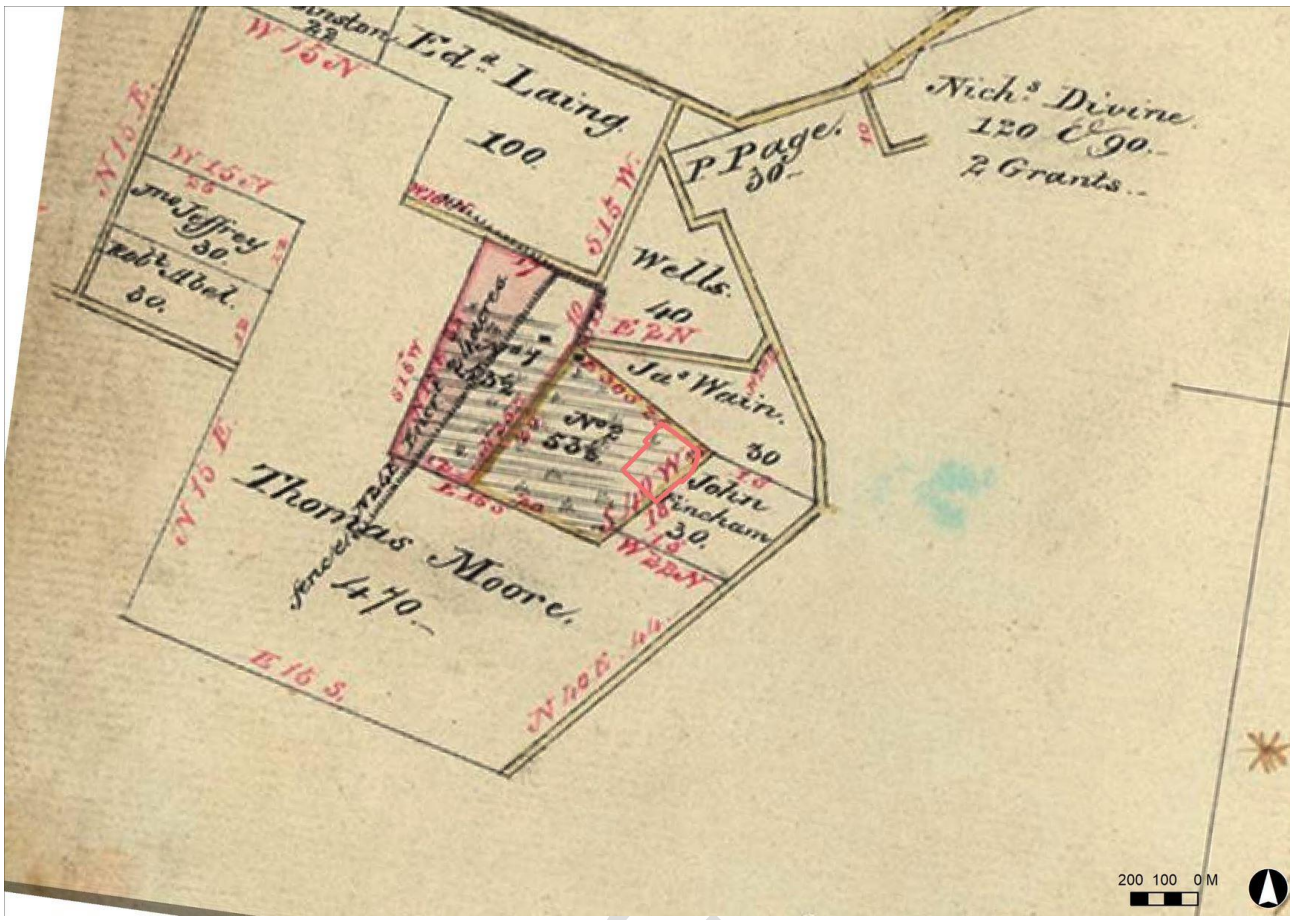


Figure 20 – 1831 surveyor sketch of the Gumbramorra Swamp area, showing the location of early land grants within the area.
Source: Surveyor General sketch book 1, folio 4, State Archives & Records

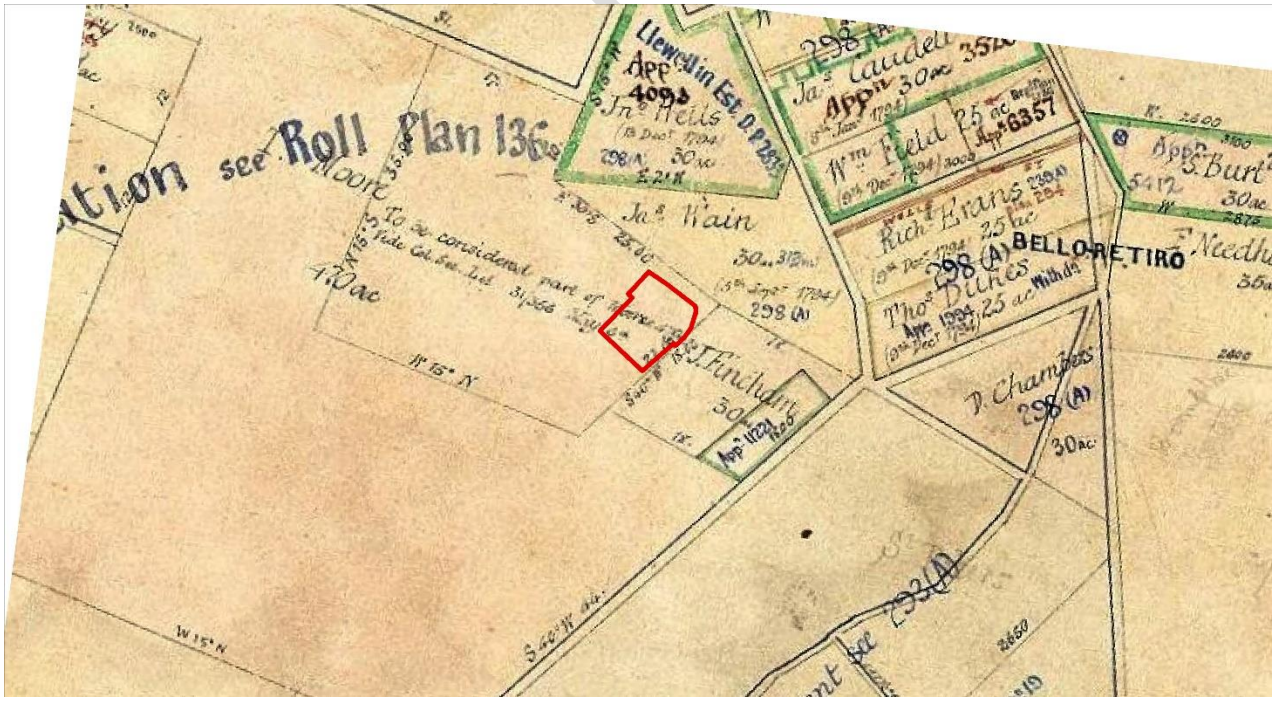


Figure 21 – Undated Parish map, Parish of Petersham, County of Cumberland. Approximate location of the subject site indicated in red.
Source: Inner West Council Library Archives, Local History Collection, 228040

Figure 22 – Map from the Public Works Department, 1873-1953, showing the buildings constructed on site, including the Marrickville Margarine Company identified as occupying the Edinburgh Road frontage.
Source: Sydney Water Archives, PWDS1544-S949

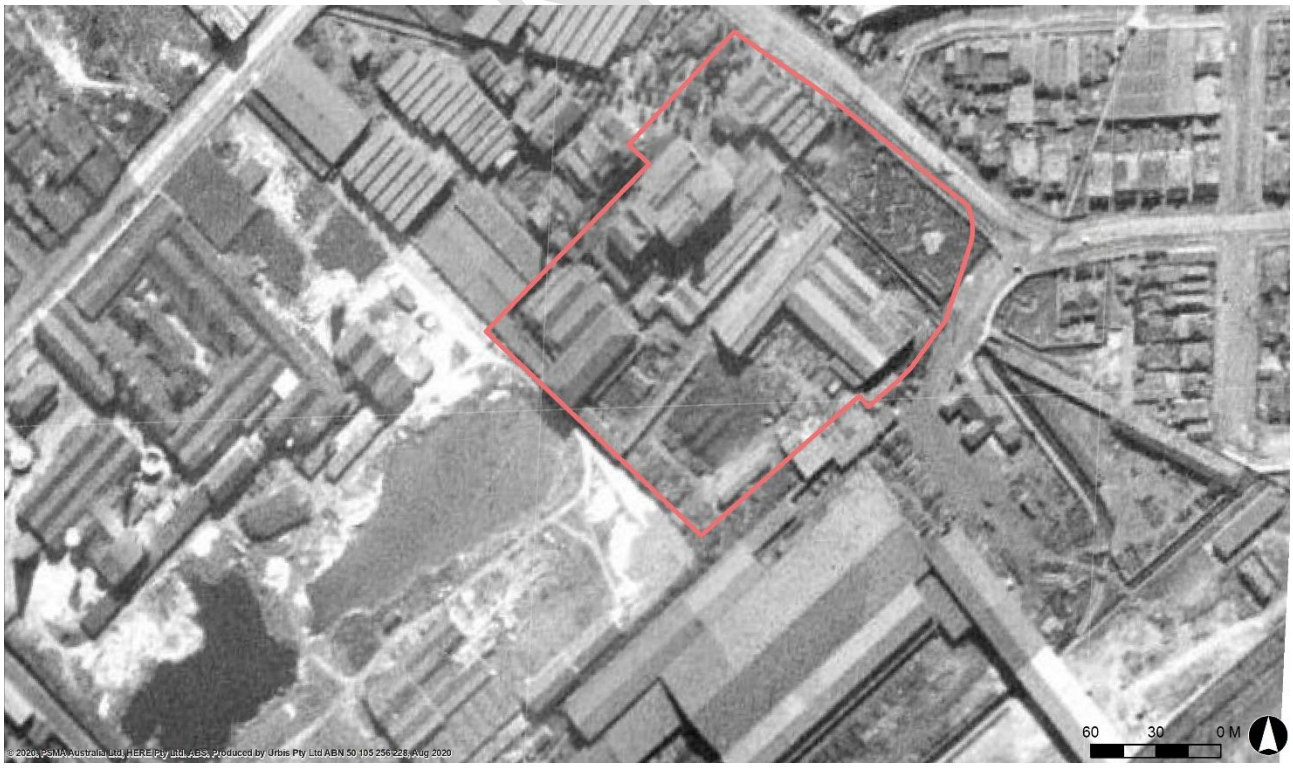


Figure 23 – 1943 aerial of Marrickville, with subject site indicated in red and silt trenches in the north eastern corner. Buildings include saw and tooth roofed factory buildings as well as brick office.
Source: Spatial Services Web Portal

The development of facilities within the subject area has caused a degree of ground disturbance. This is demonstrated through the analysis of historic aerials. Historic aerial images from 1930, 1961, 1994 and 2020 were analysed to develop an understanding of disturbance (see Figure 24) and is included in Table 8.

Table 8 – Analysis of historical aerials

Year	Observation
1930	In 1930, the subject area has already been substantially cleared of vegetation and is a developed industrial/commercial site. Various buildings have been constructed across the subject area, particularly in the northern-western portion. These buildings likely include those depicted in Figure 25. Some open areas remain within the subject area, such as the north-east corner and a courtyard area in the south-east quadrant. The canal running underneath Lot 101 DP 1237269 of the subject area is already built by this time.
1961	By 1961, a number of additional buildings have been constructed in the south-eastern portion of the subject area. Earlier buildings in the north-western portion adjacent the canal have been demolished and new, larger buildings constructed. This is evident in a comparison of Figure 25 and Figure 26. Open areas remain in the north-east corner and a courtyard area in the south-east quadrant.
1994	By 1994, a number of the older buildings have been demolished across the subject area, exposing bare concrete slab in their place. These include some of the earliest saw-tooth buildings in the western corner of the subject area. A large warehouse has been built in the southern corner and the previously open areas in the north-east corner and a courtyard area in the south-east quadrant have been built upon by this time. The entire subject area is paved, except for a scattering of mature trees.
2020	The only changes observed from the previous photography are the demolition of several buildings in the northern quadrant of the subject area and the construction of a new building on the north western boundary.

Based on the historical aerials, the entire subject area has been impacted by its historical use as an industrial/commercial site and the construction of the canal to replace the natural waterway.

Lot 101 DP 1237269 is considered to have been subjected to high disturbance due to the construction of the canal. Lot 202 DP 1133999 is likely to have experienced moderate to high disturbance, primarily due to the construction of buildings and erosion associated with land clearance and subsequent use of the site prior to laying of the existing concrete slab.

The moderate to high ground disturbance across the subject area does not entirely remove the archaeological potential of the subject area. The paving of the subject area may have served to preserve any underlying archaeological deposits from the impacts of erosion and human land-use. Furthermore, as noted in Section 2.2, the depth of the natural soil profile may mitigate the impacts of ground disturbance, with the potential for sub-surface archaeological deposits to remain.

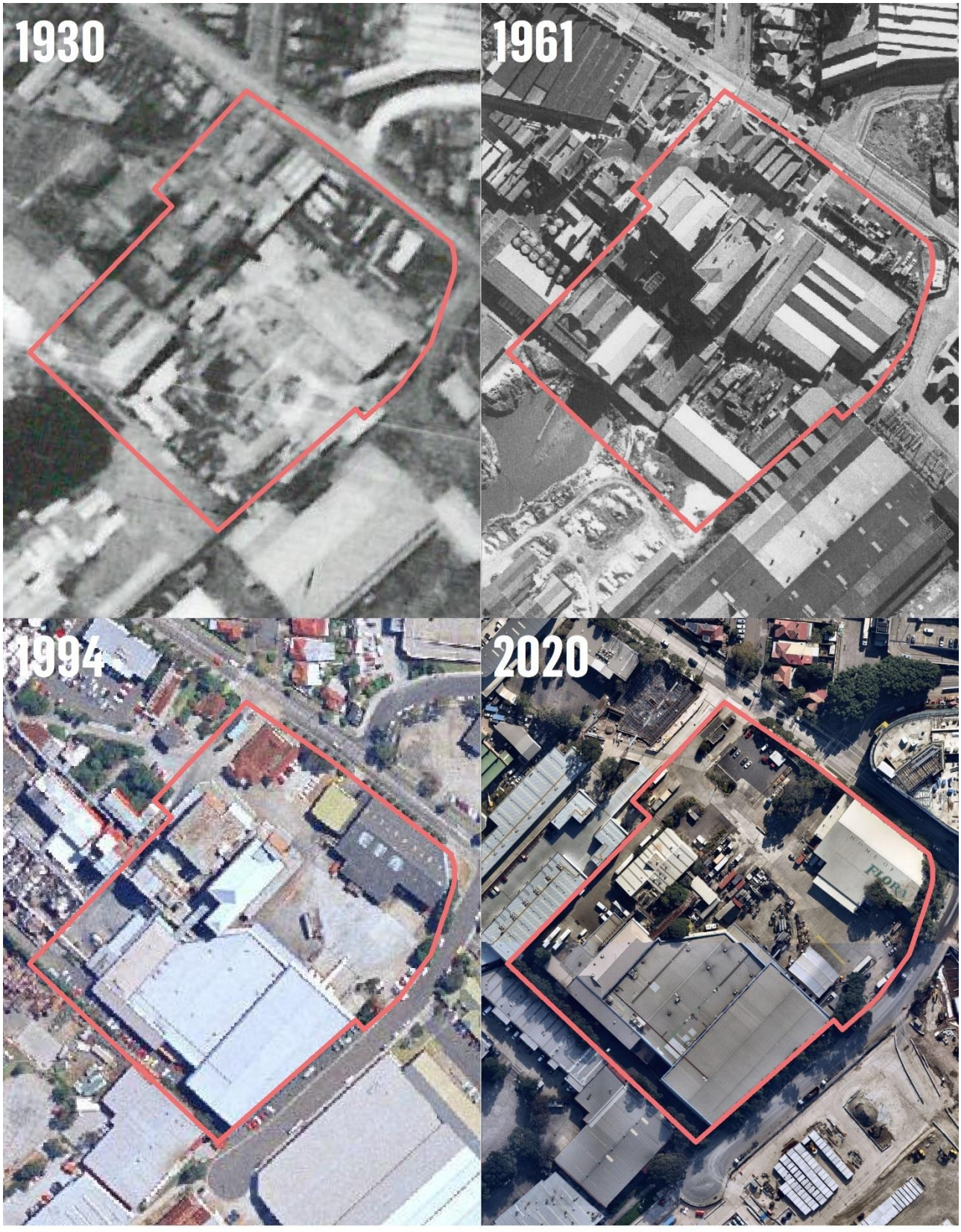


Figure 24 Historical Aerial Imagery

Figure 25 – Exterior of the Marrickville Margarine factory (ca. 1920s), which was formerly located in the subject area
Source: State Library of NSW

Figure 26 – Exterior of the Marrickville Margarine factory (1962), which was formerly located in the subject area
Source: State Library of NSW

2.9. PREDICTIVE MODEL

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* requires that an appropriate predictive model be used when undertaking an ACHA. A predictive model is used to estimate the nature and distribution of evidence of Aboriginal land use in a subject area. The results produced by a predictive model can be used to identify potential archaeological deposits (PADs).

A predictive model should consider variables that may influence the location, distribution and density of sites, features or artefacts within a subject area. Variables typically relate to the environment and topography, such as soils, landscape features, slope, landform and cultural resources. The following predictions for the subject area have been formulated on the basis of previous assessments, regional models and the AHIMS data provided in Section 2.1.1.

There are several site types which are known to occur within New South Wales. These site types and their likelihood to occur within the subject area are evaluated in

Table 10 below.

The general process archaeologists employ to determine the likelihood of any particular site type (artefact scatter, shelter, midden etc) to occur within a given subject area requires the synthetises of information for general distribution of archaeological sites within the wider area including:

- Detailed analysis of previous archaeological investigations within the same Region,
- Presence or absence of landscape features that present potential for archaeological resources (human occupation, use) such as raised terraces adjacent to permeant water,
- Analysis of the geology and soil landscape within the subject area which allows for a determination to be made of the type of raw material that would have been available for artefact production (silcrete, tuff, quartz etc) and the potential for the accumulation of archaeological resource within the subject area,
- Investigation of and determination of the level of disturbance/historical land use within the subject area which may impact on or remove entirely any potential archaeological material.

The combination of these would give us an indication of various levels of possibility of finding archaeological resource within a given area. Please refer to Table 9 below for an example of the indicative process of determining the likelihood of a given site occurring within a subject area.

Table 9 – Indicative process of determining the likelihood of a given site occurring within a subject area

Likelihood	Indicative subject area context	Indicative action
High	Low level of disturbance, presence of one or more archaeologically sensitive landforms (raised terrace adjacent to permanent water, sand dunes, rock shelter etc), presence of archaeologically sensitive soil landscape (Tuggerah, Blacktown, South Creek etc), presence of previously recorded archaeological site(s) and/or identification of previously unrecorded archaeological site(s) within the subject area	Detailed archaeological investigation including but not limited to survey, test excavation and potentially (depending on density and/or significance of archaeological deposit) salvage excavation.
Moderate	Moderate level of disturbance, presence of one or more archaeologically sensitive landforms (raised terrace adjacent to permanent water, sand dunes, rock shelter etc), presence of archaeologically sensitive soil landscape (Tuggerah, Blacktown, South Creek etc), presence of previously recorded archaeological site(s) and/or identification of previously unrecorded archaeological site(s) within the subject area	Detailed archaeological investigation including but not limited to survey, test excavation and potentially (depending on density and/or significance of archaeological deposit) salvage excavation.
Low	High level of disturbance, presence of one archaeologically sensitive landforms (raised terrace adjacent to permanent water, sand dunes, rock shelter etc), presence of archaeologically sensitive soil landscape (Tuggerah, Blacktown, South Creek etc).	Employ chance finds procedure and works can continue without further archaeological investigation.
Nil	Complete disturbance, complete removal of natural soil landscape, zero archaeologically sensitive landform, geological or soil features. Zero previously recorded archaeological sites.	Employ chance finds procedure and works can continue without further archaeological investigation.

Table 10 – Predictive Model

Site Type	Description	Likelihood	Justification
Artefact Scatters	Artefact scatters represent past Aboriginal subsistence and stone knapping activities and include archaeological remains such as stone artefacts and hearths. This site type usually appears as surface scatters of stone artefacts in areas where vegetation is limited, and ground surface visibility increases. Such scatters of artefacts are also often exposed by erosion, agricultural events such as ploughing, and the creation of informal, unsealed vehicle access tracks and walking paths. These types of sites are often located on dry, relatively flat land along or adjacent to rivers and creeks. Camp sites containing surface or subsurface deposit from repeated or continued occupation are more likely to occur on elevated ground near the most permanent, reliable water sources. Flat, open areas associated with creeks and their resource-rich surrounds would have offered ideal camping areas to the Aboriginal inhabitants of the local area.	Moderate	• The subject area is located on the higher ground at the confluence of two former natural waterways. • The impact of historical ground disturbance is likely to be mitigated by the depth of the natural soil profile.
Isolated Finds	Isolated finds represent artefactual material in singular, one off occurrences. Isolated finds are generally indicative of stone tool production, although can also include contact sites. Isolated finds may represent a single item discard event or be the result of limited stone knapping activity. The presence of such isolated artefacts may indicate the presence of a more extensive, in situ buried archaeological deposit, or a larger deposit obscured by low ground visibility. Isolated artefacts are likely to be located on landforms associated with past Aboriginal activities, such as ridgelines that would have provided ease of movement through the area, and level areas with access to water, particularly creeks and rivers.	Moderate	• The subject area is located on the higher ground at the confluence of two former natural waterways. • The impact of historical ground disturbance is likely to be mitigated by the depth of the natural soil profile.
PAD	Potential Archaeological Deposits (or PADs) are areas where there is no surface expression of stone artefacts, but due to a landscape feature there is a strong likelihood that the area will contain buried deposits of stone artefacts. Landscape features which may feature in PADs include proximity to waterways, particularly terraces and flats	Moderate	• The subject area is located on the higher ground at the confluence of two former natural waterways.

Site Type	Description	Likelihood	Justification
	near 3rd order streams and above; ridge lines, ridge tops and sand dune systems.		• The impact of historical ground disturbance is likely to be mitigated by the depth of the natural soil profile.
Scarred Trees	Tree bark was utilised by Aboriginal people for various purposes, including the construction of shelters (huts), canoes, paddles, shields, baskets and bowls, fishing lines, cloaks, torches and bedding, as well as being beaten into fibre for string bags or ornaments (sources cited in Attenbrow 2002: 113). The removal of bark exposes the heart wood of the tree, resulting in a scar. Trees may also have been scarred in order to gain access to food resources (e.g. cutting toeholds so as to climb the tree and catch possums or birds), or to mark locations such as tribal territories. Such scars, when they occur, are typically described as scarred trees. These sites most often occur in areas with mature, remnant native vegetation. The locations of scarred trees often reflect an absence of historical clearance of vegetation rather than the actual pattern of scarred trees. Carved trees are different from scarred trees, and the carved designs may indicate totemic affiliation (Attenbrow 2002: 204); they may also have been carved for ceremonial purposes or as grave markers.	Nil	• The subject area does not include vegetation of a suitable age to bear cultural modification.
Axe Grinding Grooves	Grinding grooves are the physical evidence of tool making or food processing activities undertaken by Aboriginal people. The manual rubbing of stones against other stones creates grooves in the rock; these are usually found on flat areas of abrasive rock such as sandstone. They may be associated with creek beds, or water sources such as rock pools in creek beds and on platforms, as water enables wet-grinding to occur.	Low	• The subject area does not include any surface outcrops of sandstone, although subsurface sandstone may be present.
Bora/Ceremonial	Aboriginal ceremonial sites are locations that have spiritual or ceremonial values to Aboriginal people. Aboriginal ceremonial sites may comprise natural landforms and, in some cases, will also have archaeological material. Bora grounds are a ceremonial site type, usually consisting of a cleared area around one or more raised earth circles, and often comprised of two circles of different	Low	• Historical land use in the subject area is likely to have destroyed any bora grounds or ceremonial sites.

Site Type	Description	Likelihood	Justification
	sizes, connected by a pathway, and accompanied by ground drawings or mouldings of people, animals or deities, and geometrically carved designs on the surrounding trees.		
Burial	Aboriginal burial of the dead often took place relatively close to camp site locations. This is due to the fact that most people tended to die in or close to camp (unless killed in warfare or hunting accidents), and it is difficult to move a body long distance. Soft, sandy soils on, or close to, rivers and creeks allowed for easier movement of earth for burial; and burials may also occur within rock shelters or middens. Aboriginal burial sites may be marked by stone cairns, carved trees or a natural landmark. Burial sites may also be identified through historic records or oral histories.	Low	• The subject area is not situated on soft, sandy soils.
Contact site	These types of sites are most likely to occur in locations of Aboriginal and settler interaction, such as on the edge of pastoral properties or towns. Artefacts located at such sites may involve the use of introduced materials such as glass or ceramics by Aboriginal people or be sites of Aboriginal occupation in the historical period.	Moderate	• The subject area would have been at the margins of European settlement during the 19th century.
Midden	Midden sites are indicative of Aboriginal habitation, subsistence and resource extraction. Midden sites are expressed through the occurrence of shell deposits of edible shell species often associated with dark, ashy soil and charcoal. Middens often occur in shelters, or in eroded or collapsed sand dunes. Middens occur along the coast or in proximity to waterways, where edible resources were extracted. Midden may represent a single meal or an accumulation over a long period of time involving many different activities. They are also often associated with other artefact types.	Low	• Although located adjacent to waterways, it is likely that the subject area is too far upstream for a midden to be present.
Art	Art sites can occur in the form of rock engravings or pigment on sandstone outcrops or within shelters (discussed below). An engraving is some form of image which has been pecked or carved into a rock surface. Engravings typically vary in size and nature, with small abstract geometric forms	Low	• The subject area does not include any surface outcrops of sandstone, although subsurface sandstone may be present.

Site Type	Description	Likelihood	Justification
	as well as anthropomorphic figures and animals also depicted (DECCW, 2010c). In the Sydney region engravings tend to be located on the tops of Hawkesbury Sandstone ridges where vistas occur. Pigment art is the result of the application of material to a stone to leave a distinct impression. Pigment types include ochre, charcoal and pipeclay. Pigment art within the Sydney region is usually located in areas associated with habitation and sustenance.		
Shelters	Shelter sites are places of Aboriginal habitation. They take the form of rock overhangs which provided shelter and safety to Aboriginal people. Suitable overhangs must be large and wide enough to have accommodated people with low flooding risk. Due to the nature of these sites, with generic rock over hangs common particularly in areas with an abundance of sandstone, their use by Aboriginal people is generally confirmed through the correlation of other site types including middens, art, PAD and/or artefactual deposits.	Nil	• The subject area does not include any rock overhangs.

3. CONSULTATION PROCESS

In administering its statutory functions under Part 6 of the NSW National Parks and Wildlife Act 1974, the Department of Planning, Industry and Environment (DPIE) requires that Proponent consult with Aboriginal people about the Aboriginal cultural heritage values (cultural significance) of Aboriginal objects and/or places within any given development area in accordance with Clause 80c of the NSW National Parks and Wildlife Regulation, 2009.

The DPIE maintains that the objective of consultation with Aboriginal communities about the cultural heritage values of Aboriginal objects and places is to ensure that Aboriginal people have the opportunity to improve ACHA outcomes by (DECCW 2010a):

- providing relevant information about the cultural significance and values of Aboriginal objects and/or places.
- influencing the design of the method to assess cultural and scientific significance of Aboriginal objects and/or places.
- actively contributing to the development of cultural heritage management options and recommendations for any Aboriginal objects and/or places within the proposed subject area.
- commenting on draft assessment reports before they are submitted by the Proponent to the DPIE.

Consultation in line with the Consultation Requirements (DECCW 2010) is a formal requirement where a Proponent is aware that their development activity has the potential to harm Aboriginal objects or places. The DPIE also recommends that these requirements be used when the certainty of harm is not yet established but a Proponent has, through some formal development mechanism, been required to undertake a cultural heritage assessment to establish the potential harm their proposal may have on Aboriginal objects and places.

Consultation for this assessment, has been undertaken in accordance with the Consultation Requirements as these meet the fundamental tenants of the 2004 consultation requirements (NSW Department of Environment and Conservation [DEC] 2004), while meeting current industry standards for community consultation.

The Consultation Requirements outline a four-stage consultation process that includes the following:

Stage 1 – Notification of project proposal and registration of interest.

Stage 2 - Presentation of information about the proposed project.

Stage 3 - Gathering information about the cultural significance.

Stage 4 – Review of draft cultural heritage assessment report.

The document also outlines the roles and responsibilities of the DPIE, Registered Aboriginal Parties (RAPs) including Local and State Aboriginal Land Councils, and Proponents throughout the consultation process.

To meet the requirements of consultation it is expected that Proponents will:

- Bring the RAPs, or their nominated representatives, together and be responsible for ensuring appropriate administration and management of the consultation process.
- Consider the cultural perspectives, views, knowledge and advice of the RAPs involved in the consultation process in assessing cultural significance and developing any heritage management outcomes for Aboriginal objects(s) and/or places(s).
- Provide evidence to the DPIE of consultation by including information relevant to the cultural perspectives, views, knowledge and advice provided by the RAPs.
- Accurately record and clearly articulate all consultation findings in the final cultural heritage assessment report.
- Provide copies of the cultural heritage assessment report to the RAPs who have been consulted.

The consultation process undertaken to seek active involvement from relevant Aboriginal representatives for the Project followed the current NSW statutory guideline, namely, the Consultation Requirements. Section 1.3 of the Consultation Requirements describes the guiding principles of the document. The principles have

been derived directly from the principles section of the Australian Heritage Commission's Ask First: A guide to respecting Indigenous heritage places and values (Australian Heritage Commission 2002).

The following outlines the process and results of the consultation conducted during this assessment to ascertain and reflect the Aboriginal cultural heritage values of the subject area. Further information in regard to the Aboriginal community consultation processed is outlined in Appendix C.

3.1. STAGE 1: NOTIFICATION OF PROJECT PROPOSAL AND REGISTRATION OF INTEREST

3.1.1. Government Organisation Contacts

The aim of Stage 1 is to identify, notify and register Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the subject area.

A search of the Register of Native Title Claims and the National Native Title Register was undertaken on 25 August 2020. The search did not identify any Native Title Determination Applications, Determinations of Native Title, or Indigenous Land Use Agreements over the identified area. The subject area is a freehold tenure which extinguishes Native Title.

To identify Aboriginal people who may be interested in registering as Aboriginal parties for the project, the organisations stipulated in Section 4.1.2 of the Consultation Guidelines were contacted (refer to Table 11).

Table 11 – Contacted Organisations

Organisation	Date notification sent	Date response received
National Native Title Tribunal	25/08/2020	26/08/2020
Heritage NSW, Department of Premier and Cabinet	26/08/2020	28/08/2020
Office of the Registrar, Aboriginal Land Rights Act 1983	26/08/2020	01/09/2020
NTS Corp	26/08/2020	n/a
Metropolitan Local Aboriginal Land Council	26/08/2020	n/a
Local Land Services, Greater Sydney	26/08/2020	n/a
Inner West Council	26/08/2020	03/09/2020

The template for the emails sent to the above-mentioned organisations is at Appendix C. A total of 45 Aboriginal groups and individuals with an interest in the subject area were identified following this stage. These groups were contacted, with further information presented at Section 3.1.2 below.

3.1.2. Registration of Interest

In accordance with Section 4.1.3 of the Consultation Guidelines, letters were sent to the 45 Aboriginal groups and individuals via email on 7 September 2020, or by post on 8 September 2020 (depending on the method identified by each group), to notify them of the proposed project. A total of 39 were sent via email, with 8 sent by registered post. The letters afforded a response time of greater than 14 days, being 9 October 2020 in accordance with the 14-day minimum requirement. The letter template is shown at Appendix C and includes a brief introduction to the project and the project location.

A total of sixteen (16) groups registered interest in the project as a result of this phase within the nominated timeframe (Table 12). Acknowledgement emails or telephone calls were made by Urbis to respondents, to confirm registration had been received.

Table 12 – Stage 1 Consultation – Registration of Interest

Organisation/Individual	Contact Person
Metropolitan Local Aboriginal Land Council	Selina Timothy
Inner West Council Aboriginal Community Advisory Committee	Deborah Lennis
A1 Indigenous Services	Carolyn Hickey
Barking Owl Aboriginal Corporation	Jody Kulakowski
Butucarbin Aboriginal Corporation	Lowanna Gibson
Didge Ngunawal Clan	Lilly Carroll & Paul Boyd
Ginninderra Aboriginal Corporation	Steven Johnson & Krystle Carroll
Gulaga	Wendy Smith
Kamilaroi Yankuntjatjara Working Group	Phil Khan
Merrigarn	Shaun Carroll
Muragadi Heritage Indigenous Corporation	Jesse Johnson
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson & Darleen Johnson
Ngambaa Cultural Connections	Kaarina Slater
Thoorga Nura	John Carriage
Wailwan Aboriginal Group	Philip Boney
Widescope Indigenous Group	Steven Hickey & Donna Hickey

3.1.3. Newspaper advertisements

In accordance with Section 4.1.3 of the Consultation Guidelines, an advertisement was placed in one local newspaper, the Koori Mail. This advertisement was published in the Koori Mail paper on 9th September 2020 providing 14 days to register an interest in accordance with the Consultation Requirements. A copy of the advertisement is included at Appendix C.

The list of Registered Aboriginal Parties (RAPs) was provided to the DPC and the Metropolitan Local Aboriginal Land Council on the 14th October 2020 2020 (see Appendix C).

3.2. STAGE 2: PRESENTATION OF INFORMATION ABOUT THE PROPOSED PROJECT

The aim of Stage 2 is to provide registered Aboriginal parties with information about the scope of the proposed project, and the proposed cultural heritage assessment process. A Stage 2/3 Information Pack which included a brief introduction to the project, the project location, and AHIMS search result to provide understanding of the registered cultural sites in the local area, was sent to registered Aboriginal parties via email on the 12th October 2020. Request for response to the Stage 2/3 Information Packet was set to 9th November 2020.

3.3. STAGE 3: GATHERING INFORMATION ABOUT CULTURAL SIGNIFANCE

Stage 3 is concerned with gathering feedback on a project, proposed methodologies, and obtaining any cultural information that registered Aboriginal parties wish to share. This may include ethno-historical

information, or identification of significant sites or places in the local area. X responses were received to the Stage 2 and 3 Information Pack. These responses are included in Appendix C and addressed in Table 13 below.

Table 13 – RAP responses to the Stage 2/3 Information Pack

RAP	Response	Urbis Response

3.4. STAGE 4: REVIEW OF DRAFT CULTURAL HERITAGE ASSESSMENT REPORT

{TO BE INCLUDED AFTER STAGE 3 OF CONSULTATION PROCESS}

4. SUMMARY AND ANALYSIS OF BACKGROUND INFORMATION

4.1. SUMMARY OF BACKGROUND INFORMATION AND RESULTS

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

5. CULTURAL HERITAGE VALUES AND STATEMENT OF SIGNFICANCE

5.1. METHODS OF ASSESSING HERITAGE SIGNIFICANCE

Heritage significance is assessed by considering each cultural, or archaeological site, against the significance criteria set out in the Assessment Guidelines. In all case, the assessment of significance detailed below is informed by the Aboriginal community, which is documented in this report. If any culturally sensitive values were identified they would not be specifically included in the report, or made publicly available, but would be documented and lodged with the knowledge holder providing the information.

5.2. ASSESSMENT FRAMEWORK

The Burra Charter (Australia ICOMOS 1999) defines the basic principles and procedure to be observed in the conservation of important places. It provided the primary framework within which decisions about the management of heritage sites should be made. The Burra Charter defines cultural significance as being derived from the values listed below.

5.2.1. Social or Cultural Value

Social or cultural value refers to the spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural values is how people express their connection with a place and the meaning that place has for them.

Places of social or cultural value have associations with contemporary community identity. These places can have associations with tragic or warmly remembered experiences, periods, or events. Communities can experience a sense of loss should a place of social or cultural value be damaged or destroyed.

There is not always a consensus about a place's social or cultural value. When identifying values, it is not necessary to agree with or acknowledge the validity of each other's values, but it is necessary to document the range of values identified.

Social or cultural values can only be identified through consultation with Aboriginal people. This could involve a range of methodologies, such as cultural mapping, oral histories, archival documentation and specific information provided by Aboriginal people specifically for the investigation.

When recording oral history:

- Identify who was interviewed and why.
- Document the time, place and date the interview was conducted.
- Describe the interview arrangements (the number of people present, recording arrangements, information access arrangements).
- Provide a summary of the information provided to the person being interviewed.
- Summarise the information provided by each person interviewed.

More information on conducting oral history projects can be found in OEH's publication Talking history: oral history guidelines.

Occasionally information about social value may not be forthcoming. In these circumstances, document the consultation process but make it clear in the discussions and conclusions about social value that this was the case.

5.2.2. Historic Value

Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance (such as structures, planted vegetation or landscape modifications). They may have 'shared' historic values with other (non-Aboriginal) communities.

Places of post-contact Aboriginal history have generally been poorly recognised in investigations of Aboriginal heritage. Consequently, the Aboriginal involvement and contribution to important regional

historical themes is often missing from accepted historical narratives. This means it is often necessary to collect oral histories along with archival or documentary research to gain a sufficient understanding of historic values.

5.2.3. Scientific (Archaeological) Value

This refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which is may contribute to further understanding and information (Australian ICOMOS 1988).

Information about scientific values will be gathered through any archaeological investigation undertaken. Archaeological investigations must be carried out according to OEH's Code of practice for archaeological investigation of Aboriginal objects in NSW.

Scientific significance, also referred to as archaeological significance, is determined by assessing an Aboriginal heritage site or area according to archaeological criteria. The assessment of archaeological significance is used to develop appropriate heritage management and impact mitigation strategies.

Criteria for archaeological significance have been developed in accordance DPIE guidelines, as shown in Table 14 below.

Table 14 – Scientific (Archaeological) Value

Significance Criteria	Description
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?
Condition	What is the condition of the site? Does it appear to have been impacted/altered?

5.2.4. Aesthetic Value

This refers to sensory, scenic, architectural, and creative aspects of the place. It is often closely linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use (Australian ICOMOS 1988).

5.3. IDENTIFYING VALUES

The information collected in the background review of the project can be used to help identify these values. The review of background information and information gained through consultation with Aboriginal people should provide insight into past events. These include how the landscape was used and why any identified Aboriginal objects are in this location, along with contemporary uses of the land.

Information gaps are not uncommon and should be acknowledged. They may require further investigation to adequately identify the values present across the subject area. It may be helpful to prepare a preliminary values map that identifies, to the extent of information available, the:

- Known places of social, spiritual, cultural value, including natural resources of significance.
- Known historic places.

- Known Aboriginal objects and/or declared Aboriginal places.
- Potential places/areas of social, spiritual, cultural value, including natural resources, historic or archaeological significance.
- Places of potential value that are not fully identified or defined should be included as 'sensitive' areas to target further investigation.

5.4. ASSESSING VALUES AND SIGNIFICANCE

This stage is used to assess and discuss the cultural significance of the values identified during the identification and assessment of cultural significance by consulting Aboriginal people and to prepare a statement of significance. The assessment of values is a discussion of what is significant and why. An assessment of values is more than simply restating the evidence collected during the background review and identification of values stages of the project. Rather, the assessment should lead to a statement of significance that sets out a succinct summary of the salient values that have been identified.

The assessment and justification in the statement of significance must discuss whether any value meets the following criteria (NSW Heritage Office 2001):

- Does the subject area have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons? – social value.
- Is the subject area important to the cultural or natural history of the local area and/or region and/or state? – historic value.
- Does the subject area have potential to yield information that will contribute to an understanding of the cultural or natural history of the local area and/or region and/or state? – scientific (archaeological) value.
- Is the subject area important in demonstrating aesthetic characteristics in the local area and/or region and/or state? – aesthetic value.
- Assessment of each of the criteria (above) should be graded in terms that allow the significance to be described and compared; for example, as high, moderate, or low. In applying these criteria, consideration should be given to:
- 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?

Then discuss what is significance and why – this should be summarised into a statement of significance. Thus, the statement of significance is a succinct summary of the salient values drawn from the identification of values.

5.4.1. Assessment of Cultural Heritage Significance and Values

An assessment of cultural heritage significance and values incorporates a range of values which may vary for different individual groups and may relate to both the natural and cultural characteristics of places or sites. Cultural significance and Aboriginal cultural views can only be determined by the Aboriginal community using their own knowledge of the area and any sites present, and their own value system. All Aboriginal heritage evidence tends to have some contemporary significance to Aboriginal people, because it represents an important tangible link to their past and to the landscape.

Consultation with members of the local Aboriginal community (project RAPs) was undertaken to identify the level of spiritual/cultural significance of the subject area and its components. In acknowledgment that the Aboriginal community themselves are in the best position to identify levels of cultural significance, the project RAPs were invited to provide comment and input into this ACHAR and to the assessment of cultural heritage significance and values presented therein.

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

5.4.2. Assessment of Scientific (Archaeological) Significance

In accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW,* and in consultation with representatives of the local Aboriginal community, the following assessment of the scientific (archaeological) significance of identified sites within the subject area has been prepared.

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

6. IMPACT ASSESSMENT

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

6.1. POTENTIAL HARM

This section identifies the potential impacts to cultural heritage arising from the proposal, including demolition, excavation, and construction phases. Harm can be direct or indirect, defined by the Assessment Guidelines as:

- Direct harm – may occur as the result of any activity which disturbs the ground including, but not limited to, site preparation activities, installation of services and infrastructure, roadworks, excavation, flood mitigation measures.
- Indirect harm – may affect sites or features located immediately beyond or within the area of the proposed activity. Examples include, but are not limited to, increased impact on art in a shelter from increased visitation, destruction from increased erosion and changes in access to wild food resources.

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

6.2. LIKELY IMPACTED VALUES

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

6.3. CONSIDERATION OF INTER-GENERATIONAL EQUITY

6.3.1. Cumulative Impact Assessment

The principle of inter-generational equity (IGE) holds that the present generation should make every effort to ensure the health, diversity and productivity of the environment – which includes cultural heritage – is available for the benefit of future generations.

Cumulative impact of any development on Aboriginal sites assesses the extent of the proposed impact on the site and how this will affect both the proportion of this type of Aboriginal site in the area and the impact this destruction will have on Aboriginal cultural heritage values generally in the area. For example, if an artefact scatter is destroyed in the course of a proposed development, how many artefact scatters are likely to remain in that area and how will the destruction of that site affect the overall archaeological evidence remaining in that area? If a site type that was once common in an area becomes rare, the loss of that site (and site type) will affect our ability to understand past Aboriginal land uses, will result in an incomplete archaeological record and will negatively affect intergenerational equity.

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

7. AVOIDING AND MINIMISING HARM

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

8. CONCLUSIONS

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

9. RECOMMENDATIONS

Based on the conclusions of this assessment the proposed activity can proceed under the following recommendations:

{TO BE INCLUDED AFTER STAGE 4 OF CONSULTATION PROCESS}

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APPENDIX A AHIMS EXTENSIVE SEARCH RESULTS

APPENDIX B **GEOTECHNICAL REPORTS**

APPENDIX C CONSULTATION DOCUMENTS

APPENDIX D **CONSULTATION LOG**

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