

Aboriginal Cultural Heritage Assessment Report

2A Gregory Place, Harris Park, NSW
(Lot 2 in DP 807801)



‘Build-to-Rent’ State Significant Development (SSD-31179510)

Report to
2A Gregory Place Pty Ltd

Dominic Steele Consulting Archaeology
June 2022

Document control

Project Name	Aboriginal Cultural Heritage Assessment Report. 2A Gregory Place, Harris Park, NSW. Build-to-Rent State Significant Development (SSD-31179510)
Client Name	2A Gregory Place Pty Ltd
Final issue	16 June 2022

Terms and abbreviations

Aboriginal Cultural Heritage Assessment	Document to assess Aboriginal cultural values of an area generally required as part of part of the statutory approval and/or environmental assessment process.
Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010	Guidelines for formal Aboriginal community consultation undertaken as part of an Aboriginal Cultural Heritage Assessment.
Aboriginal Heritage Impact Permit (AHIP)	Statutory instrument that the Director General of the Office of Environment and Heritage (OEH) issues under Section 90 of the National Parks and Wildlife Act 1974 to allow the investigation (when not in accordance with certain guidelines), impact and/or destruction of Aboriginal objects.
Aboriginal object	A statutory term defined under Section 5(1) of the NPW Act 1974 as meaning ‘any deposit, object, or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains’.
Aboriginal Heritage Information Management System (AHIMS)	The Office of Environment & Heritage (OEH) maintains the Aboriginal Heritage Information Management System (AHIMS) which includes information about Aboriginal objects/sites and Places.
Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW	Guidelines developed by OEH, outlining the first stage of a two stage process in determining whether Aboriginal objects and/or areas of archaeological interest are present within a subject area.
Geomorphology	The study of landform, their processes, form, and sediments of the Earth
National Parks & Wildlife Act 1974	Primary legislation for protection of Aboriginal cultural heritage in NSW. Part 6 of Act outlines protection afforded to and offences relating to disturbance of Aboriginal objects.
Potential Archaeological Deposit (PAD)	Areas assessed as having the potential to contain Aboriginal objects. PADs are commonly identified based on landform types, surface expressions of Aboriginal objects, surrounding archaeological material, disturbance, and a range of other factors. While not defined in the National Parks and Wildlife Act 1974, PADs are generally considered to retain Aboriginal objects and are therefore protected and managed in accordance with that Act.
Proponent	A corporate entity, Government agency or an individual in the private sector which proposes to undertake a development project.
RAP	Registered Aboriginal Party.

Report summary

2A Gregory Place Pty Ltd proposes to redevelop the land comprising Lot 2 in DP 807801 that is located at 2A Gregory Place in Harris Park as an affordable housing and build-to-rent housing development within three free-standing four to eight storey buildings overlying two levels of basement carparking.

There are no recorded Aboriginal objects or archaeological sites on the 2A Gregory Place property or immediately nearby but the site is located on the southern edge of the State Heritage Register (SHR) listed and mapped Parramatta Sand Body (PSB) that has the potential to contain significant Aboriginal and early colonial archaeological records and is State-heritage listed for its combined archaeological, historical and environmental values.

The Planning Secretary Environmental Assessment Requirements (SSD-31179510) that have been issued for the proposal include a requirement to provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) in accordance with relevant guidelines that identifies, describes and assesses any impacts for Aboriginal cultural heritage values on the site. This ACHAR for the 2A Gregory Place property has been prepared in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010) and has been developed in consultation with Aboriginal community groups and individuals to identify and understand the Aboriginal cultural heritage values of the land.

Potential Aboriginal archaeological resources

Geotechnical bore-logs show the site subsurface profile below the existing concrete and asphalt ground surfaces across the former 1950s factory consists of up to 1.5m thick deposits of uncontrolled fill underlain by very soft to firm alluvium silty clay which is up to 5.9m thick. This alluvial sedimentary profile may contain Aboriginal objects and archaeological deposit with cultural and scientific value, but the upper parts of the sequence has been widely and in parts deeply disturbed. Stiff residual clay underlies the alluvium in some areas. The alluvial/residual soil is underlain by shale.

Evaluation of landuse impacts on potential archaeological resources

The 2A Gregory Place is located on the edge of the PSB and within a potentially sensitive archaeological landform context on Clay Cliff Creek. The construction of the stormwater channel followed by the factory resulted in significant modification of the original drainage of Clay Cliff Creek and lowering of the ground to significant depths below current levels present in the adjacent grounds of Hambledon cottage (up to 2.0m below the levels of the surrounding ground surfaces, and much deeper below the main building of the former factory).

There is a possibility soils and sediments that occur below levels of historical disturbance may contain Aboriginal objects. However, the landuse history for the site (agriculture for 150 years followed by industrial building construction), and for the modification of the original chain of ponds drainage into a stormwater canal combined with the topographically low-lying landscape context of the site, suggests that the *potential* subsurface archaeological profile has been widely disturbed and to considerable depths in many places.

Preliminary contamination investigations at the site show that historic activities related to the factory may have caused potential contamination that may pose a potential health risk to future human and environmental receptors and further investigation is to be undertaken to assess if the identified issues have caused impacts to soils and groundwater. The findings from future contamination assessment and recommended management actions will direct where and how future Aboriginal archaeological test excavation may occur at the site.

Management recommendations

These recommendations have been developed through consultation with Aboriginal community groups and individuals as part of this Aboriginal cultural heritage assessment for the site that concludes the subsurface soil profiles at the site have the potential to contain Aboriginal objects and further investigation and assessment is required.

- The Proponent invite the Project RAP's to assist in the development of an archaeological research design and test excavation methodology for the site based on the results of future contamination assessment and consideration of demolition planning.
- The Proponent will use the test excavation methodology developed with the community and this ACHAR to support an application to HNSW for approval to test excavate the site to establish whether an Aboriginal Heritage Impact Permit (AHIP) is required under the *National Parks and Wildlife Act 1974* (NPW Act) for the proposal if it is determined that Aboriginal objects are present and likely harmed by the redevelopment.

Report contents

1.0	INTRODUCTION	9
1.1	BACKGROUND.....	9
1.2	PROPOSED REDEVELOPMENT	10
1.3	SCOPE AND OBJECTIVES OF THIS ABORIGINAL CULTURAL HERITAGE ASSESSMENT	10
1.3.1	<i>Statutory requirements and cultural obligations</i>	<i>10</i>
1.3.2	<i>Connecting with Country Draft Framework.....</i>	<i>10</i>
1.3	STATUTORY HERITAGE CONTEXT AND CONTROLS.....	11
1.3.1	COMMONWEALTH LEGISLATION	11
1.3.2	<i>State legislation and heritage controls.....</i>	<i>13</i>
1.4	ABORIGINAL COMMUNITY ENGAGEMENT AND CONSULTATION	14
1.5	HERITAGE ASSESSMENT AND REPORTING METHODOLOGY	17
1.6	REPORT CONTRIBUTORS	17
2.0	LANDSCAPE EVOLUTION & CHANGE AT PARRAMATTA.....	18
2.1	QUATERNARY LANDSCAPE SETTING	18
2.2	QUATERNARY MAPPING AND THE PARRAMATTA SAND BODY	19
2.3	SEA-LEVEL CHANGES TO COUNTRY AT PARRAMATTA.....	21
2.4	CHANGES TO COUNTRY AND SHIFTING ECOLOGICAL ZONES	22
2.5	EVIDENCE FOR ‘ANCIENT’ RIVER AND CREEK ALIGNMENTS AT PARRAMATTA	23
2.5.1	<i>Parramatta River.....</i>	<i>23</i>
2.5.2	<i>Clay Cliff Creek.....</i>	<i>23</i>
2.6	CURRENT MAPPING OF THE PSB	24
2.7	EXISTING CONDITION OF THE SITE	25
2.7.1	<i>Buildings and built-form.....</i>	<i>25</i>
2.7.2	<i>Contamination</i>	<i>29</i>
2.7.2	<i>Geotechnical investigation</i>	<i>33</i>
3.0	ABORIGINAL ARCHAEOLOGICAL HERITAGE CONTEXT	35
3.1	PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS IN THE CITY OF PARRAMATTA	35
3.2	RECENT INTERPRETATION OF THE ALLUVIAL TERRACE AND PSB ARCHAEOLOGICAL RECORD	37
3.3	LOCAL ARCHAEOLOGICAL HERITAGE CONTEXT	38
3.3.1	<i>Database searches (AHIMS)</i>	<i>38</i>

3.3.2	Overview of nearest-known Aboriginal archaeological sites.....	38
4.0	ABORIGINAL AND NON-ABORIGINAL HISTORICAL HERITAGE CONTEXT.....	41
4.1	BRITISH DISCOVERY OF ROSEHILL	41
4.2	A CULTURALLY MANAGED LANDSCAPE AT ABORIGINAL PARRAMATTA	46
4.3	RECONSTRUCTING THE NATURE OF THE CLAY CLIFF CREEK LANDSCAPE IN 1788	47
4.3.1	Preamble	47
4.3.2	Ponds and lagoons on Clay Cliff Creek.....	48
4.4	BRITISH SETTLEMENT AT ROSEHILL	50
4.5	JAMES RUSE AND EXPERIMENT FARM.....	50
4.7	ELIZABETH FARM	52
4.8	CONFLICT AND ‘BATTLE OF PARRAMATTA’	53
4.9	AGRICULTURAL DEVELOPMENT OF THE LAND	53
4.10	PARRAMATTA NATIVE INSTITUTION	54
4.11	PARRAMATTA IN 1820s	55
4.11.1	Hambledon Cottage	55
4.11.2	Aboriginal people in the 1828 census.....	55
4.12	ABORIGINAL PEOPLE IN 1830s AND 1840s.....	55
4.13	‘NEALE’S COTTAGE’	56
4.14	LATE NINETEENTH AND EARLY TWENTIETH CENTURY CHANGES	57
4.14.1	Gregory Place study area	57
4.14.2	Clay Cliff Creek.....	58
4.15	NON-ABORIGINAL HISTORICAL ARCHAEOLOGICAL ASSESSMENT	58
5.0	ABORIGINAL COMMUNITY CONSULTATION	59
5.1	ENGAGEMENT	59
5.2	CONSULTATION MEETING AND OUTCOMES	59
5.3	ACHAR REVIEW AND OUTCOMES	62
6.0	SIGNIFICANCE ASSESSMENT	66
6.1	HERITAGE ASSESSMENT CRITERIA	66
6.2	ASSESSING ABORIGINAL ARCHAEOLOGICAL HERITAGE SIGNIFICANCE	67
6.3	ASSESSMENT OF SIGNIFICANCE AGAINST CRITERIA	68
6.4	EVALUATION	70

7.0	ABORIGINAL ARCHAEOLOGICAL IMPACT ASSESSMENT	71
7.1	REDEVELOPMENT SUBSURFACE IMPACT.....	71
7.1.1	<i>Demolition & bulk excavation</i>	<i>71</i>
7.1.2	<i>Contamination risk management.....</i>	<i>71</i>
7.2	ARCHAEOLOGICAL EXPECTATIONS	71
7.2.1	<i>Previous archaeological investigations of the Parramatta River back-plain around Clay Cliff Creek</i>	<i>71</i>
7.2.2	<i>Landuse impacts on potential archaeological resources.....</i>	<i>72</i>
7.3	FUTURE ARCHAEOLOGICAL MANAGEMENT CONSTRAINTS	73
7.3.1	<i>Potential archaeological impact.....</i>	<i>73</i>
7.3.2	<i>Contamination and buildings demolition</i>	<i>73</i>
7.4	FUTURE ABORIGINAL ARCHAEOLOGICAL MANAGEMENT PATHWAY OPTIONS	73
7.4.1	<i>Test excavation to establish if Aboriginal objects are present at 2A Gregory Place.....</i>	<i>73</i>
7.5	FUTURE ABORIGINAL ARCHAEOLOGICAL MANAGEMENT PATHWAY OPTIONS	74
7.5.1	<i>Archaeological test excavation under the Code of Practice vs testing under an AHIP</i>	<i>74</i>
7.6	NEXT-STEPS IN THE ARCHAEOLOGICAL & CULTURAL HERITAGE MANAGEMENT FOR THE SITE	75
8.0	MANAGEMENT RECOMMENDATIONS	76
8.1	BASIS FOR RECOMMENDATIONS	76
8.2	RECOMMENDATIONS.....	76
9.0	REFERENCES.....	77

Supporting documents

Attachment A

Planning Secretary's Environmental Assessment Requirements (SSD-31179510)

Attachment B

Government agency correspondence

Attachment C

Concept DA EIS

Attachment D

Aboriginal community consultation schedule

Attachment E

Aboriginal community correspondence

Attachment F

AHIMS data

Attachment G

Geotechnical bore-log extracts (Alliance Geotechnical Pty Ltd February 2022)

1.0 Introduction

1.1 Background

2A Gregory Place Pty Ltd proposes to redevelop for residential apartment housing the property that is shown below and is located at 2A Gregory Place in Harris Park in the City of Parramatta. The redevelopment proposal is being assessed as a 'Build-to-Rent' State Significant Development (SSD-31179510) under *State Environmental Planning Policy (State and Regional Development) 2011* and is to provide affordable housing under Division 1 of *State Environmental Planning Policy (Affordable Rental Housing) 2009*.

Figure 1.1: The 2A Gregory Place property (comprising Lot 2 in DP 807801) is approximately 19,500 sqm in size and is occupied by a former light industrial pharmaceuticals assembly complex that has been adapted for office use and storage (Six Maps 2022)



The 2A Gregory Place site is situated within one the City of Parramatta's more significant Aboriginal cultural heritage landscapes and particularly is located on the southern edge of the State Heritage Register (SHR) listed and mapped Parramatta Sand Body (PSB) that contains a significant Aboriginal and early colonial archaeological record and is State-heritage listed for its combined archaeological, historical and environmental values.¹

The Planning Secretary Environmental Assessment Requirements (SSD-31179510) that have been issued for the proposal (see Attachment A) include a requirement (18. Aboriginal Cultural Heritage) to provide an Aboriginal Cultural Heritage Assessment Report in accordance with relevant guidelines that identifies, describes and assesses any impacts for Aboriginal cultural heritage values on the site.

¹ Two additional SHR-listed non-Aboriginal heritage items are also located nearby to the 2A Gregory Place site; Hambledon Cottage and grounds located to the immediate north and Experiment Farm located to the immediate southwest.

This Aboriginal cultural heritage assessment for the Gregory Place property has been prepared in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010). developed in consultation with Aboriginal community groups and individuals to identify and understand the Aboriginal cultural heritage values of the land. The preparation of this report has been guided by current State Aboriginal cultural heritage assessment guidelines and has followed the consultation and heritage values assessment methods required by the Aboriginal Consultation Requirements for Proponents (DECCW 2010).

1.2 Proposed redevelopment

The proposal for the 2A Gregory Place site is for an affordable housing and build-to-rent housing development within three free-standing four to eight storey buildings overlying two levels of basement carparking.

1.3 Scope and objectives of this Aboriginal cultural heritage assessment

1.3.1 Statutory requirements and cultural obligations

This report acknowledges that Aboriginal people are the primary determinants of the cultural significance of their heritage and have a vital role to play today in the decision-making process in matters that may affect their heritage. This heritage assessment for the site at Gregory Place has been shaped and developed by talking with Aboriginal people about the place, through gaining an understanding of the cultural values of the land, and by promoting the opportunities that these values offer and can be used to integrate Aboriginal cultural thinking into the future vision and design for the site.

The cultural significance of the Aboriginal archaeological heritage of the City of Parramatta is recognised by the State-heritage listing of the PSB. One of the central aims of this heritage assessment has been to evaluate the statutory and cultural risk that harm to Aboriginal objects that are protected by the *National Parks and Wildlife Act 1974* (NPW Act) may result from the proposed redevelopment, and to recommend measures to mitigate and manage potential archaeological impacts at the site.

1.3.2 Connecting with Country Draft Framework

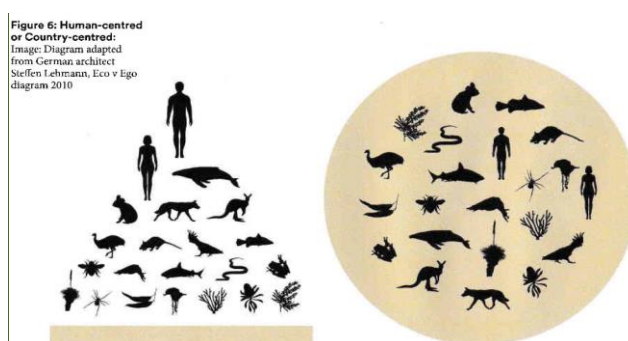
The Aboriginal community consultation that has been completed for this report (described below) has been undertaken within a wider cultural context established by the Connecting with Country Draft Framework. This is a government initiative and aims to increase awareness and understanding of the value of Aboriginal knowledge in the design and planning of places. The draft framework sets-out commitments and principles and pathways for action that are intended to help design and develop and deliver built-environment projects across NSW into the future (Government Architects Office of NSW 2020:9).

The Connecting to Country framework takes an Aboriginal perspective to thinking about Country and how to vision the built environment that is created on Country and provides practical ways for government agencies and industry to engage with Aboriginal communities and their culture and heritage.

The Connecting to Country framework also addresses the legislative requirements of two key policies of the *NSW Environmental Planning and Assessment Act 1979* (as amended) that are ‘to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)’ (object [f]) and ‘promote good design and amenity of the built environment’ (object [g]).

It is intended the Connecting with Country framework will support design and planning industry engagement with Aboriginal communities and enable realisation of projects that protect the health and wellbeing of Country and therefore of Aboriginal communities, embed Aboriginal knowledge into built-environment design and planning, and ensure Aboriginal communities retain intellectual property rights over authorship and definition of cultural knowledge (ibid:17).

Figure 1.2: Thinking differently about Country: Human-centred or Country-centred (Government Architects Office of NSW:2020 Figure 6)



1.3 Statutory heritage context and controls

1.3.1 Commonwealth legislation

Environment Protection and Biodiversity Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework for the protection and management of places of national environmental significance. The heritage lists addressed by the EPBC Act include the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List (WHL), the National Heritage List (NHL), and the Commonwealth Heritage List (CHL).

World Heritage properties in Australia are matters of national environmental significance that are protected and managed under the EPBC Act. The NHL protects places with outstanding value to the nation. The CHL protects items and places owned or managed by Commonwealth agencies. Ministerial approval is required for actions that would have a significant impact on items and places on the WHL, NHL or CHL.

Any action that is likely to have a significant impact on a matter of National Environmental Significance (a controlled action under the Act) may only progress with approval of the Commonwealth Minister under Part 9 of the Act and any action will also require approval if:

- It is undertaken on Commonwealth land and will have or is likely to have a significant impact.
- It is undertaken outside Commonwealth land and will have or is likely to have a significant impact on the environment on Commonwealth land.
- It is undertaken by the Commonwealth and will have or is likely to have a significant impact.

The Act defines ‘environment’ as natural and cultural environments and includes consideration of Aboriginal and historic cultural heritage sites and items. Under the Act, protected heritage items are listed on the NHL or CHL. There are no Aboriginal sites or items identified within the study area under this Act.

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The purpose of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 is to preserve and protect areas and objects in Australia and in Australian waters that are of particular significance to Indigenous people in accordance with their traditions. This Act allows the Environment Minister to make a declaration protecting significant Indigenous areas or objects, including human remains, from ‘threat of injury or desecration’. The Minister can also make emergency declarations where there is a serious and immediate threat. There are no specific areas under the remit of this Act within or near the study area.

Native Title Act 1993

This Act recognises and protects native title rights in Australia following the decision of the High Court of Australia in *Mabo & Ors v Queensland (No.2)* (1992) 175 CLR 1 (‘Mabo’). It recognises Aboriginal peoples have rights and interests to land and waters arising from traditional laws and customs and establishes principles and mechanisms for preservation of Native Title whereby claimants can negotiate about some proposed developments if they have the right to negotiate if the native title claimant application satisfies registration test conditions.

There is a presumption of native title where a community or group can establish a traditional or customary connection with that area but does not apply to freehold title land or commercial, residential, pastoral, or agricultural leases. Searches of Tribunal’s website show no native title, no registered native title claims, or Indigenous Land Use Agreements that apply to the site or lands in the immediate vicinity.²

² NNTT advise on Cultural Heritage in NSW: *The National Native Title Tribunal has undertaken steps to remove itself from the formal list of sources for information about Indigenous groups in development areas. The existence or otherwise of native title is quite separate to any matters relating to Aboriginal cultural heritage. Information on native title claims, native title determinations, and Indigenous Land Use Agreements is available on the Tribunal’s website.*

1.3.2 State legislation and heritage controls

Aboriginal Land Rights Act 1983

The *Aboriginal Land Rights Act 1983* (ALR 1983) establishes the administrative system of Local Aboriginal Land Councils across NSW. The objectives of each Local Aboriginal Land Council are to foster the best interests of all Aboriginal persons within the Council's area and other persons who are members of the Council. Harris Park is located within the administrative boundaries of Deerubbin Local Aboriginal Land Council (DLALC). The functions of the DLALC in relation to culture and heritage are to (a) to take action to protect the culture and heritage of Aboriginal persons in the Council's area, subject to any other law, and (b) to promote awareness in the community of the culture and heritage of Aboriginal persons in the Council's area. A Register of Aboriginal Owners must be maintained by the Registrar Under this Act; Aboriginal people who are '*directly descended from the original Aboriginal inhabitants of the cultural area in which the land is situated*' and who have '*a cultural association with the land that derives from the traditions, observances, customs, beliefs or history*' of the original Aboriginal inhabitants.

National Parks and Wildlife Act 1974 and Regulation 2009

Legislation that provides statutory protection for Aboriginal heritage in NSW are the National Parks and Wildlife Act 1974 (NPW Act as amended) and the National Parks and Wildlife Regulation 2009. The NPW Act protects Aboriginal objects and Places, and the NPW Regulation provides a framework for undertaking activities and exercising due diligence. Heritage NSW (HNSW) manages the protection of Aboriginal heritage through the provisions of the NPW Act which was amended (NPW Act Amendment Act) in 2010. Part 6 of the NPW Act provides protection for Aboriginal objects and places by establishing offences of harm. Harm is defined as destroying, defacing, damaging, or moving an Aboriginal object from the land.

Under Section 86 of the NPW Act, it is an offence to knowingly, or cause or permit harm to an Aboriginal object (or Place) without prior written consent from the Director-General. Defences and exemptions to the offence of harm include that harm is carried out under the terms of an approved Aboriginal Heritage Impact Permit (AHIP). Section 87 of the NPW Act provides for defences of harm if due diligence has determined no Aboriginal object would be harmed, compliance with regulations or an approved code of practice was followed, and if it is shown as a low impact act and/or an unintended omission.

Section 5 of the NPW Act defines an Aboriginal object as: 'any deposit, object, or material evidence (not being a handicraft for sale) relating to Indigenous and non-European habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains'.

A declared Aboriginal place is any place (land, landscape element, or building) that is declared to be an Aboriginal place (under Section 84 of the Act) by the Minister administering the NPW Act because they are of the opinion the place is or was of special significance with respect to Aboriginal culture. An Aboriginal Place may or may not contain Aboriginal objects and the protection provided to Aboriginal objects and places applies irrespective of their significance or issues of land tenure.

Environmental Planning and Assessment Act (1979)

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is the main act regulating land use planning and development in NSW. The EP&A Act controls the making of environmental planning instruments (EPIs).

1.4 Aboriginal community engagement and consultation

The Aboriginal community engagement and consultation that has been undertaken for the development of this Aboriginal cultural heritage assessment report has followed the methods required by the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

This has four main elements that comprise:

- a) getting the word out there to Aboriginal people about the project
- b) providing information to those who are interested in the project
- c) providing opportunities for the Aboriginal people to provide feedback about the project
- d) seeking, incorporating, and acknowledging shared cultural knowledge from Aboriginal people.

At the initiation of the project a notice for the proposal was placed in the Koori Mail and a list (Attachment B) of Aboriginal organisations and individuals and government agencies to notify of the project and to invite to be involved in the consultation process was provided by the Department of Premier and Cabinet (Heritage NSW).³ The government agencies below were also notified and searches of the ORALA and NNTT registers completed.

- Office of the Registrar, *Aboriginal Land Rights Act 1983* (ORALA)
- National Native Title Tribunal (NNTT)
- Native Title Services Corp
- Parramatta City Council Aboriginal Advisory Committee
- Holroyd City Council Advisory Committee

³ HNSW advise: *Do not reproduce the attached list in publicly available reports and other documents. Your report should contain the names of the organisations and individuals who you have invited to register an interest in your project and those who have registered as stakeholders for your project.*

The following three Local Aboriginal Land Councils were notified:

- Deerubbin Local Aboriginal Land Council (DLALC)
- Gandangara Local Aboriginal Land Council (GLALC)
- Metropolitan Local Aboriginal Land Council (MLALC)

The land at Harris Park is situated within the administration boundaries of the DLALC. An expression of interest was received from the DLALC.

No reply was received from the GLALC or the MLALC.

DSCA wrote to each of the sixty-four (64) Aboriginal community groups and individuals listed below and invited participation in the project consultation and involvement in the preparation of the 2A Gregory Place ACHAR.

Table 1.1: Aboriginal community groups and individuals directly notified of the project

Barraby Cultural Services	HSB Consultants
Yurrandaali Cultural Services	Rane Consulting
Darug Custodian Aboriginal Corporation	Anthony Williams
Darug Tribal Aboriginal Corporation	Gunyuu
Darug Aboriginal Cultural Heritage Assessments	Walbunja
Darug Land Observations	Badu
Darug Aboriginal Land Care	Goobah Developments
A1 Indigenous Services	Wullung
Gunjeewong Cultural Heritage Aboriginal Corporation	Yerramurra
Corroboree Aboriginal Corporation	Nundagurri
Murra Bidgee Mullangari Aboriginal Corporation	Murrumbul
Muragadi Heritage Indigenous Corporation	Pemulwuy CHTS
Bidjowong Aboriginal Corporation	Bilinga
Kamilaroi Yankuntjatjara Working Group	Munyunga
Wurrumay Pty Ltd	Wingikara
Warragil Cultural Services	Minnamunnung
Tocomwall	Walgala
Amanda Hickey Cultural Services	Widescope Aboriginal Corporation
Dhinawan Culture & Heritage Pty Ltd	Dharug
DJMD Consultancy	Gulaga
Butucarbin Aboriginal Corporation	Biamanga
Didge Ngunawal Clan	Callendulla
Ginninderra Aboriginal Corporation	Murramarang
Wailwan Aboriginal Group	Waawaar Awaa Aboriginal Corporation
Thoorga Nura	Clive Freeman
Darug Boorooberongal Elders Aboriginal Corporation	Galamaay Cultural Consultants (GCC)

B N Heritage Consultants	Wori Woilywa
Ngambaa Cultural Connections	Gilay Consultants
Goodradigbee Cultural & Heritage Aboriginal Corporation	Woka Aboriginal Corporation
Mura Indigenous Corporation	Bidjawong Aboriginal Corporation
Aragung Aboriginal Cultural Heritage Site Assessments	Gunya Aboriginal Cultural Heritage
Thauaira	Services Pty Ltd
	Mundawari

Expressions of interest in the project was received from the following nineteen (19) Aboriginal community groups and individuals:

- Deerubbin Local Aboriginal Land Council
- Darug Custodian Aboriginal Corporation
- A1 Indigenous Services
- Amanda Hickey Cultural Services
- B N Heritage Consultants
- Corroboree Aboriginal Corporation
- Didge Ngunawal Clan
- Clive Freeman
- Ginninderra Aboriginal Corporation
- Gunya Aboriginal Cultural Heritage Services Pty Ltd
- Kamilaroi Yankuntjatjara Working Group
- Mundawari
- Muragadi Heritage Indigenous Corporation
- Murra Bidgee Mullangari Aboriginal Corporation
- Thoorga Nura
- Tocomwall
- Waawaa Awaa Aboriginal Corporation
- Woka Aboriginal Corporation
- Widescope Aboriginal Corporation

As discussed in following sections, each of the Project RAP's were subsequently provided an information package (Attachment C) about the redevelopment that illustrate the heritage landscape context of the proposed built form, an environmental strategy for the site and its interface with Clay Cliff Creek, and concept drawings for communal open-space, landscape design, and future planting character. Each of the RAP's were also invited to attend an on-site information-sharing meeting that was held at the site on 12 May 2022.

Future archaeological heritage management opportunities and constraints currently presented by the site were discussed. Key points concerned the extent of subsurface disturbance to former natural ground surfaces that occurred when the factory was built, the potential for buried soils to contain Aboriginal objects, and information about below-ground conditions provided by geotechnical and contamination studies. It was noted that there were additional unresolved contamination issues to be addressed at the site before future archaeological management plans could be progressed, but there was a consensus that because of the location of the site relative to Parramatta River and the numerous archaeological cultural heritage sites recorded on the Parramatta Sand Body, and the immediate proximity of the site to Clay Cliff Creek, that the site warranted archaeological test excavation.

It was resolved that the Proponent provide the Project RAP's the results of future contamination assessments and building demolition planning when available, and in consideration of this information, to develop with the community groups a future cultural heritage research design and archaeological test excavation methodology. The minutes of this meeting were sent to each of the RAPs.

A Draft version of this report was provided to each of the project RAPs and the Land Council for review and comment and permission to use in the Final report the key messages received from the discussions held with each group and from the written comments received about the findings, conclusions and recommendations presented here. The nature and details of the consultation that has been undertaken with the Project RAP's is presented in following sections of this report and supporting documentation (Attachment D and E).

1.5 Heritage assessment and reporting methodology

This report has been prepared following the requirements of and with reference to the heritage assessment and reporting standards and guidelines:

- Australia ICOMOS. [2019]. The Burra Charter. The Australia ICOMOS Charter for Places of Cultural Significance. Australia ICOMOS Inc.
- Australian Heritage Commission. 2002. Ask First: A guide to respecting indigenous heritage places and values.
- NSW Department of Environment, Climate Change & Water. (DECCW) 2010 (April). Aboriginal Cultural Heritage Consultation Requirements for Proponents. Part 6 National Parks and Wildlife Act 1974. DECCW. Sydney.

1.6 Report contributors

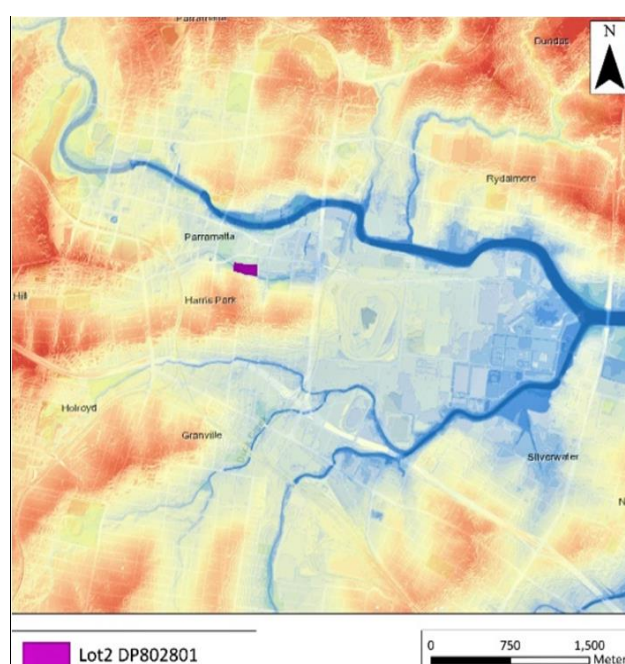
Dominic Steele has written this report with the assistance of the Aboriginal community groups and individuals who have helped us understand the cultural heritage values of the place, and who have contributed to the development of this heritage assessment. The landscape and soil maps used here have been prepared by Bryce Sherborne-Higgins and Adrian Dreyer has provided the site photographs.

2.0 Landscape evolution & change at Parramatta

2.1 Quaternary landscape setting

The City of Parramatta is built on an ancient alluvial plain and over a deep subsurface sequence of Quaternary fluvial sediments that infill the lower part of a valley formed on Ashfield Shale over Hawkesbury Sandstone bedrock. The Quaternary (most recent period of the geologic timescale) is subdivided into the Pleistocene (2.5 million years ago to 11 700 years ago) and Holocene (11 700 years ago to present).

Figure 2.1: Landscape context of the 2A Gregory Place site (Sherborn-Higgins 2021)



The ages and origins of the sediments infilling the valley are linked to frequent rises and falls of sea-levels that resulted from expansion and melt of global ice during this period. Surficial Quaternary deposits are inferred to date from the last c.120 000 years and to be associated with periods of fluctuating sea-level that occurred during the Late Pleistocene and mid-Holocene to present (Troedson et al 2015).

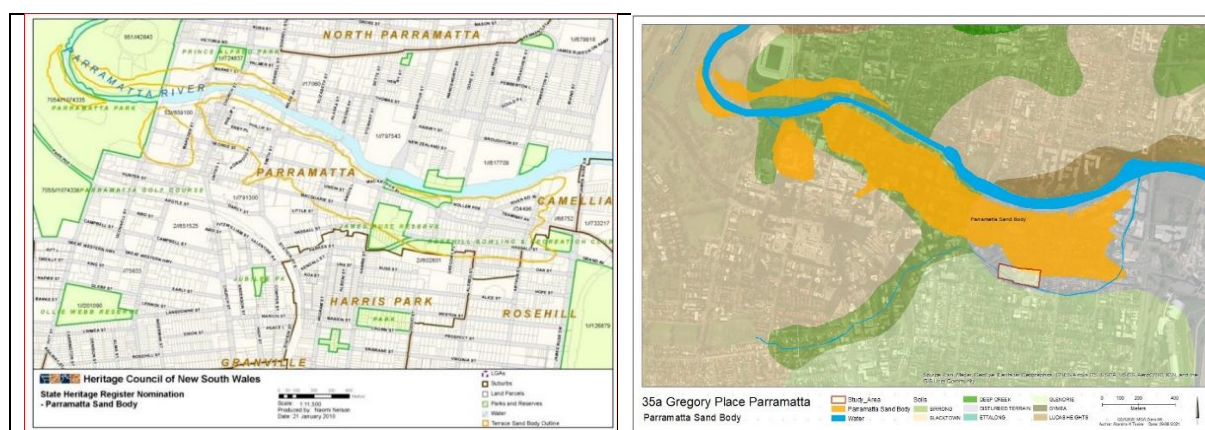
Higher than present sea-levels that reached about +4-6m above present levels are reported to have occurred around 125,000 years ago and higher levels than present also occurred during the mid-Holocene to the present when sea-levels exceeded present levels by 1-1.5m (Sloss et al 2007, Lewis et al 2013). Remains of Holocene river terraces that formed after about 6,500 years ago occur up to 2m in elevation on both sides of the modern Parramatta River and higher terraces above 5-6m sea-level are believed to have formed during the Last Interglacial (Casey & Macphail 2008).

A sand deposit known as the Parramatta Sand Body (PSB) that forms part of the Quaternary alluvial sediment sequence is currently mapped by the SHR to extend from Parramatta Park in the west to James Ruse Drive in the east. The PSB contains a significant Aboriginal archaeological record with some cultural materials dated to around 35,000 Before Present (BP). There are OSL dates for alluvial sediments directly below the levels of Aboriginal occupation in Parramatta Park that are c.64,000 years old (GML 2018) and comparable dates occur at the eastern end of the PSB (140 Macquarie Street) that date sediments to c.50-58,000 years BP.

2.2 Quaternary mapping and the Parramatta Sand Body

The PSB was prior to the early 2000s an unrecognised soil landscape unit incorrectly mapped as disturbed terrain on the Birrong Soil Landscape map (Michell 2008). The PSB was found to contain Aboriginal objects in about 2003 when historical-archaeological excavations on the corner of George and Charles Streets ('CG1') discovered large numbers. Excavation of another site around this time nearby on George Street ('RTA-G1') also recovered large numbers of Aboriginal objects and also obtained the first dates for Aboriginal cultural materials present in the PSB. It was subsequently proposed (McDonald 2005a:7) the sand body extended on the southern bank of the Parramatta River from Parramatta Park in the west, south to Clay Cliff Creek, and east to the confluence of Clay Cliff Creek and the River.

Figure 2.2: Mapping of the PSB using older generation soil and sediment mapping data (SHR listing left). This locates the 2A Gregory Place site at the southern edge of the PSB and on disturbed terrain



Parramatta City Council recognised the archaeological and cultural significance of the PSB and commissioned a study to define the extent of the sand body within the CBD, but only as far east as Clay Cliff Creek, and the results of this study was used to create the SHR listing of the PSB and types of PSB distribution maps shown below that have been used to guide archaeological investigations in the City since 2008.

Quaternary mapping published in 2015 shows the PSB forms part of the much larger Quaternary geological formation mapped as Qpat on the updated mapping (Troedson et al 2015).

Figure 2.3: Quaternary mapping of Pleistocene Terrace deposits (Qpat) that include the PSB (Troedson et al 2015)

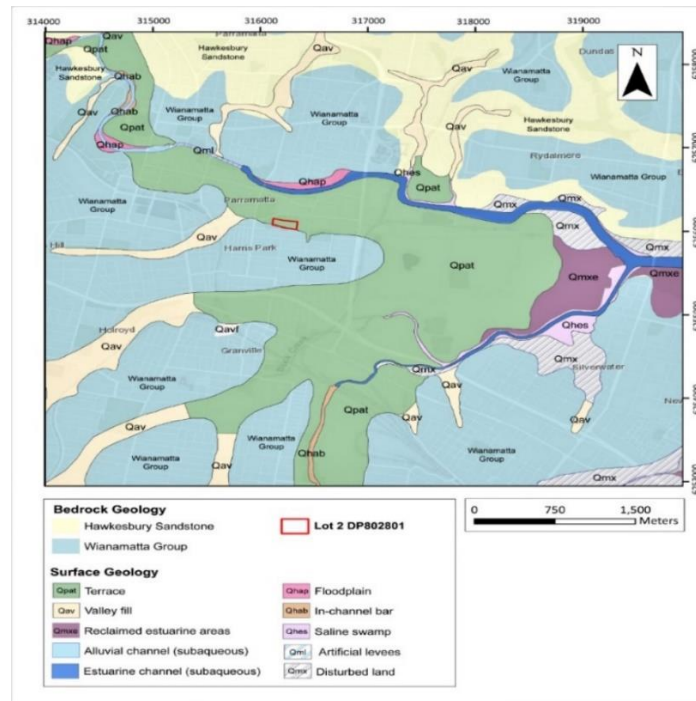


Figure 2.4: Location of the 2A Gregory Place site relative to Quaternary mapping of Qpat deposits (Troedson et al 2015)

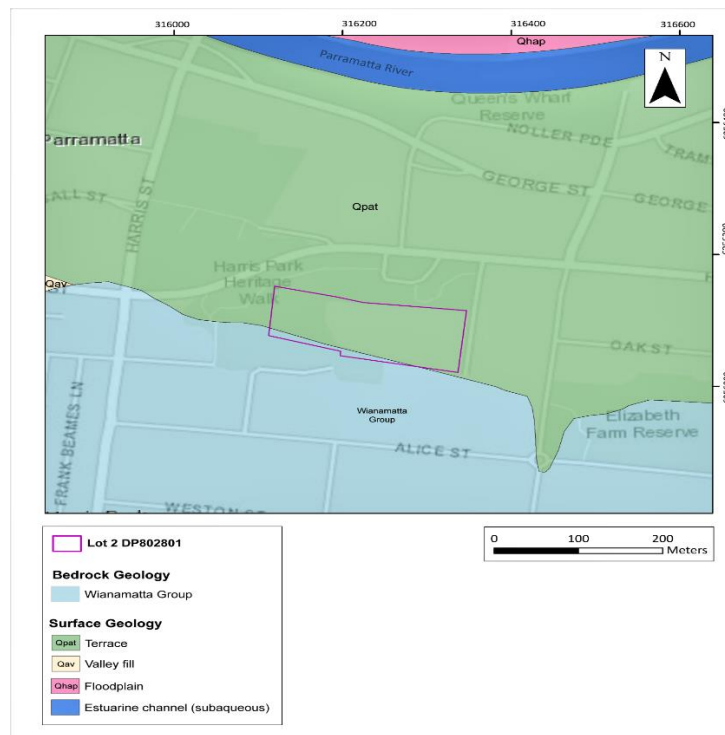
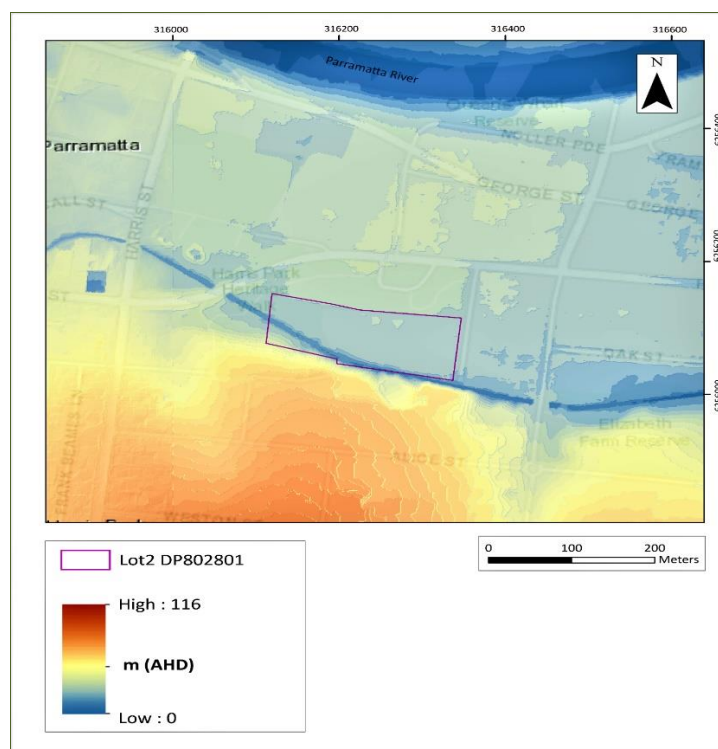


Figure 2.5: Location of the 2A Gregory Place site and relative elevation (Troedson et al 2015)



2.3 Sea-level changes to country at Parramatta

Archaeological evidence discussed in the following section shows Aboriginal people were living in Parramatta during the Last Glacial Maximum (27-17,000 years ago) and the landscape of Parramatta had continuously changed through time prior to the arrival of the British. Changes to the country included dramatic landscape transformations that resulted from long-term processes of climate change and sea-level rise and drops. The time period from the LGM through to the Holocene (last 11,700 years) saw frequent and often rapid changes in sea-level caused by melting and freezing of global ice sheets; cool and dry glacial periods with lower sea-levels alternated with warmer interglacial periods with higher sea-levels.

About 20,000 years ago, sea-level was about -120m lower than it is at present. The now submerged offshore coastal shelf was above sea-level and the Sydney coastline was located about 25km further off-shore than it is today (Albani et al 2015). Parramatta was more distant from the coast than today and was situated within an inland valley drained by a freshwater stream; the Proto-Parramatta River. This watercourse ran down through the valley to the east and crossed the future Sydney Harbour and continued out through the rocky headlands before snaking across the now submerged coastal shelf to reach the LGM shoreline.

As global climate conditions changed from the LGM, rising sea-levels that resulted from the melting ice sheets flooded across the terrain of the continental shelf and eventually the sea reached and inundated Port Jackson and the rising water-level progressively moved up and ‘drowned’ the Proto-Parramatta River valley. Sea-levels reached their present elevations around 7,000 years ago but this was not before sea-levels had first exceeded modern levels by between +1-2m. The higher than modern sea-levels also appear to have remained in place for an extended period of time before they oscillated, with often rapid ‘meltwater pulses’, and fell back to present positions about c.2,000 BP. During the intervening 5,000 years there were shorter oscillations that created higher sea levels than experienced today and two are recorded during two intervals beginning around 4,800 BP and 3,000 BP respectively (Lewis et al 2012).

Post-glacial sea-level rise will have had a powerful impact on the lives of Aboriginal people living in both coastal areas and within hinterland-inland valleys within reach of the rising water. Nunn and Reid (2016:41) speculate that generation after generation of Aboriginal people around the Australian continent are likely to have had to continuously re-negotiate and realign land tenure and share arrangements with neighbours and ultimately make stay and go decisions about ‘*lowland clan estates*’. This line of thinking will also have applied to the Aboriginal communities living in Parramatta.

2.4 Changes to country and shifting ecological zones

The precise nature and rate of post-glacial sea-level rise, and when and how quickly the post-glacial rising water progressed upstream from Sydney Harbour to Parramatta is not well understood. It is probable that one ongoing effect that rising (and dropping) sea-levels is likely to have had on the lives of Aboriginal communities living in the valley was the constant shifting of the relative landscape positions of freshwater, estuarine and saltwater ecological zones because these determined the location and availability and distribution of resources people used at various times in the past.

As a result of rising sea-level, Parramatta’s freshwater river valley environments progressively gave way over time to estuarine environments featuring a complexity of sub-tidal, intertidal and supratidal environments with ecosystems ranging from saltwater-freshwater wetlands to savanna grasslands and woodlands. The changes in the landscape position of these environmental zones and development time for new ecological zones to transition from or to replace those effected by rising sea-levels with comparable carrying capacity suggests the position and nature of Aboriginal land use will have continuously changed as environmental conditions changed in the lead up to and following stabilisation of sea-levels about 2,000 years ago.

2.5 Evidence for ‘ancient’ river and creek alignments at Parramatta

2.5.1 Parramatta River

The current alignment of Parramatta River is at least 64,000 years old based on OSL dating of sediments in Parramatta Park (and similar dating at 140 Macquarie Street). There are at least two older palaeo-channels of the proto-Parramatta River that have previously been identified in the CBD area of Parramatta. Lawrie (1982) reports that the sandstone bedrock beneath the alluvial sediments that infill the lower part of the valley has been gouged out in two places to a depth below current sea-levels that reflect older alignments of the river.

2.5.2 Clay Cliff Creek

Almost no floodplain landscape survives along Clay Cliff Creek because the watercourse has been almost totally converted into a concrete channel. Evidence of the original creek include a small meander cut into the shale hillslope below Elizabeth Farm (adjacent to Alfred Street) and a larger meander cut into a shale bank between Grand Avenue North and Hassall Street. Although there is a terrace present along the creek it is less well defined than the equivalent feature along the Parramatta River. Michell (ibid) reported dark clay soils with minimal development of a texture contrast profile were found in auger holes behind Hambledon Cottage and along Oak Street, indicating a clay-based terrace extends along the southern bank of the creek.

Evidence for an older alignment of Clay Cliff Creek within an older and lower landscape position is suggested by the following newspaper descriptions from 1908 (Cumberland Argus, 2 May 1908, p.4):

Further interesting discoveries continue to be made by the workmen employed on the Parramatta sewerage works. The other day an interesting memento of barbaric times was unearthed in the shape of a black-fellow's stone tomahawk, which is now in the possession of Mr. E. J. Love. At a depth of 15ft. evidence were found of an old water-worn channel, with stones and pebbles evidently rounded by the action of water. There was also found red soil of a character only found in the neighbourhood at Redbank and near the Industrial School, and which must, at some remote period, have been brought down by water. It is remarkable that similar indications were discovered in connection with the construction of the bridge across the river for the Carlingford line, at a depth of 45 feet, and also 15ft. down in the excavations which are being made at the 'Black Bridge.'

The signs point to the existence of a channel ages ago along the present course of Clay Cliff Creek, or nearly so, which has gradually been buried by accumulating deposits brought down by the water.

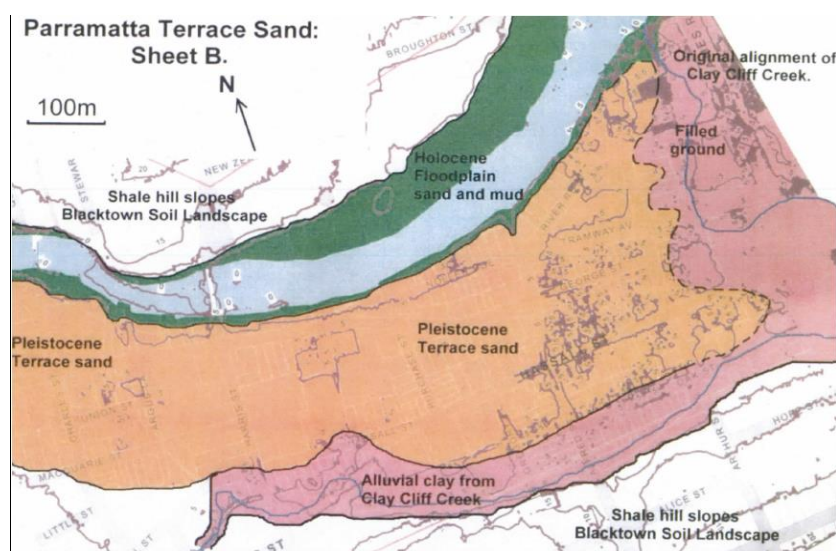
A second 1908 article reported excavations to replace the old wooden ‘Black Bridge’ had extended down a considerable depth at the southern side of Parkes Street and digging had revealed ‘*the existence of old swampy ground and the ancient water channel mentioned elsewhere*’ (Cumberland Argus, 2 May 1908, p.4).

2.6 Current mapping of the PSB

The Quaternary-age deposits that infill the lower part of the valley at Parramatta are a sedimentary archive of long-term landscape evolution and change and this sedimentary sequence includes the PSB. The PSB contains an archaeological record of Aboriginal life in Parramatta dating back 35,000 years and contains information about how the landscape has evolved over this timeframe.

Mitchell (2008) maps and describes the main part of the sand body originally extended from Church to Arthur Street and back from the river to the eastern end of Macquarie Street, along Hassall Street, from Harris Street on the north side of Oak Street, and to about Arthur Street where it interfaces with the clay terrace of Clay Cliff Creek. A smaller section of the sand body was also present in the area bounded by O'Connell, Macquarie and Marsden Streets. Between these two locations an area of high ground (about 10m ASL) appears to be underlain by another body of alluvium that is a mixture of clay and sand that is probably older than the main sand body and may even be of Tertiary age.

Figure 2.6: PSB and deposits associated with Clay Cliff Creek within proximity to the study area (Mitchell 2008). This work was completed prior to the Quaternary mapping of Pleistocene Terrace (Qpat) deposits by Troedson et al 2015



Moving east the sandy terrace declines to 4m-6m in the vicinity of Charles Street and 2m-5m above the river along Grand Avenue and this general decline downstream is consistent with the gradient of the modern stream. At the eastern extremity of the sand body the presence of sand has been confirmed in auger holes in Tramway Avenue and at the intersection of George Street and Arthur Street (Mitchell 2004). Beyond Arthur Street the sand body probably interfingers with clay sediments on a terrace formed along Clay Cliff Creek (but no exposures of this relationship were found).

2.7 Existing condition of the site

2.7.1 Buildings and built-form

The former 1950s factory site is located approximately 6.5m to 4.5m above sea-level (AHD) and comprises a relatively flat concrete or asphalt sealed surface that is also largely covered by a number of main buildings and works areas that are illustrated below.

The main buildings on the site comprise an office/warehouse/factory building that covers about two-thirds of the property, with an asphalt carpark covering the western area and concrete loading dock covering part of the southern area.

An open storm-water channel gently grades from the west from 2.67m to 2.13m RL (and is 6m wide and 3m deep from ground level) that contains the flow of Clay Cliff Creek runs the length of the southern site boundary then cuts through the site in the southwest corner. Clay Cliff Creek drains to the east and eventually empties into the Parramatta River adjacent to James Ruse Drive.

Figure 2.7: 2A Gregory Place context and setting and built form



Figure 2.8: Indicative external building space along southern side of site (looking west) showing the boundary it shares with the grounds of Hambledon Cottage (left) and the extent to which the factory construction has lowered the ground here



Figure 2.9: Indicative external space – southern side of building (looking east). Note to the right the difference in height between the existing (higher) ground on the adjacent Hambledon Cottage grounds and the bitumen surface



Figure 2.10: Building and carpark surface at the eastern side of the site



Figure 2.11: Indicative internal spaces (warehouse) in the east and center of the site

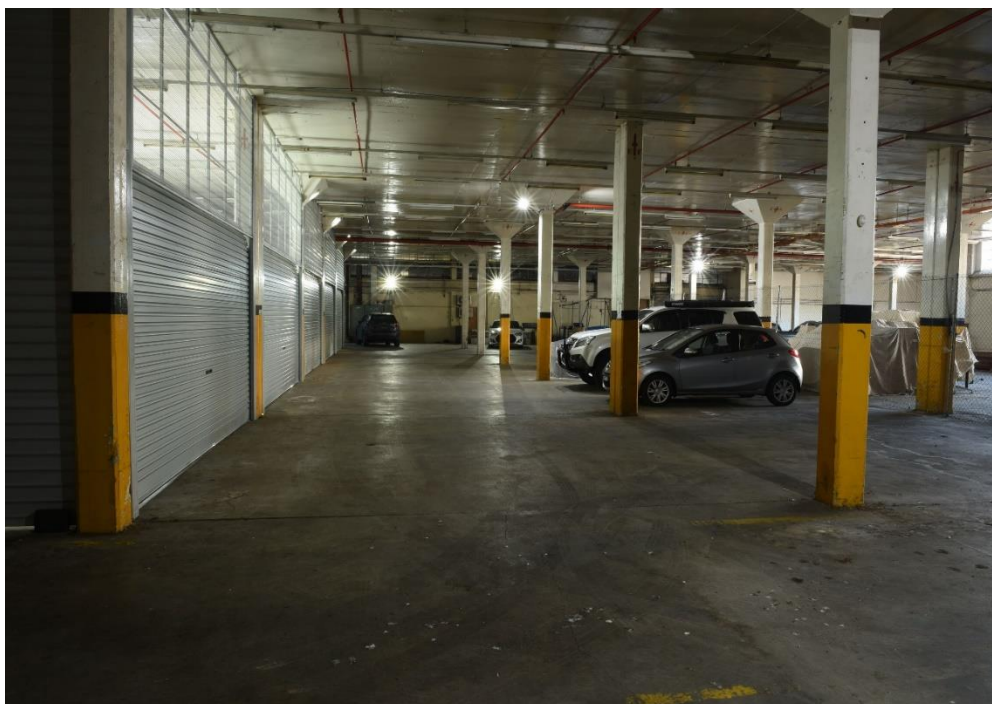


Figure 2.12: Indicative internal spaces (manufacturing and offices) in the western part of the site



Figure 2.13: Indicative internal space in the northwestern part of the site (looking east). The canal for Clay Cliff Creek is about 6m to the right (obscured by vegetation)



Figure 2.14: Indicative view of the canal for Clay Cliff Creek (looking east)



2.7.2 Contamination

Sullivan Environmental Services (Sullivan E-S) completed a Preliminary Site Investigation (PSI) at the Gregory Place site in 2015. This study concluded that historic activities may have caused potential site contamination and may pose a potential health risk to future human and environmental receptors. Key items and activities that were identified as warranting further investigation included the presence of underground storage tanks, on-site storage of bulk chemicals, a boiler room with potential fuel and chemicals storage, on-site manufacture of pharmaceutical products, fuel leaks from vehicle parking, and groundwater conditions.

The PSI recommended a Phase 2 Detailed Site Investigation (DSI) be undertaken to assess if the identified issues have caused impacts to soils and groundwater and enable health risks to onsite and offsite receptors to be quantified in consideration of State Environmental Planning Policy 55 – Remediation of Land 1998 (SEPP55).

Sullivan E-S (March 2022) have prepared a Detailed (Phase 2) Site Investigation (DSI) that included evaluation of the presence of soil and groundwater contamination, assessment of potential health risks for future use of the land under high-density residential landuse and provides recommendations for additional investigations or remediation if this is required. The sampling points for this investigation are shown below.

Figure 2.15: Outdoor sampling locations (Sullivan E-S 2021)

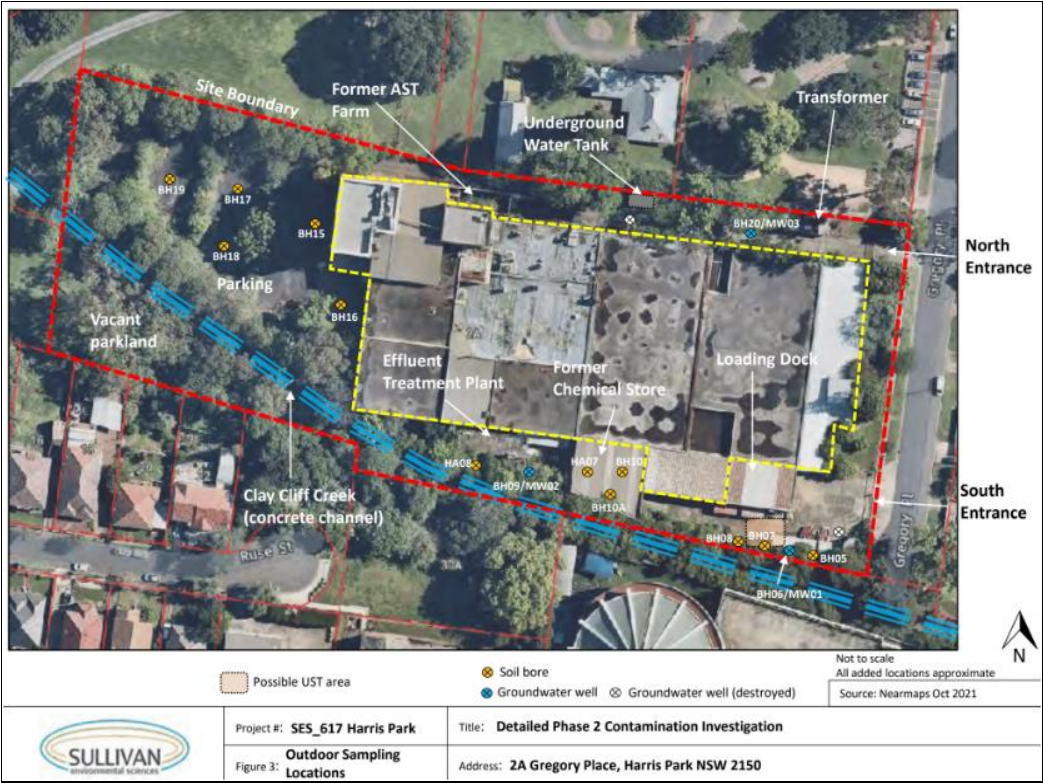


Figure 2.16: Indoor sampling locations (Sullivan E-S 2021)

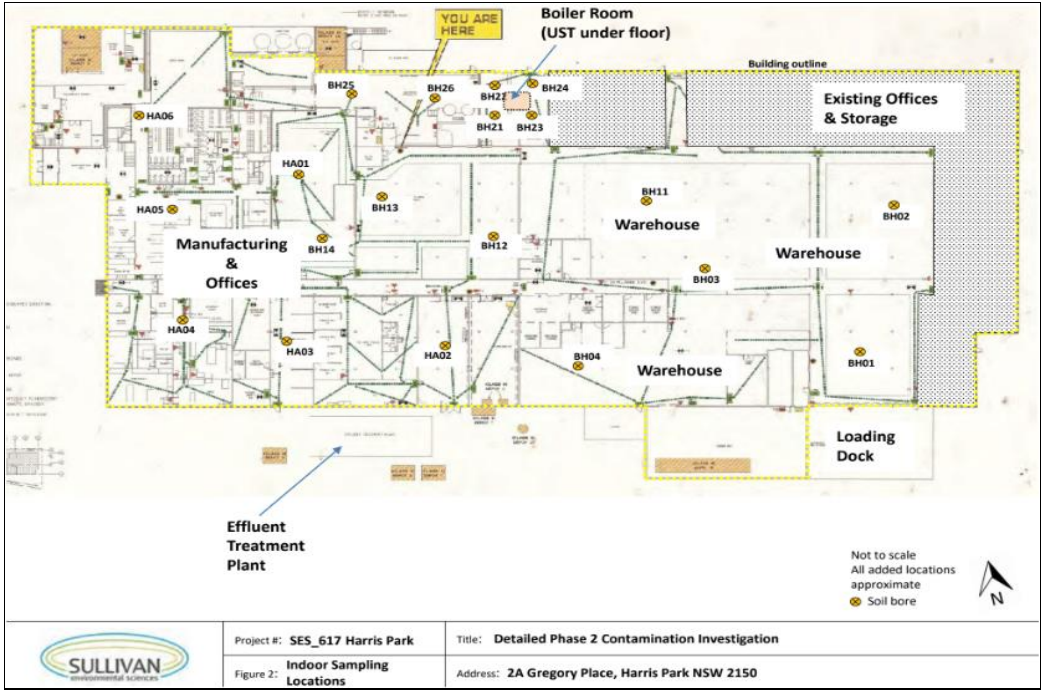


Figure 2.17: Outdoor soil exceedances (Sullivan E-S 2021)

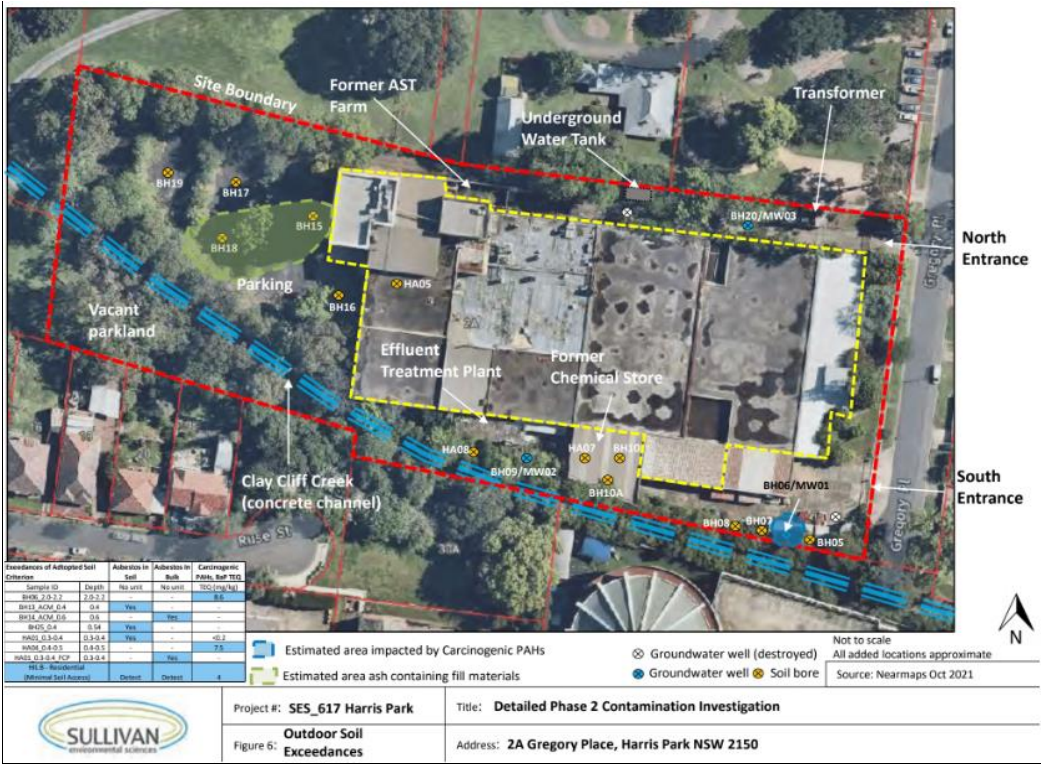
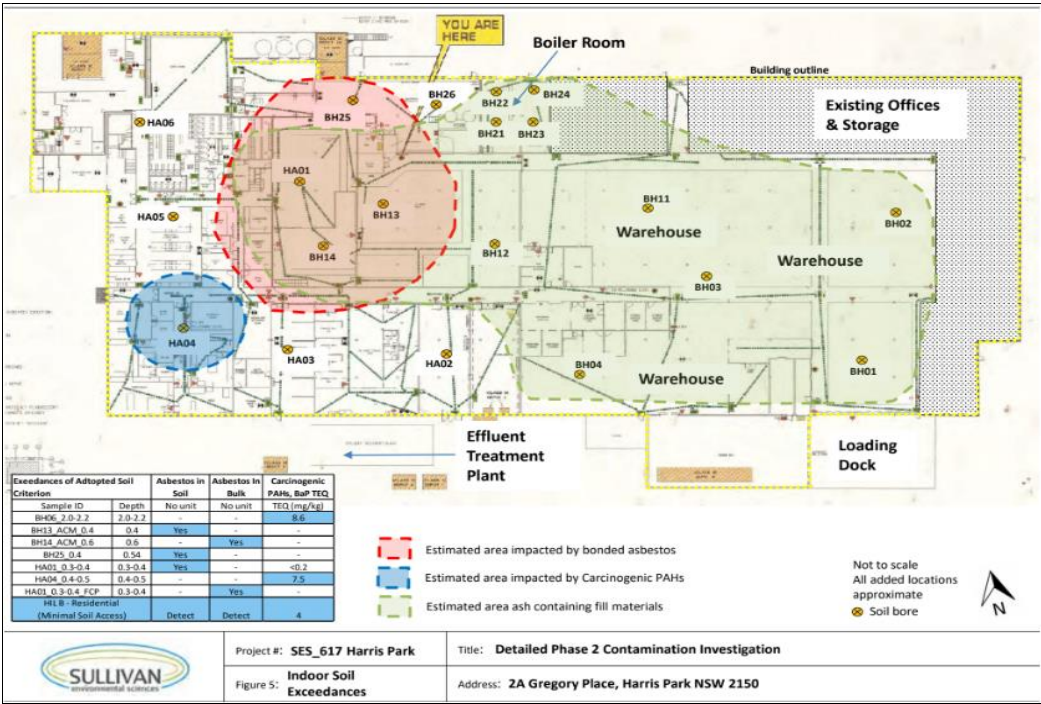


Figure 2.18: Indoor soil exceedances (Sullivan E-S 2021)



The key findings of this DSI study (Sullivan E-S March 2022) are summarised below:

- Asbestos containing fibre cement fragments observed in gravelly ash fill at sample locations BH13, BH14, BH25 and HA01, clustered together and sealed under concrete beneath former manufacturing and offices area of main building. Area sealed under concrete but potential risk to future site users by asbestos impacted fill that requires remediation prior to or during site development.
- Gravelly sandy fill soils at sampling locations HA04 and BH06 have carcinogenic PAHs in concentrations that exceed human health criterion. Areas sealed under concrete but potential risk by contaminated soils at HA04 and BH06 that requires remediation prior to or during site development.
- Volatile compounds in fill soils beneath the former buildings area adjacent to the ETP tank and former chemical store. Concentrations below adopted health screening levels, low level in soils and not detectable in groundwater. Chemicals may be residues of chemicals causing low level concentrations in soils or potential unknown contamination source beneath structures which may present potential health risk for proposed development.
- Preliminary assessment shows potential acid sulphate soils exist onsite. Potential acid generation of soils deeper than 1.5m may not require treatment but shallower soils at boreholes BH05 and BH19 have high values and an Acid Sulphate Soils Management Plan to be prepared.
- Exact position of suspected UST near loading dock not verified but likely under Boiler Room floor.
- Groundwater onsite has no exceedances of human health screening levels for vapour intrusion or ecological receptors except for PFAS.
- PFAS compounds in groundwater not significant to warrant further consideration (site history shows no current or historical onsite source of PFAS).
- Liquid contained within ETP tank is waste and requires disposal offsite during decommissioning.

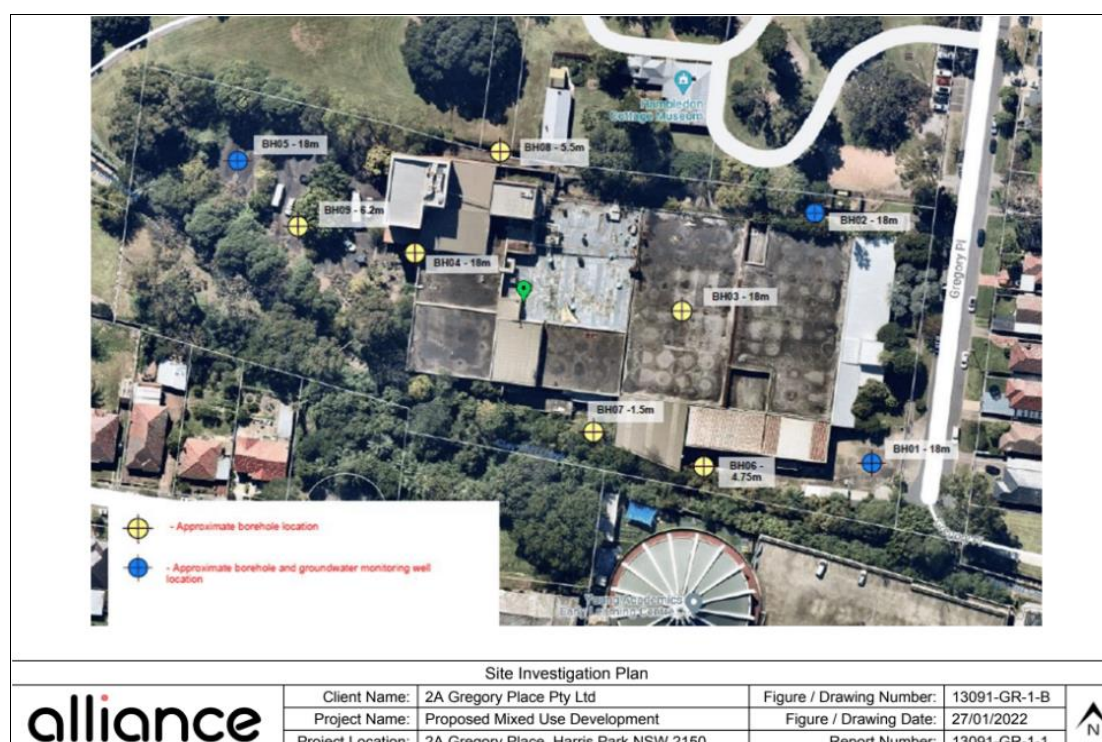
The DSI recommends:

- Decommissioning of USTs
- Remediation of impacted fill materials for bonded asbestos fragments in and around BH13, BH14, BH25 and HA01 including any additional delineation sampling to refine localised remediation extent(s).
- Remediation of impacted fill materials for carcinogenic PAHs at HA04 and BH06 including any additional delineation sampling to refine localised remediation extents.
- Data gap closure including additional sampling to characterise contamination status associated with former manufacturing/offices/laboratory areas of the building, adjacent to the EFT and former chemical store for volatile and semi volatile organic compounds.

2.7.2 Geotechnical investigation

Geotechnical investigations have been undertaken at the site (Alliance Geotechnical Pty Ltd February 2022) and the sampling comprised drilling of five boreholes to a maximum depth of 18.0m and four boreholes drilled to a maximum depth of 7m. The sampling locations are shown below.

Figure 2.19: Geotechnical sampling locations (Alliance Geotechnical Pty Ltd 2022)



The bore-logs for the geotechnical investigations show the site subsurface profile below the existing concrete and asphalt ground surfaces across the site consists of up to 1.5m thick deposits of uncontrolled fill underlain by very soft to firm alluvium silty clay which is up to 5.9m thick. Stiff to very stiff residual clay, and up to 1.5m in thickness, underlies the alluvium clay stratum in some areas.

The alluvial/residual soil is underlain by extremely weathered, very low strength shale (ranging in thickness from 1.1m to 5.5m), which is underlain by fresh, medium to high strength shale at depths ranging between -6.4mRL and -0.8mRL.

The tables below are drawn from this geotechnical study that summarise borehole termination depths, groundwater (seepage was encountered in all boreholes) and overviews the subsurface stratigraphic profile.

Figure 2.20: Subsurface soil and sediment data (Alliance Geotechnical Pty Ltd 2022)

Table 1 Summary of Borehole Termination Depths (m)

Type	Location ID	Existing Ground Surface Level (mRL)	Termination Depth (m)
Borehole	BH01	4.70	18.45
	BH02	5.50	17.52
	BH03	5.15	14.90
	BH04	5.00	18.00
	BH05	5.00	19.00
	BH06	5.18	4.75
	BH07	5.18	1.50
	BH08	5.40	5.50
	BH09	5.40	6.20

Table 2 Groundwater levels

Well	Borehole Elevation (mRL)	Well Screen Depth (m)	Well Screen Length (m)	Groundwater level (mRL)	
				16/12/2021	24/01/2022
BH01	4.70	0.5 – 13.0	13.0	3.21	3.12
BH02	5.5	1.0 – 11.0	10.0	3.72	3.88
BH05	5.0	2.13 – 8.13	6.0	3.77	3.76

Table 6 - Summary of Subsurface Profile

Ground Profile	Consistency/ Strength	RL at top of unit (mRL)	Depth to top of unit (m)	Thickness (m)
Fill: Silty Sandy CLAY: low plasticity, dark grey, with gravel poorly to moderately compacted	-	4.70 – 5.50	0	0.2 – 1.5
Alluvium: Sandy/Silty CLAY: pale grey, orange brown, low to medium plasticity, fine to medium grained sand	Very soft to firm	3.5 – 5.3	0.2 – 1.5	2.7 – 5.9
Residual: Silty CLAY; dark grey and brown, low to medium plasticity	Stiff to very Stiff	(-1.0) - 0.5	4.7 - 6	0 – 1.5
SHALE (Class V and IV); dark grey and grey brown, extremely weathered to highly weathered	Very low strength	(-2.5) - 1.0	4.2 - 7.5	1.1 – 5.5
SHALE (Class II and better): dark grey, fresh	Medium to high strength	(-6.4) - (-0.8)	5.5 – 11.6	Not penetrated

3.0 Aboriginal archaeological heritage context

3.1 Previous archaeological investigations in the City of Parramatta

The Aboriginal archaeological record of Paramatta is based on accumulated knowledge that has been gained from a considerable number of Aboriginal (and historical) archaeological test and salvage investigations along the southern bank of the Parramatta River between Parramatta Park and Robin Thomas Reserve. Many of the investigations have been located on the ‘Parramatta Sand Body’ (PSB) described as an ‘Ancient Aboriginal and Early Colonial Landscape’ and listed on the NSW State Heritage Register (SHR Item 01863). The curtilage of this Item (George Street, Hassall Street and Harris Street) contains a section of the Parramatta Sand Body (PSB) and the location was also the site of a military barracks established about 1790. The Statement of Significance for this item includes reference to the PSB:

Archaeological investigation of the sand body has uncovered a substantial archaeological record that has contributed to our understanding of pre-colonial Aboriginal occupation of the Parramatta area and more broadly, the Cumberland Plain. The antiquity of some of this archaeological record and evidence of change over time is significant to Australian archaeology generally. For the local Aboriginal people whose ancestors lived on and used the sand body for many thousands of years before the arrival of non-Aboriginal people, the sand body has special significance. The sand body is a tangible link with their cultural past.

An archaeological investigations of the PSB undertaken within Parramatta Park in 2016 sheds new light on the formation of the PSB (GML Heritage July 2018:i-ii) describe:

The excavation resulted in the recovery of limited amount of highly significant Aboriginal archaeological evidence. A total of 39 items demonstrating Aboriginal use of the area were retrieved from the excavation. Eight stone artefacts were recovered; one item was deep within the archaeological trench. An Aboriginal ochre cooking pit was identified, as well as 30 pieces of ochre – 22 red pieces and eight yellow pieces.

The geomorphology results were surprising and present significant new information on how and when the sand sheet formed. We used the optically-stimulated luminescence dating technique, which dates the last time that the quartz in the sands was exposed to light. We understand now that between 58,000 and 40,000 years ago a large flood event brought massive quantities of sandy clay down the Parramatta River valley. Sandy clay was deposited on the northern and southern banks of the river. Our dates for this event correspond with previous investigations, which had indicated the sandy clay was deposited between 58,000 and 50,000 years ago.

Our research provides direct evidence that Aboriginal people started living adjacent to the river, on the Parramatta sand body, around 40,000 to 35,000 years ago. When they started to live on the sandy clay, the wind slowly eroded the sand (it became windblown aeolian sand). The sand was then through time redeposited over the sites and places inhabited by Aboriginal people, gradually burying the materials items they had created. The outcome of this process is the buried sites we find across Parramatta on the sand today.

Amongst the first archaeological investigations of the PSB undertaken in the City during the early to mid-2000s was at 109-113 George Street (JMCHM Pty Ltd). Testing (2003) followed by salvage excavation (2005) at RTA-G1 revealed evidence for multiple phases of prehistoric Aboriginal occupation from the Late Pleistocene (c.30,000 BP) to about 3,500 BP with the most recent occupation evidence (last 2-3,000 years) lost from historic landuse impacts. The investigations recovered 4,775 artefacts with an average density of 38 artefacts per sqm. Most of the assemblage (82%) was knapping debitage and most artefacts (75%) were found in the upper 40cm of deposit. Lower density material (16%) occurred between 40cm and 60cm in depth, while 8% was between 60cm and 80cm depth. Very few stone items were below 80 cm depth. Glossy heat-altered silcrete was concentrated in the top 10cm-20cm of deposit and associated with small, backed artefacts. Silicified tuff in the earlier assemblages at the site was technologically distinct from more recent silcrete Bondaian assemblages. .

Formal artefact types included backed artefacts, three (ground stone) hatchet heads in a discrete cluster, anvils, two serrate retouched tools, an ironstone core, and clusters of manuport stones (possible heat retainers). This evidence demonstrated that a range of activities were carried out and represented domestic occupation debris accumulated over a long time period. The radiocarbon dates revealed occupation extended from the late Pleistocene through to the mid-Holocene. The oldest date (c.30,000 BP) more than doubled the previously accepted period for Aboriginal occupation of the Sydney region.

Excavation at CG1 (corner of Charles and George Streets) involved the investigation of more than 210 sqm of the site that was hand excavated, whilst another 250 sqm were mechanically screened and over 6,500 Aboriginal objects were recovered with a density of 24 artefacts per sqm (JMCHM Pty Ltd 2005a:26). Excavation revealed living floors containing artefacts and hearth arrangements and assemblage was dominated by silicified tuff and silcrete.

Rare artefact types included axes, hammerstones, anvils, and grindstone fragments. A perforated shark tooth was also recorded (thought to have been a hair ornament as noted in early European historical sources in the Sydney area) and residue analysis of ground-stone artefacts suggested some had been used for the preparation of starchy plant material, presumably during food preparation.

Williams et al (2021:3) report that since about 2005 there have been about forty archaeological investigations on the alluvial terrace but with few exceptions the findings of RTA-G1 and CG1 have not been replicated and most investigations elsewhere across Parramatta have recorded more extensively impacted and/or shallower archaeologically sterile, or near sterile sand deposits. Between 2005 and 2019, two additional excavations have recovered significant terminal Pleistocene archaeological materials. These have been through excavation at 21 Hassall Street and O'Connell Street Public School. The findings from the investigations at the former site has relevance to this assessment and are considered in following sections.

3.2 Recent interpretation of the alluvial terrace and PSB archaeological record

Williams et al (2021) have published a synthesis of the findings of fourteen (NPW Act 1974) compliance-based archaeological investigations on the Parramatta alluvial terrace and report the deposits initially formed some 50,000 years ago but with extensive portions reworked between 20ka and 5ka. The study provides detail of the physical and sedimentological character of the alluvial terrace and provides some metrics (ibid:4-5):

The extent of the alluvial terrace is well documented. Initially modelled using desktop resources in 2008, large numbers of excavations have repeatedly demonstrated the accuracy of these predictions. The sand body is some - 69 ha in size, extending ~2.5km along the river, up to 300m away from the water's edge, and commonly - ~4-7m above the river surface. On reviewing the current development of the region, we find that nearly 1.9 ha (~29%) of the deposit has been destroyed through urbanisation, including many of the sites reviewed here....

While there is variation across the deposit, the terrace is dominated by medium to coarse sand (250-1000µm) in close proximity to the Parramatta River, indicative of a fluvial deposition from a moderate river flow and increasing fine clays and silts (0.5-55µm) more suggestive of aeolian processes further away from the river. These later deposits probably reflecting reworking of the initial alluvium, and accounting for the substantive distance from the river.

The terrace has been shown to extend to >3m in depth before reaching underlying geological substrate, which consists of Wiannamatta shales (Gale 2020). More commonly, excavations, find the alluvium to be ~1-1.3m thick, before reaching an indurated heavy clay unit, which is visibly comparable with Cenozoic units found elsewhere on the Cumberland Plain (e.g. Londonderry Clay (Gale 2020). Visually, the unit has variable colours, but is typically a yellowish to reddish brown homogenous unit, with the upper portion (~40cm) darker and intermixed by later colonial activities; and the lower portion often mixing with the underlying heavy clay strata.

This study also concludes there is limited evidence of past visitation with only a few excavated sites reporting substantive material culture (i.e. >20 lithics m² across small areas, <35m²) and only three have contained substantial evidence for deep time occupation; CG1 (AHIMS #45-6-2648), RTA-G1 (AHIMS #45-6-2673) and Hassall Street (AHIMS #45-6-3180) each with several thousand artefacts and average densities of ~32-52m²:

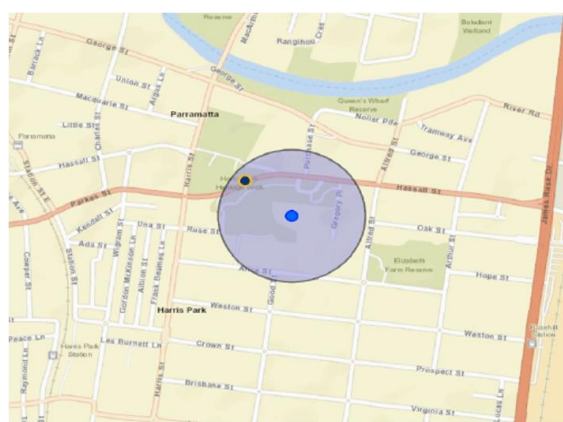
Following equivocal evidence of visitation prior to the Last Glacial Maximum (LGM), these assemblages generally demonstrate widespread ephemeral, but repeated, activity between 14-6ka, dominated by indurated mudstone/tuff/chert raw materials (IMTC) and expedient technologies, overprinted by ii) more extensive occupation of the landscape in the last few thousand years, with increasingly diverse and complex stone assemblages using heat-treated silcrete and additional raw materials from multiple geological sources. Notably, these two separate phases are often found in the same locale, potentially suggesting a long continuity and repeated landuse over 14,000 years (Williams et al 2021:3).

3.3 Local archaeological heritage context

3.3.1 Database searches (AHIMS)

The Aboriginal Heritage Information Management System (AHIMS) is a database operated by HNSW and is regulated under s.90Q of the *National Parks and Wildlife Act 1974* and contains information about registered Aboriginal archaeological sites, objects, and declared places. Searches of AHIMS (Attachment F) show that no Aboriginal archaeological heritage sites have been previously recorded on the 2A Gregory Place site.

Figure 3.1: Nearest known AHIMS recording to the 2A Gregory Place site (200m AHIMS search)



3.3.2 Overview of nearest-known Aboriginal archaeological sites

Robin Thomas Reserve and Harris Street

The Parramatta Sand Body (PSB) is listed on the State Heritage Register and SHR Item #01863 features a section of the PSB within a curtilage bounded by George Street, east by 153 George Street and 42 Hassall Street, west by Harris Street, and south by Lot 7 DP 720779. Robin Thomas Reserve (RTR) forms the southern portion of SHR Item #01863 and is also listed on Schedule 5 of PLEP 2011 as an archaeological site of local significance (RTR archaeological site - Item A2). Two Aboriginal archaeological sites (AHIMS #45-6-3157/#45-6-3158) encompass the curtilages of SHR Item #01863 and the Robin Thomas Reserve archaeological site.

AHIMS #45-6-3157/#45-6-3158 (Harris Street footpath/Robin Thomas Reserve) was registered on AHIMS as an Aboriginal Resource and Gathering site located on the crest of a low flat PSB terrace. The site listing notes the location would have been an attractive location for Aboriginal people because it had access to two permanent water sources (Parramatta River and Clay Cliff Creek) and their forest, riverine and estuarine food and raw material resources. In 2013 Comber Consultants (2014:37) undertook excavations (nine 1m x 1m test squares) for services in the footpath of Harris Street and recovered fifty-nine artefacts (mainly of silcrete, chert, quartz, and quartzite) including several pieces of worked glass.

The site was test excavated in 2017 to investigate the impact of the Parramatta Light Rail construction along the western edge of Robin Thomas Reserve. The testing comprised four test squares (TS7-TS10) aligned along the western edge of the grassed reserve and this revealed intact subsurface deposit in three of the four squares below a variably thick layer of disturbance. Squares TS7, TS9 and TS10 contained deep sand deposits associated with the PSB that extended to a depth of at least 1m. At TS7, this was shallow with compact orange-brown sands encountered between 18-20cm depth. At TS9, red/orange-brown sands were encountered at 35-37cm depth. At TS10 sands were present from 26cm and undisturbed apart from a single brick fragment. A total of nine artefacts were recovered and the majority (n=8) came from TS10 and were recovered from spit 6 (50-60cm depth, n=5) and spit 7 (60-70cm depth, n=3). One further artefact was found at TS7 in spit 5 (40-50cm depth), and all artefacts were from the intact natural sand deposits (Kelleher Nightingale Consulting (2017:47).

Parramatta Skate Park

Archaeological testing at James Ruse Reserve in 2004 (AHMS Pty Ltd 2004) to inform plans to enlarge the skate facilities found the influence of the Parramatta River was minor in the formation of the very fine-grained alluvial soils recorded. The site lies at a slightly lower elevation than the sand levee of the PSB and is likely to have been subject to low-velocity flood flows that deposited fine grained sediment from the shale hills. The stratigraphy comprised 20cm modified/introduced loam topsoil over brown clayey silt (20-50cm) gradually transitioning into light brown clay with iron manganese staining that developed with depth (to about 850mm). Plastic silty clay was identified below this to a depth of 1.2m.

In summary (ibid:29):

- The soil profiles were not the same as the PSB soils recorded on the higher ground closer to the river.
- A low-density of Aboriginal stone artefacts was found (thirteen) and none were in situ.
- No artefacts were found lower than 0.85m below current ground surfaces which marked the interface with the impermeable plastic clays.
- The low-density distribution of stone artefacts within the disturbed soils was largely unremarkable in size and nature and to comprise mainly items of silcrete 'waste flake' with little research value.

It was proposed the area may have been a swamp oak environment prior to European settlement and not a highly favourable campsite for occupation for prolonged periods that would have created substantial archaeological signatures. It was concluded (AHMS Pty Ltd:44) that unlike the PSB archaeological contexts on higher ground closer to the river that attracted repeated Aboriginal visitation and use in the past, the Skate Park was located on an alluvial flood plain of a creek and back of the river with low archaeological research potential.

21 Hassall Street

Salvage excavation at this site (AHIMS #45-6-3180) located on a minor elevation (~3m AHD) adjacent to Clay Cliff Creek recovered a high-resolution stone artefact assemblage with a chronology. Williams et al (2020:7) report the site presented as an ~80cm deep portion of the alluvial terrace (between 7.7m-8.5m AHD) from which about 1,700 stone artefacts were recovered. The temporal pattern of the assemblage suggests an early Holocene IMTC dominated occupation ranging from 14-6ka (centered on 7ka) *overprinted* by a late Holocene visitation composed primarily of silcrete raw materials.

4.0 Aboriginal and non-Aboriginal historical heritage context

4.1 British discovery of Rosehill

Port Jackson was explored and charted by the British soon after landing at Sydney Cove. Captain John Hunter and Lieutenant William Bradley (HMS Sirius) examined the eastern end of the harbour first (28-29 January) and then followed (3 February) with the coves and inlets to the northwest (Lane Cove). The next day was the first of three explorations made by the British to establish the westward termination of the harbour (and to find agricultural land). The river landscape in the vicinity of the 'head of the harbour' was first seen by the British on 4-5 February by an exploration party led by Hunter along with three other officers and a dozen sea-men. They were in a six oared boat (along with another small boat) when they reached the tidal flats near to the entrance to today's Homebush Bay. Bradley (1969:76) described:

At noon we were far enough to see the termination of the Harbour as far as Navigable for ships, being all Flats above us with narrow passages that we supposed might run a considerable distance but very shoal. The harbour is navigable for ships twelve miles east and west and the branches extend six miles north and south. It is one continuation of harbour formed by snug coves with good depth of water and fresh water in many of these.

Bradley also noted (ibid:75-77) '*there being assembled up here an astonishing number of Natives all Arm'd, Flats on which the boats might ground in this channel and put us much in their Power*'. Hunter (in Flynn 1997:17) describes the same incident and recorded they had just landed on shore to take measurements when:

We were a little surprised to find the natives here in greater numbers than we had ever seen them before in any other place.....they appeared very hostile, a great many armed men appeared upon the shore wherever we approached it, and, in a threatening manner, seemed to insist upon our not presuming to land. During the whole time we were near them, they hailed each other through the woods, until their numbers were so much increased, that I did not judge it prudent to attempt making any acquaintance with them.

The second exploration on 15 February was in three boats that reached the 'Flats' (Rhodes Point) where the party landed and explored the Concord area for 2-3 miles into the country where the trees were seen to be spaced '*a considerable distance apart & the soil in general good. Grass very long & no underwood*' (ibid 82-83). Their likely route probably took them midway between Haslam's Creek and the Parramatta River and possibly ended in the vicinity of Sydney Olympic Park. The next entry in Bradley's journal (ibid:83-84) and states:

At 1pm, returned to Boats & after Dinner went in the smallest boat over the Flats and past a Mangrove Island [Mud island] & followed a Creek [Parramatta River] some distance to the W. ward when it branched away to the NW [Parramatta River] and SW [Duck River] which last we followed 4 Miles as near as we could judge, the lake or drain is very shoal and where we stop'd was entirely filled up with fallen trees from both sides, the water filling fast we had barely time to get down Boats, which we then join'd returned to the Ship.

The third exploration party (April 22-27) was to pass through the future site of Rose Hill and to proceed west through Seven Hills and Blacktown to reach two hills with views over the Eastern Creek Valley below and towards the Blue Mountains in the distance. The first hill is believed to be today's Bungaribee Hill and the second hill is believed to have been Rooty Hill (Flynn 1995:122ff). During the trip they came across a few '*mean*' Aboriginal huts that were located next to water holes and lagoons on the western outskirts of the future Rosehill township, and they saw fleeting glimpses of Aboriginal social activity in progress at Eastern Creek, but they made no direct contact with local Aboriginal groups in Parramatta or on the way west or on their return. The *Historical Records of NSW* (1:134-134) version of Phillip's account of this expedition is:

I set off the 22nd of April, with six days provisions. We were eleven officers and men, and landed near the head of the harbour... We proceeded westward, finding the country in general as fine as any we ever saw, the trees growing from twenty to forty feet from each other... The country thro' which we past was mostly level, or only rising in small hills, which gave it a pleasing and picturesque appearance. The fifth day we got to a rising ground... The country round this hill was so beautiful that I called the hill BelleVeue...

John White's journal gives a more detailed eye-witness account and provides details of the repeated evidence the explorers saw of Aboriginal people's presence and activity in the landscape that are important Aboriginal historical records because they are the first. White describes on 22 April:

The governor, accompanied by the same party, with the addition of Lieutenant Cresswell of the marines and six privates, landed at the head of the harbour [The landing site was at the confluence of the Parramatta and Duck Rivers], with an intention of penetrating into the country westward, as far as seven days provisions would admit of; every individual carrying his own allowance of bread, beef, rum, and water. The soldiers, beside their own provisions, carried a camp kettle and two tents, with their poles, &c. Thus equipped....we proceeded on our destination. We likewise took with us a small hand hatchet in order to mark the trees as we went on, those marks (called in America blazing) being the only guide to direct us in our return. The country was so rugged as to render it almost impossible to explore our way by the assistance of the compass.

In this manner we proceeded for a mile or two, through a part well covered with enormous trees, free from underwood. We then reached a thicket of brush-wood, which we found so impervious as to oblige us to return nearly to the place from whence we had set out in the morning. Here we encamped, near some stagnant water, for the night, during which it thundered, lightened, and rained (White 1788:131ff).

White (1788:128ff) describes on 23 April that having got around a wood or thicket which had '*harassed*' them the day before they soon fell in with a '*hitherto unperceived branch of Port Jackson harbour*' [Parramatta River] where the banks were grassed with tolerably rich, and chest high grass interspersed with a plant that closely resembled indigo. McClymont (2004:43) suggests by skirting to the north of the thicket, the party emerged on the Parramatta River bank around two miles from their previous camp site that would be at a point just west of

today's Thackeray Street. The party then followed the Parramatta River west for a few miles, where the same tall grassland again prevailed, until they came to a fresh-water stream that emptied into the river. The party camped here overnight (and ate soup made from a white cockatoo and two crows White had shot on the way). This overnight campsite was on Clay Cliff Creek and was probably in the vicinity of where today's River Road West crosses the watercourse to the west of James Ruse Drive (see McClymont 2004:42).

On the 24 April, the group walked along the southern bank of the Parramatta River where there were immense trees spaced at a considerable distance from each other, and where the land was flat and rather low but well covered with long grass and shrubs as previously seen. This was in the vicinity of today's Queens Wharf and west towards probably the vicinity of the foot of today's Smith Street where White records here the tide stopped flowing and further progress for boats was stopped by a flat space of large broad stones over which a fresh-water stream ran. Just above this flat they saw *'a quarry of slates, from which we expected to derive great advantage in respect to covering our houses'* but it proved to be of a crumbling nature (and is likely to have been shale).

White describes that the next day (after having sowed some seeds) the party proceeded west for three or four miles *'where we met with a mean hut belonging to some of the natives but could not perceive the smallest trace of their having been there lately. Close to this hut we saw a kangaroo, which had come to drink at an adjacent pool of stagnated water, but we could not get within shot of it. A little farther on we fell in with three huts, as deserted as the former, and a swamp, not unlike the American rice grounds'*. The party continued for about two more miles and then camped overnight (*'near a stagnant pool'*):

The country about this spot was much clearer of underwood than that which we had passed during the day. The trees around us were immensely large, and the tops of them filled with loraquets and paroquets of exquisite beauty, which chattered to such a degree that we could scarcely hear each other speak. We fired several times at them, but the trees were so very high that we killed but few.

The exploration party is likely to have walked upstream from Parramatta Park and turned west and travelled along Toongabbie Creek. From the overnight camp, they would have followed Blacktown Creek westwards to where the creek branches and today is a small lake (possibly the site of the 'swamp' and Aboriginal huts) and then proceeded by compass over undulating higher ground roughly along the line of present-day Bungarribee Road. White describes the subsequent journey west to Eastern Creek.

- 26th April. We still directed our course westward, passed another tree on fire, and others which were hollow and perforated by a small hole at the bottom, in which the natives seemed to have snared some animal. It was certainly done by the natives, as the trees where these holes or perforations were, had many knots cut for the purpose of getting to the top of them.

After this we crossed a water-course, which shews that at some seasons the rain is very heavy here, notwithstanding that there was, at present, but little water in it. Beyond the chasm we came to a pleasant hill, the top of which was tolerably clear of trees and perfectly free from underwood. His Excellency gave it the name of Belle Veue.

From the top of this hill we saw a chain of hills or mountains, which appeared to be thirty or forty miles distant, running in a north and south direction. The northernmost being conspicuously higher than any of the rest, the governor called it Richmond Hill; the next, or those in the centre, Lansdown Hills; and those to the southward, which are by much the lowest, Carmarthen Hills. In a valley below Belle Veue we saw a fire, and by it found some chewed root of a saline taste, which shewed that the natives had recently been there. The country hereabout was pleasant to the eye, well wooded, and covered with long sour grass, growing in tufts. At the bottom of this valley, or flat, we crossed another water-course and ascended a hill, where the wood was so very thick as to obstruct our view. Here, finding our provisions to run short, our return was concluded on, though with great reluctance, as it was our wish, and had been our determination, to reach the hills before us if it had been possible.

In our way back, which we easily discovered by the marks made in the trees, we saw a hollow tree on fire, the smoke issuing out of the top part as through a chimney. On coming near, and minutely examining it, we found that it had been set on fire by the natives; for there was some dry grass lighted and put into the hole wherein we had supposed they used to snare or take the animal before alluded to. In the evening, where we pitched our tents we shot two crows and some loraquets, for supper. The night was fine and clear, during which we often heard, as before, a sound like the human voice, and, from its continuance on one spot, we concluded it to proceed from a bird perched on some of the trees near us.

- 27th April. We now found ourselves obliged to make a forced march back, as our provisions were quite exhausted, a circumstance rather alarming in case of losing our way, which, however, we met with no difficulty in discovering by the marked trees. By our calculation we had penetrated into the country, to the westward, not less than thirty-two or thirty-three miles.

Lieutenant Newton Fowell (Sirius) records that on their return (quoted in Flynn 1995:21):

He [Phillip] supposed he had been about 40 mile in Land & that it was all the Way like a Park with Trees about 20 yards Distance from each other – the Country in General quite a Plain – the Grass about 3 feet high & paths all the Way that Natives had made – at about the Distance of about 20 Miles from them when Furthest in Land they saw Mountains, the very tops of them can be seen in a clear day from the head of the harbour – Water in Land is in great Plenty – they saw Several Ponds – some of them 200 Yards wide.

Elsewhere around the harbour the British often fell in with Aboriginal paths that formed networks leading along rivers, between woods and through grasslands connecting important places in the Aboriginal geography of the time. Hunter (2005 [1793]) noted *‘these paths rendered our march, not only on account of pointing to us the most easy and accessible parts of the hills and woods, but, in point of direction, the shortest which could be found, if we had even been better acquainted with this tract’*.

Additional observations of Aboriginal Parramatta in early 1788 are recorded by Bradley (1969) who describes a further examination of the ‘shale beds’ at Rosehill (12 May 1788):

A party went up the harbour to the lake or creek running to the NW above the flats. We went about 3 Miles up, to a very fine run of water. The country on both sides [was] pleasant and the ground apparently fit for opening, with far less trouble than any in the other parts of the harbour, and the soil good. A little above the part where the fresh water meets the tide is the place supposed would produce slate but had been found on examination not fit for working. We tried it as coal, without success. Found a great number of cranes and other birds about and above the flats, all very shy.

George Worgan was a surgeon on the Sirius, and described on 14 May:

I have had a most delightful Excursion to Day with Captn Hunter and Lt. Bradley, We went in a Boat about 12 Miles up the Harbour. For 3 or 4 Miles the Harbour forms a narrow arm, which at high Water, has the appearance of a River, the sides of this Arm are formed by gentle Slopes, which are green to the Water's Edge. The Trees are small and grow almost in regular Rows, so that, together with the Evenness of the Land for a considerable Extent, it resembles a Beautiful Park. We landed quite up at the Head of this Branch where a fresh Water River runs into it, but which, at this time was dry in many places. We walked about two Miles up the Country in the Direction of this River; the Ground ran in easy ascents and Descents, the Soil was extremely rich, and produced luxuriant Grass.

We now and then, in our Walk, met with Clusters of a very delicate looking Tree, the Trunks of some of Them were 12. 14. 20 Inches round, covered with a green Bark, the leaves of a peculiarly beautiful Verdure and growing like the Fern, but more delicate. Having extended our Excursion as far as we wished, we returned to the Place where we landed and after regaling Ourselves with a cold Kangaroo Pie and a Plum Pudding, a Bottle of Wine &c, all which Comforts we brought from the Ship with Us, We returned on Board.

Worgan provides further details on the park-like appearance of the country and evidence for fire in the landscape (quoted in Gammage 2011:44-45):

In our Excursions inland....we have met with great Extent of Park-like country and Trees of a moderate Size and at a moderate Distance from each other, the Soil, apparently, fitted to produce of any kind of Grain, and clothed with extraordinary luxuriant Grass. It is something singular, that all, of this kind of Trees, and many others, appear to have been partly burnt, the Bark of them being like Charcoal.

Watkin Tench (2005b) adds details about the nature of water availability and the grass and trees. Tench noted Phillip’s exploration party did not encounter any ‘*rivulets*’ (the term Tench also used to describe the Parramatta River at Rose Hill) but were reliant on water provided by ‘*standing pools*’ which occurred in the valleys and were supposed to be formed by seasonal rainfall. This is likely describing chain-of-ponds drainage.

Similar to previous observations made by others Tench also reported the trees were spaced a considerable distance from each other and the intermediate space was not filled with underwood but with a thick rich grass. In addition, the grass did not *‘overspread the land in a continued sward’*, but grew *‘in small-detached tufts, growing every way about three inches apart, the intermediate space being bare’*. Tench further describes that this grass grew in every place but the swamps with the *‘greatest vigour and luxuriance’* and (was *‘found to agree better with horses and cows than sheep’*).

4.2 A culturally managed landscape at Aboriginal Parramatta

These first descriptions of Aboriginal Parramatta describe the rocky shoreline and woodlands on the southern side of the Parramatta River from the harbour to past Balmain the landscape began to flatten and ease into more open country from around Drummoyne and continued to do so westward. The country at Rose Hill and westward to Eastern Creek was undulating terrain with plains and rolling hills that featured open grasslands and widely spaced trees with low-shrub and grass understories free of underwood. The land was also interspersed with watercourses that occurred as discontinuous chains of ponds and wetlands, and the appearance of this landscape was consistently described by the British as resembling ‘park-like country’.

The observations provide insight into likely vegetation structures present at Parramatta. The first descriptions of the place also suggest that the landscapes described were constructed and maintained rather than natural. Hunter (2005) alludes to this when describing the land at the head of the harbour: *‘there is a very considerable extent of tolerable land, and which may be cultivated without waiting for its being cleared of wood; for the trees stand very wide of each other, and have no underwood: in short, the woods on the spot I am speaking of resemble a deer park, as much as if they had been intended for such a purpose’*.

Hunter (ibid) also commented from an agricultural mind-set perspective that although the (clay-loam) soil from Rose-hill to Prospect-Hill was nearly alike he found it *‘remarkable, that although the distance between these two places is only four miles, yet the natives divide it into eight different districts’*. Flynn (1995:30) describes in 1790 that Lieutenant William Dawes (probably guided by Bennelong) would follow part of the ancient network of pathways in the area to record eight Aboriginal places you would come to in succession after walking so many minutes westward for four miles from Rosehill before reaching Prospect Hill; *Parramatta, Wau-maille, Malgray-matta, Era-worong, Carramatta, Boolbane-matta, Carro-Wotong, and Marrong* (Prospect).

Benson & Howell (1990) propose the higher (Pleistocene) terraces at Parramatta were covered by woodlands dominated by grey box (*Eucalyptus moluccana*) and forest red gum (*Eucalyptus tereticornis*) with an open grass understorey, whilst the lower terraces had paperbarks (*Melaleuca linariifolia*) and/or rough-barked native apple (*Angophora floribunda*) depending on soil drainage. Macphail & Casey (2008) note historical documents do not

record the presence of she-oaks (casuarinas) such as black she-oak (*Allocasuarina littoralis*), or river-oak (*Casuarina cunninghamiana*) or saltwater tolerant swamp-oak (*C. glauca*). The data point to the landscape that was cleared was ‘a savanna grassland with scattered eucalypts (*Eucalyptus sensulato*), sclerophyll shrubs (rare) and she-oaks (*Allocasuarina/Casuarina spp.*) lined local creek lines on the Pleistocene terraces and probably the sides of the river valley upstream of the tidal limit’ (Macphail & Casey 2008).

The open and lightly wooded grassland is believed to have been shaped and maintained by Aboriginal people over an extended period of time who managed the landscape and its ecological communities through the use of fire (see Fletcher et al 2020; Gammage 2013; 2014; Hunter 2017; Mooney et al 2012). Fires of varying intensities were used to create mosaic grassland and woodland ecological communities that contained, attracted different animals, and promoted different plants.

4.3 Reconstructing the nature of the Clay Cliff Creek landscape in 1788

4.3.1 Preamble

A now almost disappeared drainage network was present in Parramatta in 1788. Valley flats had irregularly spaced and ponds separated by preferential flow paths seeing continuously running water only during high rainfall events. These landforms are known as swampy meadows formations (Mactaggart et al 2007) and represent in-channel forms that were vegetated with grasses, rushes and sedges and interspersed with irregularly spaced, disconnected ponds (Eyles 1977, Mactaggart et al 2007:Figure 2.19).

The demise of these fragile ecological systems was caused by vegetation clearance and grazing that led to the loss of swamps and wetlands, native grasses and trees, and entrenchment of drainage flows into continuous channels. Their former presence is reflected in the names of some of western Sydney watercourses; First Ponds Creek, Second Ponds Creek, Gidley Chain of Ponds (Bells Creek), and the Killarney Chain of Ponds. Lawrence and Davies (2018:240-241) further explain:

It was not until the late 1960s that geomorphologists began to recognise that the prevalence of deeply incised creek lines in Australia was the product of settler activity (see review in Bird 1982). Crucial to this discovery was the use of historical sources that documented the observations of early European explorers and settlers and recorded the form of waterways and ponds on early maps. Before settler colonisation, watercourses were discontinuous chains of ponds and wetlands that relied on heavy rain to overflow the ponds and join them into a stream. The ponds drought-proofed the land by keeping water available for plants, animals and people. Settler activity disrupted this by draining the wetlands, clearing vegetation, grazing sheep and cattle and introducing rabbits. These activities caused rain to bite into the watercourses, converting the chains of ponds into continuous streams in incised channels up to 15 metres deep, with water draining quickly away.

Some first edition Parish maps for the Cumberland Plain show watercourses as connected chains of individual ponds as shown below (left) for a tributary of Breakfast Creek near Quakers Hill and (right) for the Gidley Chain of Ponds (later renamed Bells Creek) crossing through the Blacktown Native Institute in the early 1830s.

Figure 4.1: Chain of Ponds drainage depicted on Breakfast Creek (undated Parish of Gidley map) and Felton Mathews 1833 sketch of Crown Reserve and school house at Blacktown (Bickford 1981: Figure 3)

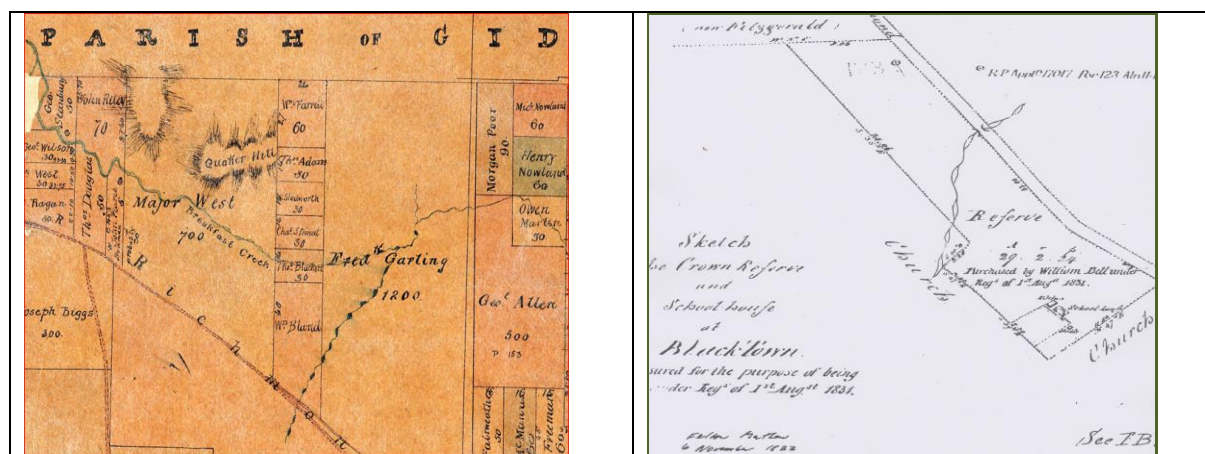


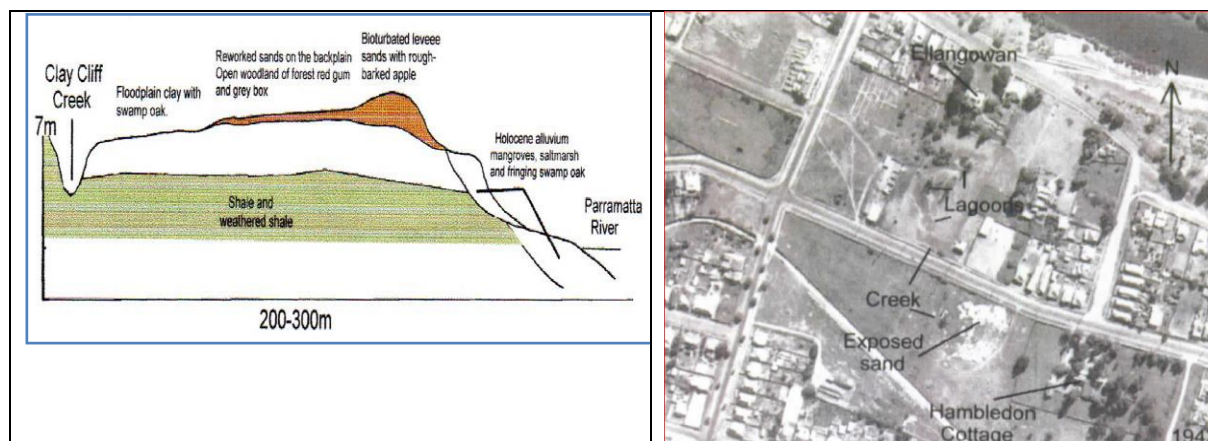
Figure 4.2: An example (left) of a swampy meadow located in a valley of the Upper Shoalhaven of NSW, now known as Cookanulla Creek, with disconnected pools, or a chain of ponds. A typical swampy meadow (Neville State Forest, Neville, NSW) showing an unchanneled valley floor vegetated with sedge and tussock grass (Source: Mactaggart et al 2007 Figures 1 and 2: 462)



4.3.2 Ponds and lagoons on Clay Cliff Creek

It is likely the landscape between Clay Cliff Creek and the Parramatta River had uneven and low-lying surface topography that featured chain of ponds drainage and swampy meadows formation vegetation and ecologies. Mitchell (2009:2) has mapped the approximate locations of known creeks, waterholes or swamps in 1788 and confirms the topography was uneven with swamps and waterholes. The best defined and most persistent was a large lagoon with three ponds located in low ground behind 'Ellangowan' in the centre of the block bounded by Harris, Hassall, Purchase and George Streets.

Figure 4.3: To the left is a north-south cross-section from Clay Cliff Creek (south) to Parramatta River (north) showing predicted soil materials in between (JMCHM 2005a). To the right is shown the channel form of a lagoon(s) behind ‘Ellangowan’ that was still evident in 1943 in the same location they were shown on an 1895 town map (Mitchell 2009).



Walter Campbell recalled in the 1850s (Cumberland Argus, 8 December 1920, P.4) the land at ‘Harris’ paddock’ (likely to refer to the immediate landscape of Experiment Farm) was largely cleared of timber but on the ‘*summit of the hill*’ there was an open forest of mahogany trees ‘*which probably were in much the same condition as they were when Parramatta was first discovered*’. Campbell also described that meandering through the paddock was Clay Cliff Creek that was ‘*generally a series of waterholes*’ and that he used to ‘*collect thistles, clover and soft grasses on the Old Experiment Farm, where John Ruse cultivated his historical wheat*’.

Insights into the nature of the wider Experiment Farm - Elizabeth Farm estate grounds around this time, and particularly the survival of indigenous vegetation in this otherwise well-established agricultural landscape are provided by a first-hand overview of the flora of the district in 1857 (Sydney Morning Herald 1857, 24 December 1857:8). Black-butt and Bloodwood and Turpentine trees were described as abundant near creeks north of Parramatta and the Woolly-butt tree (*E. gomphocephala*) grew abundantly on the south side of Parramatta. In one part of ‘General Macarthur’s bush’ the latter tree type was found to be more plentiful than any other species. In the lower parts of the estate, towards Duck River, ‘water gum’ (*Tristania nereifolia*) grew in abundance. Near Red Bank there were some small turpentines, but the locality did not seem favourable for them (but purple coloured *Mirbelia* grew plentifully).

The author also noted there was one grass in the neighbourhood (*Anisopogon avenaceus*) that grew at the North Rocks but was not common elsewhere that had an oat-like appearance, but owing to the introduction of foreign grasses in the immediate neighbourhood, the native grasses were rapidly disappearing,

4.4 British settlement at Rosehill

By November 1788 surveyors and a party of marines had been to the Crescent in Parramatta Park to mark out the ground for a 'redoubt' and convicts were sent who '*understood the business of cultivation*'. Pollen (1983) suggests it was likely that James Ruse was amongst this party. By July 1789, a '*small redoubt was thrown up, and a captain's detachment posted in it, to protect the convicts who were employed to cultivate the ground*' (Tench 1979:136). The (first) barrack, and store, and convict huts enclosed within the redoubt were located on the south bank of the river nearby a timber bridge crossing (end of Bridge Street). Collins (1798:46) reported that '*some ground had been opened on the other side of the stream of water which ran into the creek.....in which the produce of the ground he (Henry Dodd) was then filling with wheat and barley was to be deposited*'.

During this period, areas were cleared and cultivated south to today's Great Western Highway, past Northmead to the north, and to the east the Government Farm stretched as far as present day Charles Street. The main street at Rose Hill (High Street, later George Street) was laid out on an east-west axis from Government House to the first wharf. This broadly followed a part of a track 'blazed' by Phillip's' earlier exploration party to assist following explorations journeying from Sydney Cove to find Rose Hill.

Tench (1979:246) described the alignment of the road from starting near the Landing Place to the Governor's house was a mile long and in many places was '*carried over gullies of considerable depth, which have been filled up with trunks of trees, covered with earth*' that describes the originally undulating nature of the terrain and location of drainage along this stretch of the river (one such north flowing freshwater creek was identified during archaeological excavations at 184-188 George Street - Steele 2018). By September 1790 '*twenty-seven huts were in great forwardness at the end of the month*' (ibid:113), and by November 1790 thirty-two houses were completed (Tench 1979:195). By December 1791 one hundred houses were finished. The first wharf at the '*Landing Place*' (approximately the site of Queens Wharf) was also completed (September 1790) and site for the storehouse and for the new barracks chosen (August 1790).

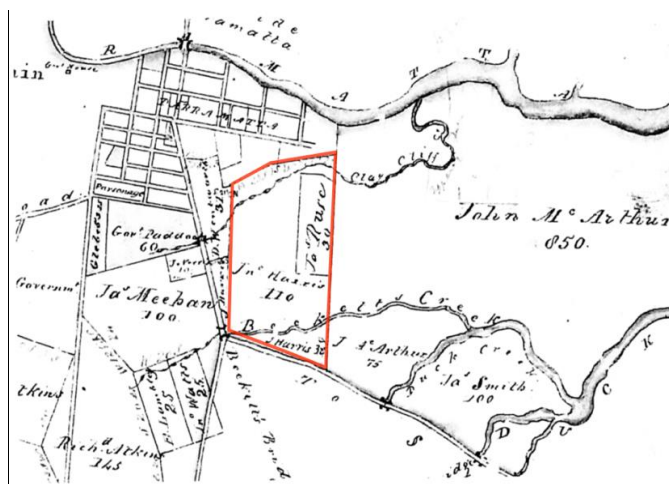
4.5 James Ruse and Experiment Farm

James Ruse had a hut built for him and to an acre and a half of ground cleared before he took occupancy of his land grant in November 1789. The Governor promised that if he made a success of his farm, it would be increased in size to thirty acres. A deed of grant issued in March 1791 called the grant 'Experiment Farm' and describes it was situated near the 'barracks ponds' (Jervis 1935) and is likely to refer to a chain of ponds or lagoons were once a dominant feature of the natural landscape in this part of the early town.

When Watkin Tench visited his farm in 1790, Ruse advised although he did not know the precise limits of his land, he had cleared and burnt the fallen timber and cultivated as much land as he could. The northern boundary

By early 1791 Ruse could support himself and family without assistance from the government store. In March 1791 Phillip moved to increase Ruse's land to 30 acres with Clay Cliff Creek playing the central role in the agricultural use of the land. Aside from being a source of fresh water, it was on the alluvial flats of Clay Cliff Creek above the river that Ruse grew crops. However, his self-sufficiency could not be sustained because of drought and the rapid decline in agricultural fertility of the soils on his land ('soil exhaustion'). In October 1793, his land grant (30 acres) was sold to Surgeon John Harris who had arrived in the colony in 1790 as surgeon's mate to the New South Wales Corps and was stationed at Parramatta by May 1791.

Figure 4.4: Detail from the map of the parish St John dated around 1835. The extent of John Harris' land by grant and purchase is delineated (Source: Land & Property Information).



DSCA●21 Macgregor Street Croydon NSW 2132●Bus (02) 9715 1169●M 0411 88 4232●E dsca@bigpond.net.au

4.7 Elizabeth Farm

It is likely the land taken in by what was to become Elizabeth Farm contained a diversity of food and resource ecologies and long-used campsites and other social places important to Aboriginal people when Macarthur received his first grant of 100 acres at Rosehill in 1793. The Macarthur landholding encompassed the peninsula of land bound by Parramatta River to the north and Duck River to the south. Today this land slopes down from west to east from a high point (about 12m AHD) adjacent to Rosehill Railway Station after which the land falls to 7m AHD at Rosehill Racecourse and then it drops again to about 3m AHD near the confluence of the Parramatta and Duck Rivers.

This landscape will likely to have contained a complex mosaic of shaped and maintained savanna grasslands, woodlands and saltwater-freshwater wetlands, and chain of pond drainage and associated swampy meadows. The fabric of the country also provided the raw materials used for the first Elizabeth Farm buildings including hand-moulded bricks that were made from clay sourced from nearby Clay Cliff Creek, and the roof was formed of pit-sawn timber baulks with shingles made from swamp oaks.

Fowlie (1919:7) recalls that the bricks were made from a pit near where Camellia Station stands (*‘this part of Macarthur’s Estate was called Redbank’*) and that lime was made from shells that were procured from the *‘great kitchen middens found along the riverbanks at the time’* that were processed a little to the east of the clay-pit (site of the Australian Kerosene and Oil Company).

Bennett (2014:68) reports the Macarthur’s began interacting with Aboriginal people soon after arriving in Rosehill and several visited and camped on Elizabeth Farm including Tedbury (Pemulwuy’s son) and two young men called Harry and Bill. We do not know how long these Aboriginal people or others may have stayed at the place or where they may have camped when there.

Citing Joy Hughes’ transcription of William Macarthur’s reminiscences (ML MSS A2935) Bennett (ibid:68, 72) describes the tale of Harry and Bill who were frequent visitors to Elizabeth Farm in the early nineteenth century. Harry and Bill were two youths of the same age and related to each other and inseparable companions. They unfortunately became attached to the same girl and Harry (who was of more gentle disposition) was favoured by the girl. Bill in an evil temper speared Harry whilst he was asleep. Harry survived, but his people were highly incensed and according to customs Bill would have to face spears thrown at him from several men in ritual punishment including from Cogy who was from the Cowpastures. Bill was speared by Cogy and died in an Elizabeth Farm outhouse and was buried nearby (it is uncertain if this was within the grounds of Elizabeth Farm).

4.8 Conflict and 'battle of Parramatta'

Parramatta-Toongabbie-Prospect saw frontier conflicts and hostilities peaked with the 'Battle of Parramatta in 1797' when a party led by Bidjigal warrior Pemulwuy attacked the military barracks (Robin Thomas Reserve). Pemulwuy had raided the government farm at Toongabbie and a vigilante group of armed settlers and soldiers had chased about 100 Aboriginal people to the town outskirts. The Aboriginal group massed on the northern side of the river (possibly around the Government farms) and then crossed the river and marched in ranks down High (George) Street to attack the barracks. The fight that followed killed at least five Aboriginal people and possibly as many as fifty. Pemulwuy himself was shot several times and taken to the hospital before escaping wounded and in irons.

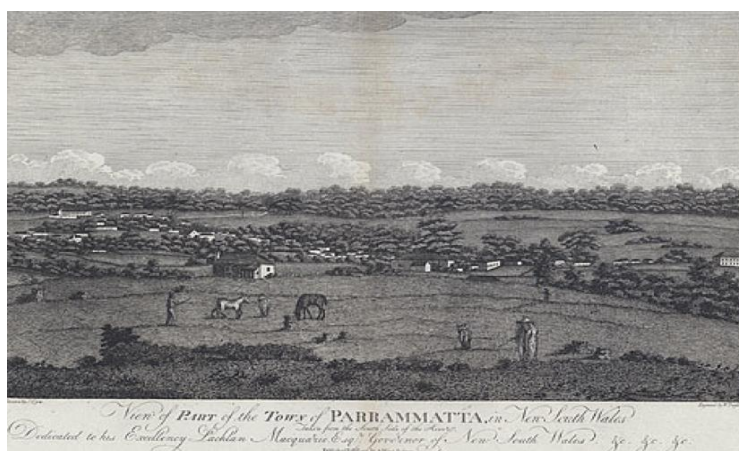
Renewed conflicts in 1805 led Governor King to reimpose bans that prohibited Aboriginal people approaching settler dwellings in the 'out-settlements' that included the Parramatta and Hawkesbury districts. Aboriginal people living in the Prospect area reached out to Samuel Marsden and wanted to talk with a view of opening the way to reconciliation. In July 1805, the Sydney Gazette wrote:

'...having generally expressed a desire to come in, and many being on the road from Hawkesbury and other quarters to meet the Governor at Parramatta, no molestation whatever is to be offered them in any part of the colony – unless any of them should renew their late Acts, which is not probable, as a reconciliation will take place with the natives generally'.

4.9 Agricultural development of the land

Relatively little is known of the physical development of Harris Farm in the nineteenth century. An engraving made around 1812 by Walter Preston is believed to show John Harris' cottage.

Figure 4.5: Detail from Preston's 1814 'View of part of the town of Parramatta in New South Wales. Taken from the south side of the river'. The drawing depicted the rear of Harris' cottage within the thirty acres granted to Ruse (Source: National Gallery of Australia)



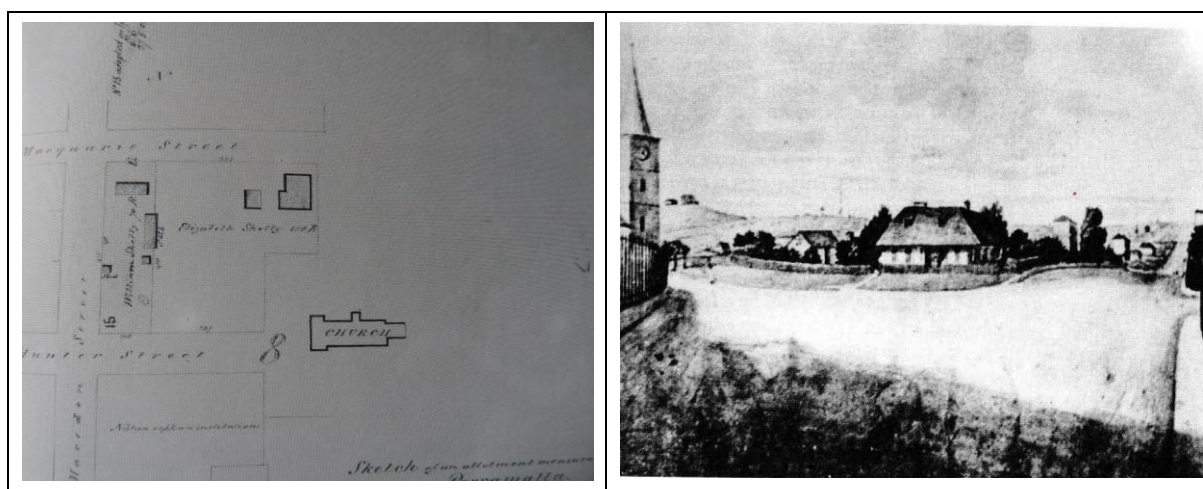
4.10 Parramatta Native Institution

The Native Institution at Parramatta officially opened in January 1815. It was located in the middle of town and was intended to operate as a ‘boarding school’ for Aboriginal children. Both sexes would receive religious instruction whilst being taught to read and write. The boys were to be taught manual labour and agriculture methods and the girls how to sew, knit and spin. The plan was for when the children who had been admitted to the place had matured, they would be paired off, married and settled on farms as couples (Brook 1996:7). Three weeks prior to the official opening, over sixty Aboriginal people had attended a Conference, or Congress organised by Macquarie and held at the Market Place in Parramatta.

In March, Macquarie reported that only two months after the (official) establishment of the Institution six children had already been taken away by their parents (HRA VIII:467). In 1816, Nurragingy (Creek Jemmy) ‘chief of South Creek’ and Mary-Mary ‘chief of the Mulgoa clan’ with about fifty men, women and children visited Macquarie and were given breakfast and dinner in Parramatta Park, and a previously hostile man Narrang Jack gave himself up. In April Macquarie ordered the capture of twelve Aboriginal boys and six girls between four and six years of age for the Institute. He instructed that ‘fine healthy good-looking children’ are to be delivered to Shelley (HRA IX:858).

At the annual feast in 1818, Macquarie presented gorgets to ‘Cogie as Chief of the George’s River Tribe and to Norwong as Chief of the Botany Tribe and the Order of Merit to Tindall of the Cow Pastures and Pulpin of the Hawkesbury Tribe’ (Macquarie Journal, 1 January 1818). Almost 300 Aboriginal people attended the feast in 1819 with some travelling from beyond the Blue Mountains and ‘from the North and South who had travelled a distance of upwards of 100 miles’ (SG, 2 January 1819).

Figure 4.6: Location of the Parramatta Native Institute from 1815 (History of Aboriginal Sydney and Kass et al 1995:105)



4.11 Parramatta in 1820s

4.11.1 Hambledon Cottage

Hambledon Cottage was constructed in the early 1820s for the Macarthur's children's babysitter, Penelope Lucas, who lived there from 1827 until her death in 1838 after which ownership of the cottage was transferred to Edward Macarthur.

4.11.2 Aboriginal people in the 1828 census

In the area between Parramatta and the Blue Mountains, the 1828 census records Aboriginal people were living at Parramatta, Richmond, Mulgoa, Burragorang, Cowpastures, Nepean and McDonald Rivers. The 'Parramatta Tribe' had just under fifty members. Later 'blanket returns' from the Parramatta district (1834-1843) do not record a Parramatta Tribe but identify groups in the district attending Parramatta for blanket distributions including people from Duck River, Kissing Point, Breakfast Creek, and Eastern and South Creeks.

4.12 Aboriginal people in 1830s and 1840s

Governor Darling initiated an annual distribution of blankets and cheap 'slop' clothing to Aboriginal people in 1826 and to account for the cost the administrators created what are called 'blanket returns'. These generally included an Aboriginal individual's English and traditional name, probable age, number of wives, children, tribe, and district of usual resort.

The first general distribution of blankets was in 1827. Fowlie (1919) recalls Aboriginal people had a camping place near the junction of Union Street and Dog-Trap-road (Woodville Street) that continued to be used over the years when people travelled to Parramatta to receive blankets and *'those coming from the south chose this spot and those from the west camping near where Camellia Station now stands'*.

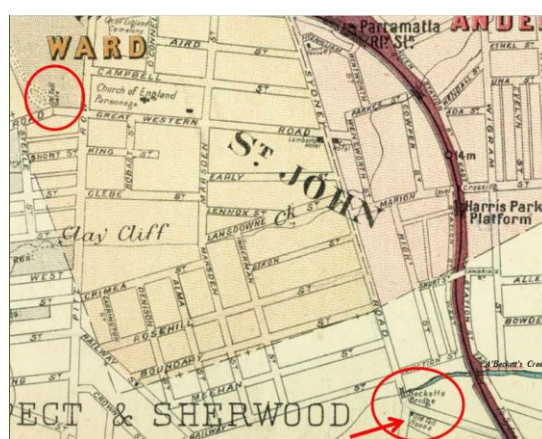
Another recollection (Cumberland Argus 19 June 1897, p.5) refers to 1837 or thereabouts:

The local aborigines — then a fairly numerous host — were gathered in a ring (men within and gins and piccaninnies and dogs on side) in an enclosure "run up" by men from the "lumber yard," and surrounded with bushes. The lumber yard was a place adjoining the Military Hospital in which men of different trades pursued their various callings. The Governor and suite would attend, followed by constables with rolls of blankets. Each blackfellow would be in turn accosted as His Excellency moved round the circle, and each would get his blanket, which he would generally pass back to his dusky housekeeper. The blankets were too often swopped for liquor before nightfall.

After the distribution of blankets would come the feast — roast beef and plum pudding. The latter, I remember, was made by the inmates of the Female Factory over the water, and the viands, were trundled up from the institution to the feast-

ground in the first vehicle handy. At nightfall, the two or three hundred Blacks would have a feast according to their own fashion, generally on the vacant ground at the corner of Macquarie and Marsden Streets now occupied by the house "Mangoplah" where Sir Henry Parkes resided some 12 years ago. Others would go to higher ground — the Western Road near the tollbar for instance — and the feast fires could be seen and the drunken revelry heard till after midnight.

Figure 4.7: Aboriginal groups appear to have camped in separate locations while travelling to Parramatta in the 1820s and 1830s and shown is the head of A'Beckett's Creek and toll house on the Western Road (base-map PCC 'Murder at the Toll House')



4.13 'Neale's Cottage'

George Neale was a wheelwright who worked for the Macarthur family for most of his adult life. In 1831 he and Bridget Neale and their young daughter Elizabeth Mary moved into a small timber cottage that had been built between Hambledon Cottage and Clay Cliff Creek. In c.1854 a replacement brick cottage was built for the Neale family by Edward Macarthur within the immediate vicinity of the Gregory Place site (Historic House Trust, 'On the Hoof', 2006).

Figure 4.8: A single fronted cottage facing east, enclosed by a semi-circular picket fence, with stables and outbuildings to the south. The well-established garden and coach house of Hambledon is seen to the north across a three railed hardwood fence' (HHT 2006)



4.14 Late nineteenth and early twentieth century changes

4.14.1 Gregory Place study area

George Neale (widower) surrendered his lifetime leasehold in 1882 and the cottage passed through various owners before it was demolished (prior to the construction of the pharmaceutical factory that currently occupies the land). The 1895 Detailed Survey of Parramatta shows a group of buildings in the vicinity of the Gregory Place site and a rectangular stable/sheds structure to the southwest of Hambledon Cottage extended across the boundary of the study area. It appears that Neale's Cottage was demolished sometime before 1943 when the Land was purchased by the Goodyear Tyre and Rubber Co.

Figure 4.9: The site shown as vacant land crossed by the stormwater channel of Clay Cliff Creek in 1943 (Sullivan-ES 2015)



Figure 4.10: The study area in 1961 (Sullivan-ES 2015)



4.14.2 Clay Cliff Creek

With the rapid urbanisation of the land within the catchment of Clay Cliff Creek from the late 1870s the flow and the sanitary condition of the creek deteriorated, and by 1890, channelling the water course was thought to be necessary (Cumberland Argus, 21/2/1891). This work was documented by the Public Works Department. Only a portion of the concrete channel, between Church and Station Streets appears to have been completed in the early 1890s. Tenders for the construction of the extension of the channel east, and across Harris Street and onto Alfred Street were called for in 1894. The project was stopped (due to a lack of funds) in 1895 only to be revived in the late 1890s with completion of the channel to the west of Harris Street by 1900 (Cumberland Argus, 21/11/1900; 17/4/1901). Harris Street was the terminus of the channel for several years and there was continued periodic flooding of the old creek course east of Harris Street (Cumberland Argus, 4/7/1914).

4.15 Non-Aboriginal historical archaeological assessment

A (non-Aboriginal) historical assessment of the site has been prepared (DSCA June 2020) that identifies whether the proposed redevelopment may potentially result in impacts to archaeological relics as they are defined by the relics provisions of the Heritage Act 1977. This study confirms there are no items of Environmental Heritage on the site but recognises the proximity of several State Heritage Register listed items.

The site is a consolidation of land subdivided from two early 1790s historical land grants (Experiment farm and Elizabeth Farm) but was not built upon until c.1854 when a brick cottage constructed ('Neale's cottage') was constructed. It may have been located within the site footprint and was demolished around 1917.

The construction of the stormwater channel followed by the factory resulted in significant modification of the original drainage and lowering of the ground to significant depths below current levels present in the adjacent grounds of Hambledon cottage. The depth of subsurface impact from building (based on geotechnical data) shows original ground levels have been cut-down by over two metres and it is not expected that intact historical archaeological features are present and concludes that the potential historical archaeological sensitivity of the 2A Gregory Place site is low and unlikely to contain or preserve relics as they are defined and protected by the provisions of the Heritage Act 1977.

5.0 Aboriginal community consultation

5.1 Engagement

Following the identification and establishment of the Registered Aboriginal Parties for the project, and prior to convening an on-site meeting with these Aboriginal community groups and individuals, the Proponent provided the Project RAP's with information (Attachment C) about the proposed redevelopment. This included concepts for the future built form and communal open-spaces, landscape design and planting character concepts, and an environmental strategy for the site and its interface with Clay Cliff Creek.

5.2 Consultation meeting and outcomes

An on-site meeting with the Project RAP's to discuss the redevelopment project and start the dialogue about the Aboriginal cultural heritage values of the place was held on 12 May 2022.

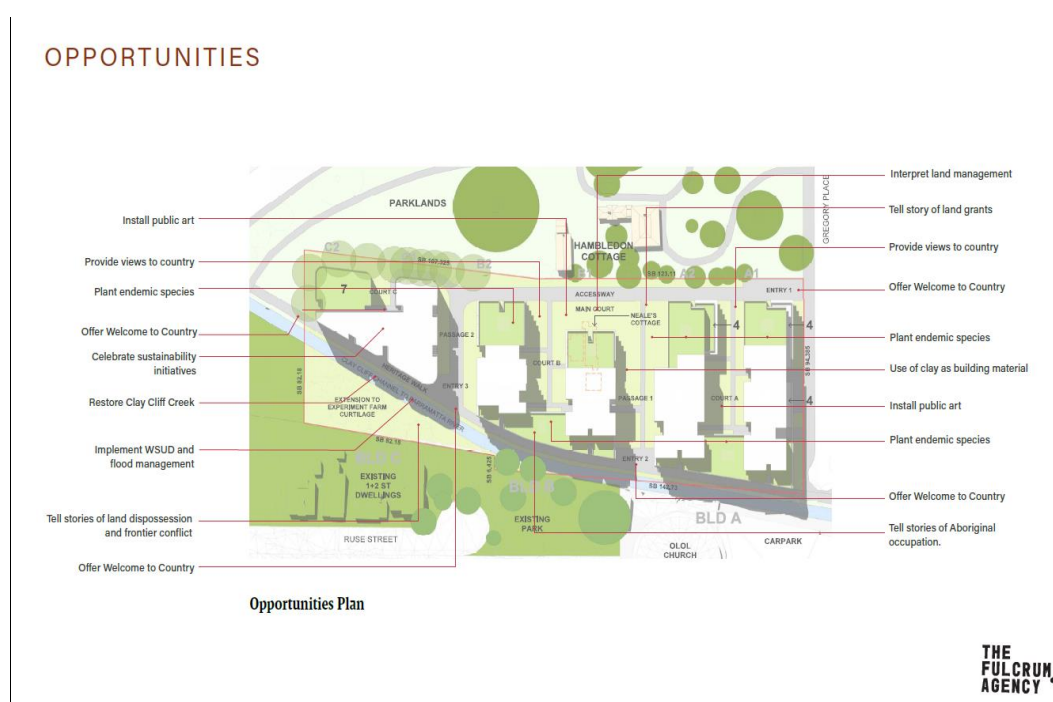
Table 5.1: 2A Gregory Place project information-sharing meeting – Aboriginal community group attendees and apologies

Organization	Apologies
Deerubbin Local Aboriginal Land Council	
Darug Custodian Aboriginal Corporation	
A1 Indigenous Services	
Amanda Hickey Cultural Services	
Didge Ngunawal Clan	
Corroboree Aboriginal Corporation	
Ginninderra Aboriginal Corporation	
Kamilaroi Yankuntjatjara Working Group	
Murra Bidgee Mullangari Aboriginal Corporation	
Widescope Aboriginal Corporation	
Woka Aboriginal Corporation	
	Muragadi Heritage Indigenous Corporation

This meeting gave the Proponent an opportunity to meet the community and to present to them the vision for the project and for the project team to overview their respective roles and to invite discussion around design and operational elements of the project.

Yerrabingin gave an Acknowledgement of Country to pay respect to the traditional custodians of the land and to recognise the continuing connection of Aboriginal people to Country. Yerrabingin also talked to the community about the future design framework for the land. The Fulcrum Agency talked with the community about their role in assisting in the projects response to the Connecting with Country Draft Framework which is a government initiative and its aims to increase awareness and understanding of the value of Aboriginal knowledge in the design and planning of places. The Fulcrum Agency also developed and invited discussion on the opportunities plan below. Forward Thinking talked to the community about the social impact of the project.

Figure 5.1: Design framework opportunities (The Fulcrum Agency 2022)



DSCA talked with the community about the Aboriginal history and heritage of Parramatta and Harris Park and the Aboriginal heritage landscape position of the 2A Gregory Place site being located on the back plain of the Parramatta River and on the alignment of Clay Cliff Creek. The potential archaeological sensitivity of the site was discussed using geotechnical bore-logs that show the types of deposits that occur below ground across the site, and which also illustrate the nature of subsurface disturbance that occurred when the factory was built. The findings of preliminary contaminations assessment of the site were also discussed.

Figure 5.2: 2A Gregory Place on-site Aboriginal community consultation meeting – May 2022



Following the meeting, the project team compiled the notes summarised below into various themes to capture the conversations that were held during the discussions. These were provided to each of the Project RAP's following the meeting:

- Housing affordability
- Project governance
- Economic development opportunities
- Design opportunities
- Caring for Country
- Cultural landscape and archaeology

Housing affordability

- Consensus on the importance of providing affordable housing for Aboriginal residents.
- Agreement that housing supply that caters for single man and women, and young families, and older generations on fixed incomes is an important initiative of the proposed redevelopment.
- Commitment sought for Proponent to enable development to provide percentage of affordable housing for Aboriginal people, to continue to work with Deerubbin Local Aboriginal Land Council on issue and consider partnerships with Aboriginal housing providers.

Project governance

- RAP's asked how best to ensure Aboriginal community input occurs across the project life cycle. Proponent confirmed decision making will occur at several points, including determination of housing mix as well as design decisions, use of Aboriginal Language, and cultural interpretation.

- Proponent to establish project task group that includes Aboriginal community representatives with decision-making capacity, and to resource group appropriately with administration support and with remuneration.

Economic development opportunities

- The project life cycle includes concept design, future construction and delivery, and ongoing care and maintenance and the RAP's expressed interest in training and employment opportunities that may be available to Aboriginal enterprises.

Design opportunities

- Develop a framework for inclusion of public art in design, landscape with planting to connect back with Country, and embed and tell cultural history and heritage stories within development.

Caring for Country

- When buildings are constructed, opportunities for ongoing care and maintenance of development by Aboriginal people be explored to facilitate access and care to Country.

Cultural landscape and archaeology

- RAP's noted site covered by buildings with no natural ground exposed, and unresolved contamination issues needed to be addressed.
- RAP's expressed consensus view that there was potential for proposal to impact Aboriginal objects protected by the NPW Act, and site should be test excavated.
- The Aboriginal history and heritage of the land should be acknowledged and respected.
- Aboriginal community request to be shown how the future open space within the development is to be designed and will appear when constructed.
- There should be opportunities in the new development to tell Aboriginal stories pertinent to the local area, and opportunities for the use of Aboriginal art in story-telling.

5.3 ACHAR review and outcomes

A draft of this report was provided to each of the Aboriginal community groups and individuals for review and comment prior to finalization. The table below summarizes the key cultural advice and recommendations that have been shared by the Project RAP's and the correspondence that has been received for this report is appended along with a schedule of the Aboriginal community stakeholder consultation that has been completed while preparing this ACHAR (Appendices E and F).

Table 5.2: Aboriginal community advice and recommendations

Aboriginal community group	Aboriginal cultural heritage values and advice
Corroboree Aboriginal Corporation	<p>Corroboree Aboriginal Corporation believe soils under factory may contain Aboriginal artefacts and should be archaeologically tested.</p> <p>Develop with Project Raps test excavation methodology.</p> <p>Integration of Aboriginal recognition and interpretation into future design to acknowledge and respect our heritage.</p> <p>Explore opportunities in new development to display Aboriginal art with Aboriginal stories relevant to local area.</p> <p>Corroboree Aboriginal Corporation support ACHAR and its cultural heritage management recommendations</p>
Darug Custodian Aboriginal Corporation	<p>Darug Custodian Aboriginal Corporation advise many researchers present Aboriginal history from colonial perspective and/or solely from archaeological evidence. These histories lack peoples stories and parts of important events and connections of Darug and other peoples that now call this area home.</p> <p>Parramatta is significant to Darug people because of evidence of continued occupation shown by significant archaeological sites in proximity.</p> <p>Landscapes and landforms are significant to Darug people because they hold information about how Aboriginal people's connection, use, and movement through country.</p> <p>Darug sites are all connected and hold knowledge about or heritage and past history. Many of our sites are thousands of years old but many have also been destroyed by historical landuse since colonisation.</p> <p>Parramatta/Harris Park and surrounding areas are significant to Darug people, and by doing testing and salvage archaeological investigation, we get filling of gaps in knowledge about our past.</p> <p>Darug Custodian Aboriginal Corporation agree with the recommendations set out in the ACHAR.</p>
Deerubbin	Deerubbin Local Aboriginal Land Council agrees and supports the ACHAR and recommendations for test excavation following resolution of contamination issues and demolition plans.
Didge Ngunawal Aboriginal Clan	Didge Ngunawal Aboriginal Clan support the ACHAR and for testing below factory with method developed with RAPs
Ginninderra Aboriginal Corporation	<p>Parramatta area has rich Aboriginal history and many culturally significant places; our history and heritage should be acknowledged and respected.</p> <p>Protection and preservation of cultural heritage of great value to whole community and education and awareness key step towards reconciliation.</p> <p>Ginninderra Aboriginal Corporation support ACHAR and recommendations.</p> <p>Recommend restoration of habitat and planting after development</p> <p>Acknowledge this is Aboriginal land.</p> <p>Tell stories of the area as a culturally important place and use Aboriginal art and Language in storytelling.</p> <p>Ensure Aboriginal people are involved in the decision making and their input is valued throughout project.</p>
Kamilaroi Yankuntjatjara Working Group	Tangible, intangible, and aesthetic aspects of culture need to be taken into account when assessing land. By acknowledging Aboriginal stories of land we continue our connection to country through interpretation and passing on knowledge.

	<p>Water ways play big part in cultural history and we have lost many due to European landuse. Parramatta River - where fresh water meets salt water, is resource rich environment and nearby swampy wetlands used by Aboriginal peoples for food, medicine, and drinking water.</p> <p>Flora and fauna would have been thriving and Aboriginal people strategically look after land and plants and animals in a way that coexisted with the environment around them.</p> <p>Consider Aboriginal cultural practices to care for country, fire management a well-known tool to manage landscape, create ecosystems. Aboriginal people have knowledge of land and how ecosystems work.</p> <p>Our modern history - has affected Aboriginal people dramatically (and we are thriving despite this). Aboriginal cultural groups come from all over NSW, as Aboriginal people were moved due to stolen generation. Stolen generation at Parramatta was first where Aboriginal children away from families and placed in native institute and female factory to be raised like white people of time and is significant to our history of Parramatta.</p> <p>We recommend a cultural interpretation plan for project to educate community and continue passing down knowledge to younger generations Can be achieved by native landscaping, edible gardens, art, digital displays, sound scape, water features.</p> <p>Kamilaroi Yankuntjatjara Working Group agree support ACHAR and agree with recommendations.</p>
Muragadi Indigenous Heritage Corporation	Muragadi Indigenous Heritage Corporation support ACHAR and recommendations for Proponent to use test excavation methodology to be developed with community to investigate site and identify if Aboriginal objects are present.
Murrabidgee Mallangari Aboriginal Corporation	Murrabidgee Mallangari Aboriginal Corporation support ACHAR and recommendations.
Tocomwall	<p>Tocomwall has a Registered parry has taken the position with all projects with all firms with the following:</p> <p>Tocomwall does not support the methodologies or reports that Tocomwall's field staff have not been involved in the field assessment</p>
Woka Aboriginal Corporation	<p>Woka Aboriginal Corporation recommend following demolition of structures Aboriginal artefacts may be present in underlying soils and archaeological test investigation is recommended to ascertain this.</p> <p>Request for findings of future contamination assessments and demolition planning to be provided to Project RAPs for feedback.</p> <p>Development with Project Raps an archaeological research design and test excavation methodology based on results of contamination assessment.</p> <p>Woka Aboriginal Corporation support ACHAR and approach for testing method to be developed with RAPs.</p>

6.0 Significance assessment

6.1 Heritage assessment criteria

Cultural significance is defined by the *Burra Charter* as '*aesthetic, historic, scientific or social value for past, present or future generations*' (Article 1.1). Significance may derive from the fabric of an item or place, its association with other items or places, or the research potential of an item or place. Linking this assessment process with a site's historical or archaeological context is currently achieved via the use of seven evaluation criteria which reflect significance categories and representativeness whereby a site, place or item can be evaluated in the context of State or Local historical themes.

Documented and potential historical archaeological sites are routinely evaluated according to these criteria. These criteria do not easily apply to Aboriginal archaeology but are used here to provide a general guide to support the Aboriginal archaeological heritage assessment of the site presented below:

- Criterion (a) – an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (b) – an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).
- Criterion (d) – an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.
- Criterion (e) – an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (f) – an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places, or cultural or natural environments.

Different components of a site, place or item may make a different relative contribution to its heritage value. Loss of integrity or poor condition that are factors most commonly caused by development impacts on archaeological sites, may diminish a site or an item's significance. Relative grades that can be used to determine the heritage significance of items (both built and archaeological) include:

- Exceptional: Rare or outstanding item of Local or State significance. High degree of intactness. Item can be interpreted relatively easily. Fulfils criteria for Local or State listing.

- High: High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance. Fulfils criteria for Local or State listing.
- Moderate: Altered or modified elements. Elements with little heritage value but which contribute to the overall significance of the item. Fulfils criteria for Local or State listing.
- Little: Alterations detract from significance. Difficult to interpret. Does not fulfil criteria for Local or State listing.
- Intrusive: Damaging to the item's heritage significance. Does not fulfil criteria for Local or State listing.

6.2 Assessing Aboriginal archaeological heritage significance

The assessment of scientific significance of the potential Aboriginal archaeological resources contained within the 2A Gregory Place site below follows current OEH guidelines (NPWS 1997:5-11) and uses the additional criteria derived from the Burra Charter above. A position that needs to be made clear as part of the assessment process is that not all sites are equally significant and not all heritage sites at a general level will warrant equal consideration and management. Heritage NSW (former OEH) guidelines for the assessment of significance of Aboriginal sites, objects and places identify two types of significance criteria comprising *cultural significance* and *archaeological significance*.

Cultural significance concerns the values of a site or feature to a community group which in this case is the local Aboriginal community. Aboriginal Archaeological sites, objects, and some landscapes are often important for varied reasons or have become important to Aboriginal people over time. This importance involves both people's historical links to 'country' in general, and possible attachments to specific areas, as well as an overall concern of many Aboriginal people for the continued protection of the land and its cultural heritage sites.

Scientific significance in archaeological contexts is usually assessed using criteria that aim to evaluate a given site's contents, state of preservation (integrity), representativeness or rarity, and research potential. A preliminary evaluation of the significance of the potential Aboriginal archaeological resources at the FABH site according to the criteria below is provided using the following as a guide:

- *Archaeological research potential* incorporates values of intactness (whether it has stratigraphic integrity or is disturbed), the association of the site to other sites in the local or regional (or State) context, and sometimes also how the site may fit into a datable chronology if one exists, when considering how the site may contribute to our further understanding of past Aboriginal life. This area of assessment is consistent with *Criterion 'e'* of the *Heritage Branch* guidelines (see below).
- *Representativeness* is a term to convey the idea that most Aboriginal archaeological sites are representative of a particular 'type' or sub-type/class which for example would apply to a rock shelter with art as distinct from an open campsite with stone artefacts. A key issue is what sites should be conserved to ensure a representative sample of the archaeological record is retained for future generations. This general area of assessment is consistent with *Criterion 'a'* of the *Heritage Branch* guidelines (see below).

- *Rarity* can apply to a unique or uncommon archaeological site itself or elements of its component parts (archaeological rare finds or contexts), and can be assessed at a local, regional, State, and national level. This area of assessment is consistent with *Criterion 'a'* of the *Heritage Branch* guidelines (see below).

6.3 Assessment of significance against criteria

Criterion (a) – an item is important in the course, or pattern, of NSW's cultural or natural history (or cultural/natural history of local area)

The Gregory Place site is located within an ancient river valley landscape whose natural and cultural evolution can be traced back through archaeological and environmental evidence that is contained within and recovered from the State Heritage Register-listed Parramatta Sand Body (PSB) to the Late Pleistocene.

The 2A Gregory Place site is located on the Parramatta River back plain and about 350m to the south of the river, is situated over the historical alignment of Clay Cliff Creek, and is positioned on the southern edge of the SHR-listed distribution of the PSB

The land at Rosehill formed part of the traditional territory of the Burramattagal and Wategora people in 1788. This country was first seen and partially explored by the British between early February and April 1788 during the first explorations led by Governor Phillip to ascertain what lay at the 'head of the river'.

This resulted in the discovery of critically needed agricultural land but also the rapid displacement of the Aboriginal owners of the country and is important in the course of NSW's cultural history.

Criterion (b) – an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area)

Parramatta has a well-documented late eighteenth and early nineteenth Aboriginal history, and the names and some of the lives of some Aboriginal people during this period are known, and the site also has potential to contain pre-1788 archaeological evidence of Aboriginal occupation and use of the land.

The 2A Gregory Place site is situated within one Parramatta's more significant historical heritage precincts and is located close to several significant places listed on the SHR (Hambledon Cottage and Experiment Farm).

However, the landuse history of the site itself is largely unremarkable. It was likely used for agriculture in the early years followed by animal grazing and was not built on or until the second half of the nineteenth century ('Neale's Cottage').

The site has associations with the life or works of a group of persons of importance in NSW's cultural or natural history (Macarthur family), but in general terms the site does not fulfil this criterion.

Criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)

The landscape at Harris Park in 1788 is likely to have been culturally shaped by Aboriginal people and the 2A Gregory Place site is located on the historical alignment of a former chain of ponds drainage line that incised the Parramatta River back-plain. The land probably supported savannah grassland and spaced timber but there are no historical images of how the place looked before the factory was built.

The site is currently occupied by modern built fabric (structures) that do not show a high degree of creative or technical achievement and does not fulfil this criterion. The original 1950s factory has seen multiple additions and amendments to the fabric over time

Criterion (d) – an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons

The Aboriginal community consultation that has been undertaken for the development of this report shows we should view the 2A Gregory Place not in isolation or purely Lot and DP terms but as representing and forming a part of wider Aboriginal cultural heritage landscape at Parramatta with values important to contemporary Aboriginal communities.

Values include the recognition and respect and care for the ongoing health of the now channelled Clay Cliff Creek and the relationship of this watercourse to the Parramatta River, and the site's potential subsurface archaeological and paleoenvironmental records.

Criterion (e) – an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)

The subsurface alluvial soils and sediments that geotechnical and contamination bore-logs show are present below the footprint of the 2A Gregory Place site may contain Aboriginal objects, archaeological deposits, and environmental evidence.

There is potential for the 2A Gregory Place site to yield information that may contribute to an understanding of the cultural and natural history of Parramatta.

However, the site has been considerably impacted by ground excavations for the building of the factory in the 1950s and this has lowered the original ground levels that are still largely intact in the adjacent Hambledon Cottage grounds. As a result of this landuse the upper portions of the original alluvial soil and sediment profile on the site has been truncated (which will have removed any cultural materials this may have contained)..

Criterion (f) – an item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history (or the cultural or natural history of the local area)

The subsurface profiles of the study area may contain archaeological materials and environmental evidence that is uncommon and may provide information that documents aspects of NSW’s cultural and natural history that is not available from any other source.

Criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW’s cultural or natural places, or cultural or natural environments.

The site may contain natural and cultural (archaeological) deposits that may potentially be of significance under this criterion by their ability to further demonstrate the principal characteristics of a class of NSW’s cultural and natural places (ie. long-term Aboriginal use of the Parramatta River valley).

6.4 Evaluation

The 2A Gregory Place is located on the edge of the PSB and within a potentially sensitive archaeological landform context on Clay Cliff Creek. Sealed beneath the existing factory buildings and hard-surfaces covering the site there is an alluvial sedimentary profile that may contain Aboriginal objects and archaeological deposit with cultural and scientific value. However, the upper parts of the subsurface sedimentary sequence have been widely and in parts deeply disturbed.

7.0 Aboriginal archaeological impact assessment

7.1 Redevelopment subsurface impact

7.1.1 Demolition & bulk excavation

The proposal will require the demolition and removal of all existing buildings and built-fabric on the site and the bulk excavation of the ground levels below the factory footprint down into shale bedrock for the creation of basement carparking beneath the residential apartment buildings above. This deep excavation will remove the subsurface sedimentary profile recorded by geotechnical investigation to occur below ground that consists of up to 1.5m thick deposits of uncontrolled fill underlain by alluvium silty clay (up to 5.9m thick) that is over residual clay in places. The alluvial/residual soil is underlain by weathered and then fresh shale at depths ranging between -6.4mRL and -0.8mRL.

7.1.2 Contamination risk management

With reference to Figures 2.16 and 2.17 of this report, the contamination assessments of the site (Sullivan E-S 2015 and 2022) report asbestos are present at sample locations BH13, BH14, BH25 and HA01, and PAHs are recorded at sampling locations HA04 and BH06. There is also potential for acid sulphate soils to be onsite.

The study recommends remediation of impacted fill materials for asbestos around BH13, BH14, BH25 and HA01 and for carcinogenic PAHs at HA04 and BH06. Additional sampling is recommended for the offices/laboratory areas and former chemical store.

7.2 Archaeological expectations

7.2.1 Previous archaeological investigations of the Parramatta River back-plain around Clay Cliff Creek

The 2A Gregory Place site is located about 350m to the south of Parramatta River and situated at the southern edge of Quaternary-period alluvial terrace deposits that include a sand body that is known archaeologically as the PSB. The terrace has been recorded to occur between ~4-7m AHD and has been shown through previous excavation in the City to extend to >3m in depth before reaching the underlying shale.

However, more commonly previous archaeological excavations on the terrace have found that the alluvium with cultural materials to be shallow and ~1-1.3m thick before seemingly culturally sterile indurated heavy clay units are encountered. Of the forty of more archaeological excavations that have been undertaken on the PSB to date only a small number have found substantial archaeological materials. These locations comprise sites with average Aboriginal object densities of ~32-52m² which stand out from and contrast with most other sites that have been reported with less than 20 finds per sqm and found across small areas.

There have been relatively few archaeological investigations on the river back-plain in the vicinity of Clay Cliff Creek in Harris Park. Aboriginal archaeological test excavation (for the Light Rail in 2017) along the western edge of Robin Thomas Reserve found deep sand deposits associated with the PSB that extended to a depth of at least 1m. The 'bottom' of the PSB however not identified during the investigations and the depth represents the level test excavation was terminated. Nine artefacts were recovered during testing and most were from a depth of about 50-60cm.

Archaeological testing at James Ruse Reserve found thirteen stone artefacts, and in silty clay deposits dissimilar to those generally found on the PSB closer to the river. None of the finds were in situ and none were found lower than 0.85m below ground where excavation at this depth encountered stiff-plastic clay deposits.

Salvage excavation at 21 Hassall Street of a ~80cm deep portion of the alluvial terrace (situated adjacent to Clay Cliff Creek and positioned between 7.7m-8.5m AHD) recovered about 1,700 stone artefacts and the lowest cultural materials have been dated to the terminal Pleistocene.

7.2.2 Landuse impacts on potential archaeological resources

The former factory is positioned between ~6.5m to 4.5m AHD and an open storm-water canal that contains the flow of Clay Cliff Creek runs defines the southern site boundary and also crosses through the property in the southwest corner. It is likely that the back-plain between Clay Cliff Creek and the Parramatta River originally had uneven and low-lying surface topography that featured chain of ponds drainage. In the 1790s Clay Cliff Creek was described as the 'Barracks Ponds', and was later mapped in the 1830s to still retain a chain-of ponds form (rather than a continuous incised creek channel), and in the 1850s the watercourse was described to continue to be '*generally a series of waterholes*'

There is a possibility soil and sediment profiles that occur below the levels of historical disturbance may contain Aboriginal objects. However, the landuse history of the 2A Gregory Place property (agriculture for 150 years followed by industrial building construction) and for the modification and confinement of the original chain of ponds drainage into a stormwater canal combined with the topographically low-lying landscape context of the site suggests that the *potential* subsurface archaeological profile has been widely disturbed and to considerable depths in many places.

In broad terms, visual observation and geotechnical data for the site show that most parts of the property have been deeply cut-down by the 1950s factory construction and to depths of between 1.5-2.0m below the levels of the surrounding ground surfaces, and much deeper below the main building of the former factory.

7.3 Future archaeological management constraints

7.3.1 Potential archaeological impact

The 2A Gregory Place site contains subsurface soil and sediment deposits that may contain Aboriginal objects and environmental history records that have Aboriginal cultural and scientific significance.

The potential archaeological and natural environmental records of the sedimentary archive contained within the site will be excavated and removed by the development.

7.3.2 Contamination and buildings demolition

The site will require remediation of impacted fill materials that have been identified to be present in locations beneath the factory and there is also a need for additional environmental assessment sampling and analysis at a number of locations to guide and enable the development.

This is a constraint flagged and discussed with the project RAPs during consultation whereby the development of appropriate archaeological management measures for future implementation at the site will be informed and guided by the findings and recommendations of future contamination risk assessments.

Future archaeological management planning will also need to integrate with building demolitions and manage the removal of archaeologically non-significant modern fill deposits that will expose natural soil and sediments that may have the potential to contain Aboriginal objects.

7.4 Future Aboriginal archaeological management pathway options

7.4.1 Test excavation to establish if Aboriginal objects are present at 2A Gregory Place

The *potential* subsurface archaeological (soil and sediment) profile beneath the site footprint was cut-down by the 1950s factory construction to a considerable depth below the surrounding ground levels in most places between 1.5-2.0m, and in some locations much deeper. It is desirable to identify early as possible whether Aboriginal objects are present on the site, and this can be achieved through completing archaeological test excavation to establish if Aboriginal objects are present.

If Aboriginal objects are present, their discovery and recovery from testing will enable their extent and cultural and scientific significance to be evaluated and allow determination of whether an Aboriginal Heritage Impact Permit (AHIP) is required to impact or archaeologically salvage Aboriginal objects under an approval issued by Heritage NSW under s90 of the *National Parks and Wildlife Act 1974* (NPW Act).

If no Aboriginal objects are identified by test excavation it may be concluded on the basis of the investigations and through consultation with Aboriginal stakeholders that no further archaeological investigation is required

prior to construction. If Aboriginal objects are identified but are assessed on the basis of the significance of the finds and through consultation that no further archaeological investigation (salvage) is warranted prior to construction the project ACHAR is submitted by the Applicant to HNSW as part of the AHIP application process.

If further investigation is required (such as salvage excavation of significant archaeology identified during testing) before development this can only occur after the obtaining of an AHIP approval from HNSW and the undertaking of any works under the terms and conditions of the AHIP approval.

7.5 Future Aboriginal archaeological management pathway options

7.5.1 Archaeological test excavation under the Code of Practice vs testing under an AHIP

The 'Code of Practice for Archaeological Investigation of Aboriginal Objects' (DECCW 2010) is a standardised archaeological test excavation method that enables archaeological testing to be undertaken without an AHIP. If the Code is followed the actions (test excavation) will be excluded from the definition of harm and as such the development Proponent will not be committing an offence of harm to an Aboriginal object.

However, the test excavations that are permitted by the Code are limited in their scope as explained below. The Code method is also more suited to archaeological management in 'greenfield' sites where testing may be able to access natural ground immediately that thereby allows testing to see if Aboriginal objects are present at a site to be completed early in the project planning process.

This contrasts with the circumstances that exist at 2A Gregory Place where natural ground is wholly covered by buildings, hard-surfaces and thick fill deposits. Future contamination findings and recommended management and demolition requirements would direct where and how future archaeological test excavation may occur at the site. However, it is evident that the constraints imposed by the investigation and impact mitigation options available will require a more flexible methodology than provided and permitted by the Code.

This is primarily because before test excavation can begin deep fills over natural deposits will need removal by machine and under the Code you are only permitted to use hand-tools and also because test excavation will be most effective by sampling the complex subsurface sediment profiles recorded by geotechnical bore-logs using open-area trenches that are bigger in size than those that are allowed under the Code.

Test excavation using the Code of Practice method can only be undertaken at a site once so the test excavation needs to be sufficiently comprehensive to allow characterisation of the Aboriginal objects present to guide further salvage that may be required at a site where significant archaeology is located through testing and where impact cannot be avoided.

The maximum surface area of all test excavations at a site under the Code must not be greater than 0.5% of the area – either PAD (potential archaeological deposit) or site – being investigated and the maximum continuous surface area of a combination of test excavation units at any excavation point can be no greater than 3m². Test excavation units must be placed on a systematic grid that is appropriate to the scale of the area – either PAD or site – being investigated or other justifiable and regular spacing and any test excavation point must be separated by at least 5m.

The Code also requires excavation units dug and recorded in 50 cm x 50 cm units and continue to at least the base of identified Aboriginal object-bearing units and continue to confirm soils below are culturally sterile. In practice, this becomes the depth to which you can excavate under the Code which is 1.5m.

7.6 Next-steps in the archaeological & cultural heritage management for the site

The next-steps in the life cycle of the project and the sequence of implementation of future cultural heritage management actions to be completed with the Aboriginal community stakeholders who have helped develop this ACHAR are:

1. Provide the findings of future contamination assessments and building demolition planning to the Project RAPs and invite feedback.
2. Develop with the Project Raps an archaeological research design and test excavation methodology for the site that is based on the results of contamination assessment and consideration of demolition planning.
3. Use the test excavation method developed with the community and supported by this ACHAR to accompany an application to HNSW for approval to test excavate the 2A Gregory Place site.

8.0 Management recommendations

8.1 Basis for recommendations

The recommendations below are provided on the basis of the following:

- The consultation that has been undertaken with the Aboriginal community to develop this Aboriginal cultural heritage assessment for the site.
- The assessment that concludes that the subsurface soil profiles within the site have the potential to contain Aboriginal objects and further investigation and assessment is required.
- Recognition of the legal requirements and automatic statutory protection provided to Aboriginal 'objects' and 'places' under the terms of the *National Parks and Wildlife Act of 1974* (as amended).

8.2 Recommendations

- The Proponent invite the Project Raps to assist in the development of an archaeological research design and test excavation methodology for the site based on the result of contamination assessment and consideration of demolition planning.
- The Proponent use the test excavation methodology developed with the community and this ACHAR to support an application to HNSW for approval to test excavate the site to establish whether an Aboriginal Heritage Impact Permit (AHIP) is required under the *National Parks and Wildlife Act 1974* (NPW Act) for the proposal if it is determined that Aboriginal objects are present and likely harmed by the redevelopment.

9.0 References

- Albani, A.D, Rickwood, P.C, Quilty & J.W. Tayton. 2015. 'The morphology and late Quaternary paleogeomorphology of the continental shelf off Sydney, NSW'. **Australian Journal of Earth Sciences**. Vol 62 (6): 681-694.
- Alliance Geotechnical Pty Ltd. February 2022. Geotechnical Investigation Report. Proposed Mixed Residential & Commercial Development. 2A Gregory Place, Harris Park NSW. Prepared for Raad Property Acquisition No. 10 Pty Ltd. Report No13091-GR-1-1
- Andrews, A.E.J. 1999. The three land excursions of Governor Phillip. **Journal of the Royal Australian Historical Society**. Volume 85(2): 148-162.
- Attenbrow, V.J. 1987. The upper Mangrove Creek catchment: A study of quantitative change in the archaeological record. Unpublished PhD thesis. University of Sydney.
- Attenbrow, V.J. 2006. 'What's Changing: Population Size or Land-Use Patterns? The archaeology of Upper Mangrove Creek, Sydney Basin'. **Terra Australis 21**. ANU Press.
- Attenbrow, V.J. 2010. **Sydney's Aboriginal Past. Investigating the Archaeology and Historical Records**. University of New South Wales.
- Attenbrow, V.J. and D. Steele. 1995. 'Fishing in Port Jackson, New South Wales – more than met the eye'. **Antiquity**. Volume 69. 47-60.
- Austral Archaeology Pty Ltd. 2007 (October). Archaeological Salvage Excavations. 95-101 George Street. Parramatta, NSW. Section 90 Consent #2176. Salvage Excavation Report. Report to Leighton Properties.
- Australia ICOMOS. 1999. **The Burra Charter. The Australia ICOMOS Charter for Places of Cultural Significance**. Australia ICOMOS Inc.
- Bigge, J.T., 1822. Report on State of the Colony of New South Wales. Project Gutenberg Australia eBook.
- Benson, D. & J. Howell. 1990. **Taken for Granted: The Bushland of Sydney and its Suburbs**. Kangaroo Press. Kenthurst.
- Bodkin-Andrews, G. and Lorraine Roberston (illustrations). Nd. D'harawal Dreaming Stories: Kai'mia. The Story of the Gynea Lily. www.dharawalstories.com
- Bryant, E.A., Young, R.W., Price, D.M. & Short, S.A. 1994. 'Late Pleistocene dune chronology: near-coastal New South Wales and eastern Australia'. **Quaternary Science Reviews**: 13(3), 209-223.
- Bradley, W. 1786-92 [1969]. **A Voyage to New South Wales. The Journal of Lieutenant William Bradley RN of HMS Sirius 1786-1792**. The William Dixon Foundation Publication No 11.

- Brook, J. 1991. **Shut out from the World: The Sackville Reach Aborigines Reserve and Mission 1889-1946**. NSWU Press.
- Brook J, Kohen J.L, 1991. **The Parramatta Native Institution and the Black Town - A History**. NSW University Press.
- Campbell, W.S. 1919. 'Parramatta River and its Vicinity'. **Royal Australian Historical Society. Journal and Proceedings**. Vol 5. Part 6.
- Campbell, J.F. 1925. 'The Dawn of Rural Settlement in Australia'. **Royal Australian Historical Society. Journal and Proceedings**. Volume 11 (2).
- Casey & Lowe Pty Ltd. 2004. Archaeological Assessment and Excavation Permit Application. Proposed Parramatta Children's Court Site, Parramatta. Report to NSW Government Architect's Office.
- Casey & Lowe Pty Ltd. 2006f. Archaeological Investigation: 109–113 George Street Parramatta, NSW. Report to Landcom.
- Chapman, G.A. & C.L. Murphy. 1989. **Soil Landscapes of the Sydney 1:100 000 Sheet**. Soil Conservation Service of NSW.
- Collins, D. 1798 (1975). **An Account of the English Colony in New South Wales**. B.H. Fletcher (ed.) in Association with the Royal Australian Historical Society. A.W. Reed.
- Flynn, M. 1995a. 'Place of eels: Parramatta and the Aboriginal clans of the Sydney region: 1788–1845', unpublished manuscript. AIATSIS Library.
- Flynn, M. 1997. Holroyd History and the Silent Boundary Project. Research report Holroyd Council,
- Fowell, Newton. 'Letter to father, John Fowell', PRO CO 201/4, Mitchell Library, NSW.
- Gale, S.J. 2020. Age and origins of the Cumberland (Inner Sydney) Basin of southeast Australia. **Australian Journal of Earth Science**. 68 (3):299-315.
- Making the European Landscape: Early Contact Environmental Impact in Australia. Geography's New Frontiers. The Geographic Society of New South Wales Inc. Conference Papers, No. 17 p7-16
- Gammage, B. 2012. **The Biggest Estate on Earth: How Aborigines made Australia**. Allen & Unwin.
- Gergis, J., Garden, D. and Fenby, C. (2010). 'The influence of climate on the first European settlement of Australia: a comparison of weather journals, documentary data and palaeoclimate records, 1788–1793'. **Environmental History**. Volume 15(3):1–23.
- Godden Mackay Logan Pty Ltd. 2000. Parramatta Historical Archaeological Landscape Management Study. Report to Parramatta City Council.
- Higginbotham, E. 1983. 'The Excavation of a Brick-barrel Drain at Parramatta, NSW'. **Australian Historical Archaeology**. Volume 1:35-39.

- Higginbotham, E. 1987. 'The Excavation of Buildings in the Early Township of Parramatta, New South Wales, 1790 to 1820s'. **Australian Journal of Historical Archaeology**. Volume 5:3-20.
- Higginbotham, E. 1989 (Revised 2010). The Future of Parramatta's Past. An Archaeological Zoning Plan: 1788-1844. Department of Planning.
- Higginbotham, E. 1990a. The Babes in the Wood, Parramatta. Report on the Archaeological Excavation of the Former Prospect Electricity Staff Car Park, Cnr of Smith and George Streets, Parramatta, NSW, 1989. Report to Prospect Electricity.
- Higginbotham, E. 1990b. Report on the Archaeological Excavation of 79 George Street, Parramatta, NSW, 1989. Report to CH Webb Bros.
- Higginbotham, E. 1990c. Historical and Archaeological Analysis of Parramatta Hospital, Parramatta, NSW. Report to Public Works Dept.
- Higginbotham, E. 1994. Report on the Archaeological Excavation of the Site of the New Blood Bank, Parramatta Hospital, George Street, Parramatta, NSW. Report to NSW Public Works.
- Hiscock, P. 1986. 'Technological change in the Hunter Valley and its implications for the interpretation of Late Holocene change in Australia'. **Archaeology in Oceania**. Volume 21 (1):40-50.
- Hiscock, P., and V. Attenbrow. 1998. 'Early Holocene backed artefacts from Australia'. **Archaeology in Oceania**. Volume 33(2):49-62.
- Hiscock, P. and V.J. Attenbrow. 2004. 'A Revised Sequence of Backed Artefact Production at Capertee 3, New South Wales'. **Archaeology in Oceania**. Volume 39:94-99.
- Holt, J. 1838. **Memoirs of Joseph Holt, general of the Irish rebels in 1798**. Croker.
- Hunter, J. 2005 (1793). **An Historical Journal of the Transactions at Port Jackson and Norfolk Island**. The Project Gutenberg E-Book #15662.
- Irish, P. 2011. 'Hidden in plain view – the Sydney Aboriginal Historical Places Project' in Changing Perspectives in Australian Archaeology. Part III. Technical Reports of the Australian Museum. Online 23(3).
- Jervis, J. 1961. **The Cradle City of Australia: A History of Parramatta, 1788-1961**. Council of the City of Parramatta.
- Jo McDonald CHM Pty Ltd. 2003 (December). Test Excavations at the Old RTA Building. 109-113 George Street, Parramatta, NSW. Report to Landcom.
- Jo McDonald Cultural Heritage Assessment. 2004, Archaeological Test Excavation for Indigenous Sites. Civic Place, Parramatta: Final Report.

- Jo McDonald CHM Ltd. 2005a (October). Archaeological Salvage Excavation of Site CG1 (NPWS #45-6-2648). Charles and George Street, Parramatta, NSW. Report to Meriton Apartments Pty Ltd.
- Jo McDonald CHM Ltd. 2005b (October). Archaeological Salvage Excavation of Site RTA-G1. 109-113 George Street, Parramatta, NSW. Report to Landcom.
- Jo McDonald CHM Pty Ltd. 2006 (May). Archaeological Salvage Excavation of Site CG3. 101A-105 George Street, Parramatta, NSW. Report to Rahi Developments Pty Ltd.
- Kass, T., C. Liston & J. McClymont. 1996. **Parramatta: A Past Revealed**. Parramatta City Council.
- Kermode, S. 2013. Quaternary fluvial responses of the lower Shoalhaven River, NSW, Australia, Doctor of Philosophy thesis, School of Earth and Environmental Sciences, University of Wollongong, 2013. <https://ro.uow.edu.au/theses/3870>
- Kohen, J.L., 1993. **The Darug and Their Neighbours. The Traditional Aboriginal Owners of the Sydney Region**. Darug Link in association with Blacktown and District Historical Society, Sydney.
- Kohen, J, A Knight & KV Smith 1999, Uninvited guests: an Aboriginal perspective on Government House and Parramatta Park. Report to the National Trust, Sydney.
- Kuras, A. et al. 2017. Sydney Metro - Site Investigation and Ground Characterisation for the Sydney Harbour Crossing. Proceedings of the World Tunnel Congress 2017 – Surface challenges – Underground solutions. Bergen, Norway
- Lang, J.D., 1852. **An Historical and Statistical Account of New South Wales including a visit to the gold regions**. Third edition, Vol II. Longman, Brown, Green and Longmans, London
- Lawrie, R. 1982. Soils – Archaeological Studies at Parramatta. Conference Proceedings. Australian Society of Soil Science.
- Lawrie, R. 2005. Report on Soil at Archaeological Site Charles and George Streets, Parramatta. Report to Austral Archaeology Pty Ltd.
- Lewis, S.E., R.A.J. Wüst, J.M. Webster and G.A. Shields. 2008. 'Mid-late Holocene sea-level variability in eastern Australia'. **Terra Nova**. Volume 20:74-81.
- Lewis, S.E, C.R. Sloss et al. 2012. 'Post-glacial sea-level changes around the Australian margin: a review'. **Quaternary Review**. Volume 74: 115-138.
- Macphail. M. 2005. Pollen analysis of soil samples, 109-113 George Street, Parramatta. Palynological report to Casey & Lowe Pty Ltd.
- Macphail. M. 2015. 'Life on the edge' In Australia's first inland township: Pollen analysis of stratified alluvium. 184 – 188 George Street, Parramatta. Report to DSCA.

- Macphail, M. and M. Casey. 2008. 'News from the Interior: what can we tell from plant microfossils preserved on historical archaeological sites in colonial Parramatta?' **Australasian Historical Archaeology**. Volume 26: 45-69.
- McCarthy, F.D. 1948. 'The Lapstone Creek excavation: Two culture periods revealed in eastern NSW' in **Records of the Australian Museum**. 22:1-34.
- McCarthy, F.D. 1976. **Australian Aboriginal Stone Implements**. The Australian Museum Trust.
- McClymont J. 2001. **Pictorial History Parramatta & District**. Kingsclear Books.
- McClymont J. 2004. 'Exploration around Parramatta by Governor Phillip'. **Parramatta and District Historical Society**. Volume 7:37-57.
- McCormick, T. et al. 1987. **First Views of Australia 1788-1825. A History of Early Sydney**. David Ells.
- McDonald, J.J. 2007. 'Dreamtime Superhighway: An Analysis of Sydney Basin Rock Art and Prehistoric Exchange'. **Terra Australis 27**. ANU Press. Canberra.
- McLoughlin, L.C. 2000. 'Estuarine wetlands distribution along the Parramatta River, Sydney, 1788-1940: Implications for planning and conservation'. **Cunninghamia**. Volume 6 (3):579-610.
- Mitchell, P.B. 2003. Geomorphology and Soils of the Archaeological Site 180-180A George Street and 30-32 Charles Street, Parramatta. Report to Jo McDonald CHM Pty Ltd.
- Mitchell, P.B. 2006. Geomorphology and Soils of the Archaeological Site CG3 at 101-105A George Street, Parramatta. Report to Jo McDonald CHM Pty Ltd.
- Nanson, G.C., R.W. Young and E.D. Stockton. 1987. 'Chronology and palaeoenvironment of the Cranebrook Terrace, near Sydney, containing artefacts more than 40,000 years old'. **Archaeology in Oceania**. 22:72-78.
- NSW Department of Environment, Climate Change & Water. 2010a (April). Aboriginal Cultural Heritage Consultation Requirements for Proponents. Part 6 National Parks and Wildlife Act 1974. Sydney.
- NSW Department of Environment, Climate Change & Water. 2010b (September). Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW. DECCW. Sydney.
- NSW Department of Environment, Climate Change & Water. 2010c (September). Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW. DECCW. Sydney.
- National Parks & Wildlife Service. 1997. Aboriginal Cultural Heritage Standards & Guidelines Kit. NSW NPWS.
- NSW Heritage Office. 1996. NSW Heritage Manual. NSW Heritage Office and the Department of Urban Affairs and Planning.
- NSW Heritage Office. 2008. Levels of Heritage Significance. NSW Heritage Office, NSW Department of Planning.

- NSW Heritage Branch. 2009. Assessing Significance for Historical Archaeological Sites and 'Relics'. NSW Heritage Branch, NSW Department of Planning, Sydney.
- Perry, T.M. 1957. The Spread of Settlement in the Original Nineteen Counties of New South Wales: 1788-1829. PhD Thesis. Australian National University
- Ross, A. 1988. 'Tribal and Linguistic Boundaries: A Reassessment of the Evidence' in Aplin, G. (ed). 1988. **Sydney Before Macquarie: A Difficult Infant**. New South Wales University Press, Sydney:42-53.
- Roy, P.S. 1983. Quaternary Geology. In **Herbert, C (Ed). 1983. Sydney 1: 100 000 Geological Sheet 9130**. Geological Survey of NSW.
- Roy, P.S. and R. Boyd. 1996. **Quaternary Geology of Southeast Australia: a Tectonically Stable, Wave-Dominated, Sediment-Deficient Margin. Fieldguide to the Central New South Wales Coast**. International Geological Correlation Program, Project No. 367.
- Sansom, I. 1984. **The conservation of Elizabeth Farm**. Historic Houses Trust of NSW.
- Schiffer, M.B. 1987. **Formation Processes of the Archaeological Record**. UNM Press. Albuquerque.
- Schlanger S.H.1992. Recognising persistent places in Anasazi settlement systems. In: J. Rossignol & L. Wandsnider (eds) **Space, time and archaeological landscapes**, New York:91-112.
- Shiner, J. I. 2004. Place as occupational histories: Towards an understanding of deflated surface artefact distributions in the West Darling, New South Wales, Australia. Unpublished PhD thesis. University of Auckland.
- Shiner, J. 2011. 'Persistent places: an approach to the interpretation of assemblage variation in deflated surface stone artefact distributions from western New South Wales, Australia' in A Fairbairn, S O'Connor, and B Marwick (Eds) **New Directions in Archaeological Science. Terra Australis 28**. ANU Press.
- Sloss, C.R., Murray-Wallace, C.V., Jones, B.G. 2007. 'Holocene sea-level change on the southeast coast of Australia: a review'. **The Holocene**. Volume 17:999-1014.
- Stockton, E.D. and Holland, W. 1974. 'Cultural sites and their environment in the Blue Mountains'. **Archaeology and Physical Anthropology in Oceania**. Volume 9(1):36-65.
- Stockton, E. D. and Merriman, J. (Eds.). 2009. **Blue Mountains Dreaming: The Aboriginal Heritage** (Second Edition). Blue Mountains Education and Research Trust.
- Sullivan Environmental Services. 2015. Phase 1 Contamination Investigation. 2A Gregory Place, Harris Park, NSW. Report to 2A Gregory Place Pty Ltd.

Sullivan Environmental Services. March 2022. Phase 2 Contamination Investigation. 2A Gregory Place, Harris Park, NSW. Report to 2A Gregory Place Pty Ltd.

Tench, W. 2006a. **Sydney's First Four Years: A Narrative of the Expedition to Botany Bay & A Complete Account of the Settlement at Port Jackson 1788-1791**. The Project Gutenberg E-Book #3534.

Tench, W. 2006b. **A Narrative of the Expedition to Botany Bay**. The Project Gutenberg E-Book #3535.

Thom, B.G., Hesp, P. & Bryant, E. 1994. 'Last glacial 'coastal' dunes in Eastern Australia and implications for landscape stability during the Last Glacial Maximum'. **Palaeogeography, Palaeoclimatology, Palaeoecology**. Volume 111, 229-248.

Tozer, M.G., 2003. The native vegetation of the Cumberland Plain, western Sydney: a systematic classification and field identification of communities. **Cunninghamia** 8: 1-75.

Troedson, A.L. and L. Deyssing (October) 2015. Coastal Quaternary mapping of the southern Hunter to the northern Illawarra regions, New South Wales. **Geological Survey of New South Wales**. Quarterly Notes. No.146. Department of Industry, Resources and Energy.

Turbit, B & Turbit E. 2004. **A history of the extinct residential suburb of Camellia**.

Wayne, D, A. Erskine, A. Mahmoudzadeh and C. Myers. 2002. Land use effects on sediment yields and soil loss rates in small basins of Triassic sandstone near Sydney, NSW, Australia. **Cantena** 49: 271-287.

White, B. & J.J. McDonald. 2010. 'Lithic Artefact Distribution in the Rouse Hill Development Area, Cumberland Plain, NSW'. **Australian Archaeology**. Volume 70:29-38.

White, J. 1790. **Journal of a Voyage to New South Wales**. Gutenberg Projects Australia.

Williams et al. 2012. 'A terminal Pleistocene open site on the Hawkesbury River'. **Australian Archaeology**. No, 74; 85-97.

Williams, A.N., Ulm, S., Sapienza, T., Lewis, S. and Turney, C.S. 2018. Sea-level change and demography during the last glacial termination and early Holocene across the Australian continent. **Quaternary Science Reviews**, 182, pp.144-154.

Williams, A.N., McDonald, J., Atkinson, F., Toms, P.S., Hobbs, A., Barry, L., Sapienza, T., Wood, J.C., and Doelman, T. 2021. Was Aboriginal population recovery delayed after the Last Glacial Maximum? A synthesis of a terminal Pleistocene deposit from the Sydney Basin, New South Wales, Australia. **Journal of Archaeological Science: Reports**. 40 (2021) 108225.

Worgan, G.B. 2004. **Journal of a First Fleet Surgeon (1788)**. Gutenberg Projects Australia.

Attachments

Attachment A

Planning Secretary's Environmental Assessment Requirements (SSD-31179510)

Attachment B

Government agency correspondence

Attachment C

Concept DA EIS

Attachment D

Aboriginal community consultation schedule

Attachment E

Aboriginal community correspondence

Attachment F

AHIMS data

Attachment G

Geotechnical bore-log extracts (Alliance Geotechnical Pty Ltd February 2022)

Attachment A

Planning Secretary's Environmental Assessment Requirements (SSD-31179510)

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Development details

Application number	SSD-31179510
Project name	Gregory Place Build-to-Rent Concept Development
Description	Concept proposal for an affordable housing and build-to-rent development comprising approximately 483 dwellings within three freestanding four to eight storey buildings
Location	Lot 2 DP 802801 2A Gregory Place, Harris Park
Applicant	PACIFIC PLANNING PTY LIMITED
Date of issue	28 April 2022

Content and guidance

Any Environmental Impact Statement (EIS) must meet the minimum form and content requirements as prescribed by Part 8 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and the *State Significant Development Guidelines*.

Relevant policies and guidelines can be found at <https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines>.

Some issues, assessment requirements and documentation may not apply to all developments. Applicants should identify and respond to the requirements that are applicable to the proposed development. If an issue is not considered to apply, applicants should provide reasoning as to why

Key issues and documentation

Issue and Assessment Requirements	Documentation
1. Statutory Context <ul style="list-style-type: none"> Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines. Identify compliance with applicable development standards and provide a detailed justification for any non-compliances. If the development is only partly State significant development (SSD) declared under Chapter 2 of SEPP (Planning Systems) 2021, provide an explanation of how the remainder of the development is sufficiently related to the component that is SSD. 	<ul style="list-style-type: none"> Address in EIS
2. Capital Investment Value and Employment	<ul style="list-style-type: none"> Cost Summary Report

NSW Department of Planning and Environment | 1

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Issue and Assessment Requirements	Documentation
<ul style="list-style-type: none"> Provide a detailed calculation of the capital investment value (CIV) of the development, prepared by a qualified quantity surveyor. Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including details of the methodology to determine the figures provided. 	
3. Design Quality <ul style="list-style-type: none"> Demonstrate how the development will achieve: <ul style="list-style-type: none"> design excellence in accordance with any applicable EPI provisions. good design in accordance with the seven objectives for good design in Better Placed. Demonstrate that the development has been reviewed by the State Design Review Panel (SDRP). Recommendations are to be addressed prior to lodgement. Detail the measures to ensure design integrity is maintained in subsequent stages of the planning process (such as post approval and any modifications). 	<ul style="list-style-type: none"> Design Review Summary (where the project has been reviewed by the SDRP)
4. Built Form and Urban Design <ul style="list-style-type: none"> Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach. Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality. Specifically, explain how the proposed building heights are justified given the site context, existing controls and overall design. Demonstrate how the building design will deliver a high-quality development, including consideration of façade design, articulation, activation, roof design, materials, finishes, colours, any signage and integration of services. Assess how the development complies with the relevant accessibility requirements. 	<ul style="list-style-type: none"> Architectural drawings Design Report Survey Plan Building Code of Australia Compliance Report Accessibility Report
5. Environmental Amenity <ul style="list-style-type: none"> Address how good internal and external environmental amenity is achieved, including access to natural daylight and ventilation, pedestrian movement throughout the site, access to landscape and outdoor spaces. Provide details on internal wayfinding, pedestrian access and pathway connections. Assess amenity impacts on the surrounding locality, including lighting impacts, reflectivity, solar access, visual privacy, visual amenity, view loss and view sharing, overshadowing and wind impacts. A high level of 	<ul style="list-style-type: none"> Shadow Diagrams SEPP 65 Verification Statement SEPP 65 Assessment View Analysis

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Issue and Assessment Requirements	Documentation
<p>environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated.</p> <ul style="list-style-type: none"> Provide a draft/concept solar access analysis of the overshadowing impacts of the development within the site, on surrounding properties and public spaces (during summer and winter solstice and spring and autumn equinox) at hourly intervals between 9am and 3pm, when compared to the existing situation and a compliant development (if relevant). 	
<p>6. Visual Impact</p> <ul style="list-style-type: none"> Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development with respect to existing views from the street, nearby reserves and heritage items. Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the development on the existing catchment. 	<ul style="list-style-type: none"> Visual Analysis Visual Impact Assessment
<p>7. Public Space</p> <ul style="list-style-type: none"> Demonstrate how the development maximises the amount, access to and quality of public spaces (including open space, public facilities and streets/plazas within and surrounding the site), reflecting relevant design guidelines and advice from the local council and the Department. Demonstrate how the development: <ul style="list-style-type: none"> ensures that public space is welcoming, attractive and accessible for all. maximises permeability and connectivity. maximises the amenity of public spaces in line with their intended use, such as through adequate facilities, solar access, shade and wind protection. maximises street activation. minimises potential vehicle, bicycle and pedestrian conflicts. Address how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into the development, in accordance with <i>Crime Prevention and the Assessment of Development Applications Guidelines</i>. 	<ul style="list-style-type: none"> Public Space Plan (as part of the Design Report) CPTED Report
<p>8. Trees and Landscaping</p> <ul style="list-style-type: none"> Assess the number, location, condition, and significance of trees to be removed and retained and note any existing canopy coverage to be retained on-site. Provide a concept site-wide landscape plan that details indicative site planting and: <ul style="list-style-type: none"> provides evidence that opportunities to retain significant trees have been explored and/or informs the plan. 	<ul style="list-style-type: none"> Arboreal Impact Assessment Landscape Plan

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Issue and Assessment Requirements	Documentation
<ul style="list-style-type: none"> demonstrates how the proposed development would: <ul style="list-style-type: none"> contribute to long term landscape setting in respect of the site and streetscape. mitigate the urban heat island effect and ensure appropriate comfort levels on-site. contribute to an increase in urban tree canopy cover. maximise opportunities for green infrastructure, consistent with Greener Places. 	
9. Ecologically Sustainable Development (ESD) <ul style="list-style-type: none"> Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development. Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards. Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources. 	<ul style="list-style-type: none"> Draft/Concept ESD Report
10. Traffic, Transport and Accessibility <ul style="list-style-type: none"> Provide a transport and accessibility impact assessment, which includes: <ul style="list-style-type: none"> an analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections. details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick-up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading. analysis of the impacts of the proposed development (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (using industry standard modelling), identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict) and any cumulative impact from surrounding approved developments. measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms of delivery (including 	<ul style="list-style-type: none"> Transport and Accessibility Impact Assessment Draft Construction Traffic Management Plan Draft Green Travel Plan or equivalent

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Issue and Assessment Requirements	Documentation
<p>proposed arrangements with local councils or government agencies) of any infrastructure improvements in accordance with relevant standards.</p> <ul style="list-style-type: none"> proposals to promote sustainable travel choices for employees, residents, guests and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan. Provide a draft Construction Traffic Management Plan detailing predicted construction vehicle movements, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated. 	
<p>11. Biodiversity</p> <ul style="list-style-type: none"> Assess any biodiversity impacts associated with the development in accordance with the <i>Biodiversity Conservation Act 2010</i> and the <i>Biodiversity Assessment Method 2020</i>, including the preparation of a Biodiversity Development Assessment Report (BDAR), unless a waiver is granted, or the site is on biodiversity certified land. If the development is on biodiversity certified land, provide information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification. 	<ul style="list-style-type: none"> Biodiversity Development Assessment Report or BDAR Waiver
<p>12. Noise and Vibration</p> <ul style="list-style-type: none"> Provide certification from an acoustic engineer that the development could achieve compliance with the relevant NSW Environment Protection Authority (EPA) guidelines. 	<ul style="list-style-type: none"> Noise and Vibration Impact certification
<p>13. Ground and Water Conditions</p> <ul style="list-style-type: none"> Provide an assessment of the potential impacts on soil resources, including related infrastructure and riparian lands on and near the site. Provide an assessment of the potential impacts on surface and groundwater resources (quality and quantity), including related infrastructure, hydrology, aquatic and groundwater dependent ecosystems, drainage lines, downstream assets and watercourses. Provide an assessment of salinity and acid sulfate soil impacts. 	<ul style="list-style-type: none"> Geotechnical Assessment Surface and Groundwater Impact Assessment Salinity Management Plan and/or Acid Sulfate Soils Management Plan

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Issue and Assessment Requirements	Documentation
14. Stormwater and Wastewater <ul style="list-style-type: none"> Provide an Integrated Water Management Plan for the development that: <ul style="list-style-type: none"> Is prepared in consultation with the local council and any other relevant drainage or water authority. details the proposed drainage design for the site including any on-site treatment, reuse and detention facilities, water quality management measures and the nominated discharge points. demonstrates compliance with the local council or other drainage or water authority requirements and avoids adverse impacts on any downstream properties. Where drainage infrastructure works are required that would be handed over to the local council, or other drainage or water authority, provide full hydraulic details and detailed plans and specification of proposed works that have been prepared in consultation with, and comply with the relevant standards of, the local council or other drainage or water authority. 	<ul style="list-style-type: none"> Integrated Water Management Plan
15. Flooding Risk <ul style="list-style-type: none"> Identify any flood risk on-site having regard to adopted flood studies, the potential effects of climate change, and any relevant provisions of the <i>NSW Floodplain Development Manual</i>. Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions and operational procedures to mitigate flood risk where required. 	<ul style="list-style-type: none"> Flood Risk Assessment
16. Contamination and Remediation <ul style="list-style-type: none"> In accordance with Chapter 4 of SEPP (Resilience and Hazards) 2021, assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development. 	<ul style="list-style-type: none"> Preliminary Site Investigation
17. Waste Management <ul style="list-style-type: none"> Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements for the site. If buildings are proposed to be demolished or altered, provide a hazardous materials survey. 	<ul style="list-style-type: none"> Hazardous Material Survey
18. Aboriginal Cultural Heritage <ul style="list-style-type: none"> Provide an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site. 	<ul style="list-style-type: none"> Aboriginal Cultural Heritage Assessment Report

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Issue and Assessment Requirements	Documentation
19. Environmental Heritage <ul style="list-style-type: none"> Provide a Statement of Heritage Impact (SOHI) prepared by a suitably qualified heritage consultant in accordance with the guidelines in the NSW Heritage Manual and the following: <ul style="list-style-type: none"> all heritage items (state and local) within the vicinity of the site including built heritage, landscapes and archaeology, detailed mapping of these items, and assessment of why the items and site(s) are of heritage significance; compliance with the relevant Conservation Management Plan; compliance with the advice and recommendations provided by the Heritage Council Approvals Committee (HCAC) at its meeting on 2 March 2021; the impacts of the proposal on heritage item(s) including a visual impact assessment; the attempts to avoid and/or mitigate the impact on the heritage significance or cultural heritage values of the site and the surrounding heritage items; and justification for any changes impacting on the heritage significance or cultural heritage values of the site and the surrounding heritage items including any options analysis. If the SOHI identifies impact on potential historical and/or maritime archaeology, an historical and/or maritime archaeological assessment should be prepared by a suitably qualified archaeologist in accordance with the guidelines Archaeological Assessment (1996) and Assessing Significance for Historical Archaeological Sites and Relics (2009). Archaeological Assessment (if potential impacts to archaeological resources are identified), prepared in accordance with the relevant guidelines, which assesses any impacts and outlines measures to ensure they are minimised and mitigated. 	<ul style="list-style-type: none"> Statement of Heritage Impact Archaeological Assessment
20. Social Impact <ul style="list-style-type: none"> Provide a Social Impact Assessment (SIA) prepared in accordance with the Social Impact Assessment Guidelines for State Significant Projects. Where possible, the SIA should also discuss the following: <ul style="list-style-type: none"> The physical distribution of the affordable dwellings with the market (BTR) dwellings on the site The distribution and type of common areas with consideration to the social locality Common pedestrian connections Short and long term impacts on the surrounding locality 	<ul style="list-style-type: none"> Social Impact Assessment
21. Infrastructure Requirements and Utilities <ul style="list-style-type: none"> In consultation with relevant service providers: 	<ul style="list-style-type: none"> Infrastructure Delivery, Management and Staging Plan

NSW Department of Planning and Environment | 7

Planning Secretary's Environmental Assessment Requirements

Build-to-rent housing



Issue and Assessment Requirements	Documentation
<ul style="list-style-type: none"> ○ assess the Impacts of the development on existing utility Infrastructure and service provider assets surrounding the site. ○ Identify any Infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. 	
22. Construction, Operation and Staging <ul style="list-style-type: none"> • If staging is proposed, provide details of how construction and operation would be managed and any impacts mitigated. 	<ul style="list-style-type: none"> • Address in EIS
23. Contributions and Public Benefit <ul style="list-style-type: none"> • Address the requirements of any relevant contribution plan(s), planning agreement or EPI requiring a monetary contribution, dedication of land and/or works-in-kind and include details of any proposal for further material public benefit. • Where the development proposes alternative public benefits or a departure from an existing contributions framework, the local council, the Department and relevant State agencies are to be consulted prior to lodgement and details, including how comments have been addressed, are to be provided. • Demonstrate a contribution to public benefit which is commensurate with the scale of the development. 	<ul style="list-style-type: none"> • Address in EIS
24. Engagement <ul style="list-style-type: none"> • Detail engagement undertaken and demonstrate how it was consistent with the <i>Undertaking Engagement Guidelines for State Significant Projects</i>. Detail how issues raised and feedback provided have been considered and responded to in the project. In particular, applicants must consult with: <ul style="list-style-type: none"> ○ the relevant Department assessment team. ○ any relevant local councils. ○ any relevant agencies (including the Western Parkland City Authority for development within the Western Parkland City). ○ the community. • If the development would have required an approval or authorisation under another Act but for the application of s 4.41 of the EP&A Act or requires an approval or authorisation under another Act to be applied consistently by s 4.42 of the EP&A Act, the agency relevant to that approval or authorisation. 	<ul style="list-style-type: none"> • Engagement Report

Attachment B

Government agency correspondence



Dominic Steele Consulting Archaeology
21 Macgregor Street, Croydon, NSW
E: dsca@bigpond.net.au
T: (02) 97151169
M: 0411 884 232

23 April 2022

Heritage NSW
Email: heritagemailbox@environment.nsw.gov.au

RE: Project Notification

2A Gregory Place, Harris Park, NSW: City of Parramatta Local Government Area
Request for an Aboriginal Community Consultation Stakeholder List

To whom it may concern

2A Gregory Place Pty Ltd proposes to redevelop the land at 2A Gregory Place in Harris Park. A request for the Planning Secretary Environmental Assessment Requirements (SSD-31179510) has been made and it is anticipated that the project will require the preparation of an Aboriginal Cultural Heritage Assessment for the proposal.

In accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010) individuals and groups are invited to register their interest to participate in the consultation and to be involved in the development of the Aboriginal cultural heritage assessment for the project.

If HNSW would be able to provide an Aboriginal stakeholder consultation list for City of Parramatta LGA that would be greatly appreciated. Contact details for the Proponent are:

Raymond Raad
E: Raymond@raad.com.au

c/-

Dominic Steele (DSCA)
E: Dominic.Steele@dsca@bigpond.net.au

Yours Sincerely,

Dominic Steele
Dominic Steele Consulting Archaeology

21 Macgregor Street Croydon NSW 2132 • Bus (02) 9715 1169 • M 0411 88 4232 • dsca@bigpond.net.au



Premier
& Cabinet

Our reference: Doc22/323384

Dominic Steele
Dominic Steele Consulting Archaeology
21 Macgregor Street
Croydon NSW

21/04/2022

Dear Dominic,

**WRITTEN NOTIFICATION OF PROPOSAL AS REQUIRED UNDER DECCW ABORIGINAL
CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010**

Subject: 2A Gregory Place, Harris Park, NSW.

Thank you for your correspondence dated 23 April 2022 to Heritage NSW (Department of Premier and Cabinet) regarding the above project.

Attached is a list of known Aboriginal parties for the proposed development at Parramatta local Government Area that Heritage NSW considers likely to have an interest in the activity.

Please note this list is not necessarily an exhaustive list of all interested Aboriginal parties.

Receipt of this list does not remove the requirement of a proponent/ consultant to advertise in local print media and contact other bodies seeking interested Aboriginal parties, in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (April 2010).

Under Section 4.1.6. of the Consultation Requirements, you must also provide a copy of the names of each Aboriginal person who registered an interest to the relevant Heritage NSW office and Local Aboriginal Land Council (LALC) within 28 days from the closing date for registering an interest.

Please note that the contact details in the list provided by Heritage NSW may be out of date as it relies on Aboriginal parties advising Heritage NSW when their details need changing. If individuals/companies undertaking consultation are aware that any groups contact details are out of date, or letters are returned unopened, please contact either the relevant stakeholder group (if you know their more current details) and/or Heritage NSW. AHIP applicants should make a note of any group they are unable to contact as part of their consultation record.

Level 6, 10 Valentine Ave Parramatta NSW 2150 ■ Locked Bag 5020 Parramatta NSW 2124
P: 02 9873 8500 ■ E: heritagemailbox@environment.nsw.gov.au

If you have any questions about this advice, please email:
heritagemailbox@environment.nsw.gov.au or contact (02) 9873 8500.

Yours sincerely



Barry Gunther
Aboriginal Heritage Planner
Aboriginal Heritage Regulation Branch – South Heritage NSW

Attachment A: Registered Aboriginal Interests DPC RAP List for the at Parramatta Local Government Area.

LIST OF ABORIGINAL STAKEHOLDERS FOR THE DEPARTMENT of PREMIER and CABINET (DPC) SOUTHERN REGION HELD BY DPC FOR THE PURPOSES OF THE OEH ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010

These lists are provided to proponents in accordance with section 4.1.2 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (the "Consultation Requirements") which commenced on 12 April 2010.

The consultation process involves getting the views of, and information from, Aboriginal people and reporting on these. It is not to be confused with other field assessment processes involved in preparing a proposal and an application. Consultation does not include the employment of Aboriginal people to assist in field assessment and/or site monitoring. Aboriginal people may provide services to proponents through a contractual arrangement however, this is separate from consultation. The proponent is not obliged to employ those Aboriginal people registered for consultation. Consultation as per these requirements will continue irrespective of potential or actual employment opportunities for Aboriginal people.

A copy of the Consultation Requirements can be found on the OEH website at:

<http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf>

Under the Consultation Requirements; a proponent is required to provide Aboriginal people who may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places as relevant to the proposed project area, with an opportunity to be involved in consultation. Section 3.3.1 of the Consultation Requirements states that Aboriginal people who can provide this information are, based on Aboriginal lore and custom, the traditional owners or custodians of the land that is the subject of the proposed project.

The Consultation Requirements also state that:

Traditional owners or custodians with appropriate cultural heritage knowledge to inform decision making who seek to register their interest as an Aboriginal party are those people who:

- *continue to maintain a deep respect for their ancestral belief system, traditional lore and custom*
- *recognise their responsibilities and obligations to protect and conserve their culture and heritage and care for their traditional lands or Country*
- *have the trust of their community, knowledge and understanding of their culture, and permission to speak about it.*

Please note: the placement of an organisation's name on any OEH Aboriginal stakeholder list for the Consultation Requirements does not override a proponent's requirement to also advertise in the local newspaper and to seek from other sources the names of any other Aboriginal people who may hold cultural knowledge as required under clause 60 of the National Parks and Wildlife Regulation 2019.

How to use this list

1. Contact the organisations/individuals who have indicated an interest in the relevant LGA/s and invite them to register an interest in your project

Do not reproduce the attached list in publicly available reports and other documents. Your report should only contain the names of the organisations and individuals who you have invited to register an interest in your project and those who have registered as stakeholders for your project.

Last updated 12 April 2022

Attachment C

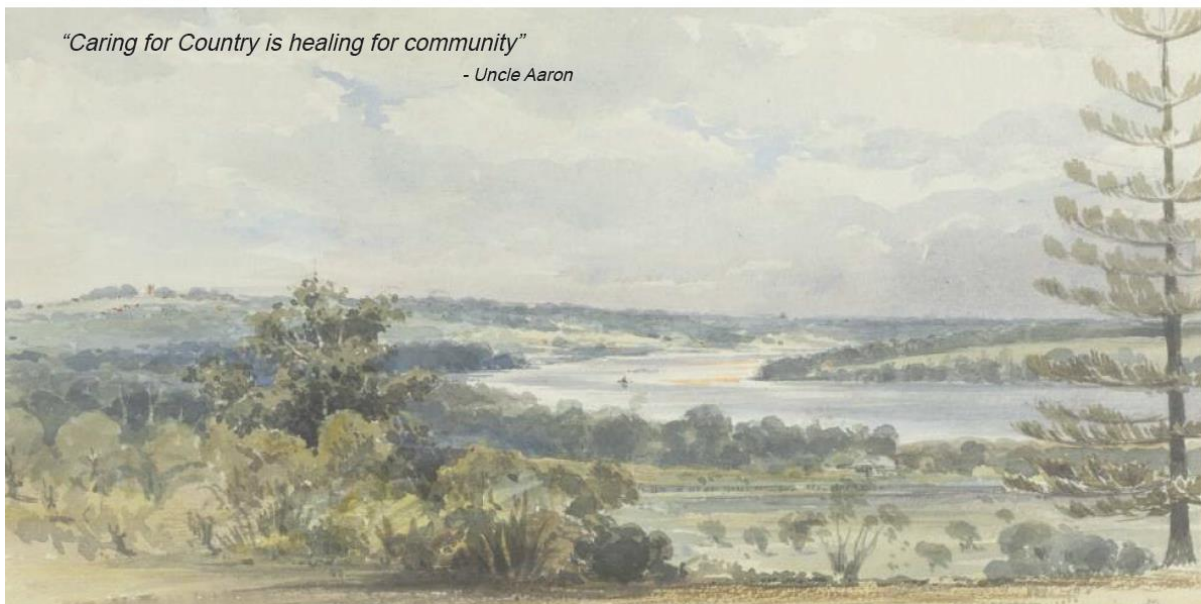
Concept DA EIS

Gregory Place, Harris Park

CONCEPT DA EIS

"Caring for Country is healing for community"

- Uncle Aaron



Painting of Parramatta River, 26 December 1827
By George Penkivill. Sourced from National Library of Australia

GREGORY PLACE, HARRIS PARK

Project No: 21-067a

Revision: [0] - FOR IDRP

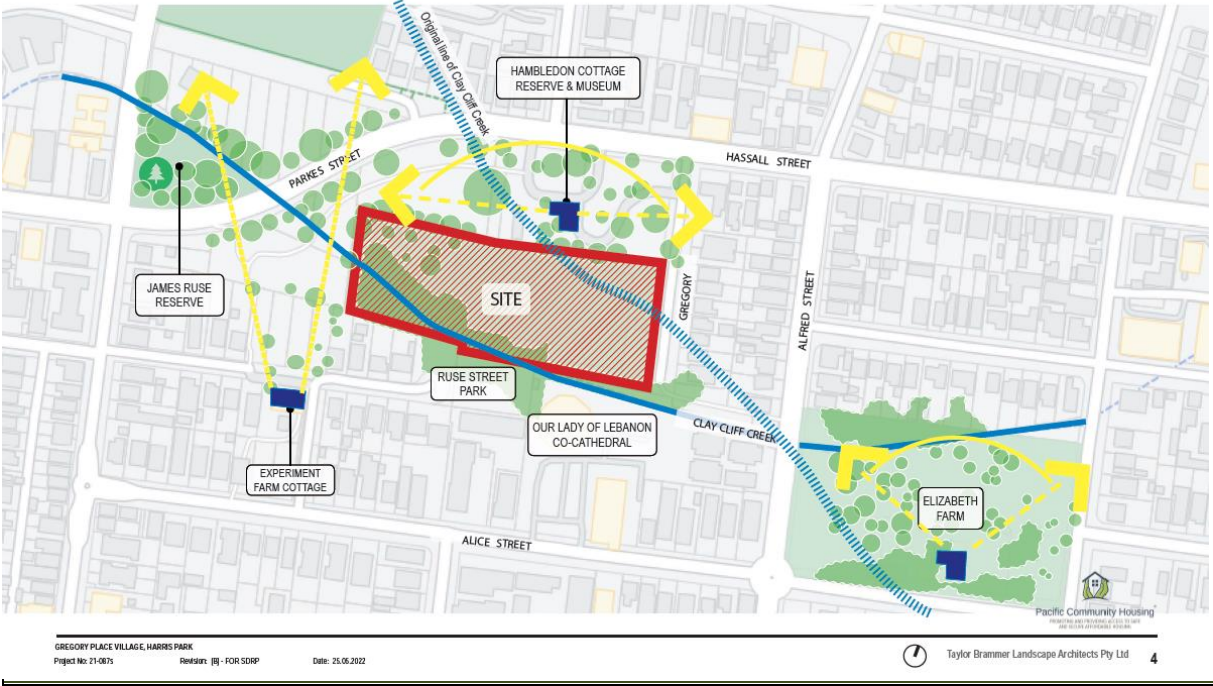
Date: 31.05.2022

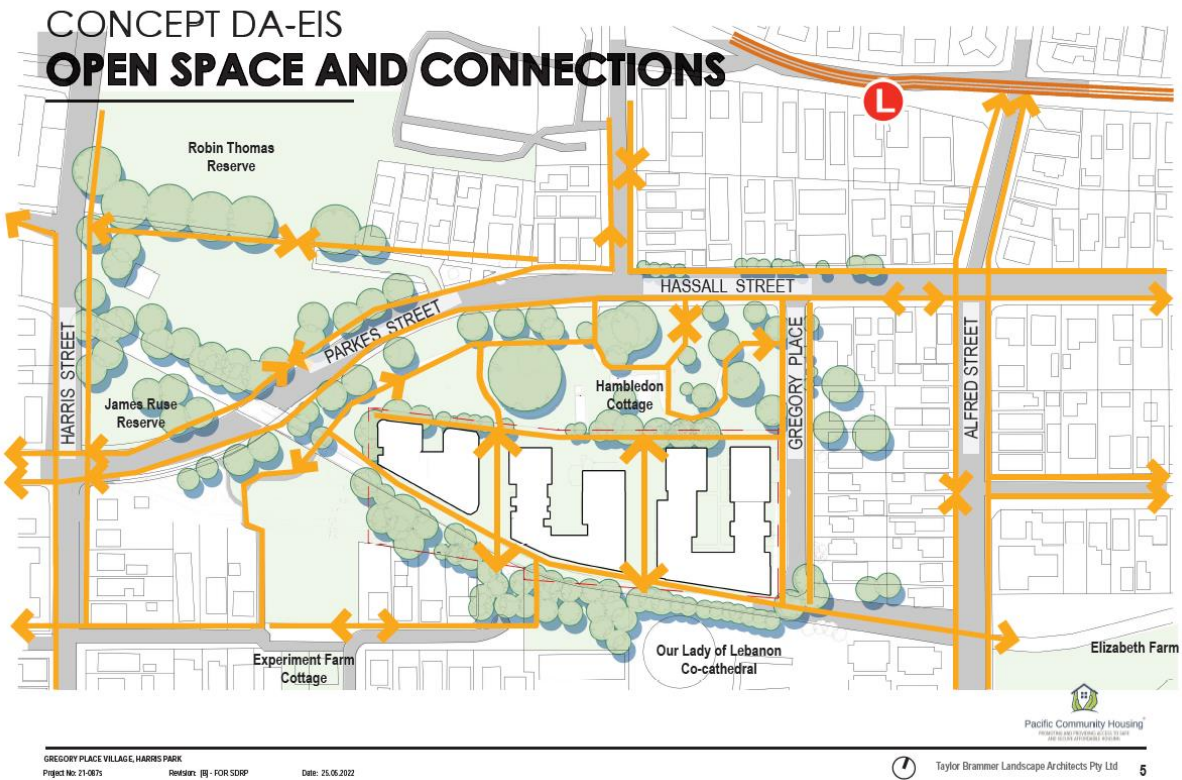


Pacific Community Housing
PROVIDING AFFORDABLE HOUSING
AND SUPPORT SERVICES

Taylor Brammer Landscape Architects Pty Ltd

CONCEPT DA-EIS
CONTEXTUAL RELATIONSHIP

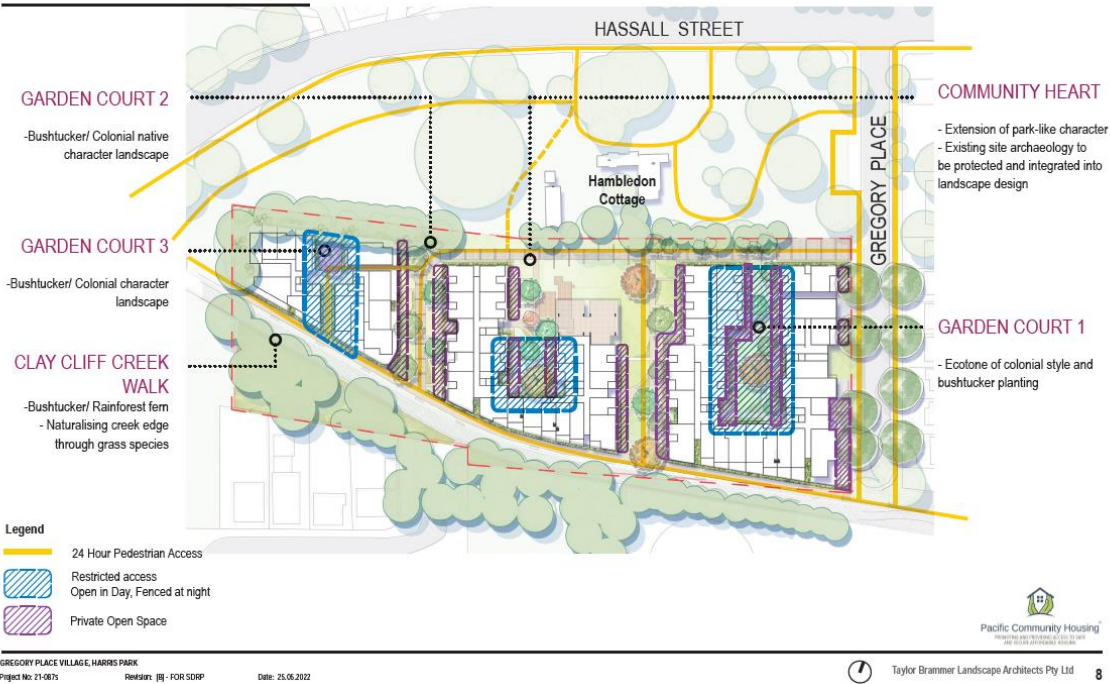




CONCEPT DA-EIS ENVIRONMENTAL STRATEGY

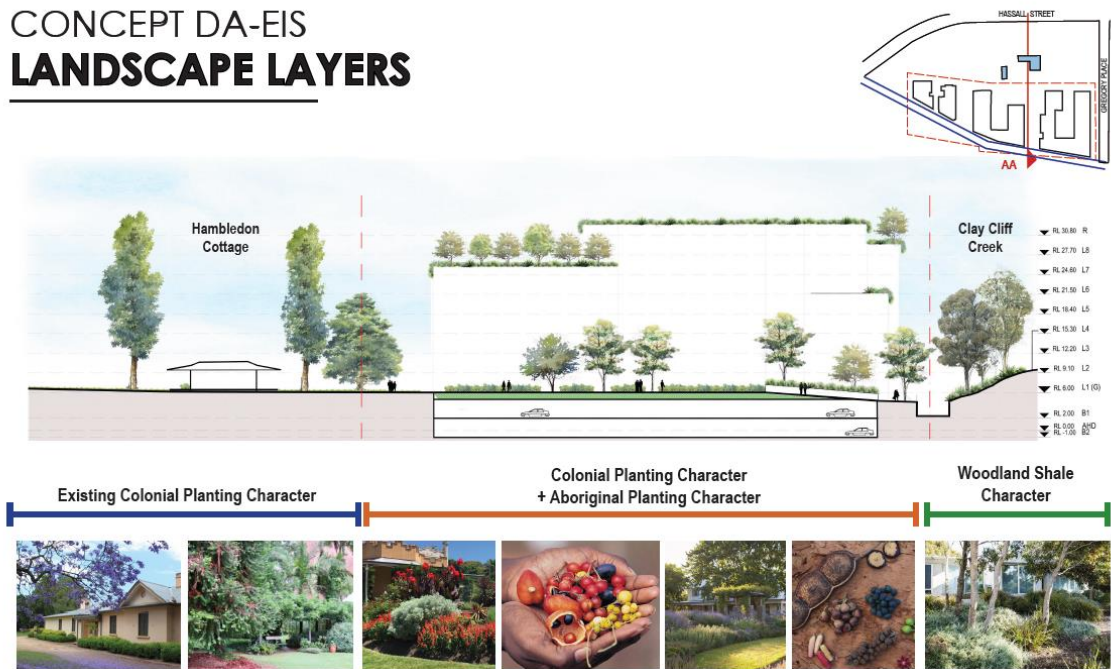


CONCEPT DA-EIS
SITE WAYFINDING





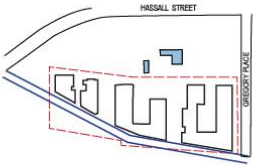
CONCEPT DA-EIS
LANDSCAPE LAYERS



GREGORY PLACE VILLAGE, HARRIS PARK
Project No: 21-0873
Revised: (B) - FOR SDRP
Date: 25.05.2022

Taylor Brammer Landscape Architects Pty Ltd 10

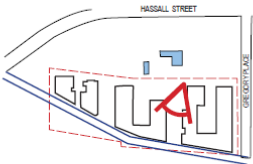
CONCEPT DA-EIS
COMMUNITY HEART - SECTION



Section 6 - Through Community Heart



CONCEPT DA-EIS
COMMUNITY HEART - 3D



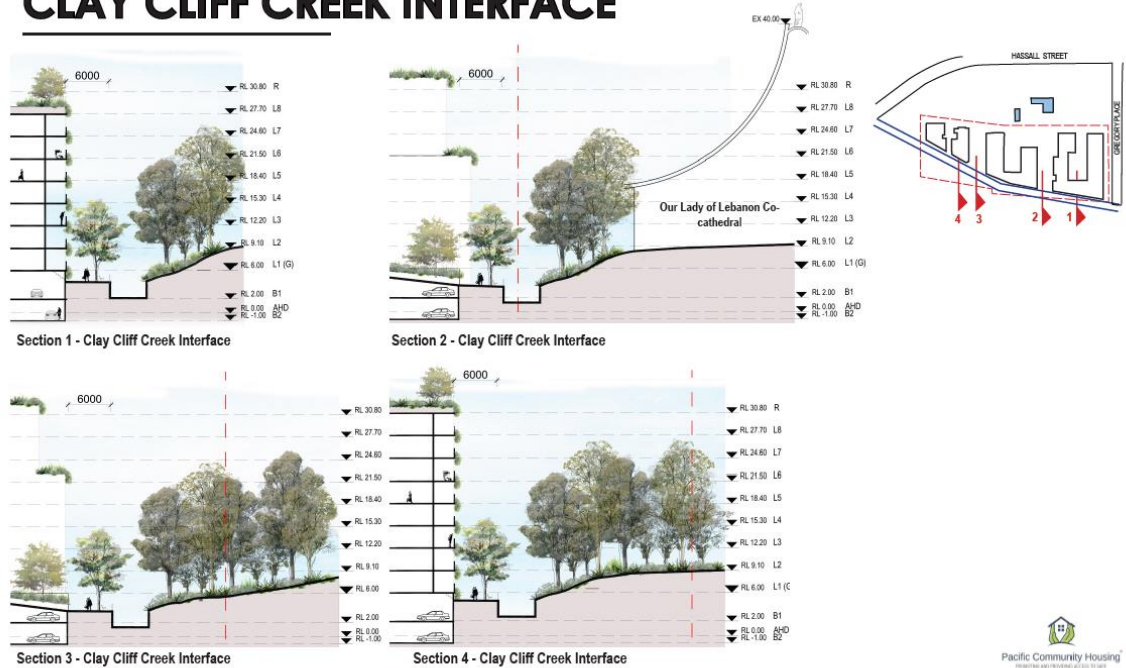
GREGORY PLACE VILLAGE, HARRIS PARK
Project No: 21-087s Revision: [0] - FOR CDSP Date: 25.05.2022



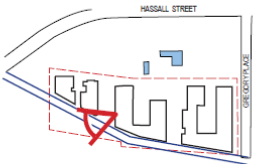
Taylor Brammer Landscape Architects Pty Ltd



CONCEPT DA-EIS
CLAY CLIFF CREEK INTERFACE



CONCEPT DA-EIS
CREEK - 3D



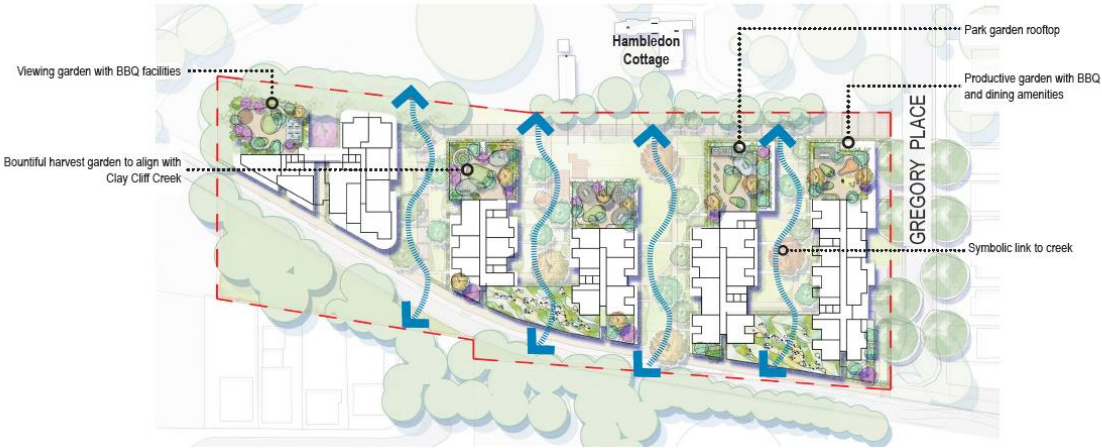
GREGORY PLACE VILLAGE, HARRIS PARK
Project No: 21-0873 Revision: (R) - FOR CDSP Date: 25.05.2022



Taylor Brammer Landscape Architects Pty Ltd



CONCEPT DA-EIS
ROOFTOP TERRACE

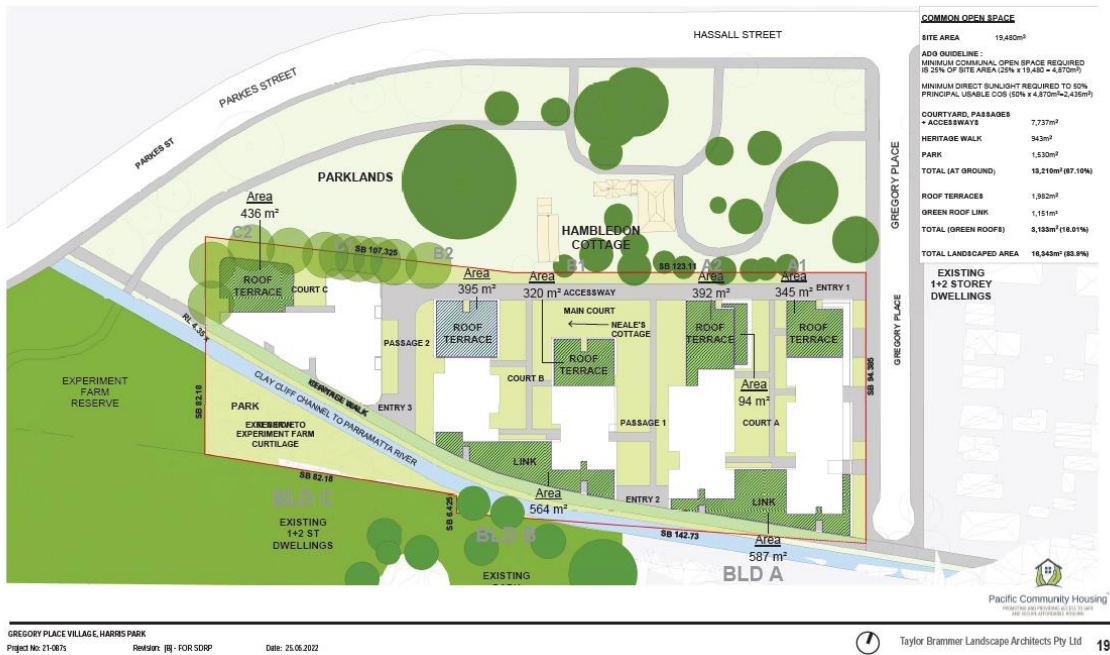


South Eveleigh Native Rooftop Farm
Image source Yerrabingin



Pacific Community Housing
COMMUNITY HOUSING AND AFFORDABLE HOUSING
FOR ALL AUSTRALIANS

CONCEPT DA-EIS
COMMUNAL OPEN SPACE DIAGRAM



Gregory Place, Harris Park **CONCEPT DA EIS**



Illustration of Aerial view from the North East
By Mark Gerardo Artist

GREGORY PLACE, HARRIS PARK
Project No: 21-067a

Revision: [B] - FOR ODRP

Date: 31.05.2022

Taylor Brammer Landscape Architects Pty Ltd 29

Attachment D

Aboriginal community consultation schedule



**CORROBOREE ABORIGINAL
CORPORATION PRESERVING
OUR HERITAGE & CULTURE**

Mobile | 0415911159 Phone | 02 8824 4324 Fax | 02 8824 4324
Email | corroboreecorp@bigpond.com
<http://corroboreecorp.wix.com/corroboreecorp>
 PO BOX 3340 ROUSE HILL, NSW 2155
 ICN 810

CORROBOREE ABORIGINAL CORPORATION PRESERVING CULTURE AND HERITAGE

7 June 2022

Statement: 2A Gregory Place, Harris Park

We submit our recommendations and appreciate that Aboriginal consultation is included in the early stages of this project; at 2A Gregory Place, Harris Park. CAC recommends that upon demolition of the existing infrastructures there be soil testing as the soils under the factories concrete floor could likely hold Aboriginal artefacts, as such CAC would request that the site be excavated for such objects that may be under the existing buildings. We second Dom Steele – Archeologists, recommendations that site will also require remediation of impacted fill materials that have been identified to be present in locations beneath the factory and there is also a need for additional environmental assessment sampling and analysis at a number of locations to guide and enable the development.

We at CAC value the inclusion of being participants in early stages of the process, that is being undertaken with our Aboriginal community involvement, to develop this land. We appreciate our involvement in the Aboriginal Cultural Heritage assessment for this site. We hope to find further acknowledgment of our Ancestors history. We note that due to our experience working in the area, we believe the area to have the high possibility of subsurface profiles within the study area. We feel 2A Gregory Place will contain archaeological materials and environmental evidence that is uncommon and shall provide information to provide aspects of NSW's cultural and natural history. This is significant to display the principal characteristics of a class of NSW's cultural or natural places, or cultural or natural environments. Thereby this site could contain natural and cultural deposits that may potentially be of significance under this criterion by their ability to further demonstrate the principal characteristics of a class of NSW's cultural and natural places (ie. long-term Aboriginal use of the Parramatta River valley). Projects location 2A Gregory Place is on the edge of the PSB which makes this area a potentially sensitive archaeological landform context on Clay Cliff Creek. Sealed beneath the existing factory buildings and hard-surfaces covering the site there is an alluvial sedimentary profile that may contain Aboriginal objects and archaeological deposit with cultural and scientific value. However, the upper parts of the subsurface sedimentary sequence have been widely and in parts deeply disturbed.



**CORROBOREE ABORIGINAL
CORPORATION PRESERVING
OUR HERITAGE & CULTURE**

Mobile | 0415911159 Phone | 02 8824 4324 Fax | 02 8824 4324
Email | corroboreecorp@bigpond.com
<http://corroboreecorp.wix.com/corroboreecorp>
 PO BOX 3340 ROUSE HILL, NSW 2155
 ICN 810

We at Corroboree Aboriginal Corporation believe the subsurface soil profiles within the site have the potential to contain Aboriginal objects; as such would request further investigation and assessment. We know from our many years of working in the area that it has always been the case, in regard to the discovery of Aboriginal objects in this area. We therefore agree with Archeologists Dom Steele that the site has archaeological potential and once demolished we would appreciate being involved in testing..

As we feel certain there are artefacts in this project area there's is a risk that the proposed redevelopment will impact on Aboriginal Cultural Heritage which is protected by the NPW Act, thereby there should be further investigations soil testing, etc.

We hope also that integration of Aboriginal recognition, and interpretation into the future design and we agree with the recommendations.

As Aboriginal stakeholders involved in ACHAR

1. Provide the findings of future contamination assessments and building demolition planning to the Project RAPS and invite feedback.
2. Develop with the Project Raps an archaeological research design and test excavation methodology for the site that is based on the results of contamination assessment and consideration of demolition planning.
3. Use the test excavation method developed with the community and supported by this ACHAR to accompany an application to HNSW for approval to test excavate the 2A Gregory Place site.

We agree with then recommendations

That's the Proponent invite the Project RAPS to assist in the development of an archaeological research design and test excavation methodology for the site based on the result of contamination assessment and consideration of demolition planning.

The Proponent use the test excavation methodology developed with the community and this ACHAR to support an application to HNSW for approval to test excavate the site to establish whether an Aboriginal Heritage Impact Permit (AHIP) is required under the National Parks and Wildlife Act 1974(NPW Act) for the proposal if it is determined that Aboriginal objects are present and likely harmed by the redevelopment.

We concur with all the recommendations by Archeologists Dom Steele regarding further investigations and see no issues with the project moving forward from a Aboriginal Cultural Heritage prospect. .

And further on in the project Aboriginal history and heritage of the project site we hope there to be displayed signage as an acknowledgement and of respect for the First Nations People on the site.



**CORROBOREE ABORIGINAL
CORPORATION PRESERVING
OUR HERITAGE & CULTURE**

Mobile | 0415911159 Phone | 02 8824 4324 Fax | 02 8824 4324
Email | corroboreecorp@bigpond.com
<http://corroboreecorp.wix.com/corroboreecorp>
PO BOX 3340 ROUSE HILL, NSW 2155
ICN 810

We the Aboriginal Heritage Consultants, ask that we be part of the implementation of any future open space. We as Aboriginal people appreciate being consulted with our views on the development design and construction plans.

As previously discussed on former projects we hope there will be opportunities in the new development to display Aboriginal Art with the Aboriginal stories relevant to the local area to allow for art in the use of story telling of the First Nations People.

Sincerely

Marilyn Carroll-Johnson



DARUG CUSTODIAN
ABORIGINAL
CORPORATION

PO BOX 81 WINDSOR 2756
PHONE: 0245775181 FAX: 0245775098
MOBILE: 0415770163 Leanne Watson
0414962766 Justine Coplin
EMAIL: mulgokiwi@bigpond.com / justinecoplin@optusnet.com.au

Attention: DSCA

Date: 9/06/22

Subject: 2A Gregory Place Harris Park

Dear Dom

Our group is a non- profit organisation that has been active for over forty years in Western Sydney, we are a Darug community group with over three hundred members. The main aim in our constitution is the care of Darug sites, places, wildlife and to promote our culture and provide education on the Darug history.

Our group promotes Darug Culture and works on numerous projects that are culturally based as a proud and diverse group. It has been discussed by our group and with many consultants and researches that our history is generic and is usually from an early colonists perspective or solely based on archaeology and sites. These histories are adequate but they lack the people's stories and parts of important events and connections of the Darug people and also other Aboriginal people that now call this area home and have done so for numerous generations.

This area is significant to the Darug people due to the evidence of continued occupation, within close proximity to this project site there is a complex of significant sites.

Landscapes and landforms are significant to us for the information that they hold and the connection to Darug people. Aboriginal people (Darug) had a complex lifestyle that was based on respect and belonging to the land, all aspects of life and survival did not impact on

the land but helped to care for and conserve land and the sustenance that the land provided. As Darug people moved through the land there were no impacts left, although there was evidence of movement and lifestyle, the people moved through areas with knowledge of their areas

and followed signs that were left in the landscape. Darug people knew which areas were not to be entered and respected the areas that were sacred.

Knowledge of culture, lifestyle and lore have been part of Darug people's lives for thousands of years, this was passed down to the next generations and this started with birth and continued for a lifetime. Darug people spent a lifetime learning and as people grew older they passed through stages of knowledge, elders became elders with the learning of stages of knowledge not by their age, being an elder is part of the kinship system this was a very complicated system based on respect.

Darug sites are all connected, our country has a complex of sites that hold our heritage and past history, evidence of the Darug lifestyle and occupation are all across our country, due to the rapid development of Sydney many of our sites have been destroyed, our sites are thousands of years old and within the short period of time that Australia has been developed pre contact our sites have disappeared.

The *Aboriginal cultural heritage consultation requirements for proponents* Section 4.1.8 refers to "Aboriginal organisations representing Aboriginal people who hold cultural knowledge". Recent consultation meetings have revealed that many of these Aboriginal organisations and individuals do not hold cultural knowledge of the Western Sydney area. The increasing involvement of such parties in cultural heritage management means that genuine local Aboriginal organisations are unable to properly care for our cultural heritage.

Many Aboriginal organisations listed in the OEH response letter do not contribute to the Aboriginal community of Western Sydney. Individuals listed in the OEH response letter do not represent the community and while they may be consulted with, should not be employed for their own personal financial benefit.

Our organisation is committed to providing benefits back to our local Aboriginal community through such measures as funding the local Aboriginal juniors' touch football team, painting classes for the local children and donating money to various charities. Employment in cultural heritage activities is source of income that organisations such as ours can use to contribute to beneficial activities and support within the community.

Darug custodian Aboriginal Corporation's site officers have knowledge of Darug land, Darug Culture, Oral histories, landforms, sites, Darug history, wildlife, flora and legislative requirements. We have worked with consultants and developers for many years in Western

Sydney (Darug Land) for conservation, site works, developments and interpretation/education strategie.

Darug Custodian Aboriginal Corporation have received and reviewed the Information supplied

-

Parramatta / Harris Park and surrounding areas are so significant to the Darug People as the area has high cultural value and by doing testing and salvage , we get a broader understand of movement and filling in the gaps of our past.

We hope in the future all development reports and information can be mapped to show how Darug people lived in and around Parramatta.

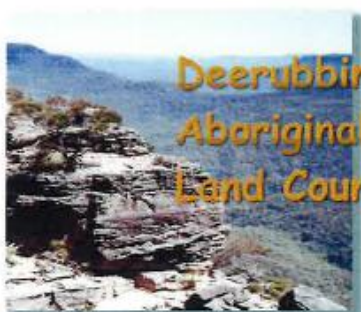
We support the recommendations set out by DSCA.

Please contact us with all further enquiries on the above contacts.

Regards



Justine Coplin



73 A , O'Connell Street
Main Gate, Cnr of Dunlop & New Street
(Former Correctional Centre)
North Parramatta NSW 1750

PO Box 2341, North Parramatta
NSW 1750 AUSTRALIA

ABN: 41 303 129 586
T: (02) 4724 5600
F: (02) 4722 9713
E: reception@deerubbin.org.au
W: <http://www.deerubbin.org.au>

Dominic Steele Consulting Archaeologist
21 MacGregor Street
CROYDON NSW 2132

Ref: 3367

15 June 2022

SUBJECT: PROTECTION OF ABORIGINAL CULTURAL HERITAGE

2a Gregory Place, Harris Park

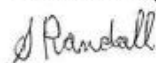
Lot 2 in DP 807801

'Build to Rent' State Significant Development (SSD-31179510)

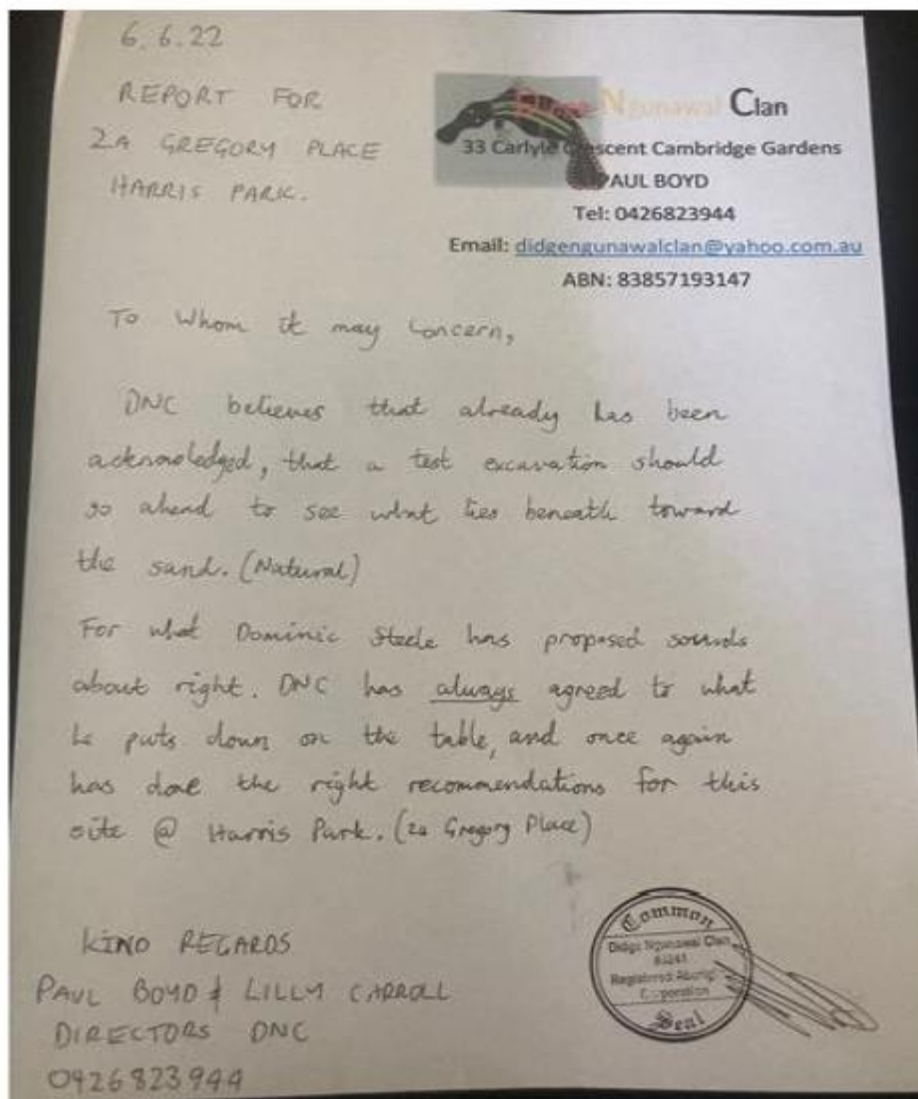
Attention: Dominic Steele

Deerubbin Local Aboriginal Land Council site committee has read and viewed the Aboriginal cultural heritage report for 2a Gregory Place, Harris Park. The Land Council agrees and supports recommendations and methodology for the demolition & testing excavations for the above mentioned location.

Yours Sincerely



Steven Randall
Senior Cultural Heritage Officer



GINNINDERRA ABORIGINAL CORPORATION
PRESERVATION FOR ABORIGINAL HERITAGE
LAND MANAGEMENT AND CONSERVATION

PO Box 3143
GROSE VALE 2753 NSW
ginninderra.corp@gmail.com
ICN: 8266

June 8th 2022

Dominic Steele
DCSA
21 Macgregor Street
CROYDON
NSW 2132

RE: 2A Gregory Place, Parramatta NSW

Dear Dominic,

Our Ginninderra Aboriginal Corporation members appreciate the opportunity to consult on this project.

The Parramatta area is very rich in Aboriginal history and full of culturally important places. As such we believe that the Aboriginal history and heritage of the land should be acknowledged and respected. We believe that the protection and preservation of as much cultural heritage as possible is of great value to both the Aboriginal and non-Aboriginal community looking towards the future; and education and awareness is key in the step towards reconciliation.

We have reviewed the draft cultural heritage assessment and agree with the recommendations outlined by DSCA.

Further to that, would like to add some recommendations for your consideration as the project continues. Particularly:

- Registered Aboriginal community members be involved in the test excavation.
- Proper clean-up of site throughout and after the development (especially as there are waterways nearby), and restoration of habitat (planting native plants/gardens to help local species).
- Acknowledge this is Aboriginal land (something as simple as an Acknowledgement of Country plaque in the foyer of the new building can make an impact).
- Tell the stories of the area as a culturally important place. There should be opportunities in the new development to tell Aboriginal stories pertinent to the local area, and opportunities for the use of Aboriginal art in story-telling. An example of this is the website set up after Thompson Square in Windsor was excavated for the new bridge. There are signs at the site containing information about the area, the local tribe, and photographs of the artefacts found. Each sign has a QR code that people can scan also making it interactive. I have added the link for your perusal and a couple of photographs to my email. Example: [Welcome to Darug Lands | Thompson Square](#)
- Language use within the new development (use and teaching of language and also signage).
- Ensure Aboriginal people are involved in the decision making and their input valued throughout the project.

We look forward to continued consultation on this project. Please don't hesitate to contact us should you require any further information.

Yours sincerely,

Krystle Carroll-Elliott
Ginninderra Aboriginal Corporation
E: ginninderra.corp@gmail.com

Re: 2a Gregory Place Harris Park

Dear Dom,

Thank you for you ACHA for 2A Gregory Place, Harris Park, NSW. Our people have managed the land and cared for it for tens of thousands of years and continue to do so. we have a deep connection with the land, water, and sky this connection guides us when walking the land, we are one with mother nature.

There are tangible, intangible, and aesthetic aspects that our culture depends on, we must take theses into account when doing an assessment of the land. By acknowledging stories and creation stories of the land we work on today and continuing the connection to country through interpretation and passing on this knowledge. We follow the water ways as a giver of life without them we are not here; over the last two hundred years we have lost many water ways due to the arrival of Europeans.

There are major water ways that play a big part in our cultural history of the land and how it was utilised. For instance, the Parramatta River would be utilised daily, for resources and fresh water source. Aquaculture would have been undertaken and other practices also such as agriculture to help maintain the environment. The study area is close to the Parramatta River this suggest that the area is has potential for Archaeological deposits. The Parramatta River were the fresh water meets the salt water, and area that is a resource rich environment. The study area is also close to a swampy wetland which can be utilised by Aboriginal Peoples for food, medicine, and a fresh water source. The area is also significant due to how long Aboriginal peoples occupied the land; we are connected to it.

The flora and fauna would have been thriving and Aboriginal people utilised their environment to its full potential. Aboriginal people carried out their daily activities in this area, hence why it's so important to us. Aboriginal people have walked this land for tens of thousands of years and continue to do so today. They strategically look after the land, plant flora in a way that coexisted with the environment around them.

We must also consider practices that have taken place by Aboriginal people to care for country, fire management being a well-known tool of Aboriginal people to manage the landscape, creating ecosystems that today we may not see due to climate change and miss management by the Europeans. Aboriginal people have the knowledge of the land and how ecosystems work they recognised this and created landscapes that suited them and provide resource rich environments.

We must also consider burials within the area as Aboriginal people were majorly affected by colonisation and suffered from disposition of our land making it hard to be aware of where burials are today.

Our modern history that we must consider the last two hundred years has affected Aboriginal people dramatically and we are thriving considering the disposition and effects of colonization. Aboriginal

cultural groups come from all over NSW, as Aboriginal people were moved due to the stolen generation, this suggest that there are many cultural groups in this area. We must also consider the stolen generation as Parramatta being the first-place governor Macquarie started taking Aboriginal children away from families, place in the native institute near the town hall. Or the female factory and the children home these are all place that our young people were taken to and raised to be like the white people of the time, this is significant to our history of Parramatta.

The study area is highly significant to our people due to the location being in parramatta a culturally sensitive area. We would like to recommend a cultural interpretation plan for this project to educate the wider community and continuing the passing down of knowledge to our younger generations. This can be achieved through native landscaping, edible gardens, art, digital displays, sound scape, water features, with in your design and much more.

We would like to agree to your recommendation, and we support your report, we look forward to further consultation on this project.

Kind Regards

Kadibulla Khan



MURAGADI HERITAGE INDIGENOUS CORPORATION

47 Cuzco Street, South Coogee NSW 2035

Phone: 0418970389

14th June 2022

Raymond Raad

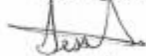
Dominic Steele

Dear Raymond & Dominic,

2a Gregory Place, Harris Park NSW

I have read the archaeological cultural heritage management plan for the above project; I agree with the recommendations made. I have also read and agree with The Proponent to use the test excavation methodology developed with the community and this ACHAR to support an application to HNSW for approval to test excavate the site to establish whether an Aboriginal Heritage Impact Permit (AHIP) is required under the National Parks and Wildlife Act 1974 (NPW Act) for the proposal if it is determined that Aboriginal objects are present and likely harmed by the redevelopment.

Kind regards



Jesse Johnson

EMAIL: muragadi@yahoo.com.au

ABN: 23 532 306 683

MURRABIDGEE MULLANGARI ABORIGINAL CORPORATION



Keeping the Pathways of our Ancestors Alive

7th June 2022

Attention: Raymond Raad

Cc: Dominic Steele

To Raymond & Dominic,

Re: 2a Gregory Place, Harris Park NSW

I have read the project information and recommendations made for the above project; I endorse the recommendations made. As I feel all points have been covered by Dominic Steele consultancy archaeology. If you require further details, please do not hesitate in contacting me.

Kind regards

A handwritten signature in black ink, appearing to read 'X. Johnson', is written over a horizontal line.

Darleen Johnson
Administrator/Director





PO Box 3035 Rouse Hill NSW 2155
Mble: 0490051102

Email: murrabidgeemullangari@yahoo.com.au
ABN: 64 296 388 352


Re: 2a Gregory Place Harris Park



Scott Franks <scott@tocomwall.com.au>
To: Dominic Steele

Fri 3/06/2022 6:43 PM

 You replied to this message on 4/06/2022 8:35 AM.

 2A Gregory Place Parramatta - Aboriginal Cultural Heritage Assessment - June 2022.pdf
5 MB

Dominic,

Thank you for reaching out to me. Tocomwall as a Registered party has taken the position with all projects with all firms the following.

Tocomwall dose not support any methodologies or reports that Tocomwall's field staff have not been able to or been involved in the field assessment .

Tocomwall has been engaged of 100's of projects in the Sydney basin and worked with all the Raps most of these parts never provided any cultural information on site or even in reports and most do not have an ability to identify Artifacts. It is for these reasons that I cannot support these recommendations for this project.

Regards
Scott Franks

Consultant
Tocomwall Pty Ltd
scott@tocomwall.com.au
0404 171544

Breach of Confidentiality

This email and any files transmitted with it are confidential and intended solely for the use of the individual to whom they are addressed. If you have received this email in error please notify the sender. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited. Although the company has taken reasonable precautions to ensure no viruses are present in this email, the company cannot accept responsibility for any loss or damage arising from the use of this email or attachments.



Woka Aboriginal Corporation
145 Camarvon Rd Schofield NSW 2762
0406991221
wokacorp@yahoo.com

Statement: 2A Gregory Place Harris Park

8 June 2022

Attention: Ray Raad

We appreciate our involvement with this project and to provide our recommendations as per Aboriginal Culture Heritage.

It is our thoughts that upon demolition of existing structures and demolition of the concrete floors that Aboriginal artefacts may be present in the underlying soils and as such we would recommend test excavations of these areas to ascertain this. The site require remediation of impacted fill materials that have been identified to be present in locations beneath the factory and there is also a need for additional environmental assessment sampling and analysis at a number of locations to guide and enable the development. We advice that environmental assessment sampling and analysis would be required at a number of locations to provide a guide and further enable the development process.

Subject area and surrounds is well known to contain Aboriginal artefacts as discovered on various cultural heritage projects previously undertaken by numerous Archaeological companies, many of which we have been involved with.

We ask that once demolition is completed to be provided the findings of future contamination assessments and building demolition planning to the Project RAPs and invite our feedback.

Development with the Project Raps an archaeological research design and test excavation methodology for the site that is based on the results of contamination assessment and consideration of demolition planning.

We support Archeologist, Dom Steele and his recommendations, proposal and methods. Using a test excavation method advised by Dom, and reviews by community, and supported by ACHAR to accompany an application to HNSW for approval to test excavations on the project area.

Use the test excavation method advised; with the community and supported by the ACHAR; to accompany an application to HNSW for approval to test excavate the 2A Gregory Place, Harris Park, site.

Advice:

We advise that the Proponent include the RAPS in the development of an archaeological research design and test excavation methodology for the site, based on the result of contamination assessment and consideration of demolition planning.

The Proponent use the test excavation methodology, developed with the community and ACHAR to support an application to HNSW for approval to test excavate the site to establish whether an Aboriginal Heritage Impact Permit (AHIP) is required under the National Parks and Wildlife Act 1974(NPW Act) for the proposal if it is determined that Aboriginal objects are present and likely harmed by the redevelopment.

Regards

Steve Johnson – Director WAC

Attachment F

AHIMS data



AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : 2a Gregory Pl 50m

Client Service ID : 615741

Dominic Steele Archaeological Consulting

Date: 23 August 2021

21 Macgregor Street

CROYDON New South Wales 2132

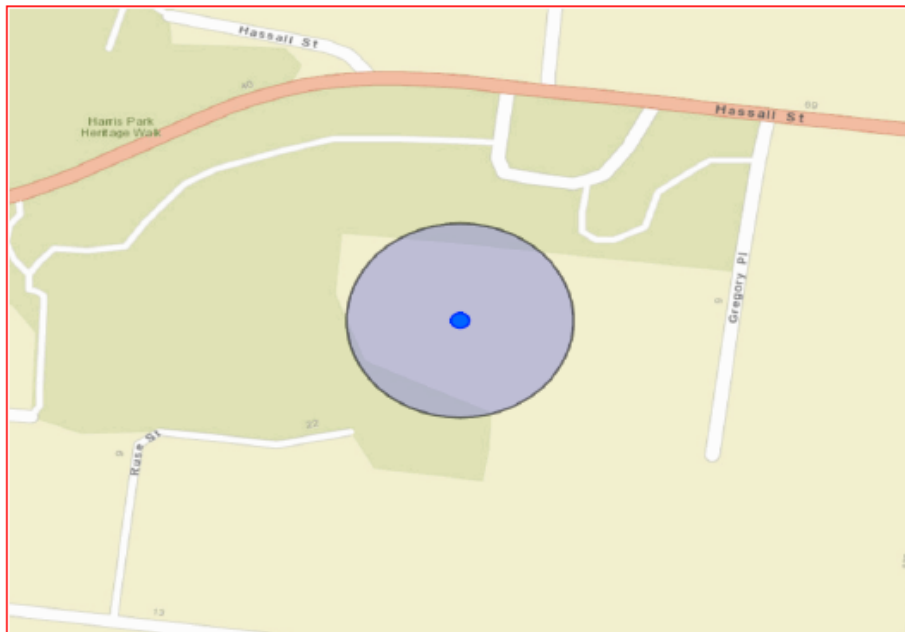
Attention: Dominic Steele

Email: dsca@bigpond.net.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Address : 2A GREGORY PLACE HARRIS PARK 2150 with a Buffer of 50 meters, conducted by Dominic Steele on 23 August 2021.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
---	--

0	Aboriginal places have been declared in or near the above location. *
---	---



AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : 2A Gregory PI 200m

Client Service ID : 615745

Dominic Steele Archaeological Consulting

Date: 23 August 2021

21 Macgregor Street
CROYDON New South Wales 2132

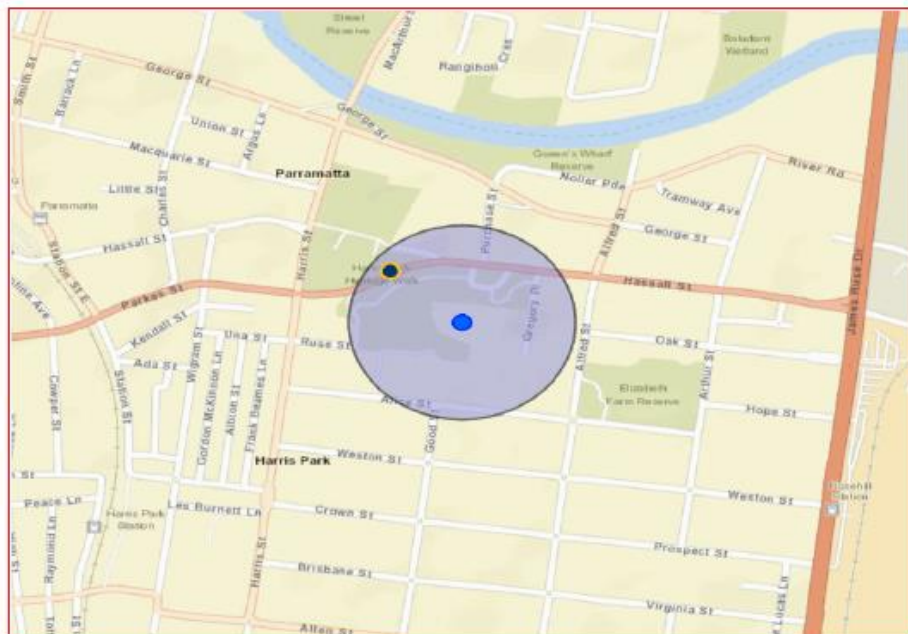
Attention: Dominic Steele

Email: dsca@bigpond.net.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Address : 2A GREGORY PLACE HARRIS PARK 2150 with a Buffer of 200 meters, conducted by Dominic Steele on 23 August 2021.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

1	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *



AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : 2A Gregory Place 1km

Client Service ID : 615752

Dominic Steele Archaeological Consulting

Date: 23 August 2021

21 Macgregor Street

CROYDON New South Wales 2132

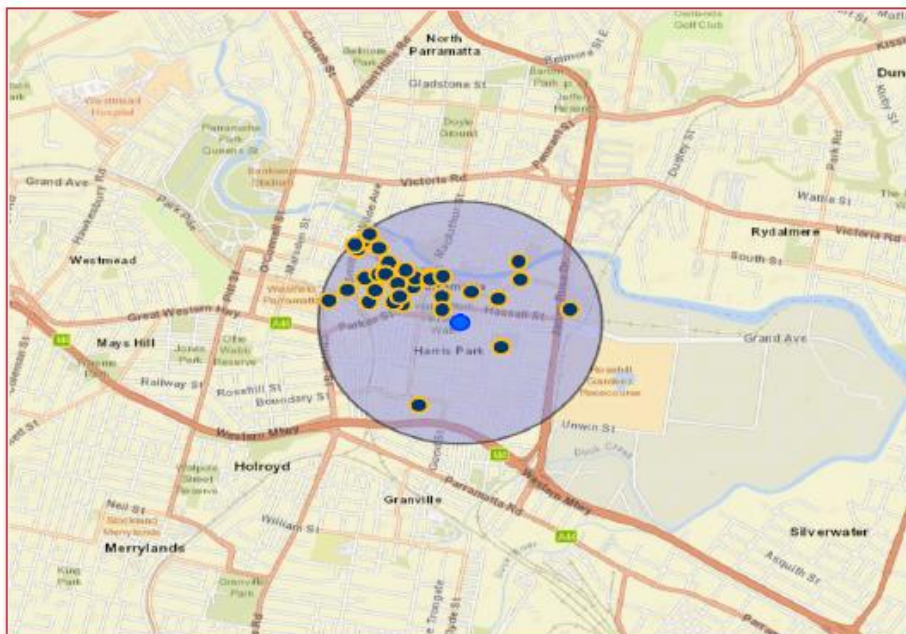
Attention: Dominic Steele

Email: dsca@bigpond.net.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Address : 2A GREGORY PLACE HARRIS PARK 2150 with a Buffer of 1000 meters, conducted by Dominic Steele on 23 August 2021.


The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:


34	Aboriginal sites are recorded in or near the above location.
----	--

0	Aboriginal places have been declared in or near the above location. *
---	---

 AHIMS Web Services (AWS) Extensive search - Site list report										
SiteID	Site Name	Datum	Zone	Easting	Northing	Context	Site Status **	Site Features	Site Types	Remarks
45-6-2554	Blanchett Farmhouse	ACD	56	316420	6255700	Open site	Valid	Artefact :-	Open Camp Site	102196,103782
Contact										
45-6-2559	Sydney Turf Club Carpark, STC Carpark	ACD	56	316900	6256020	Open site	Valid	Artefact :-	Open Camp Site	102142,102219
Contact										
45-6-2627	HP-1	ACD	56	315850	6255210	Open site	Valid	Artefact :-		102196
Contact										
45-6-2648	Charles George 1	QDA	56	315690	6256470	Open site	Partially Destroyed	Artefact :-, Potential Archaeological		99538,102196
Contact										
45-6-2678	SSP1 (formerly Smith Street P AD)	ACD	56	315330	6256150	Open site	Destroyed	Potential Archaeological		99518,102196,103782
Contact										
45-6-2668	Angie St	ACD	56	315200	6256060	Open site	Valid	Potential Archaeological		102196,103782
Contact										
45-6-2669	Kendall Street, Harris Park	ACD	56	315525	6256150	Open site	Valid	Potential Archaeological		102196,103782
Contact										
45-6-2673	RTH-G1	QDA	56	315842	6256510	Open site	Valid	Artefact :-		100552,102196
Contact										
45-6-2738	James Ruse Reserve Open Camp 1	ACD	56	316000	6256000	Open site	Valid	Potential Archaeological		102196,103782
Contact										
45-6-2741	Parramatta Transport Interchange PAD	ACD	56	315450	6256250	Open site	Valid	Potential Archaeological		99438,99497,102196,103782
Contact										
45-6-2863	Cumbarland Press Site	QDA	56	315913	6256448	Open site	Valid	Artefact :-		103782
Contact										
45-6-2893	95-101 George St (GSP AD)	QDA	56	315720	6256570	Open site	Valid	Potential Archaeological		101078,103782
Contact										


Report generated by AHIMS Web Service on 23/08/2021 for Donnik Steele for the following area at Address: 2A GREGORY PLACE HARRIS PARK 2150 with a Buffer of 1000 meters. Number of Aboriginal sites and Aboriginal objects found is 34

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any reliance or omission made on the information and consequences of such use or omission.

<div>  AHIMS Web Services (AWS) Extensive search - Site list report </div> <div> Your Ref/PO Number : 2A Gregory Place 1km Client Service ID : 615755 </div>									
Shield	Site Name	Datum	Zone	Easting	Northing	Context	Site Status **	Site Features	Site Types
45-6-2950	Macquarie St PAD 2	GD A	56	315035	6256410	Open site	Destroyed	Potential Archaeological Deposit (PAD) :-	Reports 102144,10378 2
Contact									
45-6-2976	George St PAD 1	GD A	56	315650	6256690	Open site	Valid	Potential Archaeological Deposit (PAD) : 1	Permits 3 238,3566
Recorders Doctor Julian Comer/Comer Consultants Pty Limited									
45-6-3102	Phillip Street PAD 1	GD A	56	315581	6256801	Open site	Valid	Potential Archaeological Deposit (PAD) : 1	Permits 3 509,4766,47 67
Contact Comer Consultants Pty Limited/Mr David Nisley									
Recorders Mr. Dominic Steele									
45-6-3068	GS PAD 1 184-188 George Street	GD A	56	315879	6256375	Open site	Destroyed	Potential Archaeological Deposit (PAD) : 1	Permits 3 755
Contact									
45-6-3065	Phillip St PAD 1	GD A	56	315500	6256675	Open site	Valid	Potential Archaeological Deposit (PAD) : 1	Permits 3 594
Contact Mr. Dominic Steele									
Recorders Mr. Dominic Steele									
45-6-3118	Clay Cliff Creek Levee	GD A	56	315801	6256294	Open site	Valid	Archae : 1, Potential Archaeological Deposit (PAD) : 1	Permits 102 992,10 299 7,102998
Contact									
45-6-3131	River Road West	GD A	56	316650	6256450	Open site	Valid	Potential Archaeological Deposit (PAD) :- Archae :-	Permits 3 788
Contact Ms Penella Atkinson									
Recorders Ms Penella Atkinson/Mr Ryan T adducci									
45-6-3158	Robin Thomas Reserve	GD A	56	316100	6256300	Open site	Partially Destroyed	Aboriginal Resource and Gathering :- Potential Archaeological Deposit (PAD) :- Archae :-	Permits 3 734,4 657
Contact									
45-6-3157	Harris & Footpath	GD A	56	316013	6256461	Open site	Valid	Archae :-	Permits 4 439
Contact Doctor Julian Comer/Comer Consultants Pty Ltd - Pyrmont - Individual (see B. Kent)									
45-6-3180	21 Hassell Street	GD A	56	315761	6256247	Open site	Partially Destroyed	Potential Archaeological Deposit (PAD) : 1	Permits 4 439
Contact Ms. Natalie Richards									
Recorders Ms. Natalie Richards									
Permits 3 906,3 975									

Report generated by AHIMS Web Service on 23/06/2021 for Dominic Steele for the following area at Address: 2A GREGORY PLACE HARRIS PARK 2150 with a Buffer of 1000 meters. Number of Aboriginal sites and Aboriginal objects found is 34

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any archive or omission made on the information and consequences of such error or omission.



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 2A Gregory Place Item
Client Service ID : 615755


SiteID	Site Name	Datum	Zone	Easting	Northing	Contact	Site Status **	Site Features	Site Types	Remarks
45-6-3312	PLR APT 1	GD A	56	316105	6256465	Open site	Valid	Artefact :-		
	Contact	Recorders	Kelleher Nightingale Consulting Pty Ltd/McCranny Malloch							
45-6-3313	PLR APT 2	GD A	56	316305	6256340	Open site	Valid	Artefact :-		
	Contact	Recorders	Kelleher Nightingale Consulting Pty Ltd/McCranny Malloch							
45-6-3214	Wigram & Hassall & AS	GD A	56	315825	6256231	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) :-		
	Contact	Recorders	Extreme Heritage Pty Ltd - Pyrmont - Individual user M. Alsear/Hobbs							
45-6-3503	32 Smith Street	GD A	56	315536	6256745	Open site	Partially Destroyed	Potential Archaeological Deposit (PAD) :-		103 963, 103 996 4, 103965
	Contact	Recorders	AM AC Group P/L, Mr. Benjamin Strick							
45-6-3630	Hassell St PAD	GD A	56	315587	6256244	Open site	Destroyed	Potential Archaeological Deposit (PAD) :-		4268 A347
	Contact	Recorders	Comber Consultants Pty Limited/Ms. Jillian Comber							
45-6-3495	116 Macquarie St Parramatta	GD A	56	315700	6256475	Open site	Valid	Potential Archaeological Deposit (PAD) :-		4412 A527 103 782
	Contact	Recorders	Comber Consultants Pty Limited/Comber Consultants Pty Limited/Ms. Alexandra Tassi							
45-6-3702	Smith St PAD1	GD A	56	315480	6256713	Open site	Destroyed	Artefact :-, Potential Archaeological Deposit (PAD) :-		4607 A651
	Contact	Recorders	Comber Consultants Pty Limited/Comber Consultants Pty Limited/Ms. Jillian Comber							
45-6-3837	Blighderr Drive PAD	GD A	56	316035	6256597	Open site	Not a Site	Potential Archaeological Deposit (PAD) :-		4513 A756
	Contact	Recorders	Extreme Heritage Pty Ltd - Pyrmont - Individual user Extreme Heritage Pty Ltd - Pyrm							
45-6-3801	APHS Stone and Glass Artefacts	GD A	56	315650	6256471	Open site	Partially Destroyed	Artefact :-, Hearths :- Potential Archaeological Deposit (PAD) :-		4657
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills/GML Heritage Pty Ltd - Surry Hills/Doctor Tim Owen							
45-6-3895	PLR Macquarie & PAD	GD A	56	315787	6256398	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills/Doctor Tim Owen							
45-6-3896	PLR George St PAD	GD A	56	316497	6256288	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills/Doctor Tim Owen							

Report generated by AHIMS Web Service on 23/08/2021 for Dominic Steele for the following areas at Address: 2A GREGORY PLACE HARRIS PA RK 21 50 with a Buffer of 1,000 meters. Number of Aboriginal sites and Aboriginal objects found is 34
This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act/omission made on the information and consequences of such act/omission.

Page 3 of 4

Report generated by AHIMS Web Service on 23/08/2021 for Dominic Steele for the following area at Address: 2A GREGORY PLACE HARRIS PARK 2150 with a Buffer of 1000 meters. Number of Aboriginal sites and Aboriginal objects found is 34

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any reliance or omission made on the information and consequences of such action or omission.

 AHIMS Web Services (AWS) Extensive search - Site list report									
Your Ref/PO Number : 2A Gregory Place Item Client Service ID : 615755									
SiteID	Site Name	Detum	Zone	Building	Northing	Context	Site Status **	Site Features	Site Type & Reports
45-6-3897	PLR RTR America and PAD	Q/A	56	316017	6250441	Open site	Valid	Archaeol :- Potential Archaeological Deposit (PAD) :-	
Contact		Records		Comments					
				GML Heritage Pty Ltd - Sherry Hill Doctor Tim Owen					

** Site Status

Valid - The site has been recorded and accepted onto the system as valid

Disputed - The site has been completely impacted or harmed usually as a consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution

Partially Disputed - The site has been only partially impacted or harmed usually as a consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an original site. Impact of the type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Services on 23/06/2021 for Dominic Steele for the following area at Address: 2A GREGORY PLACE HARRIS PARK 2150 with a Buffer of 1000 meters. Number of Aboriginal sites and Aboriginal objects found is 34

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any actions or omission made on the information and consequences of such acts or omission.

Attachment G

Geotechnical bore-log extracts (Alliance Geotechnical Pty Ltd February 2022)



Alliance Geotechnical Pty Ltd
T: 1800 288 188
E: office@allgeo.com.au
W: www.allgeo.com.au

BH No: BH01
PAGE 1 OF 3
Job No: 13091

Borehole Log

Client: 2A Gregory Place Pty Ltd				Started: 19/11/2021						
Project: Proposed Mixed Residential & Commercial Development				Finished: 19/11/2021						
Location: 2A Gregory Place, Harris Park NSW				Borehole Size 110 mm						
Rig Type: Hanin D&B 8D		Hole Location: Refer Drawing: 13091-GR-1-A		Driller: SZ		Logged: KT				
RL Surface: 4.70m		Contractor: BG Drilling Pty Ltd		Bearing: —		Checked: MS				
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition Consistency Density Index	Additional Observations	
ADT		4			-	CONCRETE SLAB, 100mm thickness.				
					-	FILL: Sandy CLAY, low plasticity, dark grey, appears poorly to moderately compacted				
			1		SP	SAND: medium grained, brown and orange, trace clay	SPT 1, 2, 1 N=3 ASS: 0.5m ASS: 1.0m	M	VL	ALLUVIUM
			2			At 1.5m, becomes wet.	SPT 0, 1, 3 N=4 ASS: 1.5m ES 2.0m	W		
			3		SC	Clayey SAND: medium grained, dark grey and orange brown.	ASS: 2.5m	M	MD	
			4			At 3.0m. As above, with fine ironstone gravel.	SPT 5, 5, 8 N=13 ASS: 3.0 ASS: 3.5m			
			5		CI	SILTSTONE / SHALE: extremely weathered, recovered as Gravely CLAY, medium plasticity, dark grey.	SPT 18/100mm HB	MC < PL	VST - H	EXTREMELY WEATHERED SHALE
			6			Borehole BH01 continued as cored hole				
			7							
			8							
		9								
		10								

2 NON-CORED BOREHOLE (NO COORDINATE) 13091 GR 1 GME STD AUSTRALIA GDT 19/11/2021



Alliance Geotechnical Pty Ltd
T: 1800 288 188
E: office@allgeo.com.au
W: www.allgeo.com.au

BH No: BH02
PAGE 1 OF 3
Job No: 13091

Borehole Log

Client: 2A Gregory Place Pty Ltd				Started: 23/11/2021						
Project: Proposed Mixed Residential & Commercial Development				Finished: 23/11/2021						
Location: 2A Gregory Place, Harris Park NSW				Borehole Size 110 mm						
Rig Type: Christie Engineering (CE180)				Location: Refer Drawing: 13091-GR-1-A		Driller: MW		Logged: DX		
RL Surface: 5.50m				Contractor: BG Drilling Pty Ltd		Bearing: —		Checked: MS		
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Consistency Density Index	Additional Observations
ACT/DI						CONCRETE SLAB, 150mm thickness.				
						FILL: Silty SAND, fine to medium grained, pale brown, trace clay, trace fine gravel				FILL
			1		SP	Silty SAND: fine to medium grained sand, brown and red mottled yellow, trace clay	SPT 1, 1, 2 N=3 ASS: 0.5m ASS: 1.0m	M	VL	ALLUVIUM
			2				SPT 2, 3, 3 N=6 ASS: 1.5m ES 1.5m - 2.5m ASS: 2.0m	M	F	
			3		CL-CI	Sandy CLAY: low to medium plasticity, orange mottled yellow, fine to medium grained sand, trace silt	ASS: 2.5m	M - W		
			4							
			5		SP	SAND: fine to medium grained, yellow-brown	SPT 2, 1, 3 N=4 ASS: 3.0m ASS: 3.5m	W	VL	
			6				ASS: 4.0m			
			7			At 4.7m: becoming pale grey	SPT 1, 4, 6 N=10 ASS: 4.5m ASS: 5.0m	W	L - MD	
			8				ASS: 5.5m			
			9		CI	SHALE: extremely weathered. Recovered as Gravely CLAY, medium plasticity, dark grey	ASS: 6.0m	MC < PL	H	EXTREMELY WEATHERED SHALE
			10				ASS: 6.5m			
			11			Borehole BH02 continued as cored hole				



BH No: BH03
PAGE 1 OF 3
Job No: 13091

Client: 2A Gregory Place Pty Ltd						Started: 22/11/2021				
Project: Proposed Mixed Residential & Commercial Development						Finished: 22/11/2021				
Location: 2A Gregory Place, Harris Park NSW						Borehole Size 110 mm				
Rig Type: Christie Engineering (CE180) Location: Refer Drawing: 13091-GR-1-A						Driller: MW				
RL Surface: 5.15m Contractor: BG Drilling Pty Ltd						Logged: KT				
						Bearing: —				
						Checked: MS				
Method	Water	RL (m)	Depth (m)	Graphic Log Classification Symbol	Material Description	Samples Tests Remarks	Mechanical Condition / Density Index	Additional Observations		
ADTDT		5	0	-	CONCRETE SLAB, 150mm thickness.		-	FILL		
			-	FILL: Sandy GRAVEL, fine to coarse gravel, grey and brown, with fine to medium grained sand, appears well compacted	D		-			
			-	FILL: Clayey SAND / Sandy CLAY, low plasticity, dark grey and dark brown, with medium grained sand, trace gravel	M		-			
			4	1	SC	Clayey SAND: fine to medium grained, orange and brown	SPT 2, 3, 2 N=5	M	VL - L	ALLUVIUM
			2	SP	SAND: fine grained, orange and brown, poorly graded	M		VL - L		
			3	At 2.0, becoming moist to wet	M	- W				
			2	3	SP	SAND: medium grained, brown, poorly graded, trace clay	SPT 3, 5, 7 N=13 ES at 3.5m	M	VL - L	MD
4	SC	Clayey SAND: medium grained, grey and brown, poorly graded	M	- W						
0	5	CL-CI	CLAY with silt: grey and brown orange, low to medium plasticity, trace medium grained sand.	SPT 2, 4, 5 N=9	MC PL	St	RESIDUAL			
6	CI	SHALE: extremely weathered. Recovered as Gravelly CLAY, medium plasticity, grey and dark grey.	MV < PL		Vst H	EXTREMELY WEATHERED SHALE				
			7		Borehole BH03 continued as cored hole					
			8							
			9							
			10							

Borehole Log

Client: 2A Gregory Place Pty Ltd				Started: 19/11/2021						
Project: Proposed Mixed Residential & Commercial Development				Finished: 22/11/2021						
Location: 2A Gregory Place, Harris Park NSW				Borehole Size 110 mm						
Rig Type: Hanin D&B 8D		Hole Location: Refer Drawing: 13091-GR-1-A		Driller: SZ		Logged: KT				
RL Surface: 5.00m		Contractor: BG Drilling Pty Ltd		Bearing: —		Checked: MS				
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Consistency/Density Index	Additional Observations
DT						CONCRETE SLAB, 200mm thickness.		-	-	FILL
ACT		4	1		-	FILL: Sandy GRAVEL, fine to coarse gravel, well graded, dark grey and pale yellow, with silt. Appears moderately to poorly compacted.	SPT 1, 2, 2 N=4 ASS: 0.5m ASS: 1.0m	M	-	
		3	2		CL	Silty CLAY: low plasticity, yellow and dark grey, with fine grained sand.	SPT 0, 0, 0 N=0 ASS: 1.5m ASS: 2.0m	MC > PL	VS	ALLUVIUM
		2	3		CL	Silty CLAY: low plasticity, yellow dark grey, with fine grained sand.	SPT 1, 2, 2 N=4 ASS: 3.0m	MC > PL	S - F	
		1	4		CL-CI	Silty Sandy CLAY: low to medium plasticity, dark grey orange yellow, fine grained sand.		MC > PL	S	
		0	5		SP	Silty SAND, light grey, fine grained.	SPT 2, 1, 1 N=2 ASS & ES: 4.5m ASS: 5.5m	M < W	VL - L	
		-1	6		CI	Silty CLAY, medium plasticity, dark grey pale yellow, trace shale gravel.	SPT 25, Refusal ASS: 6.5m	MC < PL	H	RESIDUAL
		-2	7		CI	SHALE: extremely weathered. Recovered as Silty Sandy CLAY, medium plasticity, dark grey pale yellow, trace shale gravel.	SPT Refusal ASS: 7.5m ASS: 8.0m	MC < PL	H	EXTREMELY WEATHERED SHALE
		-3	8			Borehole BH04 continued as cored hole				
		-4	9							
		-5	10							

2 NON-CORED BOREHOLE (NO COORDINATES): 13091-GP1, GHT 8D AUSTRALIA GDT: W12/21



Alliance Geotechnical Pty Ltd
T: 1800 288 188
E: office@allgeo.com.au
W: www.allgeo.com.au

BH No: BH05
PAGE 1 OF 3
Job No: 13091

Borehole Log

Client: 2A Gregory Place Pty Ltd				Started: 19/11/2021							
Project: Proposed Mixed Residential & Commercial Development				Finished: 19/11/2021							
Location: 2A Gregory Place, Harris Park NSW				Borehole Size 110 mm							
Rig Type: Hanin D&B 8D		Hole Location: Refer Drawing: 13091-GR-1-A		Driller: SZ		Logged: KT					
RL Surface: 5.00m		Contractor: BG Drilling Pty Ltd		Bearing: —		Checked: MS					
Method	Water	RL (m)	Depth (m)	Graphical Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Content	Consistency	Density Index	Additional Observations
ADT						ASPHALT CONCRETE: 50mm thickness FILL: SAND, medium grained, brown and orange, trace fine gravel, appears moderately compacted		M			FILL
		4	1		CL-CI	Sandy CLAY: low to medium plasticity, grey and brown	SPT 4, 5, 7 N=13 ASS: 0.5m ASS: 1.0m	MC 2 PL	F	St	ALLUVIUM
		3	2			At 2.0, becoming MC > PL	SPT 1, 3, 2 N=5 ASS: 1.5m ASS: 2.0m ASS: 2.5m	MC 2 PL	F		
		2	3		CL-CI	Sandy CLAY: low to medium plasticity, grey and orange brown, fine to medium sand, with silt. At 3.5. As above, dark grey and orange-brown.	SPT 2, 2, 2 N=4 ASS: 3.0m ASS 3.5m ASS & ES: 4.0m	MC 2 PL	F		
		1	4				SPT 2, 3, 4 N=7 ASS: 4.5m ASS: 5.0m	MC 2 PL	VSt		RESIDUAL
		0	5		CI	CLAY: medium plasticity, dark grey, with silt, trace fine sand.		MC 2 PL			
		-1	6		CI	SHALE: extremely weathered. Recovered as Gravelly CLAY, medium plasticity, grey and brown.	SPT 10, 18, 23/15cm HB	MC 2 PL	H		EXTREMELY WEATHERED SHALE
		-2	7								
		-3	8								
		-4	9								
		-5	10								

2. NON-CORED BOREHOLE (NO CORING) 13091-GP1 GINT STD AUSTRALIA GDT 19/11/21



Alliance Geotechnical Pty Ltd
 T: 1800 288 188
 E: office@allgeo.com.au
 W: www.allgeo.com.au

BH No: BH05
 PAGE 2 OF 3
 Job No: 13091

Borehole Log

Client: 2A Gregory Place Pty Ltd					Started: 19/11/2021		
Project: Proposed Mixed Residential & Commercial Development					Finished: 19/11/2021		
Location: 2A Gregory Place, Harris Park NSW					Borehole Size: 110 mm		
Rig Type: Hanin D&B 8D		Hole Location: Refer Drawing: 13091-GR-1-A		Driller: SZ		Logged: KT	
RL Surface: 5.00m		Contractor: BG Drilling Pty Ltd		Bearing: —		Checked: MS	

Method	Water	RL (m)	Depth (m)	Graphs Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Consistency Density Index	Additional Observations
ADT			11		CI	SHALE: extremely weathered. Recovered as Gravelly CLAY, medium plasticity, grey and brown. (continued)		MC PL	H	
		-7	12			Borehole BH05 continued as cored hole				
		-8	13							
		-9	14							
		-10	15							
		-11	16							
		-12	17							
		-13	18							
		-14	19							
		-15	20							

2. NON-CORED BOREHOLE (NO COORDINATE), 13091-GR-1-A, 8D, AUSTRALIA, 19/11/2021