



A U S T R A L
A R C H A E O L O G Y

Parramatta Leagues Club Hotel Development Aboriginal Due Diligence and Historical Archaeological Assessment

FINAL REPORT

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Austral Archaeology Pty Ltd
Archaeological & Cultural Heritage Consultants

for

Parramatta Leagues Club
City of Parramatta Local Government Area

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EXECUTIVE SUMMARY

Austral Archaeology Pty Ltd (Austral Archaeology) has been commissioned by Parramatta Leagues Club (the proponent), to undertake an Aboriginal and historical archaeological assessment for the proposed construction of a new hotel on part of a portion of land leased to the proponent by the Parramatta Park Trust. The project is being assessed a State Significant Development (SSD 8800), and the archaeological assessment is to inform an Environmental Impact Statement (EIS). A separate Statement of Heritage Impact relating to non-archaeological matters is being undertaken by Purcell Architects which addresses matters of built heritage.

The study area itself forms part of Lot 369 in DP 752058, Lot 7054 in DP 1074335 and Residual Crown Plan 80-3000 (Sydney). The site is variously known as 1 Eels Place, 1 Parramatta Park, and 17-19 O'Connell Street, Parramatta (Perica & Associates 2017:6). The study area is within the City of Parramatta Local Government Area (LGA), and the location is shown in Figure 1.1 to Figure 1.3. The study area is located to the south of the current Parramatta Leagues Club building and north of Parramatta Stadium (undergoing redevelopment) and currently contains at grade parking on a bitumen surface, trees and services. The site is owned by Parramatta Park Trust and is under an exclusive lease by Parramatta Leagues Club. The total area of the building and public domain work is approximately 3,500sqm.

Note that the study area also includes an access road leading to O'Connell Street. Construction of the actual road forms part of the approved works for the Western Sydney Stadium redevelopment, and the road is due to be constructed by March 2019. However, subject to approval by Venues NSW, the roadway is to be widened as part of the present development. As such, this assessment only considers impacts directly associated with its widening rather than its construction.

Historical Background

The original inhabitants of the Parramatta area were Aboriginal people of the Burramattugal or Bormomedegal clans, who formed part of the larger language group of the Darug. They have lived in the region for up to 30,000 years.

European use and development of the study area began soon after colonisation in 1788, in a desperate need to grow food and supplement dwindling supplies. What is now the study area formed part of the government farm and was quickly brought into production for the growing of crops. Success in grain production encouraged the development of a local flour milling industry. Several government mills were erected on the Parramatta River during the late eighteenth and early nineteenth century, including one situated to the west of the study area. This was a substantial industrial site constructed over 1803-1804 and included a three storey sandstone water mill, along with races, dams and other infrastructure. The mill remained in operation until 1820.

Remaining in public ownership, the land was formalised as part of the Vice Regal Domain during the early nineteenth century. Gates were established at key locations to control entry into the property. These gates also had gatehouses, where the gatekeeper would reside and provide a level of security and supervision. Historical mapping suggests that the study area partially includes one such gatehouse dating to 1822-23. The gatehouse was constructed from pise, or mud, but included stone foundations and a brick chimney. This building was known as the "Mud Lodge" and remained in place until a new stone gatehouse was built in the early 1840s on the O'Connell Street frontage (and outside of the study area). In turn, this was replaced in 1935 by a new brick gatehouse which remains extant.

Further built development within the study area is not known to have occurred, with the place forming part of the broader Parramatta Park, an intensely used recreational space. The Parramatta Leagues Club constructed its premises on the triangular lot on the corner of O'Connell and Grose streets in 1959, with expansion of the car park containing the study area in the following decades.

Previous Archaeological Testing Programme

GML Heritage prepared archaeological reports documenting the results of an Aboriginal and historical archaeological investigation in advance of the construction of a multi-storey car park adjacent to the Parramatta Leagues Club, immediately north-west of the present study area (GML Heritage 2015a:1, 4).

In summary, the GML Heritage archaeological testing programme failed to identify any Aboriginal cultural material from any of the tested locations and despite the presence of a heavily truncated portion of the Parramatta sand body from the north-westernmost corner of the site (Figure 5.5), the sand deposit did not extend across the site (GML Heritage 2016c:26). The three key findings from the Aboriginal testing programme were:

- Sieving did not recover any Aboriginal cultural material.
- Soils "across the majority of the study area had been truncated and did not contain soil horizons capable of bearing an archaeological deposit" (GML Heritage 2016c:32).
- "The sampling programme has demonstrated that there is no Aboriginal archaeological deposit associated with the PLC site (GML Heritage 2016c:37).

In terms of historical archaeology, the testing programme also failed to identify any archaeological soil profiles which pre-dated the mid-1950s construction of the league club and the current carpark (GML Heritage 2016c:26).

Proposed Works

The proposed development is to demolish the existing improvements and construct a 17 storey hotel building (plus a single level basement for services) accommodating 209 beds and including the lower 4 levels containing a café, pool, fitness/recreational uses and a function room ancillary to the hotel. Access is proposed from O'Connell Street to the south of the building (via an access road to the adjoining Parramatta Stadium), and the proposal includes public domain works and services upgrades surrounding the building to integrate the building with the surrounding area and infrastructure.

No additional parking is proposed, given the adjoining approved large carpark.

The proposal is depicted within the conceptual plans by HASSELL as attached to the EIS.

Conclusions

On the basis of the GML Heritage testing programme, the study area is not considered to contain any Aboriginal cultural material.

It is concluded that there are varying degrees of historical archaeological potential and sensitivity within the study area relating to the location of the Mud Lodge. The archaeological remains of this structure and any associated deposits, should they be present, are considered to be of State significance. The proposed development will have a major impact across the majority of the study area, and as such, archaeological testing is required to mitigate against the proposed harm.

In terms of Aboriginal cultural material, the assessment has determined that the study area is unlikely to contain Aboriginal cultural material. As the SEARs only requires consultation with Aboriginal stakeholders "where Aboriginal cultural values are identified", the absence of potential has meant that no consultation has been undertaken.

Recommendations

It is recommended that:

- 1) Given that parts of the study area have been assessed as having archaeological potential and relics of State significance may be impacted during the proposed construction works, the proponent is required to undertake archaeological testing and, if required, salvage excavations prior to development commencing. A suitably accredited archaeologist who is approved by the Heritage Division to oversee the excavation of sites of State significance will need to be appointed as Excavation Director.
- 2) Archaeological excavations should be undertaken in accordance with the methodology outlined in Section 11 of this assessment.
- 3) In the event that historical archaeological relics not assessed or anticipated by this report are found during the works, all works in the immediate vicinity are to cease immediately and the Heritage Division be notified in accordance with Section 146 of the NSW Heritage Act 1977. A qualified archaeologist be contacted to assess the situation and consult with the Heritage Division regarding the most appropriate course of action.

- 4) In the event that Aboriginal archaeological material or deposits are encountered during earthworks, all works affecting that material or deposits must cease immediately to allow an archaeologist to make an assessment of the find. The archaeologist may need to consult with the Office of Environment and Heritage and the relevant Aboriginal stakeholders regarding the find.
- 5) Should the proposed development be altered significantly from the proposed design considered in this assessment, then a reassessment of the heritage/archaeological impact may be required. This includes any impacts not explicitly stated in Section 9 and includes the installation of any subsurface services.

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1 INTRODUCTION

1.1 Background

Austral Archaeology Pty Ltd (Austral Archaeology) has been commissioned by Parramatta Leagues Club (the proponent), to undertake an Aboriginal and historical archaeological assessment for the proposed construction of a new hotel on part of a portion of land leased to the proponent by the Parramatta Park Trust. The project is being assessed a State Significant Development (SSD 8800), and the archaeological assessment is to inform an Environmental Impact Statement (EIS). In particular, this assessment has been prepared to address the following key issues from the Secretary's Environmental Assessment Requirements (SEARs). The SEARs specifically relevant to archaeology are:

7. Heritage and Archaeology

- *A historic archaeological assessment is to be prepared by a suitable historical archaeologist to satisfy the Excavation Director Criteria of the Heritage Council of NSW. The archaeological assessment is to be in accordance with the Heritage Division, Office of Environment and Heritage Guidelines including but not limited to 'Assessing Significance for Historical Archaeological Sites and Relics' 2009. The assessment is to demonstrate the following;*
 - *the Aboriginal cultural heritage and historical archaeological relics likely to be present within the site and their significance*
 - *the likely impacts of the proposal on these relics*
 - *opportunities for avoidance through careful consideration of redesign where state significant archaeological resources are identified*
 - *appropriate mitigation strategies where harm is likely to occur*
 - *in the event that harm cannot be avoided in whole or in part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations*
 - *consideration of recent archaeological assessments and results from archaeological testing undertaken for the study area and in the adjoining Norma Parker Correctional Centre (SHR 811) and the Cumberland District Hospital Group (SHR820)*
 - *consideration and address the results of the recent historical archaeological test excavation undertaken in the Parramatta North Urban Transformation site included evidence of the former state significant mill races which may extend into the subject site*
- *Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented.*
- *Any objects recorded as part of the assessment must be documented and notified to OEH.*
- *An interpretation strategy that includes the provision for interpretation of any archaeological resources uncovered during the works.*

In addition, the SEARs require the preparation of a Statement of Heritage Impact which considers "the impacts of the proposal on State and Local heritage items, places or relics significant to Aboriginal or European culture or history" (SEARs, SSD 8800). A separate Statement of Heritage Impacts (SoHI) relating to non-archaeological matters is being undertaken by Purcell Architects which addresses matters of built heritage.

The study area itself forms part of Lot 369 in DP 752058, Lot 7054 in DP 1074335 and Residual Crown Plan 80-3000 (Sydney). The site is variously known as 1 Eels Place, 1 Parramatta Park, and 17-19 O'Connell Street, Parramatta (Perica & Associates 2017:6). The study area is within the City of Parramatta Local Government Area (LGA), and the location is shown in Figure 1.1 to Figure 1.3. The study area is located to the south of the current Parramatta Leagues Club building and north of Parramatta Stadium (undergoing redevelopment) and currently contains at grade parking on a bitumen surface, trees and services. The site is owned by Parramatta Park Trust and is under an exclusive lease by Parramatta Leagues Club. The total area of the building and public domain work is approximately 3,500sqm.

Note that the study area also includes an access road leading to O'Connell Street. Construction of the actual road forms part of the approved works for the Western Sydney Stadium redevelopment, and the road is due to be constructed by March 2019. However, subject to approval by Venues NSW, the roadway is to be widened as part of the present development. As such, this assessment only considers impacts directly associated with its widening rather than its construction.

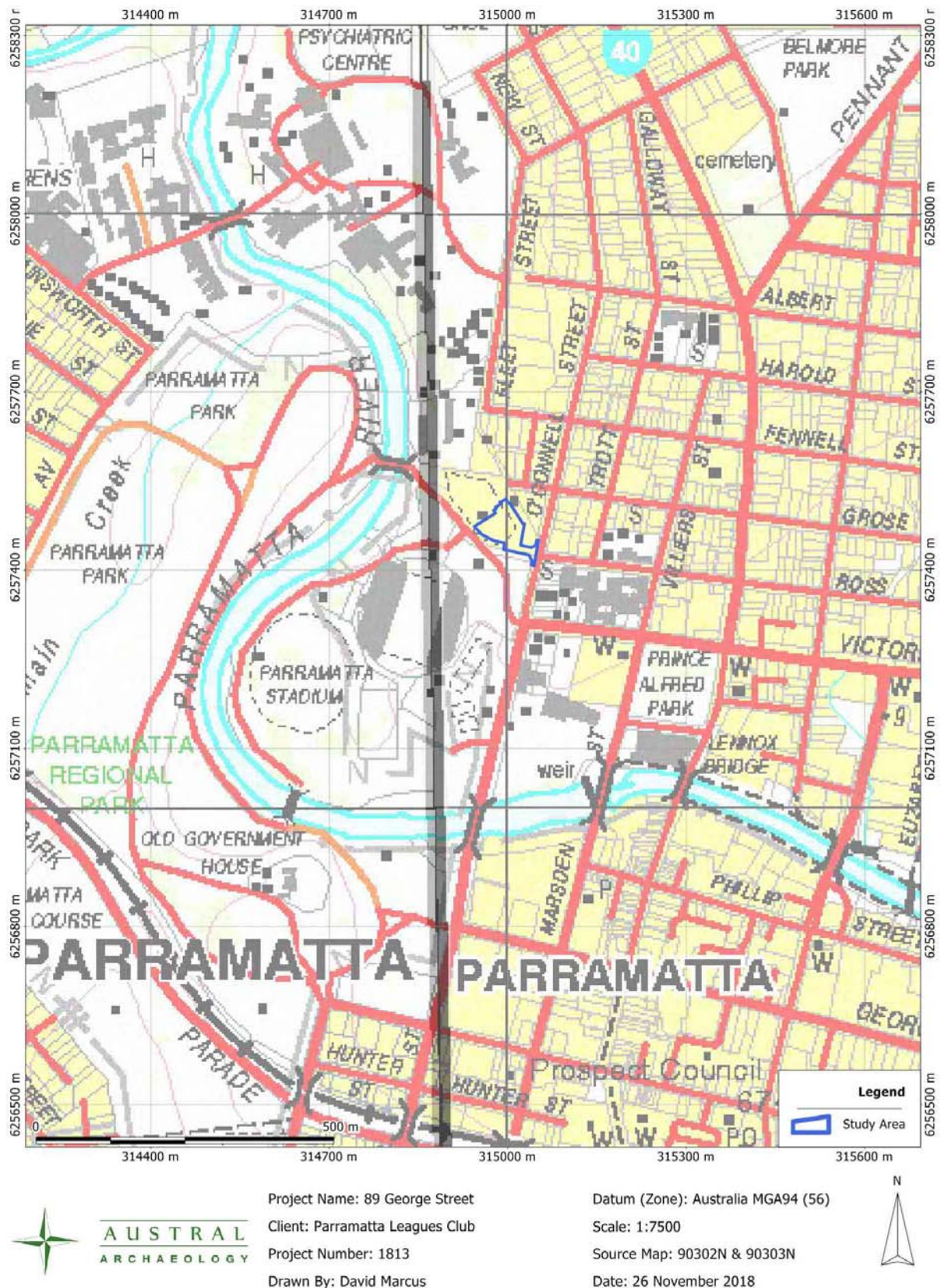


Figure 1.1 Topographic map showing study area in relation to the surrounding suburbs of the City of Parramatta LGA.

1813_PARRAMATTA LEAGUES CLUB HOTEL DEVELOPMENT
ABORIGINAL DUE DILIGENCE AND HISTORICAL ARCHAEOLOGICAL ASSESSMENT

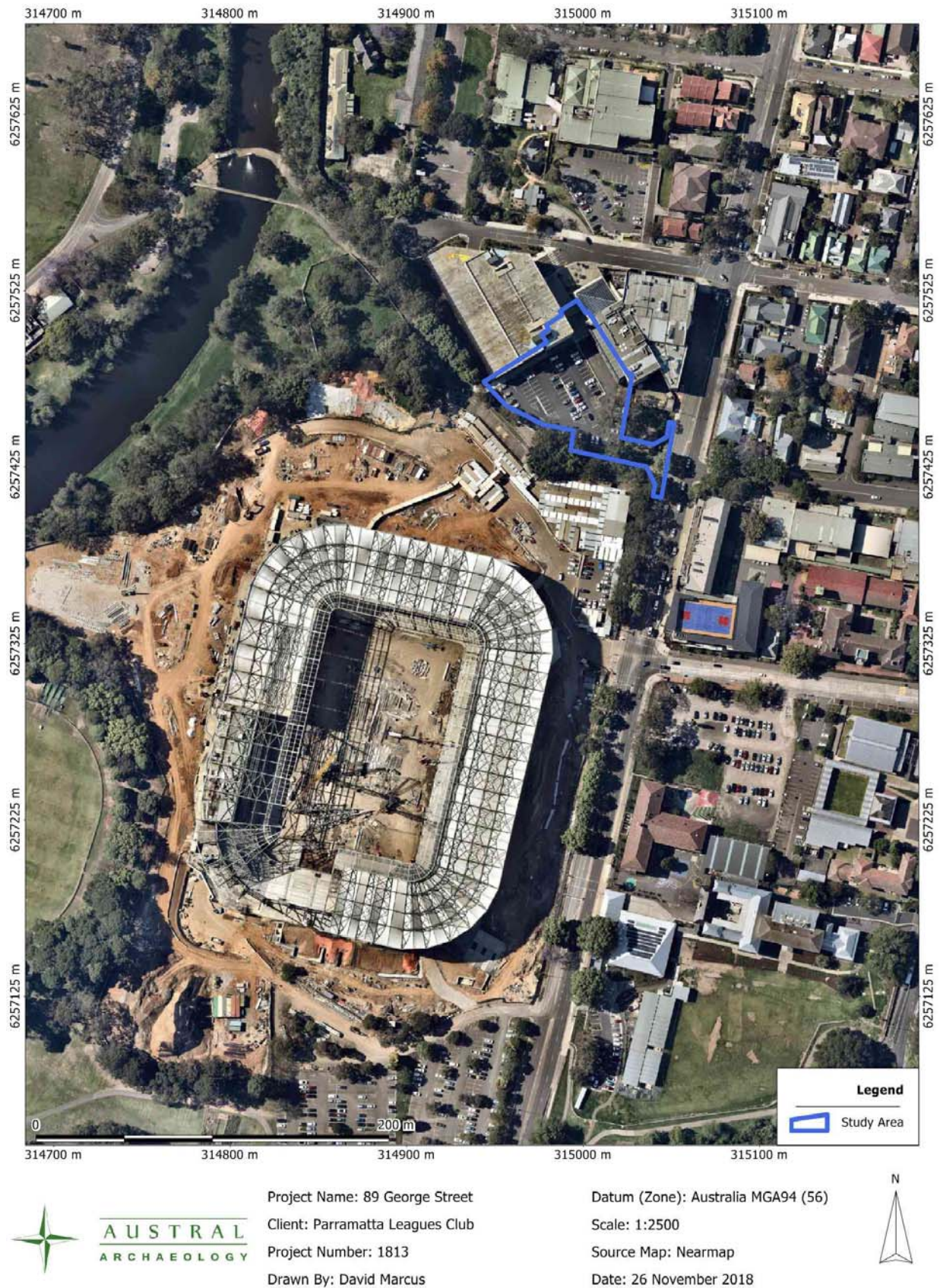


Figure 1.2 Aerial photograph showing the location of the study area in relation to surrounding development.

1813_PARRAMATTA LEAGUES CLUB HOTEL DEVELOPMENT
ABORIGINAL DUE DILIGENCE AND HISTORICAL ARCHAEOLOGICAL ASSESSMENT



Project Name: 89 George Street
Client: Parramatta Leagues Club
Project Number: 1813
Drawn By: David Marcus

Datum (Zone): Australia MGA94 (56)
Scale: 1:750
Source Map: Nearmap
Date: 26 November 2018



Figure 1.3 Detailed aerial photograph showing the study area.

1.2 Objectives

The objectives of this report are as follow:

- Undertake a due diligence process to identify whether or not Aboriginal objects are, or likely to be, present in the area.
- Determine whether or not development activities are likely to harm Aboriginal objects (if present).
- Identify any potential historical archaeological resources, values or constraints present within the study area.
- Produce an archaeological predictive model and sensitivity map to guide any management decisions regarding the study area.
- Make a statement of significance regarding any archaeological heritage present within the study area.
- Assess the impact of the proposed works on any identified heritage resources.
- Address the Aboriginal and historical archaeological aspects of the SEARs (SSD 8800, 6 November 2017) as within Part 7 of that document.
- Make appropriate management and mitigation recommendations.

1.3 Study Process and Methodology

This assessment is underpinned by the philosophy of the ICOMOS Burra Charter and by the practices and guidelines of the New South Wales Heritage Division.

A number of heritage studies and plans have been prepared for the study area and broader area with the aim of identifying Aboriginal and historical heritage items, associated values and management approaches. These, together with the State Heritage Inventory (SHI) of registered heritage items form the basis of any investigation into historical heritage within the region. Key relevant documents informing the preparation of this report include:

- GML Heritage, 2015a, *Parramatta Leagues Club Aboriginal Heritage Project Information and Archaeological Research Design Draft Report*, report prepared for APP Corporation Pty Ltd on behalf of the Parramatta Leagues Club
- GML Heritage, 2015b, *Parramatta Leagues Club Heritage Assessment and Impact Statement*
- GML Heritage, 2016b, *Letterform Addendum – Parramatta Leagues Club Heritage Assessment and Impact Statement*
- GML Heritage, 2016c, *Parramatta Leagues Club Archaeological Test Excavation report*
- GML Heritage, 2016d, *Parramatta Leagues Club, Parramatta. Historical Archaeological Research Design Draft Report*

Primary resources, particularly maps, plans and property information, form an essential basis for any site history and any assessment of archaeological potential. Repositories of primary resources fundamental to the research process included:

- Mitchell Library (State Library of NSW)
- State Records NSW
- Trove (National Library of Australia)
- Historical Land Records Viewer (NSW Land Registry Service)

1.4 Project Team and Acknowledgements.

This project was overseen by Justin McCarthy (Managing Director, Austral Archaeology). The assessment was authored by James Puustinen (Senior Heritage Consultant, Austral Archaeology) and David Marcus (Senior Archaeologist, Austral Archaeology). All GIS mapping was prepared by David Marcus. Justin McCarthy reviewed the draft report for quality assurance.

Austral Archaeology would like to acknowledge the participation of the following people and organisations that have contributed to the preparation of this report:

- Thomas Gould, Project Manager, APP
- Jason Perica, Perica & Associates Urban Planning Pty Ltd

1.5 Limitations of the Report

This report only applies to features or deposits associated with the Aboriginal and historical occupation of the study area and not to any built heritage items currently on the site.

It should be noted that at that stage of the assessment process, Austral Archaeology has not undertaken consultation with the Aboriginal community and has not sought to identify potential Aboriginal stakeholders. Austral has merely undertaken a desktop assessment in accordance with the standards of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010) in order to determine the potential for Aboriginal cultural material to be present within the study area.

The results, assessments and judgements contained in this report are constrained by the standard limitations of historical research and by the unpredictability inherent in archaeological modelling from the desktop. Whilst every effort has been made to gain insight to the historical archaeological profile of the subject site, Austral Archaeology Pty Ltd cannot be held accountable for errors or omissions arising from such constraining factors.

1.5.1 Limitations Relating to Georeferencing of Historical Images

In order to accurately plot a map or aerial image onto a known geographic coordinate system, a GIS program must perform the act of “georeferencing”. For the purpose of this project, the GIS operator took previously georeferenced aerial photos and topographic maps to use as a base for the projection. Known reference points, or “control points”, are marked on both the base map and the subject map. The GIS program then predicts the spatial location of each control point on the subject map based on their location on the base map, with a residual error.

Additional errors are also present in early plans due to inherent inaccuracy in early survey plans and recordings. While these inaccuracies may be minor, GIS mapping can compound these errors when comparing different maps, as earlier maps inherently contain less structures and features which can be compared to later maps.

As a result of a combination between the residual error in georeferencing of historical plans and the inherent inaccuracy, many of the figures included in this document show the approximate location of features rather than exact representations of the potential sub-surface archaeology.

1.6 Data Restrictions

This report may contain descriptions and locational data relating to Aboriginal archaeological and cultural material and sites. This information is considered sensitive and of great importance to the Aboriginal community. Should public exhibition of this document be required, it is advisable that Austral Archaeology be contacted in order to ascertain whether any information should be removed prior to public release.

1.7 Abbreviations

The following are common abbreviations which may be used within this report:

AHC	Australian Heritage Council
AHIMS	Aboriginal Heritage Information Management System
AMU	Archaeological Management Units
Burra Charter	The Australia ICOMOS Charter for Places of Cultural Significance
CHL	Commonwealth Heritage List
CMP	Conservation Management Plan
DCP	Development Control Plan
DoP	NSW Department of Planning
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&BC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
Heritage Act	<i>New South Wales Heritage Act 1977</i>
ICOMOS	International Council on Monuments and Sites
IHO	Interim Heritage Order
LEP	Local Environmental Plan
LGA	Local Government Area
ML	Mitchell Library
NHL	National Heritage List
NP&W Act	<i>National Parks and Wildlife Act 1974</i>
NSW HC	New South Wales Heritage Council
NT Register	Register of the National Trust (NSW)
OEH	Office of Environment and Heritage
PAD	Potential Archaeological Deposit
PHALMS	Parramatta Historical Archaeological Landscape Management Study
RAIA	Royal Australian Institute of Architects
RNE	Register of the National Estate
SA	State Archives NSW
SSD	State Significant Development
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SHI	State Heritage Inventory
SHR	State Heritage Register
SLNSW	State Library of New South Wales
SOHI	Statement of Heritage Impact

Refer also to the document Heritage Terms and Abbreviations, published by the Heritage Office and available on the website: <http://www.environment.nsw.gov.au/heritage/index.htm>.

2 STATUTORY CONTEXT & HERITAGE LISTINGS

2.1 State Significant Development

This project is being assessed as a State Significant Development (SSD) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This project is SSD 8800. Under the SSD pathway, a State Significant Development Consent replaces the approval processes that would usually be required under other parts of the EP&A Act and the Minister for Planning becomes the consent authority for the project.

In relation to historical archaeological requirements, the Part 4 approval effectively 'turns off' the provisions of the *Heritage Act 1977* and the *National Parks and Wildlife Act 1974*. While specific approval under the acts (e.g. excavation permit) are not required for this project, conditions outlined in both the SEARs and the overall project Development Consent are used to incorporate specific terms of the project approval which still require appropriate management of the site's archaeological resources.

The following section provide an overview of the various heritage listings, acts, and environmental planning instruments which, although not necessarily triggered under the SSD pathway, are still relevant to the site and its cultural heritage.

2.2 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EP&BC Act) established the Australian Heritage Council (formerly the Australian Heritage Commission) and provides for the protection of natural, Aboriginal and historic cultural heritage at a national level and for items owned or managed by the Commonwealth. The EP&BC Act has established two heritage registers:

- **Commonwealth Heritage List:** for significant items owned or managed by Commonwealth Government agencies.
- **National Heritage List:** for items assessed as being of national cultural significance.

The EP&BC Act also provides the means of implementing Australia's obligations under the World Heritage Convention. Australian Heritage Council approval is required for works to an item registered on these lists which would impact on its significance.

No part of the study area appears on the World, National or Commonwealth heritage lists.

The study area is outside of the World and National listing boundaries and buffer zone of this place, but within the boundaries of the 'Highly Sensitive Area' as defined by UNESCO (Australian Government, Conservation Agreement).

The study area is in the vicinity of Old Government House and the Government Domain, which forms part of the World Heritage Australian Convict Sites listing and is individually included on the National Heritage List.

The Australian Heritage Council is also responsible for keeping the Register of the National Estate (RNE). In 2007 the RNE was frozen and no further sites were added to it. For Commonwealth properties, the RNE was superseded by the Commonwealth and National Heritage Lists. The RNE is now retained as an archive of information about more than 13,000 places throughout Australia.

No part of the study area appears on the Register of the National Estate. The adjacent place of Parramatta Park is included on the register as item ID 3072.

2.3 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

This Act protects places of particular significance to Aboriginal and Torres Strait islander people through allowing the Commonwealth Environment Minister to make a declaration of protection for an area, object or set of objects from threat, injury or desecration. This can only be done upon the application of an Aboriginal person or group for such a declaration. This Act has the potential to take precedence over state legislation where this is not considered to provide acceptable protection for Aboriginal cultural heritage.

There are no declared protected places in the study area and the Act does not apply.

2.4 National Parks and Wildlife Act 1974

Part 6 of the *National Parks and Wildlife Act 1974* (NP&W Act 1974) provides for the protection of Aboriginal objects and Aboriginal places by establishing offences of 'harm'. An Aboriginal object is defined in s.5 as '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'. An 'Aboriginal place' is a place that has been declared by the Minister administering the Act, by order in the Gazette, because the Minister believes that the place is or was of special significance to Aboriginal culture. It may or may not contain Aboriginal objects (s.84).

The 'harm' of an object or place includes any act or omission that:

- (a) destroys, defaces or damages the object or place, or
 - (b) in relation to an object—moves the object from the land on which it had been situated, or
 - (c) is specified by the regulations, or
 - (d) causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c),
- but does not include any act or omission that:
- (e) desecrates the object or place, or
 - (f) is trivial or negligible, or
 - (g) is excluded from this definition by the regulations (s.5).

Section 87 requires the application for an Aboriginal Heritage Impact Permit (AHIP) should a proponent seek to disturb, move and/or take possession of an Aboriginal object or disturb land for the purpose of discovering an Aboriginal object, as would occur during a program of Aboriginal archaeological test excavations.

Blanket protection is provided for all Aboriginal objects and places, known and unknown under s.90, and requires an application for an AHIP should the proponent seeks to destroy, damage or deface an Aboriginal object or Aboriginal place. Section 91 requires that any person who locates an Aboriginal object or place must notify the DECCW.

Defences exist to causing harm or desecration to a heritage object or place (s.87). This includes being authorised by an AHIP and meeting the conditions of that AHIP, and a defence that 'due diligence' was exercised. The *National Parks and Wildlife Regulations 2009* provide that compliance with the processes of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010) will be a defence. Exceptions do exist to the need to follow the *Due Diligence Code*, including carrying out 'low impact activities', which apply to a range of actions including specified farming, land management, maintenance, surveying or environmental rehabilitation works.

There are no sites recorded within the study area on the Aboriginal Heritage Information Management System (AHIMS) database maintained by the Office of Environment and Heritage (OEH).

2.5 New South Wales Heritage Act 1977

The Heritage Council is the approval authority under the *New South Wales Heritage Act 1977* (the Heritage Act) for works to an item on the State Heritage Register (SHR). Section 57(1) of the Heritage Act identifies the need for Heritage Council approval if the work involves the following tasks:

- demolishing the building or work,
- damaging or despoiling the place, precinct or land, or any part of the place, precinct or land,
- moving, damaging or destroying the relic or moveable object,
- excavating any land for the purpose of exposing or moving the relic,
- carrying out any development in relation to the land on which the building, work or relic is situated, the land that comprises the place, or land within the precinct,
- altering the building, work, relic or moveable object,
- displaying any notice or advertisement on the place, building, work, relic, moveable object or land, or in the precinct,
- damaging or destroy any tree or other vegetation on or remove any tree or other vegetation from the place, precinct or land

Demolition of an SHR item (in whole) is prohibited under the Heritage Act, unless the item constitutes a danger to its occupants or the public. A component of an SHR item may only be demolished if it does not contribute to the significance of the item.

Section 57(1) of the Heritage Act also applies to archaeological remains (relics) within an SHR site, and excavation can only proceed subject to approval of a Section 60 application by the Heritage Division. Archaeological remains on sites not listed on the SHR are addressed under Section 139 of the Heritage Act.

The study area is not listed on the State Heritage Register, but is adjacent to the boundary of the State Heritage Register listing for 'Parramatta Park and Old Government House' (SHR 00596).

2.5.1 Exemptions

The process of a standard exemption, which applies to all SHR sites, was designed to streamline the approvals process, particularly where works are minor and/or have little impact on significance. For full details of the standard exemptions, refer to the Heritage Division website:

<http://www.environment.nsw.gov.au/heritage/publications/permitapps.htm>

Prior to conducting any work which may be exempt, an Exemption Notification Form must be completed and submitted to the Heritage Council or its delegate, State Water, with sufficient information to determine whether the works meet the standard exemption guidelines. Sufficient information normally takes the form of a short report clearly stating the scope of the work and how it meets the guidelines. The Exemption Notification Form must be approved prior to work commencing.

Site specific exemptions relate to individual SHR items and can only be employed for works which have no potential to materially affect the item (Standard Exemption 6). Furthermore, site specific exemptions must be specifically identified as exemptions in a Cultural Management Plan endorsed by the Heritage Council or its delegate and using wording agreed upon prior to Heritage Council endorsement.

2.5.2 Excavation Permits

Under Section 139 of the Heritage Act, "a person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit".

Relics are defined by the Heritage Act to be:

any deposit, artefact, object or material evidence that:

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
- (b) is of State or local heritage significance.

An excavation permit is also required if a relic has been discovered in the course of excavation without a permit (Section 139(2) of the Heritage Act). Section 139 of the Heritage Act applies to all relics which are not listed on the SHR or protected by an Interim Heritage Order (IHO). Relics protected by an SHR listing or an IHO are subject to approval required by Section 57(1) of the Heritage Act and require a Section 60 Application.

If an excavation permit is required by Section 139 of the Heritage Act, an application is made under Section 140 of the Act. To obtain an excavation permit, the Section 140 application must include an archaeological assessment and Research Design. The archaeological assessment establishes the archaeological sensitivity of the site, its significance and the likely impact of the proposed development. The Research Design outlines the method proposed to mitigate the impact of the development (such as monitoring, test excavation, sampling, or open area excavation). The Research Design also provides research questions which the archaeological resource has the potential to answer. An archaeological assessment and Research Design need to be prepared in accordance with the Heritage Council's relevant guidelines, including Historical Archaeological Sites and the Historical Archaeology Code of Practice. For further details of these guidelines, refer to the Heritage Division website:

<http://www.environment.nsw.gov.au/heritage/publications/index.htm>

The Heritage Act also contains provisions for the unintentional disturbance of archaeological relics. Under Section 146 of the Act, the Heritage Council must be immediately notified in the event of relics being unintentionally located or disturbed. Works may be required to cease, pending consultation and further research.

2.5.3 *Heritage and Conservation Register (Section 170 Register)*

Under Section 170 of the Heritage Act, government instrumentalities must keep a Heritage and Conservation Register (a Section 170 Register) which contains items under the control or ownership of the agency and which are, or could, be listed as heritage items (of State or local significance). Road reserves within the study area are owned by the Department of Roads and Maritime Services.

The study area is not listed on any Section 170 Heritage and Conservation registers.

The study area is adjacent to the 'Ross Street Gatehouse' (Database Ref: 4681073), included on the S170 register of the Parramatta Park Trust.

2.6 Environmental Planning Instruments

An Environmental Planning Instrument (EPI) is made under the *Environmental Protection and Assessment Act 1979* (EP&A Act). An EPI can be a Development Control Plan (DCP) Local Environmental Plan (LEP) or a State Environmental Planning Policy (SEPP).

2.6.1 *Parramatta Local Environmental Plan 2011*

The current LEP for the study area is the *Parramatta Local Environmental Plan 2011* (Parramatta LEP). Part 5.10 of the Parramatta LEP deals with heritage conservation, and subsections (2) and (3) determine whether development consent needs to be granted by the City of Parramatta prior to any activities occurring which may impact cultural heritage. Heritage items are listed under Schedule 5, Part 1 of the Parramatta LEP.

The study area is not listed as a heritage item on the *Parramatta Local Environmental Plan 2011*.

2.6.2 *Parramatta Development Control Plan 2011*

The applicable DCP for the study area is the *Parramatta Development Control Plan 2011* (the Parramatta DCP). Part 3 of the Parramatta DCP outlines design controls to be implemented when dealing with heritage items in general. Specific requirements for managing post-European archaeological sites are detailed in Section 3.5.2, and Aboriginal cultural heritage in Section 3.5.3 of Part 3 of the DCP.

Section 3.5.2 provides for the application of the *Parramatta Historical Archaeological Landscape Management Study* (PHALMS) to the 'Parramatta Primary Centre' area. Development Applications involving excavation within the PHALMS area are to include in their Statement of Environmental Effects to the Recommended Management of the site as set out in the PHALMS. If action is recommended regarding known or potential archaeological resources of the site, applicants shall follow the procedures set out in the PHALMS (Parramatta DCP:3-71).

Section 3.5.3 addresses Aboriginal heritage requirements as part of the development process. No Aboriginal heritage assessment is required for properties identified as having 'Low Aboriginal Heritage Sensitivity'. For properties with 'High' sensitivity, a Due Diligence Assessment and/or an Aboriginal Heritage Assessment will be required as part of the development application. 'High' sensitivity refers to inclusion or proximity to known Aboriginal heritage sites; proximity to water sources; lack of disturbances; or places with historical archaeological potential within the areas of the Parramatta Sand Body (Parramatta DCP:3-72).

The study area is identified in the Parramatta DCP as having high Aboriginal heritage sensitivity (Parramatta DCP, App. A11).

2.6.3 *Parramatta Historical Archaeological Landscape Management Study (PHALMS) & Parramatta Archaeological Management Unit 3118*

The PHALMS is a comprehensive study of the European archaeological resources of the Parramatta Primary Centre area as part of the Sydney Regional Environmental Plan No. 28 (Parramatta City Council 2005:1) The PHALMS divides the area into Archaeological Management Units (AMUs), which are places with comparable with comparable history and similar ability to demonstrate historical themes. The AMUs are the basis for determining archaeological management requirements.

The study area is located within AMU 3118 which is graded as having moderate archaeological potential to contain intact subsurface deposits, although the Parramatta Leagues Club itself has been assessed as being subject to major disturbance.

2.7 Non-Statutory Heritage Listings

A number of organisations maintain registers of buildings or sites which they have assessed and believe to be of cultural heritage significance. These registers have no statutory authority. However, the inclusion of a place on a non-statutory register suggests a certain degree of community esteem and appreciation. Non-statutory registers include the National Trust Register, the Royal Australian Institute of Architects (RAIA) 20th Century Register of Significant Buildings, and the Art Deco Society of New South Wales Art Deco Building Register.

The study area is not listed on the National Trust Register, the RAIA 20th Century Register of Significant Buildings, or the Art Deco Building Register.

2.8 Section Summary

Table 2.1 lists the relevant statutory and non-statutory registers, listings and orders, and identifies those in which any part of the site is listed.

Table 2.1 Summary of heritage register listings for the subject study area.

Register/Listing	Inclusion
National Heritage List	No
Commonwealth Heritage List	No
Register of the National Estate	No
State Heritage Register	No
<i>Parramatta Local Environmental Plan 2011</i>	No
<i>Parramatta Development Control Plan 2011</i>	Yes
Parramatta Historical Archaeological Landscape Management Study (PHALMS) & Parramatta Archaeological Management Unit 3118	Yes

3 ABORIGINAL ARCHAEOLOGICAL CONTEXT

3.1 The Parramatta Area Archaeological Context

3.1.1 *Population and Contact History*

The original inhabitants of the Parramatta area were Aboriginal people of the Burramattugal or Bormomedegal clans, who formed part of the larger language group of the Darug, spoken as far north as the Hawkesbury, west towards Windsor and the Blue Mountains, and south to Campbelltown. Archaeological excavations suggest that Aboriginal people have lived in the region for up to 30,000 years (GML, 2016a:12; Higginbotham 2011:6).

The Burramattugal were likely to have lived in highly-mobile bands or communities of around 50 individuals, with each band or community further divided into local clans whose numbers could vary wildly. Aboriginal people cared for their own specific hunting areas, and lived a semi-nomadic lifestyle encouraging the regular movement of campsite locations while maintaining close connections between dialect groups of the same language. Typically, dwellings varied from two-sided bark tents known as gunyahs, while sandstone rock shelters were used in harsher weather conditions (Austral 2011:10).

The Parramatta River would have been rich in food resources - both salt and freshwater, including ducks, fish and shellfish, crustaceans and turtles. The surrounding country provided a range of animal and plant based foods. A particularly popular food was eels, hunted with both spears and traps. The significance of eels is reflected in the name itself, with Parramatta translating as 'the head of the river' or 'place where eels lie down' (GML, 2016a:12).

In 1788, when the First Fleet arrived carrying 1,200 people to feed and accommodate, the marine and land resources throughout the Sydney Basin became considerably stretched (Attenbrow 2002:83). The British arrival coincided with the beginning of an *El Nino* weather cycle, which would have further contributed to the scarcity of natural resources and fresh water in the area (Attenbrow 2002:83).

Both events had a significant and immediate effect on the local Indigenous population. . Attenbrow (2002) writes that in the early months of 1788, Indigenous populations would often help European fishing ships unload in return for part of the catch. By late 1788 these interactions became hostile as each party became more desperate to survive and food resources dwindled.

As food became increasingly scarce, attacks by Aboriginal people on European settlers began to increase if they refused to share resources. This led to retaliation from the European settlers. The combination of an outbreak of smallpox in 1789 and the removal of a large number of Aboriginal men following arrests and murders for various crimes led to a great upheaval within the Aboriginal communities of the Sydney Basin and the loss of cultural knowledge (Attenbrow 2002).

This ethno-history should be employed with caution and Hiscock (2008:17) has recently argued that even very early historical accounts of Aboriginal people may not be a suitable basis for analogy. As Aboriginal groups had to change their economic, cultural and political practices in order to cope with the social impacts of disease in the historic period, he argues that it is likely that similar drastic changes happened in the past in response to "altered cultural and environmental circumstances" following the arrival of Europeans. Social disruption around settlement areas and coastal fringes caused by European settlers pushing Aboriginal people to the fringes of their traditional lands would have caused such drastic changes.

3.1.2 *Material Culture*

The material culture of the Aboriginal people of the Parramatta region at the time of European contact was diverse, and utilised materials derived from a variety of plants, birds and animals as well as stone. Below is only a short summary of the types of material known to have been used by the Aboriginal people of the Sydney region.

Spears in the Sydney region were usually made of a grasstree spike (for the shaft) with a hardwood point, or alternatively with a hardwood shaft and barbs made of stone, bone, shell or wood (Turbet 2001:40). Thin and straight spear-throwers, or *woomera*, were made from wattle and other hardwoods (Turbet 2001:40). Fishing spears were usually tipped with four hardwood prongs with bone points (Attenbrow 2002:117, 119; Turbet 2001:42), while fish were also caught by means of shell or bird talon fish hooks attached to twine (Attenbrow 2002:117; Turbet 2001:45).

Bark of various types were used for making such diverse items as wrappings for new-born babies, shelters (*gunyahs*), canoes, paddles, shields, water carriers (*coolamon*) and torches (Attenbrow 2002:Table 10.1). Resin from the grasstree was also used as an adhesive for tool and weapon making (Attenbrow 2002:116; Turbet 2001:36).

Various kinds of clubs and throwing sticks were made from hardwoods, as were other useful items such as digging sticks. The word *boomerang* is believed to be from the Darug language and the returning variety originated from the Sydney basin. In conjunction with larger, two-handed throwing sticks, it complemented the range of hunting tools available for taking down larger prey (Turbet 2001:37-39, 45; Attenbrow 2002:112).

Stone artefacts are often the only physical indication of Aboriginal use of an area. The knapping of stone artefacts can indicate one of two things, the knapping of stone to create tools and the discard of these tools once they have been used, or sometimes both. The knapping of stone creates a large amount of stone debris in very little time. Large knapping events tend to occur in proximity to sources of permanent water (McDonald 2000). This is probably because the availability and resources made these good places to camp for short periods of time. Small scale knapping events can occur anywhere in the landscape and are associated with the manufacture or maintenance of stone tools as a direct result of a specific need. This implies that locations of sites away from water courses will be more diffuse.

Stone was commonly used for tools and, apart from discarded shell in coastal middens, is the most common material found in archaeological sites of the Sydney region. Stone or stone tools were used for axe heads, spear barbs and as woodworking tools, amongst other things.

Aboriginal people made good use of local stone raw materials sourced from the known quarries on the Cumberland Plain and from the Hawkesbury-Nepean River gravels. Knowledge of source locations for raw materials such as silcrete, basalt, quartz, tuff and chert is of great importance in determining movements, trade and exchange patterns of the people who inhabited the area (Attenbrow 2002). There is evidence, in the form of stone artefacts and axes from inland sources (possibly the Nepean River gravels) for trade between the inland Darug people with the coastal Guringai (Smith 1989:20).

Archaeological investigation has resulted in the recognition of changes in the types of stone tools used by Aboriginal people in the Sydney region through time. A sequence of changes in stone tool types in eastern New South Wales was first noticed by archaeologist FD McCarthy who named it the 'Eastern Regional Sequence' (McCarthy 1976:96-98). McCarthy identified the 'Capertian,' 'Bondaian' and 'Eloueran' phases of the sequence which together appear to span the last 15,000 years in the Sydney region.

McCarthy's sequence was argued against, and Stockton & Holland (1974:53-56) modified McCarthy's theory by proposing four phases of the Eastern Regional Sequence instead. After Capertian, they described the Early Bondaian and Middle Bondaian phases, where Bondi points and other small tools become apparent in assemblages in Eastern New South Wales. Late Bondaian of Stockton & Holland's sequence referred to McCarthy's Eloueran phase. Stockton & Holland's terminology proved more useful to archaeologists and are used throughout the Sydney region today (Attenbrow 2002:156).

Broadly speaking, the earliest, Capertian period assemblages typically contain tools which are larger in size than later assemblages, although smaller tools, such as thumbnail scrapers and dentated saws can also be present.

In the late Holocene (from approximately 5,000 years ago), backed artefacts such as Bondi points, Elouera and geometric microliths appear in archaeological assemblages in the Sydney region and these tools are characteristically much smaller than those of earlier phases. McCarthy (1976) used these formal tools to define this period as Bondaian while for Stockton & Holland (1974:53-56) the appearance of these tools marked the Early Bondaian and Middle Bondaian phases. Edge ground implements also started appear in regional assemblages for the first time at about 4,500 to 4,000 years ago.

From about 1,600 year ago, Bondi points and geometric microliths began to drop out of use in the coastal parts of the Sydney region, although Elouera continued to be used. This is known as the Late Bondaian phase. On the Cumberland Plain, however, dated archaeological sites suggest that all of these backed artefact types continued to be used “until at least 650-500 years ago, although probably not [as late as the time of] British colonisation” (Attenbrow 2002:156). In coastal areas, and possibly throughout the Sydney Basin, both the use of quartz and of the bipolar flaking technique increased through time, although this tendency is less marked on the western Cumberland Plain (Attenbrow 2002:153-159).

3.1.3 Food

A wide range of land mammals were hunted for food, including kangaroos, possums, wombats and echidnas as well as native rats and mice (Attenbrow 2002:70). Birds, such as the mutton bird and brush turkey, were eaten and it is recorded that eggs were a favourite food (Attenbrow 2002: Table 7.3, p75-76).

Attenbrow has noted that “Sydney vegetation communities include over 200 species that have edible parts, such as seeds, fruits, tubers/roots/rhizomes, leaves, flowers and nectar (Attenbrow 2002:76). Several other plants have medicinal functions, many of which have only recently been discovered by science, although these were traditionally known to the Aboriginal people.

Observations from the earliest European settlers describe Aboriginal people in the Sydney region roasting fern-roots, eating small fruits the size of a cherry as well as a type of nut and the root of “a species of the orchid” amongst other types of plant food, and it was noted that their diet consisted of “a few berries, the yam and fern-root, the flowers of the different Banksia, and at times some honey” (Collins 1804:361). At other times, the Aboriginal people living in woods would “make a paste formed of the fern-root and the ant bruised together; in the season, they also add the eggs of this insect” (Collins 1804:362).

However, as Attenbrow notes, the settlers’ lack of knowledge of the local plant species make actual identification of the various plants being discussed difficult, beyond vague terminology which compared plants to those which were known to the settlers’ (Attenbrow 2002:76-79).

Of the numerous species which are known to have been used by Aboriginal people in the past, the *murrnong*, or yam daisy (*Microseris lanceolata*), was the most important staple food and it was the destruction of these plants that contributed to an increased strain on resources in the early 19th century (Kohen 1995:4). Other important species to the Darug people included the *burrawang* (*Macrozamia communis*), whose seeds had to be treated before being turned into flour and the native yam (*Dioscorea transversa*) (Kohen 2009:5).

In summary, the Cumberland Plains and Parramatta River provided a wide variety of plants and animals which were used by the local Aboriginal populations for artefact manufacture, medicinal purposes, ceremonial items and food.

3.1.4 Parramatta Sand Terrace / Body

Aboriginal occupation of the Parramatta area is predominantly focused on what is known as the ‘Parramatta Sand Terrace’, or ‘Parramatta Sand Body’, a Pleistocene deposit of sand which was deposited along the upper banks of the Parramatta River during flood events around 50,000 years ago (SHR #1863). The deposit is predominantly found on the southern side of the river, and was extensively occupied by Aboriginal people resulting in high density artefact scatters of many thousand artefacts occurring over relatively small areas (GML Heritage 2016b:46-49). In the context of Parramatta, the presence of the sand body material is seen as being indicative of high potential for Aboriginal cultural material to be present, while its absence usually indicates an absence of potential.

3.1.5 *Landscape Description of the Parramatta Park Area*

Parramatta Park is a gently undulating landscape with a variety of vegetation communities. The junction of three soil profiles meet near the study area, with soil mapping suggesting the study area is located within the residual Lucas Heights soil landscape. This soil type is characterised by moderately deep soils (500 millimetres – 1.5 metres) which are generally yellow, stony and with low fertility and water capacity. The soils overlay the Mittagong Formation, which alternates between bands of dark grey Ashfield shale and medium-grained quartz Hawkesbury Sandstone. It is near to the Wianamatta Geological Group which is mostly shale, with some carbonaceous claystone, laminate and occasional lithic sandstones. Quaternary alluvium at Homebush Bay, approximately 5 kilometres to the east, contains the nearest stone deposits suitable for tool manufacture (GML Heritage 2015a:42-43).

The Parramatta River is the key water feature in the vicinity of the study area. It was a freshwater stream during the Holocene, and was subsequently impacted by sea level rises until approximately 7,000 years ago which introduced tidal seawater as far inland as Parramatta, with the study area being beyond the tidal influences and the transition from salt to fresh water. The river is fed by Darling Mills and Toongabbie creeks and drains a large area of the Cumberland Plain and Hills districts. Post-colonial changes have considerably altered Parramatta River and its tributaries (GML Heritage 2015a:43).

Prior to colonisation the Parramatta area was covered by Cumberland Plain Woodland, containing a mixture of grey box, forest red gum and with a grassy understorey. Aquatic reeds and rushes would have existed along the waterways. A range of faunal resources existed in the area including fish, eels, turtles, crustaceans and shellfish, while kangaroo, possum, wombats, snakes, emus and other birds were found on land and water (GML Heritage 2015a:43).

3.2 **Heritage Database Search Results**

3.2.1 *Aboriginal Heritage Information Management System Search Results*

A search of the AHIMS database was undertaken on 4 November 2018, AHIMS Client Service ID number 380508. The results from the AHIMS search identified 56 previously recorded sites within an approximate 1 kilometre radius of the study area (Figure 3.1). No valid sites were recorded from within the study area, and the closest previously recorded site of Aboriginal cultural heritage was located 250 metres away.

As part of their Aboriginal cultural heritage archaeological testing programme, GML Heritage registered a Potential Archaeological Deposit (PAD) within the study area, 'Parramatta Leagues Club PAD' (#45-5-4630), presumably in order to apply for a permit to undertake their proposed testing methodology. However, this site was deregistered as the testing programme failed to identify any Aboriginal cultural material from the PAD (GML Heritage 2017c), as outlined below.

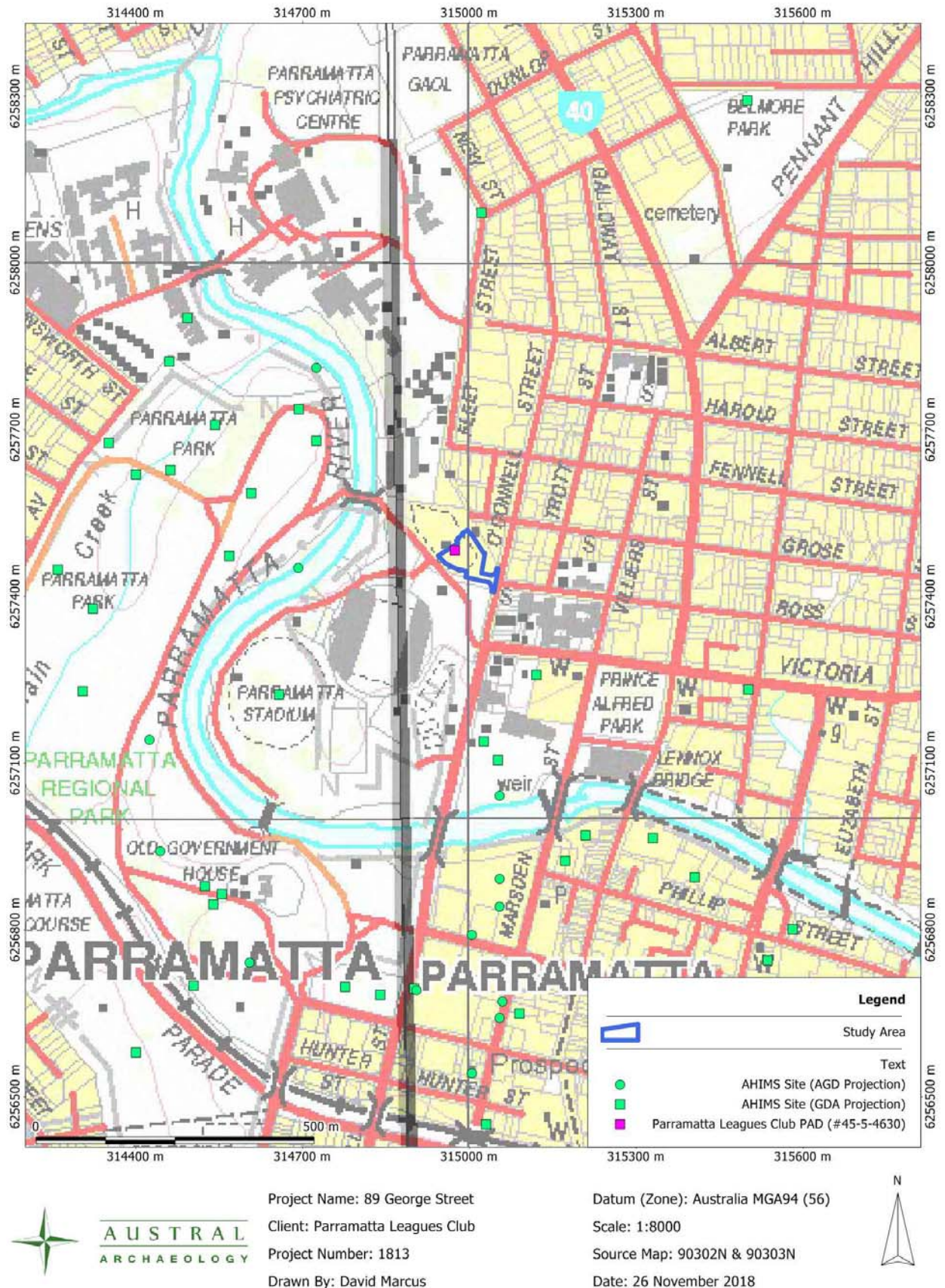


Figure 3.1 Distribution of previously recorded Aboriginal archaeological sites within a 1 kilometre radius of the area surrounding the current study area.

4 HISTORICAL BACKGROUND

The following historical background is designed to contextualise a site specific history which will aid in the understanding of the archaeological potential of the study area. This section is comprised of two main sub-sections. The first is a historical sketch of early settlement of the region while the second is a targeted historical account of the study area. This work will provide a useful and concise summary of the history and the archaeological potential of the project site.

4.1 Historical Sketch of Parramatta

4.1.1 *Establishment of Parramatta – 1788 to 1798*

Initial contact between the British and the Burramattugal was focussed on trade and barter, but tensions soon emerged between the two groups. Direct Aboriginal resistance to colonisation in the Sydney region came to an end between 1814 and 1816 when Governor Macquarie took action to remove the Aboriginal people from the areas settled by the British. An annual feast for Sydney's Aboriginal people was initiated by Macquarie in 1814 in support of Aboriginal children being provided a European education. Some 60 Aboriginal people attended the first feast at Civic Place in Parramatta, with around 300 attending by 1818. The Aboriginal populations in the vicinity of towns and settled areas had greatly fallen during the 1820s, with a change in focus for Aboriginal settlement from Parramatta to Blacktown (GML Heritage 2015a:45).

The British exploration of the Parramatta region began in 1788, soon after colonisation and the establishment of penal settlement. Failing attempts in early agriculture at Sydney Cove and dwindling supplies led Governor Phillip to investigate areas more suitable for cultivation, particularly along the Parramatta River. Fertile land suitable for farming was found near the head of the Parramatta River and it was decided in November 1788 to establish a second settlement. A military enclosure or redoubt had been constructed by November in what is now Parramatta Park, south of the river, followed soon after by a party of ten convicts sent to start clearing land and plant crops. Private settlement began around the same time, with James Ruse taking up a property in November 1789 named Experiment Farm (Kass 2008; GML Heritage 2015b:24).

A town plan was established in 1790 with a long street (later George Street) leading up from the old wharf to Government House (Figure 4.1). Initially named 'Rose Hill', the early town was renamed Parramatta in 1791, the first time that an Aboriginal word had been used by the British as an official place name. Public or official buildings followed, with a granary, stores, military barracks, and hospital (Kass 2008).

One of the earliest plans of Parramatta from 1796 shows the study area within an area marked as 'Land in Cultivation', with an irregular boundary line (Figure 4.2). This area formed part of the broader Government Domain. The Governor's House and gardens were centred at Rose Hill, on the southern side of the Parramatta River, while the land on the northern side formed part of the productive farmland. The initial focus of farming was on growing crops of wheat, barley oats and maize, and was the colony's first successful attempt at agriculture (GML Heritage 2015b:25).

A convict workforce was responsible for clearing land and bringing it into production as well as constructing buildings and by 1791, Parramatta's population outnumbered that of Sydney. As many as 100 convicts were at work at Parramatta. Town allotments also began to be issued to free settlers during this period, largely on the southern side of the river, with land mostly acquired by personnel of the New South Wales Corps and other prominent individuals (GML Heritage 2015b:25).



Figure 4.1 Detail from Bradley's 1789 map showing the upper reaches of the Parramatta River, with indicative study area overlay (red circle represents approximate location of study area) (source: SLNSW FL3536492, Flats at the head of Port Jackson & channel up to Rose Hill [cartographic material], Survey'd by Wm. Bradley 1789).

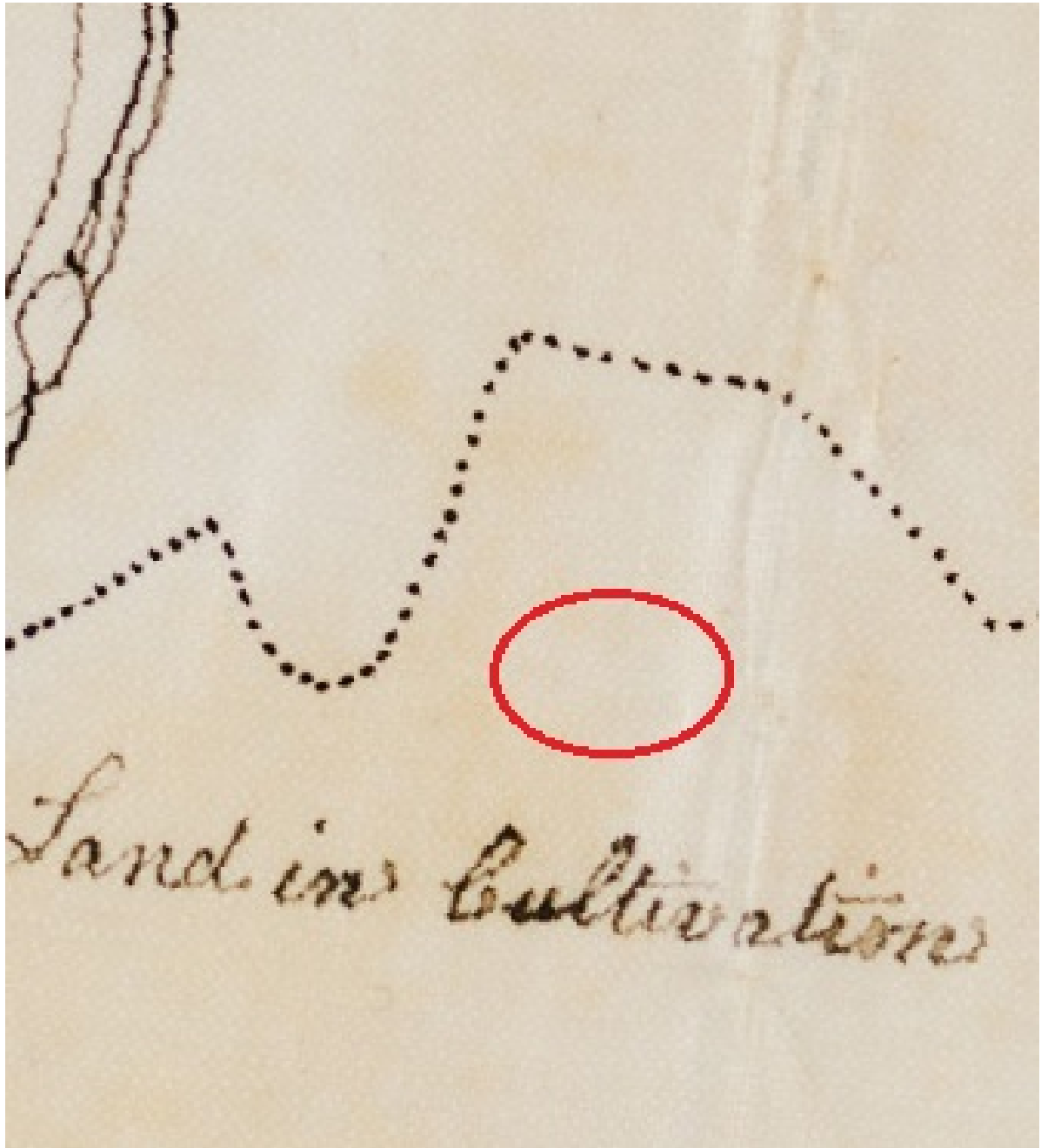


Figure 4.2 Detail from 1796 plan of Parramatta with indicative study area overlay. The study area was shown as being 'Land in Cultivation'. The dotted line may indicate field boundaries (red circle represents approximate location of study area) (source: SLNSW FL3688860, Plan of the settlement of Parramatta made by Governor Hunter, 20th August, 1796 much enlarged) [cartographic material] [Album view]).

4.2 Historical Sketch of the Study Area

4.2.1 1798 – 1820 Water Mills

Success in grain production on the Government Farm resulted in the construction of several water powered flour mills in the vicinity of the Parramatta River. Preparatory works for the first watermill began in 1798. The mill was constructed from timber between 1798 and early 1801, with its completion delayed by a shortage of labour. Varman suggests that this first mill was located further upstream, approximately 1 kilometre north-west from the study area. The mill was nearing completion when disastrous floods in March 1801 destroyed crops, and also likely the mill itself. For a brief period of time between 1801 and 1802, a horse powered mill was established. It employed four labourers and four horses but continually led to injuries of the stock and quickly fell out of favour. Whether the horse drawn mill was on the site of the first timber mill remains unknown (Varman 1997:68-73).

Impetus for milling grain at Parramatta appears to have subsequently declined and it was enquiries from London in 1803 that resulted in renewed interest. Works soon began on providing a more reliable milling operation, and it is this second mill which has proximity to the study area. Governor King appointed skilled convict labour to the project with the addition of a carpenter, a joiner, and millwright Nathaniel Lucas, who had constructed both water- and wind- mills on Norfolk Island. Lucas worked at Parramatta from 1803, but does not appear to have brought the mill into operation. George Howell, a wheelwright was later appointed to the project (GML Heritage 2015b:25).

King was able to report in March 1804 that the flood-proof mill had been completed, but within five months the two dams which stored water to power the mill had failed. The dam structures were reinforced through piling and casing along their fronts, but failed to store sufficient water to work the mill. By the end of 1804 it was apparent that only during heavy rain events could enough water be harnessed to turn the millstones (Varman, 1997:74-75). Indeed, Governor King reported:

I am sorry to say that the great labour which has been bestowed in constructing and excellent water-mill and dam at Parramatta will not in any manner recompense the labour that has been bestowed upon it. The mill and dam has been erected on the same spot designed by Governor Hunter as the only situation likely to be supplied with water, but the experience of the last three years sufficiently proves that the water is very insufficient for that purpose, except in periods of much rain. The dam being firmly constructed and the machinery of the mill well executed, it must remain to work whenever there is sufficiency of water (Higginbotham, Johnson, Vol.2, 1989:18).

Some of this development is indicated in a c.1804 map, indicating the mill and shed where the millwright's worked to the south, the southern mill pond or dam, and its connected race which supplied it with water. The study area is located to the east of the mill race (Figure 4.3).

Further heavy rains in February 1805 again caused damage to the dams and it was decided to construct a stone dam and form a new mill pond. The second race was also deepened as part of these works. Flooding caused damage in April 1806, causing the greater part of the dam wall to collapse, and the mill house itself showed signs of damage (Varman 1997:78-79).

A detailed description of the operation was provided by neighbour George Caley in 1806. The mill, mill race, or 'ditch', and dams had been rapidly constructed but perhaps poorly situated, it being suggested that the foundation of the mill building was too close to the river and thus liable to flood damage. This new, three storey sandstone mill was approximately 8.23 metres in length and 7.32 metres in width, and was to the west of the present study area. It was constructed with one pair of mill stones but capable of accommodating a second set if required. It was driven by a 16.47 metre diameter over-shot water wheel. Water was supplied to the site from two dams. The lower dam was at the end of a small hollow and had been formed through laying tree trunks lengthways, crossed by others at right angles, with its face then puddled¹ with earth. The front or inside of the dam was 'ramposted' and covered in a mix of earth and grass that was then compacted to prevent the water passing through the structure. The lower dam was 73.1 metres long and reached a height of 5.49 metres. Several races running in a roughly north-east to south-west alignment connected the dams with the mill. The first such 'mill ditch' was about 2.28 metres wide and a little over 1.83 metres deep, but became more shallow to the north. The second, upper dam was to the north of the study area and located on the river where it formed a pool. It shared a similar timber and earth construction as the lower dam. The mill infrastructure was soon tested in April 1804, when heavy rains undermined and damaged both dams which were repaired but with limited success. A second water race was also excavated, located on the western side of the first race, and running roughly parallel to it. The second race reached a greater depth of some 3.20 metres (Varman 1997:75-78).

Meanwhile, William Bligh received a grant of 105 acres upon his arrival in 1806 to take up the position of Colonial Governor. This land included the study area. It was bounded by the Parramatta River to the south and west, and excluded the four acres already developed with the watermill and mill race located to the west of the study area (GML Heritage 2015b:25).

The mill was leased to George Howell (Senior) by about 1810, and became known as Howell's mill. Howell was bankrupted by Simeon Lord in 1820 and the mill closed permanently. Its components were dismantled and sold. Howell later established a new mill on the Parramatta River, but some distance to the north (Varman 1997:80; GML Heritage 2015b:25).

¹ A form of waterproofing developed in the United Kingdom for lining canals using a mix of loam, clay and water.

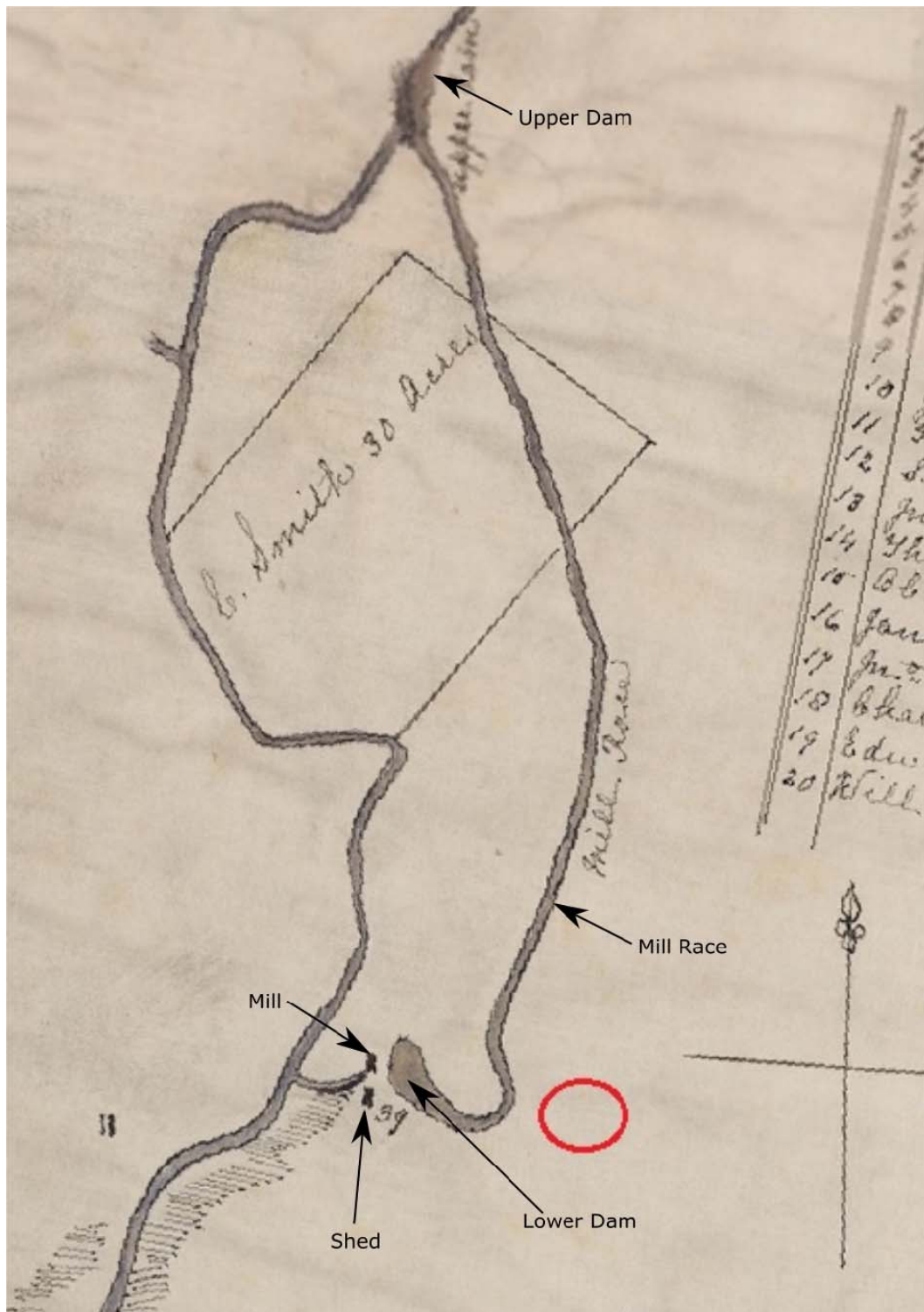


Figure 4.3 Detail from c.1804 (but annotated c.1813) map of Parramatta. The overlay should be considered indicative and not spatially accurate (Red circle represents approximate location of study area) (source: SLNSW, Mitchell Library, Plan of the Township of Parramatta [cartographic material], G. W. Evans Acting Surveyor).

4.2.2 1820 – 1935 Domain and Mud Lodge

Governor Phillip had laid out the area of the Domain in 1790 as part of the Parramatta township. It was located on the western edge of the original township and contained the Governor's residence, stockyards, lumber yard, and the redoubt. The land on the northern side formed part of the productive farm.

The formalisation of the place as a Vice Regal Domain emerged during Governor Macquarie's tenure, influenced by English landscape practices and philosophies. Dead trees were removed and gardens established along with a firmer boundary delineation. A stone wall was constructed along the O'Connell and Macquarie Street sides of the Domain, but only on the southern side of the river. From 1821 to 1825, Governor Brisbane added both exotic and native plantings, and gave four acres of land on the northern side of the river to the NSW Agricultural and Horticultural Society which cleared and fenced the land for use as a garden (GML Heritage 2015b:26).

A number of gates were established at the various access points to the Domain to control entry into the property. These gates also had gatehouses, where the gatekeeper would reside and provide a level of security and supervision.

It is the construction of the northern gate house leading off Ross Street which is the first defined phase of built development within the study area. The first reference to the North Gatehouse was made by SL Harris in his accounts for works from December 1822 – December 1823. It was described as the 'Back Lodge' and:

The Walls of this Lodge are built with Mud; and capped with Brick; and in order to make them durable, have been rough cast dashed, but experiment has failed, as the dashing is all peeling off:- indeed if Lime & Sand mixed together, adhered to common Earth, as Plaster, it might be considered as great a discovery as that of the Perpetual Motion Plenty of stone was on the spot; and might have been built at much less expense and durable (Varman 1997:153).

The lodge was constructed on a stone base with a brick chimney and shingled roof. Both exterior and interior walls were pebble-dashed. Locals referred to the gatehouse as 'Mud Lodge' by the early 1830s, and the adjacent paddock as 'Mud Lodge Paddock' during this period (*the Sydney Monitor*, 25 May 1831, pg. 1; Varman 1997:154)

Varman suggests that Mud Lodge was located at the site of the later, extant 1935 gatehouse building on the O'Connell Street frontage (Varman 1997:153-154). This however, is in error. A c.1840 plan depicts this earlier gate house as being a rectangular building of approximately 9 metres by 11 metres and set back from the street frontage. Allowing for inherent errors in georeferencing this plan, the overlay suggests that the western end of the Mud Lodge may be within, or very close to the study area (Figure 4.4). The c.1840 plan was not examined as part of the initial GML Heritage (2015b) assessment, and as such, there is no discussion of the Mud Lodge from GML Heritage in any subsequent documents.

Perhaps owing to the poor construction and peeling render, the Mud Lodge was replaced by a stone building by the early 1840s. However the original title stuck, with the name 'Mud Lodge' and 'Mud Lodge Gatehouse' remaining in use (*the Sydney Morning Herald*, 18 May 1847, pg. 2). Mr Fox, a Police Constable, was residing in the building during the 1840s (*Parramatta Chronicle and Cumberland General Advertiser*, 8 March 1845, pg. 2; *Morning Chronicle*, 18 October 1845, pg. 3).

This new stone gatehouse was hard on the O'Connell Street frontage, and does correspond with the location of the current gatehouse building. Presumably the old Mud Lodge was removed on completion of the new building. It was not shown in the 1844 map, which does show the new building (Figure 4.5). The detailed 1895 map sheet of this section of Parramatta provides an accurate depiction of the building footprint and property boundaries. It shows the gatehouse with a small building to its north. It also shows the alignment of the old water race to the west (Figure 4.6). A wooden laundry attached to the lodge caught fire in September 1895, destroying the building and its contents (*the Australian Star*, 10 September 1895, pg. 6). Occupants of the cottage and gatekeepers during the early 20th century included Mr Howard Davis, and later Mr E Skeritt (*the Cumberland Argus and Fruitgrowers Advocate*, 2 September 1916, pg. 6).

The present brick gatehouse was built in 1935 setback from the O'Connell Street frontage, on the site of the previous building shown in the late nineteenth century plans. It was constructed by Messrs Muston and Lavers to the design of McDonald (Varman 1997:154).



Figure 4.4 Detail from c.1840 plan with 'Mud Lodge' indicated (Red circle represents the approximate location of the study area) (source: SLNSW, Town of Parramatta, Bligh's grant subdivision, Parish of Field of Mars M Z/M2 811.1312/1840/1).



Figure 4.5 Detail from 1844 map of Parramatta with the c.1840 gatehouse indicated (Red circle represents approximate location of the study area) (source: SLNSW, 1844, Plan of the town of Parramatta and the adjacent properties, M M4 811.1301/1844/1).



Figure 4.6 Detail from 1895 plan showing the c.1840 gatehouse and old mill race to the west (Red circle represents approximate location of the study area) (source: SLNSW, Parramatta Sheet No.41 [cartographic material] Lithographic Branch, Department of Lands, Sydney N.S.W. 1895. [Album view]).

4.2.3 *The Domain and Parramatta Park*

The settlement of Parramatta spread north from the river from the 1830s onwards, firstly along Church Street and then through the establishment of a grid of streets. The south-west corner of Grose and O'Connell streets (and location of the leagues club), was in private ownership from as early as 1830, with the triangular parcel divided into two lots held by Richard Webb and John Thompson. The land immediately to the south, including the location of the study area, remained part of the Domain (GML Heritage 2015b:26).

With growth in population came the need for recreational space. From the 1840s, the residents of Parramatta petitioned the government for public open space. The former government farm on the north bank of the river (and location of the study area) remained Crown land that was already cleared and resembled a park, with the remainder being open woods. The first public recreational use of the Domain occurred on northern side of the river with land provided for the Cumberland Turf Club Racecourse in 1847, allowing public access to the property. By 1847, the turf club could boast they had the best racecourse in the colony. The course, a little under a mile long, was accessed via Mud Lodge Gate from Ross Street (*the Sydney Morning Herald*, 18 May 1847, pg. 2). Old Government House on the southern side of the river was fenced, with plans for the remainder of the estate to be made available as a public park. A large part of the Domain was officially handed over for this use in 1858 with the establishment of 246 acres a public park. The new use resulted in almost continual landscaping and beautification works, with the planting of native and exotic trees. Ross Street was extended through the park and became a key entry point for those who enjoyed swimming, picnics, sports matches and carnivals. The park became intensely used public land, for a range of activities such as picnics, boxing exhibitions and military parades (GML Heritage 2015b:26-27; SHI:4681073).

In 1917, Parramatta Park was gazetted as a National Park, the third to be established in Australia. Specific groups used various parts of the park leading to the construction of significant infrastructure during the 20th century. 'Little Coogee' was built in 1912 on the western bank of the Parramatta River and became a popular swimming area until the completion of the War Memorial Swimming Pool on O'Connell Street in 1960. A map from the early 20th century shows some of this development (Figure 4.7). The Turf Club Racecourse land had been subdivided and developed into smaller playing grounds for cricket, athletics and games by this time, while the enclosure was played out with trees (GML Heritage 2015b:26-27).

The 1943 aerial photograph shows that the study area remained an undeveloped grassed area crossed by a foot track (Figure 4.8). A range of recreational facilities were constructed in the park during the 20th century including bandstands, gatehouses, carriageways, a footbridge over the river, a deer and emu park, tennis court and bowling greens, culminating with Parramatta Stadium built in 1981 (GML Heritage 2015b:27).

The Parramatta Leagues Club constructed its premises on the triangular lot on the corner of O'Connell and Grose streets in 1959. The first building was a single storey brick structure with a second storey added in 1961. Further extensions were made in the following decades, with a car park expanding to the south into what is now the study area. Parramatta Regional Park was dedicated a reserve under the *National Parks and Wildlife Act* in 1997 (GML Heritage 2015b:27).

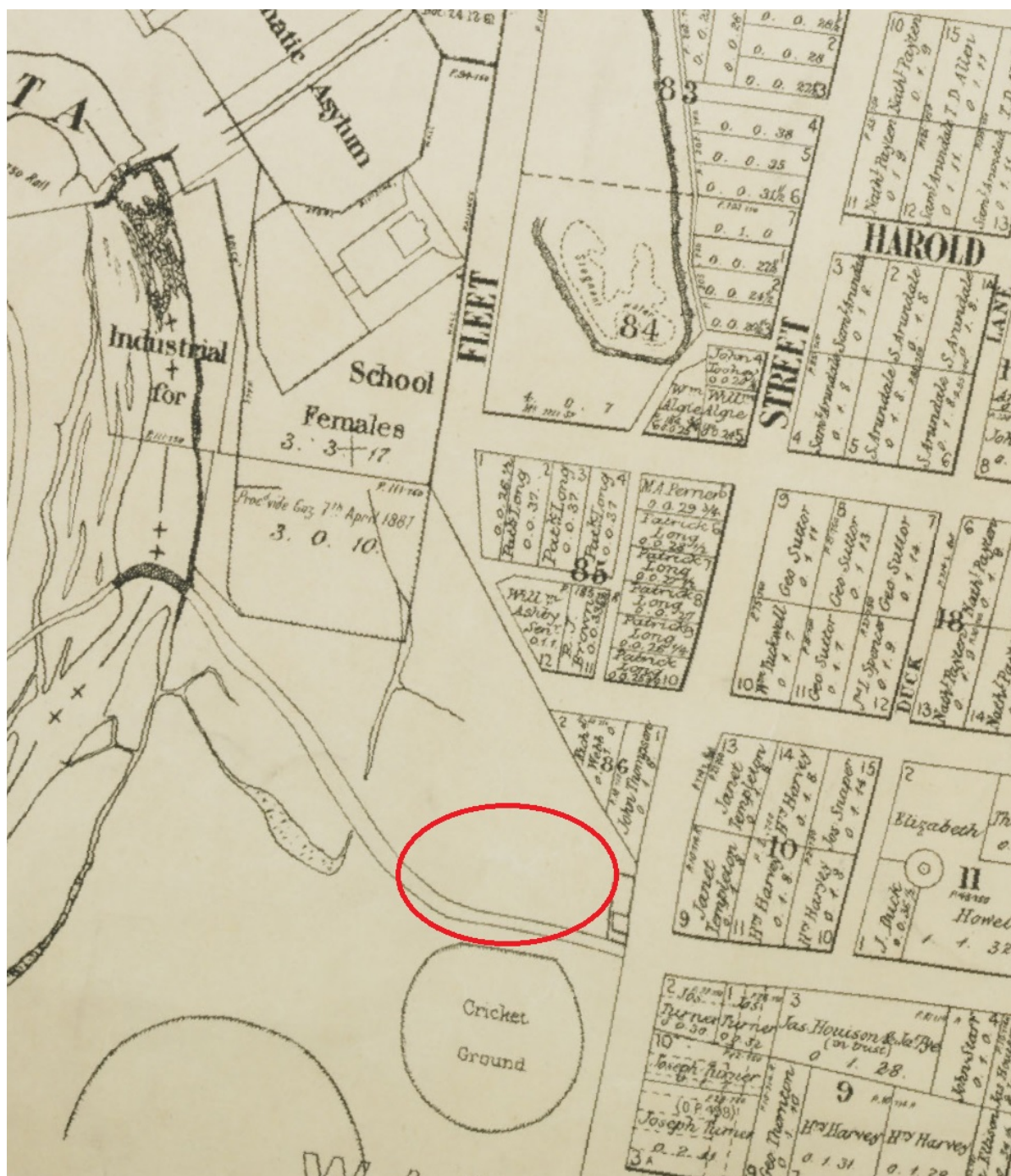


Figure 4.7 Detail from 1904 parish plan showing property boundaries and establishments surrounding the study area (Red circle represents approximate location of the study area) (source: NLA NSW. Department of Lands, cartographer, complier. (1904). Parish St. John and Field of Mars, County of Cumberland & Parramatta Lands Districts, Hornsby & Baulkham Hills Shires & Municipalities).

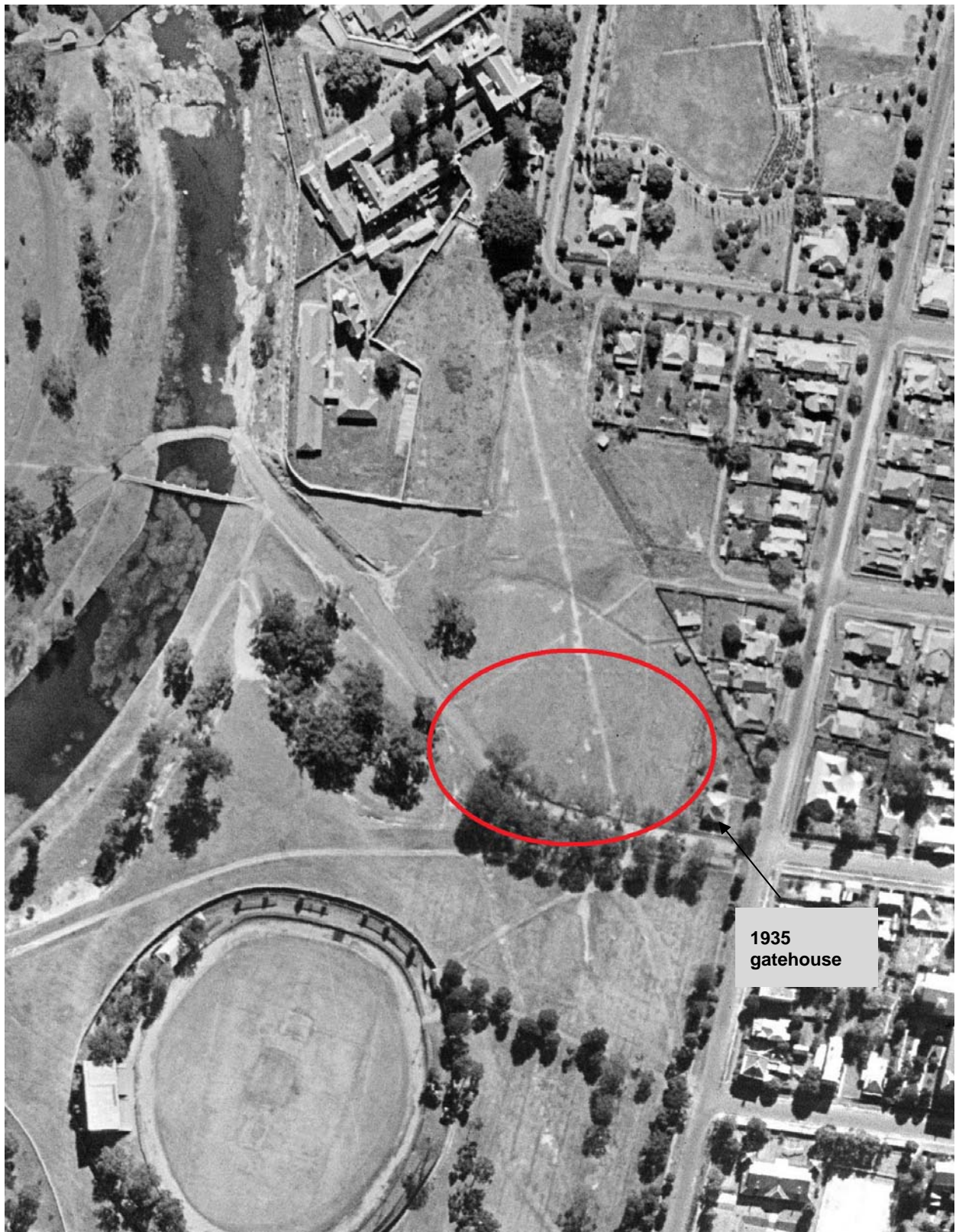


Figure 4.8 Detail from 1943 aerial photograph (Red circle represents approximate location of study area) (source: SixMaps).

5 ARCHAEOLOGICAL PREDICTIVE MODELLING

5.1 Summary of Existing Assessments

5.1.1 *Other Archaeological Investigations in the Local Region*

The SEARs specifically require "consideration of recent archaeological assessments and results from archaeological testing undertaken for the study area and in the adjoining Norma Parker Correctional Centre...and the Cumberland District Hospital Group" as well as of the Parramatta North Urban Transformation site, including "evidence of the former state significant mill races which may extend into the study area" (SEARs SSD 8800). In addition, redevelopment of the adjacent stadium complex required archaeological testing and results are currently understood to be in preparation.

While consideration of the archaeological testing undertaken within the study area by GML is outlined below, it is not considered necessary to consider results of archaeological investigations at the other four sites for the following reasons:

- The Norma Parker Correction Centre and the Cumberland District Hospital Group both lie in parts of North Parramatta which were extensively utilised from the early 19th century, and by the mid-19th century were the centre of government institutions. In contrast, the study area remained relatively undeveloped throughout the 19th and early 20th century (c.f. development shown in Figure 5.1 with Figure 4.5).
- Results from the GML Heritage archaeological testing programme demonstrate that the majority of the present study area is unlikely to contain any potential for archaeological material to be present due to impacts associated with construction of the club and associated carpark (refer Section 5.1.2). The lack of preservation of archaeological material from within the study area results in a level of archaeological potential which is not comparable to the significantly more complex and well-preserved archaeological resource associated with the other two sites.
- While the mill race was identified in the Parramatta North Urban Transformation site, the present assessment has demonstrated that it does not extend to the present study area (Section 4.2), and even when identified in proximity to the present study area, it has not survived intact (GML Heritage 2017c:38).
- Investigations at the Western Sydney Stadium specifically targeted mill races and landscape features which the historical research has shown are not present in the study area.

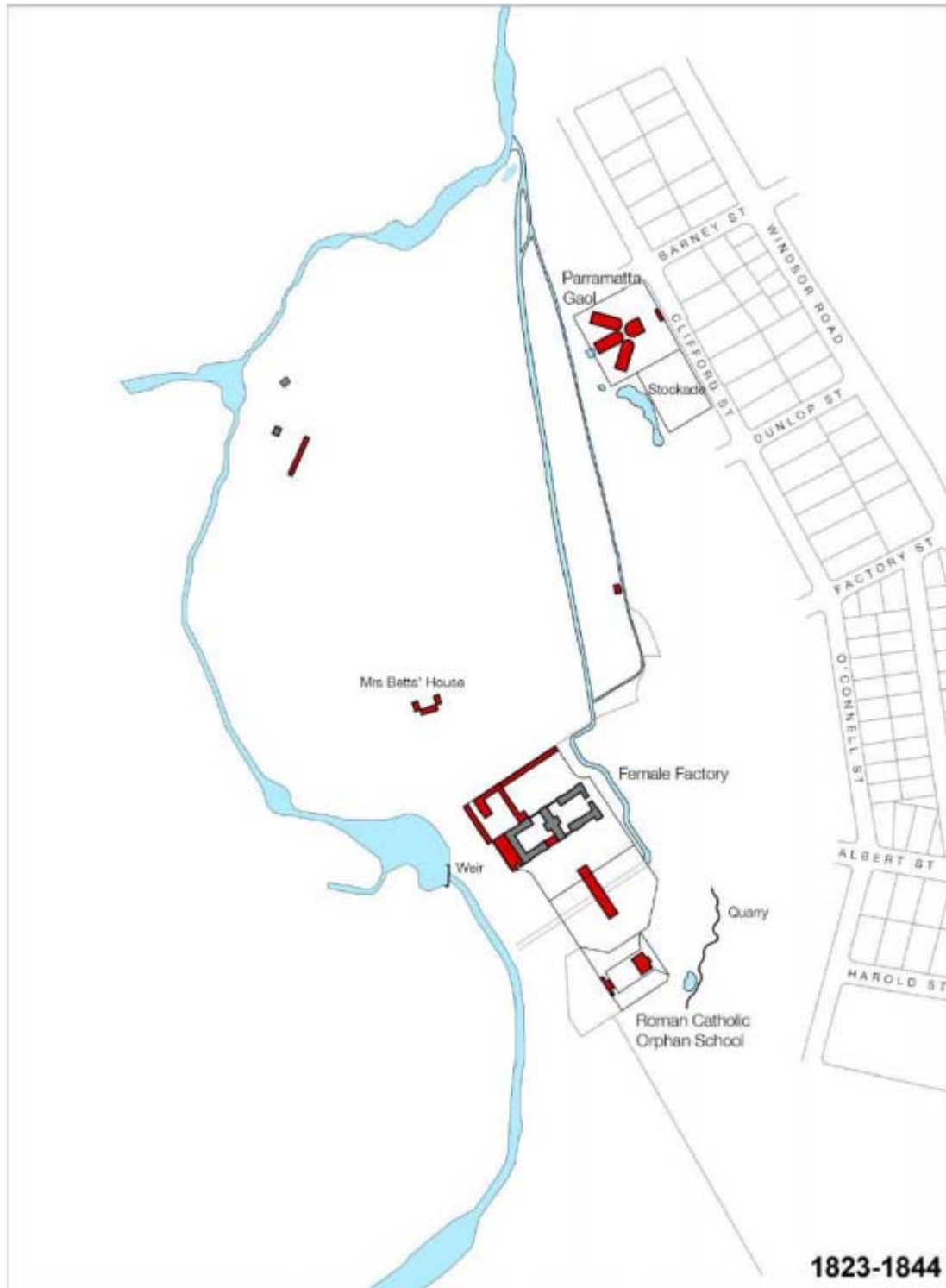


Figure 5.1 Development in the location of the Norma Parker Correctional Centre and Cumberland District Hospital Group in the early 19th century (TKD Architects 2017:48).

5.1.2 *Parramatta Leagues Club Carpark (GML Heritage 2015 – 2016)*

GML Heritage prepared archaeological reports documenting the results of an Aboriginal and historical archaeological investigation in advance of the construction of a multi-storey car park adjacent to the Parramatta Leagues Club, immediately north-west of the present study area (GML Heritage 2015a:1, 4).

Rather than undertaking a conventional test excavation programme, GML Heritage chose to assess the archaeological potential of the site through the use of a sonic drill rig equipped with a 300 millimetre diameter push tube which recovered a core that was examined in order to determine the nature of the soil profile. Relevant deposits were to be subject to sieving to determine the presence or absence of Aboriginal cultural material or historical archaeological material (GML Heritage 2016c:4). This method was chosen due to concerns relating to the necessary depth of excavation which would be required to reach potential Aboriginal archaeological deposits, and the low potential for historical archaeological material to be impacted by the testing methodology. Furthermore, as the only historical archaeological feature which was expected to be identified from within the study area was the mill race, examination of borelogs would be able to identify changes in soil profile which would demonstrate the presence or absence of the mill race itself (GML Heritage 2016:d25).

A preliminary series of geotechnical boreholes were drilled across the study area in February 2015. The results of these works suggested highly variable levels of fill introduced to the site. Borehole 1 at the north-west corner of the study area contained up to 3.5 metres of fill, with sandstone bedrock encountered at 10.8 metres below the existing car park surface. Boreholes towards the southern and eastern end of the study area revealed shallower depths of introduced fill (300 millimetres to 1.3 metres) over bedrock. GML Heritage concluded that the existing car park had been formed by the introduction of fill to level the site. Prior to these works, GML Heritage had suggested that the land sloped towards the west and the river (GML Heritage 2015a:39).



Figure 5.2 Initial assessment of Aboriginal archaeological potential from within the carpark study area (GML Heritage 2015b:57).



Figure 5.3 Initial assessment of historical archaeological potential from within the carpark study area (GML Heritage 2015b:69).

A subsequent assessment was prepared to document the historical archaeological potential for Stage 2 of the carpark development as part of a permit application to undertake archaeological testing throughout the lands surrounding the carpark development. As a result of this assessment, the present study area was assessed as having low-moderate archaeological potential related to two phases of past land uses – firstly agricultural activity and the government farm (assessed as potentially having State level values), and secondly evidence of past uses and developments of Parramatta Park (assessed as having local level significance) (GML 2016d:9). However, as noted above (Section 4.2.2), the GML assessment failed to identify that the Mud Lodge is likely to have stood within the easternmost part of the study area (Figure 5.4).



Figure 5.4 Assessed archaeological potential of Stage 2 (approximation of current study area) (GML Heritage 2016d:15).

In response to the constraints outlined above, in June 2016, GML Heritage supervised the excavation of a series of 300 millimetre push probe boreholes using a sonic drill rig. A sample of 30 excavation sites within a 20 by 20 metre grid was recommended in response to the narrow amount of information available from this means of excavation, with provision to decrease the grid size should one or more items of Aboriginal cultural heritage be identified. However, ultimately only 22 locations were excavated. Push depths were to be excavated to the maximum depth of the development impact; 4 metres below the existing surface level (GML Heritage 2015a:54-61).

The excavations identified two partially intact soil landscape profiles – a remnant Blacktown soil landscape across the majority of the site (including the current study area), and remnant of the Parramatta Sand Sheet in the far north-western corner of the site, outside of the current study area. The two excavation sites (PT1 and 1A) which recorded the Parramatta Sand Sheet found it to be heavily truncated and below between 1 to 2 metres of fill. No Aboriginal heritage items were located at either these two excavation sites, or the remaining twenty.

Two excavation sites were also chosen to investigate the location of the mill race. The excavation confirmed a modified soil profile, but no evidence of the race or channel was found (GML Heritage 2016c:iv).

Five excavation sites correspond to the study area (sites 18-22) and relevant information is summarised below.

Table 5.1 Test sites within the study area (PTs 18-22) (GML 2016c:15)

PT	Soil Landscape	Surface RL (m)	Natural Soil RL (m)	Bedrock Depth (m)
18	Blacktown	13.0	12.65	8.20
19	Blacktown	13.50	13.10	9.20
20	Blacktown	13.55	13.14	10.05
21	Blacktown	13.55	13.14	9.75
22	Blacktown	13.55	13.05	10.55

Table 5.2 Stratigraphic layers observed in the study area (PTs 18-22)

PT	Introduced Soils, Clays & Fills					Natural Horizon					
	Bitumen	Soil & Gravel Fill	Clay Fill	Soil & Fill	Concrete	Brown Sandy Loam	Clayey Sand (PSS)	Clay (Blacktown)	Clayey Sand	Sand (decade bedrock)	Total (m)
18	0.05	0.2		0.10				3.85	0.5	0.10	4.8
19	0.05	0.25		0.10				3.9			4.3
20	0.10	0.20						3.2			3.5
21	0.15	0.26						3.39			3.8
22	0.05	0.45						2.5			3.0

In summary, the GML Heritage archaeological testing programme failed to identify any Aboriginal cultural material from any of the tested locations and despite the presence of a heavily truncated portion of the Parramatta sand body from the north-westernmost corner of the site (Figure 5.5), the sand deposit did not extend across the site (GML Heritage 2016c:26). The three key findings from the Aboriginal testing programme were:

- Sieving did not recover any Aboriginal cultural material.
- Soils "across the majority of the study area had been truncated and did not contain soil horizons capable of bearing an archaeological deposit" (GML Heritage 2016c:32).
- "The sampling programme has demonstrated that there is no Aboriginal archaeological deposit associated with the PLC site (GML Heritage 2016c:37).

In terms of historical archaeology, the testing programme also failed to identify any archaeological soil profiles which pre-dated the mid-1950s construction of the league club and the current carpark (GML Heritage 2016c:26). In conclusion, GML Heritage noted that:

Firstly, the development footprint within the PLC study area holds no archaeological potential for historic period or Aboriginal deposits. This is a consequence of topsoil stripping for car park construction that occurred in the late 1950s. Secondly, within the PLC all relics and works associated with the millrace were removed by service modifications and installation between 1951 and 1956. These works most likely re-excavated the original earth channel and banks, cutting through and removing the historical archaeological deposits. The channel was reformed using concrete to create the distinct profile seen in the 1956 aerial photograph. Later works associated with the installation of the sewer are likely to have further impacted this area and any pre-1950s archaeological deposit (GML Heritage 2016c:38).

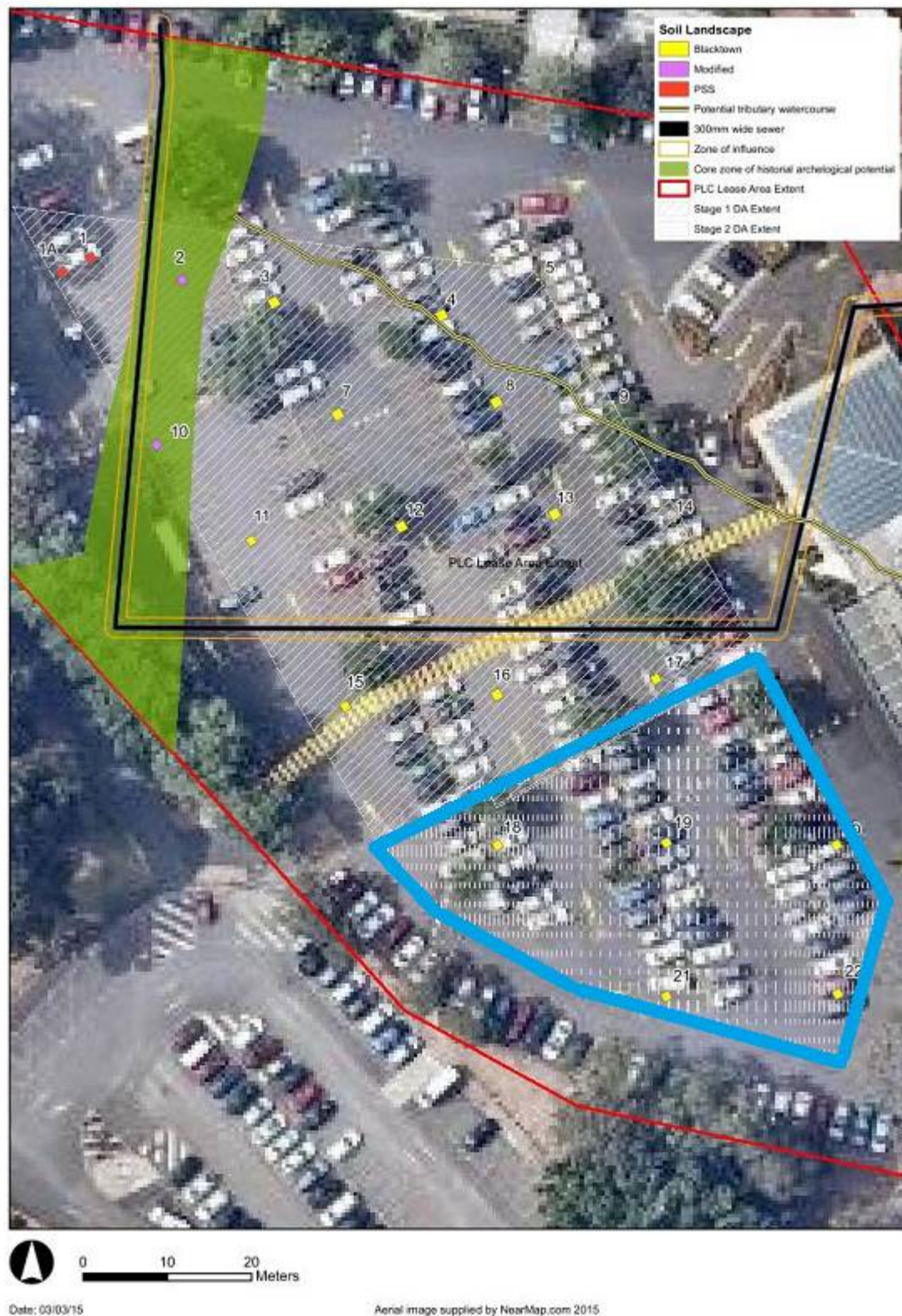


Figure 5.5 Bore hole locations showing the identified soil profile in the Stage 2 area (marked in blue and approximating the current study area) (after GML 2016c:12).

5.2 Predictive Modelling

An assessment of archaeological potential usually considers the historic sequence of occupation in comparison to the structures which are currently extant, as well as the impact that the more recent constructions and works would have had on the earlier occupation phases and, as such, the likely intactness of the archaeological resource. This, in turn, is tied in with the extent to which a site may contribute knowledge not available from other sources to current themes in historical archaeology and related disciplines.

In regard to the assessment of the study area, the archaeological potential depends upon the anticipated likelihood for the survival of buried structural fabric and cultural deposits as well as an estimation of archaeological integrity. Structural fabric refers to what is generally regarded as building or civil engineering remnants. Cultural deposits refer to archaeological deposits, i.e. deposited sediments containing artefacts etc.

Having analysed the historical evidence in the previous chapters, the following section presents a summary of the potential for a physical archaeological resource to be present in the study area, that is, its archaeological sensitivity/potential.

5.2.1 *Aboriginal Predictive Modelling*

In the light of the results of the testing programme and the disturbance history documented during the subsurface investigations by GML Heritage, the entirety of the present study area is assessed as having low potential to contain Aboriginal cultural material. As such, no Aboriginal cultural heritage values are likely to be associated with the site.

5.2.2 *Historical Predictive Modelling*

In the light of the results of the testing programme and the disturbance history documented during the subsurface investigations by GML Heritage, the majority of the present study area is assessed as having low potential to contain historical archaeological material. However, the eastern part of the study area is assessed as having moderate potential to contain archaeological material associated with the Mud Lodge. It is likely that the nature of these archaeological remains could not be identified through the drilling methodology employed by GML Heritage, and would require a more conventional excavation methodology to determine the presence of archaeological remains associated with the Mud Lodge.

6 SITE INSPECTION

David Marcus (Senior Archaeologist, Austral Archaeology) conducted a brief site inspection of the study area on Friday 2 November 2018 in order to identify areas of archaeological potential. Due to the small size of the study area, the inspection was able to cover the entirety of the site.

The study area consists of a level surface which has been covered in asphalt and utilised as a carpark. The site inspection did not identify any specific subsurface impacts, but various types of electric lights placed around the edge of the carpark suggest the presence of subsurface services. Furthermore, it is likely that subsurface stormwater drainage is present within the study area, although no direct evidence was noted during the survey.

Of note is that the carpark is actually raised slightly higher than the surrounding ground surface, suggesting that parts of the study area have been subjected to a raising of the original ground level which may have protected archaeological material to a certain degree. However, this is contradicted by the results of the GML Heritage testing programme.



Figure 6.1 North facing view showing the general condition of the carpark which forms the study area. Note the electric floodlights and light pole in the foreground.



Figure 6.2 North-west facing view showing the slope from the level carpark area dropping southwards down to the pedestrian footpath to the south of the study area.

7 HISTORICAL LAND USE AND SENSITIVITY MAPPING

7.1 Historical Land Use

The study area was always located on the fringes of Parramatta and consequently underwent a far slower historical development than either south of the river or further north, on lands associated with various government institutions. As the study area formed part of the Domain, early building and land use was focused nearer the river to the south or associated with the mill infrastructure to the west. The means through which the study area was utilised at this time, if at all, is therefore unclear.

It is likely that up to the 1820s, the study area was utilised for agricultural pursuits and this land use would have included various landscape modification processes such as land clearing.

The first defined phase of built development within the study area was the North Gatehouse, referenced in accounts for works from December 1822 – December 1823. It was colloquially known as the Mud Lodge, as it was made using pise techniques. The lodge was constructed on a stone base with a brick chimney and shingled roof. Both exterior and interior walls were pebble-dashed. Unlike its later replacements, the Mud Lodge is shown as being set back from the O'Connell Street frontage which places it within the study area. This building was replaced by the 1840s.

Modern development in and around the study area has included the construction of the Parramatta Leagues Club and associated carpark which, based on the evidence from the GML testing programme, is likely to have resulted in the truncation of existing ground levels and possibly the destruction of archaeological potential.

7.2 Degree of Historical Disturbance and Impacts

The survival and visibility of historical sites within the study is greatly affected by the process of disturbance from modern building developments. These factors need to be considered when assessing the archaeological potential of the study area.

The impacts across the majority of the study area include widespread potential ground levelling, multiple phases of construction, and the growth and removal of several trees.

Historic disturbance in itself can be of interest to archaeologists. Despite modern landscaping and construction, it is likely that at least part of the site has preserved archaeological deposits relating to the historical occupation of the study area.

7.3 Sensitivity Mapping

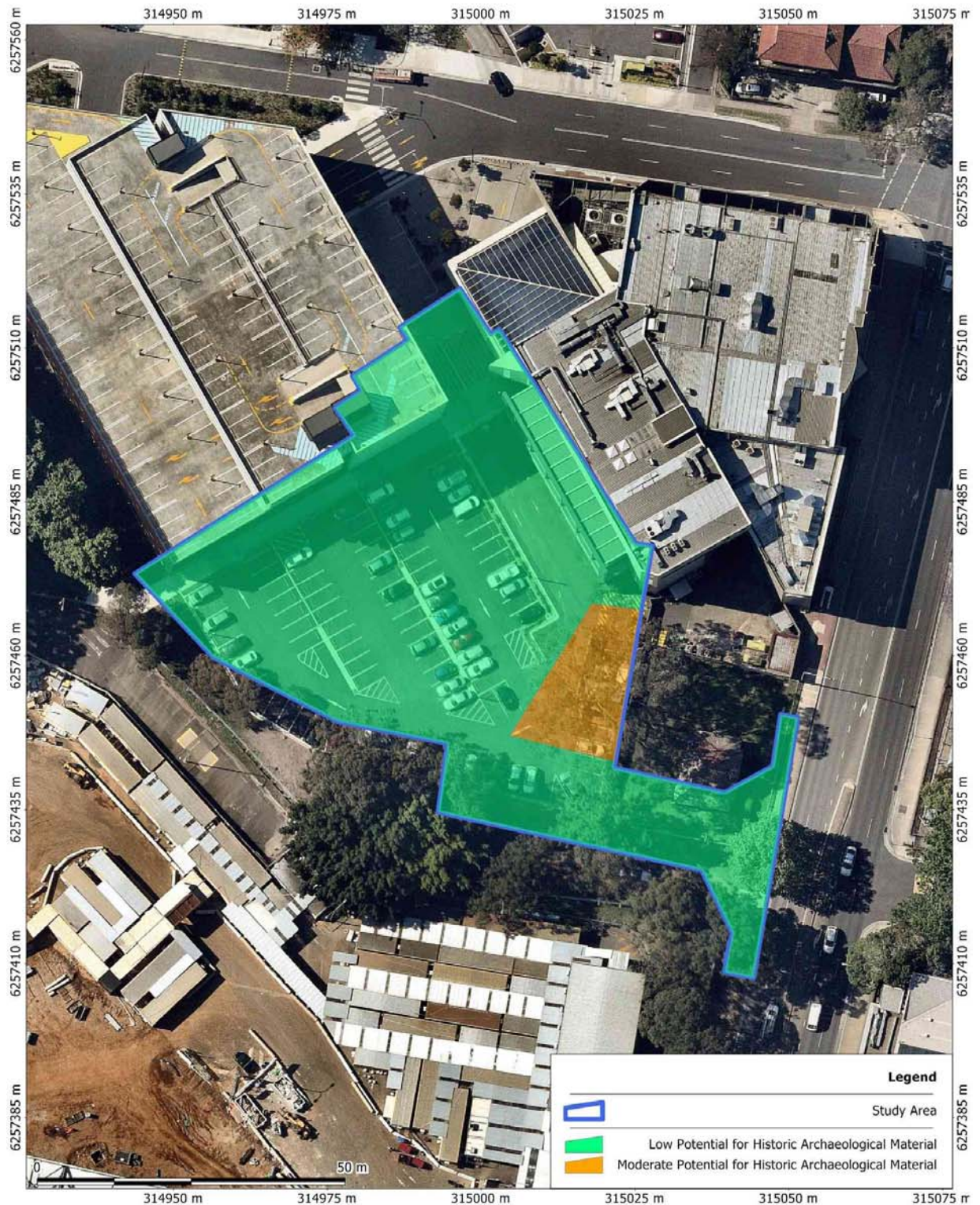
The results of Section 5 and Section 6 are depicted in an archaeological sensitivity maps below (Figure 7.1 & Figure 7.2). These maps shows the degree of predicted archaeological potential within the study area following site development and forms the basis for the conclusions and management recommendations outlined in Section 12. However, one key point to note is that potential is not equal to significance, and areas of even moderate or high archaeological potential may not actually contain archaeological material which is considered significant (see Section 8).

1813_PARRAMATTA LEAGUES CLUB HOTEL DEVELOPMENT
ABORIGINAL DUE DILIGENCE AND HISTORICAL ARCHAEOLOGICAL ASSESSMENT



Figure 7.1 Area of low potential for Aboriginal cultural material to be present within the study area.

1813_PARRAMATTA LEAGUES CLUB HOTEL DEVELOPMENT
ABORIGINAL DUE DILIGENCE AND HISTORICAL ARCHAEOLOGICAL ASSESSMENT



AUSTRAL
ARCHAEOLOGY

Project Name: 89 George Street
Client: Parramatta Leagues Club
Project Number: 1813
Drawn By: David Marcus

Datum (Zone): Australia MGA94 (56)
Scale: 1:750
Source Map: Nearmap
Date: 26 November 2018



Figure 7.2 Areas of archaeological potential for historical archaeological features to be present within the study area.

8 ASSESSMENT OF SIGNIFICANCE

8.1 Introduction

An assessment of cultural significance seeks to establish the importance that a place has to the community. The concept of cultural significance is intrinsically tied to the fabric of the place, its history, setting and its relationship to other items in its surrounds and the response it evokes from the community.

The assessment of cultural significance with respect to archaeological sites can present difficulties because the nature and extent of the "relics" are often indeterminate and value judgements therefore need to be made on the basis of potential attributes. The element of judgement can be greatly reduced by historical or other research, as has been completed for the current study. Archaeological deposits and features provide important evidence of the history and settlement of New South Wales. These heritage items may include deposits containing material culture (artefacts) that can be analysed to yield information regarding early urban development that is unavailable from other sources. Archaeological investigations can reveal much about technology, industry, past economic and social conditions and people's lives.

Sites that contain these elements therefore have scientific value that may be of considerable significance when analysed in association with documentary evidence. It is through this potential to reveal information about the past use of a place that archaeological sites have heritage significance.

8.2 Basis for Assessment

The Burra Charter of Australia ICOMOS was formulated in 1979 (revised 1999), based largely on the Venice Charter (for International Heritage) of 1966. The Burra Charter is the standard adopted by most heritage practitioners in Australia. The Charter divides significance into four categories for the purpose of assessment. They are: Aesthetic, Historical, Scientific/Technical, and Social significance.

The Heritage Council of New South Wales has established a set of seven criteria to be used in assessing cultural heritage significance in New South Wales, and specific guidelines have been produced to assist archaeologists in assessing significance for subsurface deposits. These are published in the Heritage Council's Assessing Significance for Historical Archaeological Sites and 'Relics' (2009). The Heritage Council's criteria incorporate those of the Burra Charter, but are expanded to include rarity, representative value, and associative value.

In order to determine the significance of a historical site, the Heritage Council have determined that the following seven criteria are to be considered (Heritage Branch 2009:3):

- **Criterion (a): an item is important in the course, or pattern, of NSW's cultural or natural history (or 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 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 for social, cultural or spiritual reasons (or the local area);**
- **Criterion (e): an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the local area);**
- **Criterion (f): an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the local area); and**
- **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 (or the local area).**

These criteria were designed for use on known or built heritage items, where above ground heritage is both tangible and easily identified. As the nature of archaeology is that it is invisible until disturbed, the presence and attributes of archaeological material must be assumed based on the recorded levels of disturbance, known site history and the creation of predictive statements. Ultimately, the actual presence of archaeological material can only ever be framed in terms of the potential for it to be present.

The Heritage Division has assisted archaeologists by creating questions which are framed around the main NSW Heritage Criteria, and which can be used to assess the relative importance of any archaeology which is likely to be present. The questions to be asked of an archaeological deposit differ from the main criteria, but can be seen to be referential to them, in order to create a suitable framework for assessing archaeological sites.

8.3 Significance Assessment

8.3.1 Assessment Criteria

The following section addresses the significance of the potential archaeological resource in accordance with the criteria adopted in the Heritage Council's significance guidelines for archaeological deposits (Heritage Council 2009:11-13), using selected questions from the guidelines.

Archaeological Research Potential (current NSW Heritage Criterion e)

- ***To which contexts (historical, archaeological and research-based) is it anticipated that the site will yield important information?***

It is anticipated that the site may yield information that relates to historical (i.e. the occupation history of the site), archaeological (i.e. function and location of buildings and structures) and research-based contexts (i.e. artefactual material which can be analysed).

- ***Is the site likely to contain the mixed remains of several occupations and eras, or is it expected that the site has the remains of a single occupation or a short time-period?***

The study area may contain the remains of a single phase of occupation associated with use of the Mud Lodge.

The building, most likely constructed between 1822 and 1823, was in use for approximately 20 years before being replaced by a newer structure which was built on the O'Connell Street frontage, to the east of the study area. However, the level of preservation of this structure and any associated archaeological deposit is unknown.

- ***Is the site rare or representative in terms of the extent, nature, integrity and preservation of the deposits (if known)?***

Occupational deposits associated with the Mud Lodge are likely to be representative of other small early 19th century cottages, including the other gatehouses located at key access points to Parramatta Park.

What makes this site rare is the potential for identification of structural remains associated with an early 19th century building which was constructed using the pise technique.

- ***Are there a large number of similar sites?***

Pise house construction is well represented on the SHI, with a search of the term 'pise' returning 5 sites listed on the SHR and an additional 77 sites listed by various government and state agencies.

However, while pise was a popular construction style around Bathurst, Dubbo, Orange and Numeralla, it is relatively rare in the Sydney environs. The relatively early date of the use of pise also makes this structure unusual (Austral 2017:65, Lewis 2018:3.05.4-3.05.6).

- ***Is this type of site already well-documented in the historical record?***

The use of pise as a building technique is well documented in the historic record (c.f. Lewis 2018).

- ***Is the excavation of this site likely to enhance or duplicate the data set?***

Excavation of this site is likely to enhance the existing dataset as it has not been possible to confirm whether a pise structure has been archaeologically excavated from either within Parramatta itself, or across the wider area of New South Wales.

- ***What is the ability of the archaeological evidence to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site?***

The study area is expected to contain archaeological evidence relating to the relatively short occupation of the Mud Lodge from between the early 1820s through to the 1840s. This evidence will relate to the construction and occupation of the main building, and may also identify evidence of ancillary structures or other occupational evidence.

Any information obtained from an examination of the archaeological material is likely to enhance information on both the early occupation of the government lands at Parramatta, and on the early use of pise construction techniques. However, the usefulness of the data is purely dependant on archaeological material being particularly well preserved and intact.

In summary, the site may contain archaeological evidence which could be preserved and which would enhance our knowledge regarding the use of pise from the early days of the settlement. The archaeological evidence may also uncover unexpected information regarding the occupation of the Mud Lodge, which would form an important area of investigation.

The SHI Listing for the Ross Street Gatehouse notes that “[a]s a group, the Parramatta Park gatehouses are of state significance for their archaeological, architectural, social and landscape values” (SHI #4681073). As such, the site satisfies NSW Heritage Criterion (e) at the State level.

Associations with individuals, events or groups of historical importance (NSW Heritage Criteria a, b and d)

- ***Does the archaeological site link to any NSW Historic Themes? Will the site contain ‘relics’ and remains which may illustrate a significant pattern in State or local history?***

The relevant themes which may be applied solely to the archaeological remains within the study area are listed below in Table 8.1.

Table 8.1 Historical Themes

Australian Theme	New South Wales Theme	Local Themes
3. Developing local, regional and national economies.	Environment – Cultural Landscape	National park
4. Building settlements, towns and cities.	Accommodation.	Cottage, house site (archaeological)
8. Developing cultural institutions and ways of life.	Domestic Life	Domestic artefact scatter, arrangement of interior rooms
9. Marking the phases of life	Persons	A place of residence

- ***Is the site widely recognised?***

The site is only recognised for built heritage values associated with the extant gatehouse building constructed outside of the study area in the early 20th century. However, it is unlikely that many people would recognise the significance of the current gatehouse and its association with the government Domain, as the association between the two features has been lost.

- ***Does the site have symbolic value?***

The Mud Lodge may embody symbolic values associated with the failed attempt to construct the original gatehouse building using the pise construction technique.

- ***Is there a community of interest (past or present) which identifies with, and values the specific site?***

There are no specific communities of interest which identify with or value the site of the Mud Lodge.

- ***Is the site likely to provide material expression of a particular event or cultural identity?***

The site could provide material relating to the occupants of the gatehouse in the early 19th century; with the gatekeeper presumably being a person with a degree of social standing within the colony. There are no known events associated with the Mud Lodge for it to provide any evidence of particular association.

- ***Is the site associated with an important person? (the role of the person in State or local history must be demonstrated/known)***

Apart from the construction of the Mud Lodge being approved during Governor Macquarie's tenure, there are no known associations between the Mud Lodge and any important person either from State or local history.

- ***What is the strength of association between the person and the site?***

Governor Macquarie's only association with the Mud Lodge was to ultimately approve its construction.

- ***Did the person live or work at the site? During the phase of their career for which they are most recognised? Is that likely to be evident in the archaeology /physical evidence of the site?***

It is unknown if Governor Macquarie ever visited the Mud Lodge.

- ***Did a significant event or discovery take place at the site? Is that evident/or likely to be evident in the archaeology/physical evidence of the site?***

No significant events or discoveries took place within the study area.

- ***Do the archaeological remains have particular associations with individuals, groups and events which may transform mundane places or objects into significant items through the association with important historical occurrences?***

It is unlikely that any archaeological remains present within the study area are associated with significant individuals, groups or events, and that the archaeological material likely to be encountered is mundane in nature.

As such, it is considered that any archaeological material likely to be present in the study area does not satisfy NSW Heritage Criteria (a), (b), (d) or (e) in this regard.

Aesthetic or Technical Significance (NSW Heritage Criterion c)

- ***Does the site/is the site likely to have aesthetic value?***

Any archaeological fabric present within the study area is unlikely to contain aesthetic values although individual artefacts may be identified which are aesthetically pleasing.

- ***Does the site/is the site likely to embody a distinctive architectural or engineering style or pattern/layout?***

The Mud Lodge was built using distinctive architectural and engineering techniques associated with the pise method of construction.

- ***Does the site demonstrate a technology which is the first or last of its kind?***

Although not necessarily the first of its kind, Mud Lodge may represent one of the earliest examples of pise construction from within the Sydney basin.

- ***Does the site demonstrate a range of, or change in, technology?***

As the original pise building was replaced with a new gatehouse constructed on the O'Connell Street frontage less than 20 years after it was first built, it is unlikely that the study area will demonstrate any range or, or change in technology.

- ***Will an archaeological excavation reveal highly intact and legible remains in the form of aesthetically attractive artefacts, aged and worn fabric and remnant structures, which may allow both professionals and the community to connect with the past through tangible physical evidence?***

There exists potential for study area to contain remnants of structural material from the Mud Lodge. However, the use of earth as a construction technique means that chance of identifying highly intact or legible remains from the pise building are low. If evidence of occupational deposits are identified, then it is possible that a number of the artefacts may be intact and could be considered aesthetically attractive. Both structural evidence from the Mud Lodge itself and associated artefacts from its occupation would be of interest to professionals and could be used for public interpretation of the history of the site.

The ability for archaeological material associated with the Mud Lodge to demonstrate an easily understood, tangible connection to the past is solely dependant on the level of preservation of the built elements which may survive. However, as the lodge was built out of earth, and was considered uninhabitable only 20 years after being built, it is considered unlikely that easily interpreted remains from the building are likely to survive, at least in a way which would allow the wider community to appreciate them.

It is therefore considered that from a solely archaeological perspective, the site does not meet NSW Heritage Criteria (c).

Ability to demonstrate the past through archaeological remains (NSW Heritage Criteria a, c, f, and g)

- ***Does the site contain well-preserved or rare examples of technologies or occupations which are typical of particular historic periods or eras of particular significance?***

The site may contain remains of the Mud Lodge, which was built using pise construction techniques. This construction technique was briefly popular in western New South Wales in the early parts of the 19th century before coming back in to vogue in the early 20th century, but it is a rare technique to see used in Parramatta in the 1820s. It is unlikely that remains associated with the Mud Lodge are well-preserved.

- ***Was it a long-term or short-term use?***

Use of the Mud Lodge was short term, commencing with the completion of the building by 1823 and concluding with the construction of the new gatehouse by 1840s.

- ***Does the site demonstrate a short period of occupation and therefore represents only a limited phase of the operations of a site or technology or site? Or does the site reflect occupation over a long period?***

The Mud Lodge is likely to reflect occupation over a short period of time and is likely to represent only a limited phase of the operation of the gatehouse.

- ***Does the site demonstrate continuity or change?***

The site is unlikely to demonstrate either continuity or change, instead representing just a single, short phase of occupation.

- ***Are the remains at the site highly intact, legible and readily able to be interpreted?***

If present, structural remains associated with the Mud Lodge are unlikely to be highly intact, having been subject to their demolition and subsequent impacts from the construction of the Parramatta Leagues Club carpark. In addition, the use of earth as a building material may even make identification of the structures difficult, affecting their overall legibility.

Interpretation of any structural material would depend solely on the quality of the remains which are identified.

- ***Do the archaeological remains have an ability to demonstrate how a site was used, what processes occurred, how work was undertaken and the scale of an industrial practice or other historic occupation.***

The archaeological remains present within the study area are only likely to provide cursory information relating to the function and occupation history of the Mud Lodge, although this is still more information than is currently available from historical sources. Even if intact and well-preserved archaeological remains are identified, it is unlikely that any information will be gained beyond location and ascribing basic functions to buildings or rooms. Understanding of even these functions may require a detailed analysis of the artefactual remains.

The site is known to have only been occupied for a short period of time, and the archaeological remains are unlikely to provide much in the way of additional knowledge in relation to the processes which occurred, or the scale of the historic occupation. It is considered that the study area does not meet NSW Heritage Criteria (a), (c), (f) and (g) in this regard.

8.4 Statement of Significance

The archaeological remains associated with the Mud Lodge are likely to consist of footings from the main building, as well as associated yard surfaces. It would be normal to expect wells and possibly cesspits to also be built in association with the lodge, but the actual existence of these features are based on conjecture.

The construction of the Parramatta Leagues Club and the carpark in the 1950s is likely to have at least partially removed evidence of the archaeological material from across the study area. This is especially likely when considering the results of the GML Heritage archaeological testing programme.

The Mud Lodge only represents a single short term occupation of the site for a period of no longer than 20 years. Very little is presumed to have changed in such a short time with regard to the various technological aspects relating to day-to-day life, and should occupational evidence be identified from the Mud Lodge, it is likely to present a snapshot of life from around the 1830s.

The key areas of interest in regard to the study area relate to the rarity of identifying a pise structure dating from the early 19th century in a relatively urban environment, and the research potential of examining the potentially poorly understood, construction techniques used to build an early rammed earth structure.

The extensive alterations and loss of original setting and landscape are likely to have impacted on archaeological potential and significance associated with its rarity. The potential damage to the Mud Lodge instead makes any archaeological material present with the study area more significant in terms of its research potential.

The Section 170 register listing for the Ross Street Gatehouse states that:

The Ross St Gatehouse relates to all phases of Park history, from just after the Macquarie period as part of the Government Domain. The site of the old gatehouse and surrounding land has archaeological potential. The present 1935 gatehouse represents a departure from the traditional Gothic Picturesque style gatehouse as seen elsewhere in the Park. As a group, the Parramatta Park gatehouses are of state significance for their archaeological, architectural, social and landscape values (SHI #4681073)

In light of the above statement of significance, the archaeological material within the study area (if extant) is assessed as being of State significance, primarily in regards to Heritage Significance Criteria (e).

However, it is also noted that the Parramatta Park Trust has acknowledged that there is a general lack of historical and archaeological information with regard to the Ross Street Gatehouse, and the trust is understood to be in the process of undertaking a heritage study of all the gatehouses located within the park (J Perica pers. comm. 8 November 2018). It is likely that any such assessment will have an updated statement of significance.

9 STATEMENT OF HERITAGE IMPACT

9.1 Proposed Works

The proposed development is to demolish the existing improvements and construct a 17 storey hotel building (plus a single level basement for services) accommodating 209 beds and including the lower 4 levels containing a café, pool, fitness/recreational uses and a function room ancillary to the hotel. Access is proposed from O'Connell Street to the south of the building (via an access road to the adjoining Parramatta Stadium), and the proposal includes public domain works and services upgrades surrounding the building to integrate the building with the surrounding area and infrastructure.

No additional parking is proposed, given the adjoining approved large carpark.

The proposal is depicted within the conceptual plans by HASSELL as attached to the EIS.

9.2 Assessed Impacts

There will be a high level of impact resulting in the complete destruction of potential archaeological material across the entire study area.

The current concept plans for the proposed works, provided by the proponent, are shown in Figure 9.1 to Figure 9.4.

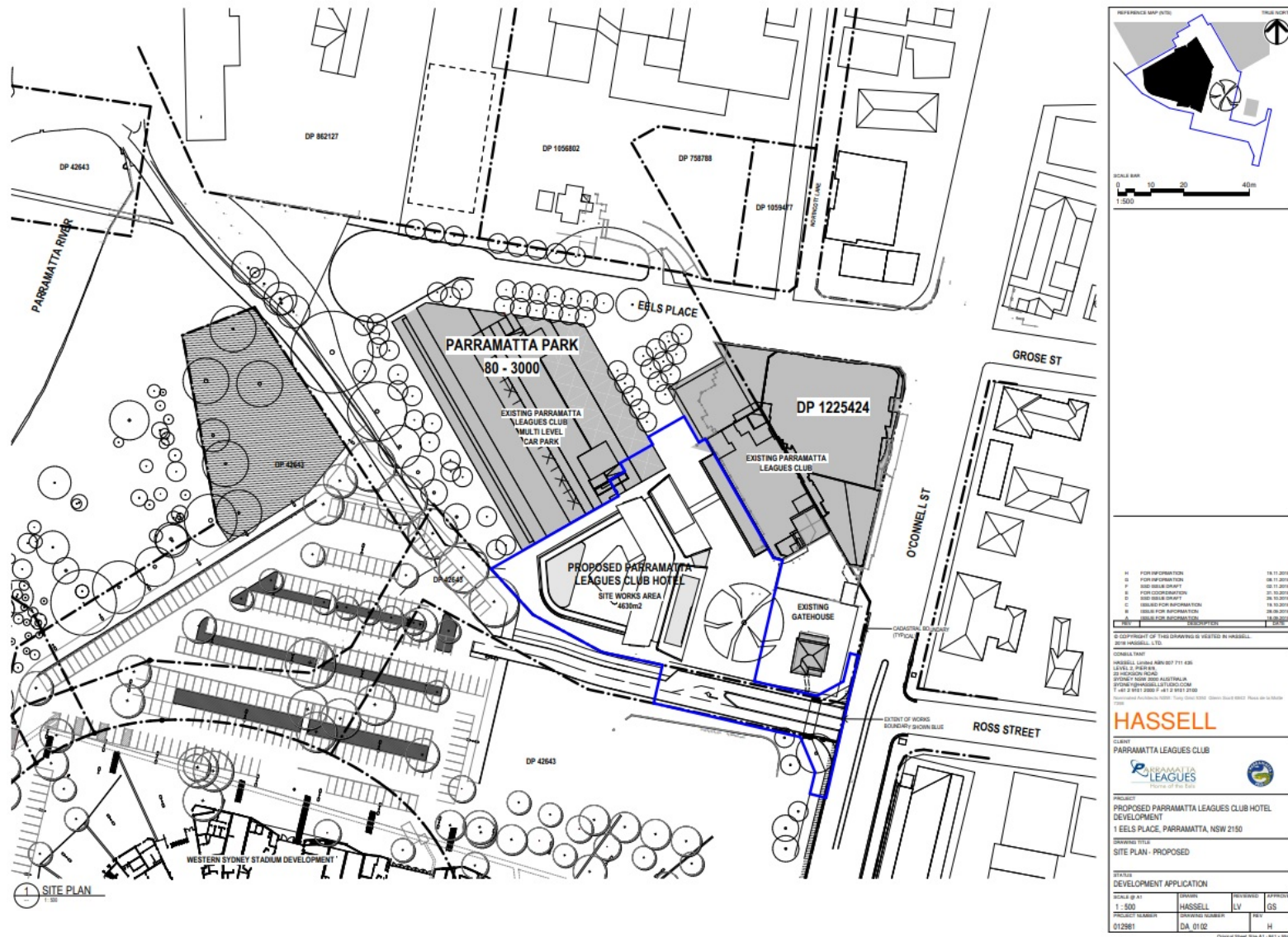




Figure 9.2 Plan showing proposed layout of basement (provided by proponent).

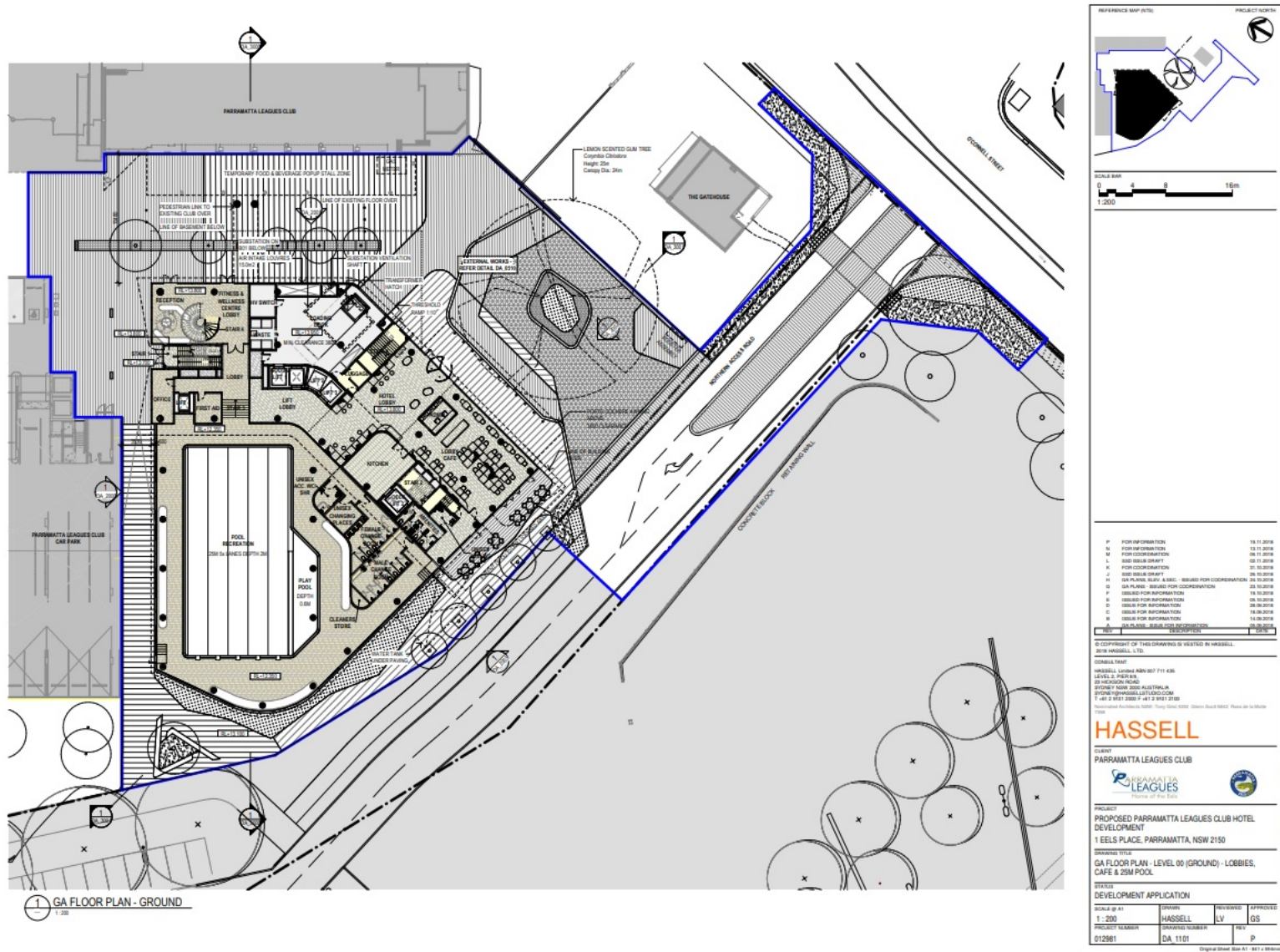


Figure 9.3 Plan showing proposed layout of first floor (provided by proponent).

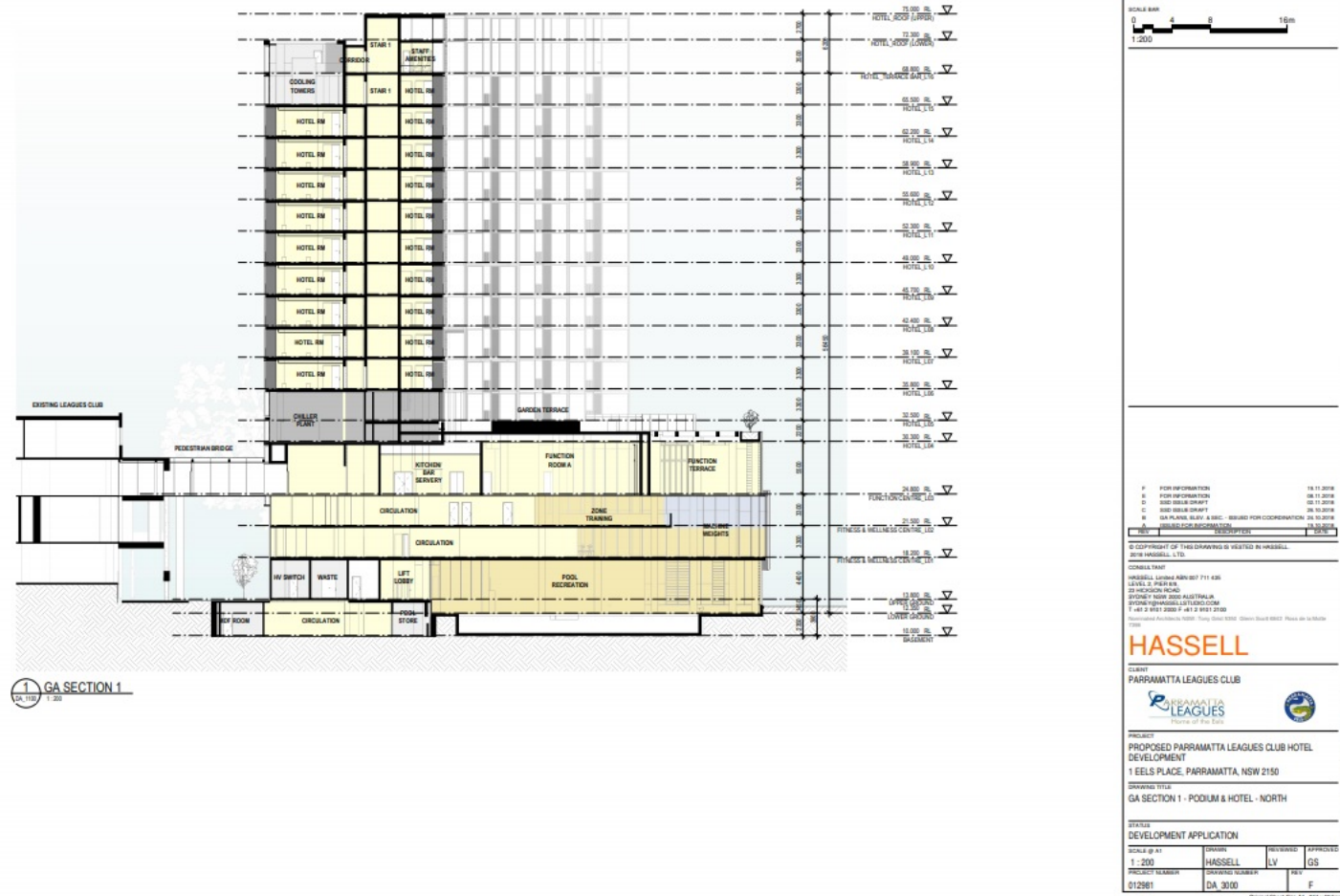


Figure 9.4 Proposed cross-section showing degree of subsurface impact associated with the development (provided by proponent).

9.3 Predicted Impact on the Potential Archaeological Resource

The following section provides an assessment of each element of the proposed works and whether the task has potential to impact on the identified archaeological resource.

9.3.1 Predicted Impacts with Potential to Harm the Archaeological Resource

- **Piling works**
- **Construction of the basement area**
- **Excavation of swimming pool**

The piling and subsequent excavation of the basement and swimming pool area will require excavation work which will cause harm across the entirety of the study area.

9.3.2 Predicted Impacts with Limited Effect on the Archaeological Resource

- **Road Widening**

While construction of a new road may have potential to harm the archaeological resources, the new road is being constructed as part of the Western Sydney Stadium redevelopment and as such, initial construction impacts are not considered in this assessment.

The harm caused by the initial construction of the road is likely to remove any archaeological resource from the location of the proposed widening, and therefore any impact from the subsequent widening are considered to have only limited effect on the archaeological resource.

9.4 Consideration of Heritage Values in the Design Process

The following questions are taken from the Heritage Division's guidelines to preparing statements of heritage impact.

What aspects of the proposal respect or enhance the heritage significance of the study area?

There may be scope to integrate an interpretative display into the new building design in the event that archaeological material is present within the study area.

What aspects of the proposal could have a detrimental effect on the heritage significance of the study area?

Piling works associated with the construction of the hotel, combined with excavation of a basement area and swimming pool, will have a detrimental effect on the archaeological record across the entirety of the study area.

Have more sympathetic options been considered and discounted?

The archaeological consultant did not have an opportunity to provide input into any other design options which may have been more sympathetic to the archaeological resource.

10 ARCHAEOLOGICAL RESEARCH DESIGN

10.1 The Role of Research Designs in Australian Historical Archaeology

The research design presented here builds on the understanding already gained of the study area through the historical research documented above. The objective of the currently proposed archaeological investigation is to record any archaeological features or deposits in detail, gain a full understanding of the site and produce meaningful and new information that enhances the understanding of Parramatta's past.

The formulation of a focused research design is a fundamental element in the process of archaeological investigation and is a necessity for guiding research in the direction of whichever questions are considered most worthy of attention. In a heritage management context, such as that for the construction work proposed in 9, this process will primarily be concerned with the testing and salvage of historical and archaeological information from the site prior to its destruction due to the proposed development. However, the mere retrieval of information is not a professionally or ethically sufficient outcome for society in terms of the mitigation of the impact of such development (Murray & Mayne 2002:3). Instead, current philosophies regarding the retrieval of data through archaeological investigation demand that such recovery be further justified by the provision of a meaningful contribution to understanding the past.

Accordingly, it is vital that a solid research framework is established from the outset of a project; one that includes a variety of questions and problems to focus investigation in a way that is both theoretically relevant and at the same time realistic and achievable. Such questions should encompass the full spectrum of human activity, ranging from local to regional questions, and further up the scale to the national and international perspectives (Murray & Mayne 2002:4).

In *The Archaeologists Field Handbook*, Burke & Smith (2006:3) define the initial movement of constructing a research design as defining a problem and determining its relevance. They state:

"The most important first step in designing research is to outline the problem. This is essentially why you think your research is important, and how you think it will contribute to the discipline of archaeology. Some research problems might contribute new light on theories of human behaviour in the past, while others might contribute new methods for how we go about collecting or analysing archaeological data."

The study area presents, therefore, two key avenues to define the research problems that can then form the basis of subsequent research questions. What can the material culture in the study area tell us about past human behaviour? And how can the material culture in the study area be used to develop more rigorous and insightful methodologies of use to the discipline of archaeology?

Recently Schacht (2010:61) has identified a 'preliminary thematic framework for Australian historical archaeology' as part of a broad review of themes in historical archaeological publications in Australia. As part of her work, Schacht identified several thematic groupings which are relevant to the current study area including the development of the urban rural fringe, the development of the built environment, and questions relating to status and class (Schacht 2010:71-73). The study area presents numerous opportunities for exploring these arenas of investigation in a meaningful way.

10.2 Research Problems Regarding Past Human Behaviour

The chief areas that shape the research problem of the study area relate to the Mud Lodge, the only known structure to have been built within the study area. Much information regarding the dates of the use of the Mud Lodge and the methods used for its construction are conjectural and it is hoped that archaeological investigation could produce substantial new information about the past through an improved understanding of their function. How was it constructed? When did it fall out of use? How was it utilised? These are all basic questions that can be used as an entry point into the investigation of these items. These questions form the basis for broader problems relating to the nature of occupation within the study area.

10.3 Research Problems Regarding Archaeological Theory and Method

The central methodological issue at stake in this study area is the correlation between the historical, particularly oral history, and archaeological records and the reconciliation of any discrepancies that might arise. Early buildings are often not depicted on historic plans and written descriptions of the many elements of the site are brief and unspecific. This leads to a requirement to consider how historical archaeology can supplement the visual depiction of an item in the historical record?

The dimensions of structures and outbuildings within the study area, their overall manner of construction and broad area of use have all been left somewhat unanswered by the historical record. It is hoped, therefore, that further archaeological investigation can provide more insight regarding the past, particularly in relation to the earliest phases of development.

10.4 Research Questions

These research questions are presented in four parts, reflecting general themes, built heritage, social themes and the comparison of historical and archaeological sources.

10.4.1 *General Themes*

- Is archaeological material associated with the Mud Lodge present within the study area? What is the degree of its survival?
- If archaeological remains associated with other periods are identified, what is their assumed age and nature?

10.4.2 *Built Heritage – Mud Lodge*

- What can the archaeological remains tell us about the structure and layout of the Lodge?
- Are any structural remains able to provide information on construction techniques used to build the lodge?

10.4.3 *Social Themes*

- Is it possible to determine social class of the occupants of the study area through the archaeological material?
- The occupant of the Mud Lodge was directly employed by the government in his role as gatekeeper. Did employment by the government allow the occupants access to goods from government stores?

10.4.4 *Historical Images and Archaeology*

- There is only a single clear historical depiction of the lodge. Is there evidence of unrecorded outbuildings, well or cesspits? What elements of information has the archaeological investigation identified as the best means to supplement the lack of visual depictions of buildings?
- Are there any ways in which archaeological evidence differs from the known history of the site?
- Does the archaeological evidence provide details of the Mud Lodge, such as structural divisions or divisions into activity areas, that cannot be arrived at by the examination of the extant historical accounts?
- What different roles might archaeology play in the investigation of a site with primarily written historical evidence as opposed to a site with primarily graphic historical evidence?

11 METHODOLOGY

The aim of the proposed archaeological investigation at the Mud Lodge is to carry out comprehensive recording of the archaeological resource prior to the construction works undertaken for the proposed development. Recording of the site includes written description, drawings, photographs, measured plans, collection and analysis of artefacts and a response to the research questions (see Section 10.4 for details).

Investigation will be consistent with following documents and guidelines;

- *NSW Heritage Manual*, Heritage Office and Department of Urban Affairs & Planning 1996
- *The Burra Charter*, Australia ICOMOS 1999
- *Archaeological Assessment Guidelines*, Heritage Office and Department of Urban Affairs & Planning 1996.
- *Historical Archaeological Sites: Investigation and Conservation Guidelines*, NSW Department of Planning, Heritage Council of NSW 1993
- *Historical Archaeological Excavations: Code of Practice*, NSW Department of Planning, Heritage Council of NSW 2006.
- *Photographic Recording of Heritage Items Using Film and Digital Capture*, Heritage Branch Department of Planning 2006.
- *How to prepare archival records of heritage items*, Heritage Office and Department of Urban Affairs & Planning 1998.

11.1 Archaeological Testing and Salvage Methodology

11.1.1 Excavation Area Location

The construction of the hotel complex will involve a very high impact activity in an area of archaeological potential, with harm to be mitigated through archaeological testing and, dependant on the nature of the archaeological material identified, salvage.

The archaeological test excavation of two trenches will be undertaken followed, if required, by a phase of open area excavation. One trench will run east to west, and measure approximately 15 metres long by 1.2 metres wide, and the second trench will run north to south and also measure approximately 15 metres long by 1.2 metres wide. The purpose of the trenches will be to confirm the presence or absence of archaeological material associated with the Mud Lodge.

While the proposed location of the trenches are shown on Figure 11.1, the exact location of each trench will be determined in the field by the Excavation Director and may need to be altered depending on the identification of underground services or other obstacles.

1813_PARRAMATTA LEAGUES CLUB HOTEL DEVELOPMENT
ABORIGINAL DUE DILIGENCE AND HISTORICAL ARCHAEOLOGICAL ASSESSMENT



Figure 11.1 Proposed location of archaeological test trenches.

11.1.2 General Excavation Methodology

A Safe Work Method Statement (SWMS) will be prepared for the work. All Austral Archaeology staff hold general Construction Industry Training Induction cards.

Excavation will proceed by mechanical excavation via a series of shallow scrapes of no more than 100 millimetres, undertaken by a mechanical excavator of no more than 10 tonnes, equipped with a smooth-edged mud bucket so that the exposed surface in the pit or trench is progressively reduced in a controlled manner. This process will continue until the extent of the structural remains in this area has been identified.

Concurrent with this, targeted manual excavation will occur where required by qualified archaeologists. Small hand tools such as picks, shovels, pointing trowels, brushes and pans will be used in manual excavation, either for cleaning up excavated areas or revealing exposed features or deposits. Where an *in situ* historic feature that is the target of the excavation is located, mechanical excavation will cease. The feature will then be cleaned up by hand and recorded. The archaeologist will endeavour to expose and identify all significant historic features and deposits.

In the event that structural fabric is not located, excavation will stop when culturally sterile or natural deposits have been reached. This is expected to be between 0.5 and 1 metre in depth in most instances.

Provenance data and fabric descriptions will be recorded on numbered context recording sheets and the vertical and horizontal positions of all significant deposits and features will be recorded with reference to a permanent site datum. This survey information will be transferred to scaled site plans showing the spatial relationships between features revealed during the course of the investigation. Documentary records of the excavation will be supplemented by the preparation of Context Schedules and a Harris Matrix for the excavation area (where significant stratigraphic relationships are identified).

All significant elements will be photographed with a scale bar. Digital media will be used for general photographic recording. Artefacts will be collected but will not be processed during this phase of works. All artefacts will be retained for later analysis.

Artefacts will be bagged in suitable polyethylene or paper bags, double tagged with Tyvek (or similar) labels and put in temporary secure storage on Austral Archaeology's premises. The labels will be annotated with the trench or pit number as well as the context or layer number using permanent ink pens. Where possible, the artefacts will be subjected to a detailed statistical analysis in order to fully answer the research questions outlined above. There are a number of statistical and analytical tools, such as a Ceramic Variation Index for determining the social standing of the users of a ceramic assemblage, available to archaeologists in order to make far reaching statements relating to class, gender and social customs and these can be employed to further enhance the understanding of the site. At the conclusion of the project they will be handed over to the proponent for retention and/or lodgement in an appropriate storage facility.

In the event that Aboriginal archaeological material or deposits are encountered during earthworks, all work within a 50 metre radius will cease immediately to allow an archaeologist to make an assessment of the find. The archaeologist will consult with the Office of Environment and Heritage and the relevant Aboriginal stakeholders, regarding the Aboriginal cultural material.

11.1.3 Conclusion of Test Excavation Programme

Dependent on the results of the test excavations, excavation of the test trenches will either mark the completion of the archaeological investigation or will demonstrate the need to undertake an open area excavation within the area of high archaeological potential.

11.1.4 Open Area Excavation

Once the Excavation Director is fully cognisant of the archaeological potential of the study area based on the results of the test trenches, they will be able to determine whether any further archaeological excavation will be required. If an open area excavation is justified, the trenches will be extended until the full extent of archaeological material present within the study area is uncovered. As required, the open area excavation will extend into areas of moderate or low archaeological potential.

11.1.5 Temporary and Permanent Artefact Storage Locations

All artefacts are to be temporarily stored at the offices of Austral Archaeology at Shop 1/92 Percival Road, Stanmore NSW, 2048, until such a time as the artefacts are cleaned and catalogued. Following analysis of the artefacts by a suitably experienced specialist, diagnostic artefacts and those which contribute to the overall significance of the site will be returned to the Proponent for storage. It is recommended that the artefacts are stored in perpetuity in a specified location within the study area, and any such artefacts may also be used as part of any site interpretation, which could be incorporated into a heritage display, potentially in the original cottage.

11.2 Unexpected Finds Procedure

The remainder of works within areas of low archaeological potential are to proceed under the protocol of an unexpected finds procedure. The following notification protocols are designed to allow for archaeological advice to be sought if features or deposits of an archaeological nature² are uncovered during excavation or where doubt exists concerning the provenance of any strata revealed during excavations.

In such instances, the following notification protocol is to be implemented:

- 1) Stop work upon identifying the potential archaeological material and establish a “no-go zone” around the item. No ground disturbance must occur within 5 metres of the potential archaeological item.
- 2) Without causing further damage to the potential archaeological material, clean off any excess soil by hand so that the archaeological material is clearly visible.
- 3) Take photographs of the potential archaeological material next to an item of recognisable size (i.e., mobile phone, shovel, pen) to serve as a scale.
- 4) Notify the Archaeological Consultant, providing information relating to the nature of the archaeological find (i.e., material, condition, location) and send copies of the photographs to the archaeologist.

After examining the photographs and discussing the nature of the material, the archaeologist may determine that no site inspection is required and work may continue within the “no-go zone”. Should the archaeologist need to inspect the potential archaeological material, work may continue outside of the “no-go zone” while awaiting the arrival of the archaeologist.

Subject to the archaeologist’s assessment, further work may need to be undertaken. This may include, but is not limited to, the following tasks:

- No further action required
- Advise the Client and DPE of the potential find
- Continue and/or extend the size of the “no-go zone” pending a response from the regulatory authorities

11.3 Retention and Interpretation Strategy

11.3.1 Retention

If archaeological remains are uncovered that can be used as part of an interpretation process, consideration must be given to retaining them *in situ*. Discussions will be held with the proponent over possible interpretation of the material. A suitably qualified materials conservator may be required to assess them in order to determine the likelihood of their capacity to be retained.

² This may include but not be limited to the exposure of any structural material made from bricks, stone, concrete or timber and forming walls or surfaces, or the presence of more than 10 fragments of artefacts such as ceramic, shell, glass or metal from within an area of no more than 1 metre².

If the retention of these items and any associated artefacts is feasible within the context of the proposed development, then the conservator or specialist will prepare a monitoring and maintenance plan for their management. This plan will follow the *Historical Archaeological Sites: Investigation and Conservation Guidelines* produced by the Department of Planning & Heritage Council of NSW (1993).

11.3.2 Public Interpretation

It is important that the history of the site and information from an archaeological investigation program be disseminated to the public both during and after archaeological investigations. However, due to the relatively small scale of the archaeological investigation, it may not be possible to undertake a public open day during the investigation process. Instead, an interpretation of archaeological results should be displayed within the adaptively reused heritage dwelling, if required. As the archaeological resource is likely to be of local significance, the general public should be given the opportunity to learn about the remains where possible. To this end it is recommended that a copy of the subsequent excavation report be lodged with the local history section of Parramatta Library.

11.4 Post-Excavation Analysis and Reporting

At the completion of the archaeological program the results of the excavation and analysis of the artefacts will need to be completed. The final report will require a synthesis of the plans, field notes and descriptions of the archaeological features and deposits for each trench and overview of the site as a whole. Interpretation of the results will be used to respond to the research questions to produce a meaningful outcome.

Specialists will analyse the artefacts and produce a catalogue consistent with, or comparable to, current data systems and according to best practice methodologies. The artefacts will be catalogued according to location, context number, catalogue number, and stored in zip lock polypropylene bags (or paper bags as appropriate) in labelled archive boxes. Lodgement of the collection in a repository with appropriate accompanying documentation will be required. The Client will be responsible for the storage of artefacts.

Further historical research will be conducted as necessary to complete and enhance the archaeological findings. The research would focus on site specific features and the economic background of 19th century Parramatta. It is anticipated that the majority of this research can be carried out with the use of secondary sources gained from desktop investigation.

12 CONCLUSIONS AND RECOMMENDATIONS

12.1 Conclusions

On the basis of the GML Heritage testing programme, the study area is not considered to contain any Aboriginal cultural material.

It is concluded that there are varying degrees of historical archaeological potential and sensitivity within the study area relating to the location of the Mud Lodge. The archaeological remains of this structure and any associated deposits, should they be present, are considered to be of State significance. The proposed development will have a major impact across the majority of the study area, and as such, archaeological testing is required to mitigate against the proposed harm.

In terms of Aboriginal cultural material, the assessment has determined that the study area is unlikely to contain Aboriginal cultural material. As the SEARs only requires consultation with Aboriginal stakeholders “where Aboriginal cultural values are identified”, the absence of potential has meant that no consultation has been undertaken.

12.2 Recommendations

It is recommended that:

- 1) Given that parts of the study area have been assessed as having archaeological potential and relics of State significance may be impacted during the proposed construction works, the proponent is required to undertake archaeological testing and, if required, salvage excavations prior to development commencing. A suitably accredited archaeologist who is approved by the Heritage Division to oversee the excavation of sites of State significance will need to be appointed as Excavation Director.
- 2) Archaeological excavations should be undertaken in accordance with the methodology outlined in Section 11 of this assessment.
- 3) In the event that historical archaeological relics not assessed or anticipated by this report are found during the works, all works in the immediate vicinity are to cease immediately and the Heritage Division be notified in accordance with Section 146 of the NSW Heritage Act 1977. A qualified archaeologist be contacted to assess the situation and consult with the Heritage Division regarding the most appropriate course of action.
- 4) In the event that Aboriginal archaeological material or deposits are encountered during earthworks, all works affecting that material or deposits must cease immediately to allow an archaeologist to make an assessment of the find. The archaeologist may need to consult with the Office of Environment and Heritage and the relevant Aboriginal stakeholders regarding the find.
- 5) Should the proposed development be altered significantly from the proposed design considered in this assessment, then a reassessment of the heritage/archaeological impact may be required. This includes any impacts not explicitly stated in Section 9 and includes the installation of any subsurface services.

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