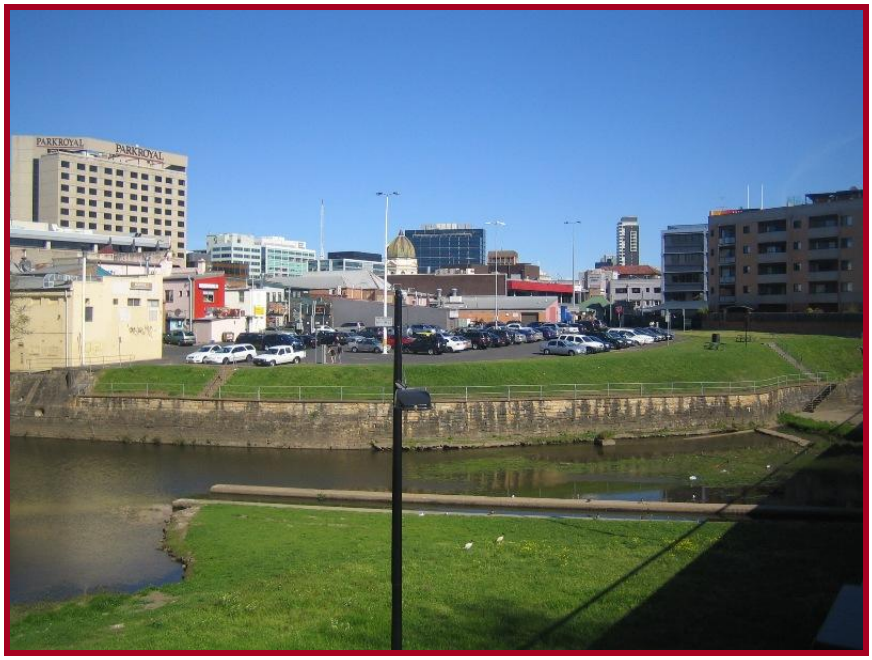
HERITAGE INVESTIGATIONS AND ADVICE

12-14 PHILLIP STREET AND 333 CHURCH STREET, PARRAMATTA, NSW



Photograph of the subject site taken from the north bank of Parramatta River

REPORT PREPARED FOR PARRAMATTA CITY COUNCIL

Final - November 2011

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Part 1 - Introduction

1. INTRODUCTION

1.1 Background

In September 2011, Parramatta City Council (PCC) commissioned Archaeological and Heritage Management Solutions Pty Ltd (AHMS) to undertake an Aboriginal archaeological assessment and a historical archaeological assessment of 12-14 Phillip Street ('the Lennox Bridge car park') and 333 Church Street, Parramatta, NSW (the two properties are referred to as 'the subject site' in this report). In addition, AHMS was commissioned to provide built and landscape heritage advice about sites, items and places within, and in the vicinity of, the subject site.

PCC is pursuing a property development strategy for several Council sites in Parramatta and the strategy includes the development of the Lennox Bridge car park and 333 Church Street sites. The heritage assessments are required to inform design development at the subject site, to identify heritage values and risks and to outline the statutory heritage approvals and related considerations that may apply.

1.2 Aims and Objectives

The aims of the heritage investigations were to:

- Accurately identify, map and assess of the extent of the subject site's potential historical archaeological resources;

- Provide strategic advice concerning the Aboriginal archaeological context of the sites and likelihood or not of the Parramatta sand sheet, which may contain Aboriginal archaeological materials, to survive below the site;

- Assess the heritage significance of potential historical archaeological remains to determine whether they are of State or local heritage value;

- Provide advice concerning the likely survival, extent and cultural significance of surviving Aboriginal archaeological resources at the sites, within the limits of existing information and documents;

- Develop effective policies and methods for managing the potential archaeological resources and cultural values;

- Identify development footprint options with indications of the potential heritage impacts and associated risks regarding potential Aboriginal and historical archaeological impacts;

- Identify known heritage items in the vicinity of the subject site that may be visually or otherwise impacted by a proposed development at the subject site; and

- Identify requirements for considering and managing potential impacts to heritage items within the vicinity of the subject site, should it be redeveloped.

1.3 Heritage Guidelines

The archaeological and heritage assessments were undertaken using a best practice approach, with research and assessment consistent with relevant heritage guidelines. The assessments employed the use of the:

- The Australia ICOMOS *Charter for Places of Cultural Significance, 1999* (the 'Burra Charter');
- '*Assessing Significance for Historical Archaeological Sites and Relics*' NSW Heritage Council and (the former) Department of Planning, 2009;
- NSW Heritage Manual, published by the NSW Heritage Council; and
- Initial requirements of OEH's *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010).

1.4 Report Structure

The report structure is as follows:

Part 1 - Introduction

This part summarises the key information regarding the Proposal and background information

- **Section 1 -** Introduction
- **Section 2**- Subject site Location
- **Section 3**- Applicable Legislation for the Project

Part 2 – Aboriginal Archaeological Assessment

- **Executive Summary**
- **Section 1** - Statutory Considerations
- **Section 2** - Landscape Context
- **Section 3** - Previous Archaeological Work
- **Section 4** - Regional Character
- **Section 5** – Significance Assessment
- **Section 6** - Conclusions
- **Section 7** - Management Strategies
- **Section 8** - References

Part 3 – Historical Archaeological Assessment

Executive Summary

- **Section 1 -** Introduction
- **Section 2 -** Statutory Considerations
- **Section 3 -** Site History
- **Section 4 -** Physical Analysis
- **Section 5** - Significance
- **Section 6** - Conclusions
- **Section 7** – Management Recommendations
- **Section 8** - References
- **Attachment 1** – Comparative Archaeological Context

Part 4 –Landscape and Built Heritage Advice

- **Section 1** - Introduction
- **Section 2 -** Heritage Considerations
- **Section 3** - References

Part 5 – Synthesis of Findings

- **Section 1** – Aboriginal Archaeological Assessment Summary

- **Section 2 -** Historical Archaeology Assessment Summary
- **Section 3**- Built and Landscape Heritage Advice Summary

1.5 Limitations

The following limitations apply to this report:

- Informal Aboriginal community consultation for this assessment was undertaken with the Deerubin Local Aboriginal Land Council and the Parramatta Aboriginal and Torres Strait Islander Advisory Committee. Aboriginal community consultation in accordance with OEH's (2010) *Aboriginal Cultural Heritage Consultation Requirements for Proponents* was not undertaken as part of this assessment; and

- The built and landscape heritage advice did not extend to re-examining heritage significance of known heritage items, except for 333 Church Street Parramatta.

1.6 Authorship

This report was written by Graham Wilson, Laura Matarese and Lisa Newell, with input from Joanne McAuley (AHMS). Lisa Newell (Associate Director, AHMS) also provided planning advice and input and reviewed the report.

1.7 Acknowledgements

We gratefully acknowledge the assistance in the preparation of this report of:

- Parramatta City Council;
- Deerubin Local Aboriginal Land Council (DLALC);
- Parramatta Aboriginal and Torres Strait Islander Advisory Committee (PATSIAC);
- The Mitchell Library; and
- The Office of Environment and Heritage (OEH) Aboriginal Heritage Information Management System (AHIMS) Department, Hurstville.

2. THE SUBJECT SITE

The subject site comprises the Lennox Bridge car park at 12-14 Phillip Street Parramatta and 333 Church Street, Parramatta, NSW (**Figure 1.1** and **Figure 1.2**). It is located in the Parish of St John, County of Cumberland and in the Parramatta local government area. It consists of Lot 1 DP 791693, Lot 2 DP 791693, Lot A DP 333263 and Lot 3 DP 825045.

The greater part of the subject site is currently occupied by a bitumen-surfaced car park located behind the Phillip Street (to the west), Marsden Street (to the south) and Church Street (to the east). Part of the subject site (Lot 3 DP 825045) is currently occupied by a two storey building fronting Church Street (to the east). This part of the subject site, described throughout the report as '333 Church Street', also includes the street numbers 335, 337 and 337A Church Street. Lot A DP 333263 is given a street address as 339 Church Street although no buildings occupy the site.

The Parramatta River is situated at the northern boundary of the subject site with Marsden Street Weir and Parramatta Dam situated at the northwest boundary of the subject site.



Figure 1. Plan of the general location of the subject site (indicated by black arrow) (source: Google Earth Pro).

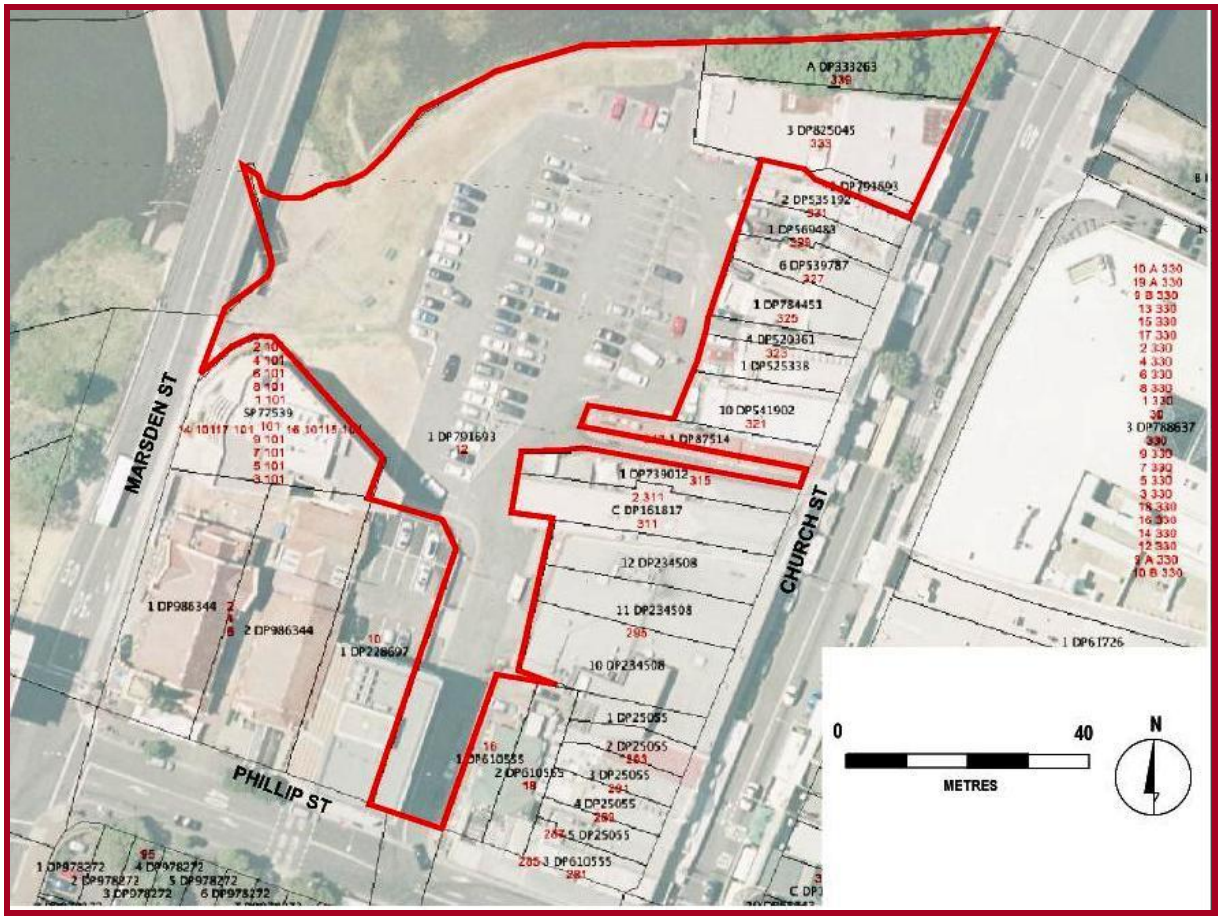


Figure 2. A recent aerial photograph with cadastral information showing the subject site outlined in red (source: Six Viewer, NSW Land and Property Information Management Authority). North is oriented at the top of the image.

3. APPLICABLE HERITAGE CONTEXT

Aboriginal and historical heritage in New South Wales can be protected by a number of pieces of legislation: Commonwealth, State and local.

Outlined below are the statutes and planning instruments that are referred to and discussed throughout the report. They are the:

- *Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth);
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth);
- *National Parks and Wildlife Act 1974* (NSW);
- *Heritage Act 1977* (NSW);
- *Environmental Planning and Assessment Act 1979* (NSW);
- *Parramatta City Centre Development Control Plan 2007* (Parramatta Council); and
- *Parramatta City Centre Local Environmental Plan 2007* (Parramatta Council)

It is noted that the recently gazetted *Parramatta Local Environmental Plan 2011* and the *Parramatta Development Control Plan 2011* do not apply to the subject site.

These pieces of legislation are further discussed in the Statutory Considerations section of the Aboriginal archaeological assessment (**Part 2**), the historical archaeological assessment (**Part 3**) and the built and landscape heritage advice (**Part 4**) of the subject site.

One heritage item (333 Church Street), listed in the *Parramatta City Centre Local Environmental Plan 2007*, is located within the subject site and a number of other items listed in this and the other instruments set out above are in the vicinity of the site. The historic heritage items identified in the heritage schedules of the legislation and planning instruments set out above which are within or in the vicinity of the subject site are listed in **Table 1**.

Aboriginal heritage sites, places and/or objects are listed in the schedule of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* and the *Aboriginal Heritage Management Information System (AHIMS)* database which is administered by the Office of Environment and Heritage (OEH) under the *National Parks and Wildlife Act 1974*.

No known Aboriginal heritage places, sites and/or objects have been identified within the subject site on these lists. As yet unknown Aboriginal sites, object or places may exist at the subject site. This is further discussed in **Part 2**.

Table 1: Historic Heritage items within the subject site (highlighted in yellow) and in the vicinity of the subject site (highlighted in blue)

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
1	Old Government House and the Government Domain /Parramatta Park and Old Government House						
2	Kings School Group (former) listing Marsden Rehabilitation Centre Group listing (Identical cadastral information)						
3	Marsden Rehabilitation Centre listing: - Dining Hall - Kitchen & Servants Quarters -Landscape (identical cadastral						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
	information, also part of Listing 2 location)						
4	Lennox Bridge						
5	Sandstone and brick wall (286 (rear), 288 and 290 Church Street)						
6	Former ANZ bank and potential archaeological site (306 Church Street (corner of Phillip Street))						
7	Parramatta hospital archaeological site						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
8	Brislington property, Moreton Bay fig tree and potential archaeological site 10 George Street (corner of Marsden Street)						
9	Parramatta Dam archaeological site weir Marsden Street						
10	Former St Andrew's Uniting Church, hall and potential archaeological site						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
11	Shop, office and potential archaeological site (279 Church Street)						
12	Shop (281 Church Street)						
13	Shop (287 Church Street)						
14	Shop (289 Church Street)						
15	Shop (291 Church Street)						
16	Shop (293 Church Street)						
17	Shop (311-315 Church Street)						
18	Shop (317 Church Street)						
19	Shop (321 Church Street)						
20	Archaeological/ terrestrial (323 Church						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
	Street)						
21	Shop (325 and 327 Church Street)						
22	Archaeological/ terrestrial (329 Church Street)						
23	Archaeological/ terrestrial (331 Church Street)						
24	Archaeological/ terrestrial (331A Church Street)						
25	Shop (333 Church Street)						
26	Shop (339 Church Street)						

Part 2 - Aboriginal Archaeological Assessment

EXECUTIVE SUMMARY

1. There is potential for Aboriginal archaeological sites and/or objects to survive in the subject site.
2. The Parramatta terrace sand sheet is located at the subject site. It has potential to contain Aboriginal sites and/or objects dating from c. c.30,000 to 10,000 years BP;
3. There is the potential for Holocene deposits to survive in the north eastern part of the subject site that may date from 10,000 BP to the present. They have potential to contain Aboriginal sites and/or objects
4. The potential Aboriginal archaeological sites and/or objects that may exist at the subject site are likely to be of cultural and scientific significance; and
5. Further Aboriginal heritage investigations are required and to inform the proposed development planning of the subject site.

1. STATUTORY CONSIDERATIONS

1.1 Commonwealth Statutory Considerations

Aboriginal heritage and archaeology in New South Wales is protected by a number of pieces of legislation, including two pieces of Commonwealth legislation, the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* and the *Environment Protection & Biodiversity Conservation Act 1999 (EPBC Act)*.

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* provides protection for areas (particularly sacred sites) and objects of particular significance to Aboriginal Australians. As well as providing protection to areas, the Act can also protect objects by *Declaration*.

No Aboriginal sites or places within the subject site are currently subject to a Declaration.

The *Environment Protection & Biodiversity Conservation Act 1999 (EPBC Act)* provides a statutory framework for protecting and managing significant environmental and cultural heritage places, flora, fauna and environmental communities. The Act establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL) and provides protection for places included in the two lists. The Act also provides protection for those Australian places on the World Heritage List (WHL).

The subject site does not include any places of Aboriginal heritage value that are listed on the WHL, CHL or the NHL.

1.2 Environmental Planning and Assessment Act 1979 (NSW)

The *Environmental Planning and Assessment Act 1979 (EP&A Act)*, together with the *Heritage Act 1977*, the *National Parks and Wildlife Act 1974* and local planning instruments, form an integrated system for managing environmental heritage in NSW. Aboriginal heritage and archaeology in New South Wales is largely controlled by the *National Parks and Wildlife Act 1974*.

1.2.1 National Parks & Wildlife Act 1974 (NSW)

The *National Parks & Wildlife Act 1974* (NPW Act) is State legislation that provides blanket protection for Aboriginal objects (material evidence of indigenous occupation) and Aboriginal places (areas of cultural significance to the Aboriginal community) across NSW. An Aboriginal object is defined 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 any place declared to be an Aboriginal place by the Minister under Section 84 of the Act.

It is an offence, except in some specific planning approval contexts to 'harm or desecrate' Aboriginal objects or places without a permit authorised by the Director-General of the Office of Environment and Heritage (OEH). In addition, anyone who discovers an Aboriginal object is obliged to report the discovery to OEH.

OEH maintains the Aboriginal Heritage Information Management System (AHIMS), a database of registered Aboriginal objects and places and other heritage values in NSW. A search of AHIMS was carried out on the 12 September and 4 October 2011 in relation to the subject site (Lot 1 DP 791693 and Lot 1 DP 791693).

There are no AHIMS Aboriginal and/or objects sites in the subject site.[1]

1.2.2 Parramatta City Centre Local Environmental Plan 2007 (LEP)

The subject site falls within the Parramatta City Council (LGA). The relevant environmental planning instrument is the *Parramatta City Centre Local Environmental Plan 2007 (LEP)*.

[1] AHIMS Basic Search References: Lot 1 DP 791693- Ref No. 1107271, undertaken 12.09.2011; Lot 1 DP 791693, Ref No. 11727-1b undertaken 04.10.2011.

One of the objectives of the *Parramatta City Local Environmental Plan 2007* is to conserve places of Aboriginal heritage significance (Clause 35(1)b). Furthermore, the LEP states under Clause 35(7) that:

> *The consent authority must, before granting consent under this clause to the carrying out of development in a place of Aboriginal heritage significance:*
>
> > *(a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place, and*
> >
> > *(b) notify the local Aboriginal communities (in such way as it thinks appropriate) about the application and take into consideration any response received within 21 days after the notice is sent.*

There are no Aboriginal heritage places within the subject site listed under Schedule 5 of the LEP.

2. LANDSCAPE CONTEXT

2.1 Background

Archaeological assessment reports include information about the environmental context of their subject site because of the important role environmental characteristics played in influencing the types of archaeological sites in any given area. Physical environments influenced both the type and availability of natural resources and the types of cultural activities that were carried out in the past. As a result, this also influences the types of archaeological sites that may be found. A determination of the former environmental context is essential to develop accurate models of cultural activity, site distribution patterns and the archaeological potential of any given area. The environmental context of the subject site is discussed below.

2.2 Geology and Soils

Chapman and Murphy's *Soil Landscapes of Sydney* provides general overview mapping and descriptions of the soil landscapes and topography of the Sydney region. According to Chapman and Murphy, the subject site is characterised as being located within disturbed terrain in the 'Birrong Soil Landscape' (Chapman and Murphy, 1989; Chapman, Murphy, Tille, Atkinson and Morse, 1989). However, a recent and localised investigation of the soils and geology of Parramatta was undertaken by Dr. Peter Mitchell (Geomorphologist), Groundtruth Consulting, in 2008 (Mitchell, 2008).

The detailed 2008 investigation of the soil profiles and materials in Parramatta identified that the soil landscape mapping of the Parramatta area in the *Soil Landscapes of Sydney* is incorrect. Mitchell identified that there is less disturbance of the original soil profiles in Parramatta than would be expected from the historical development of the town. The *Soil Landscapes of Sydney* also incorrectly identifies the soil profile of Parramatta, as the nature of the soil profile and materials is inconsistent with the description of the Birrong soil landscape.

Mitchell's investigations predict that the subject site is located partly within the area of the Pleistocene Parramatta terrace sand sheet and the Holocene floodplain (**Figure 2.1**) (Mitchell, 2008). The geology is defined as being part of the Ashfield shales. The sand sheet and floodplain are described in detail below.

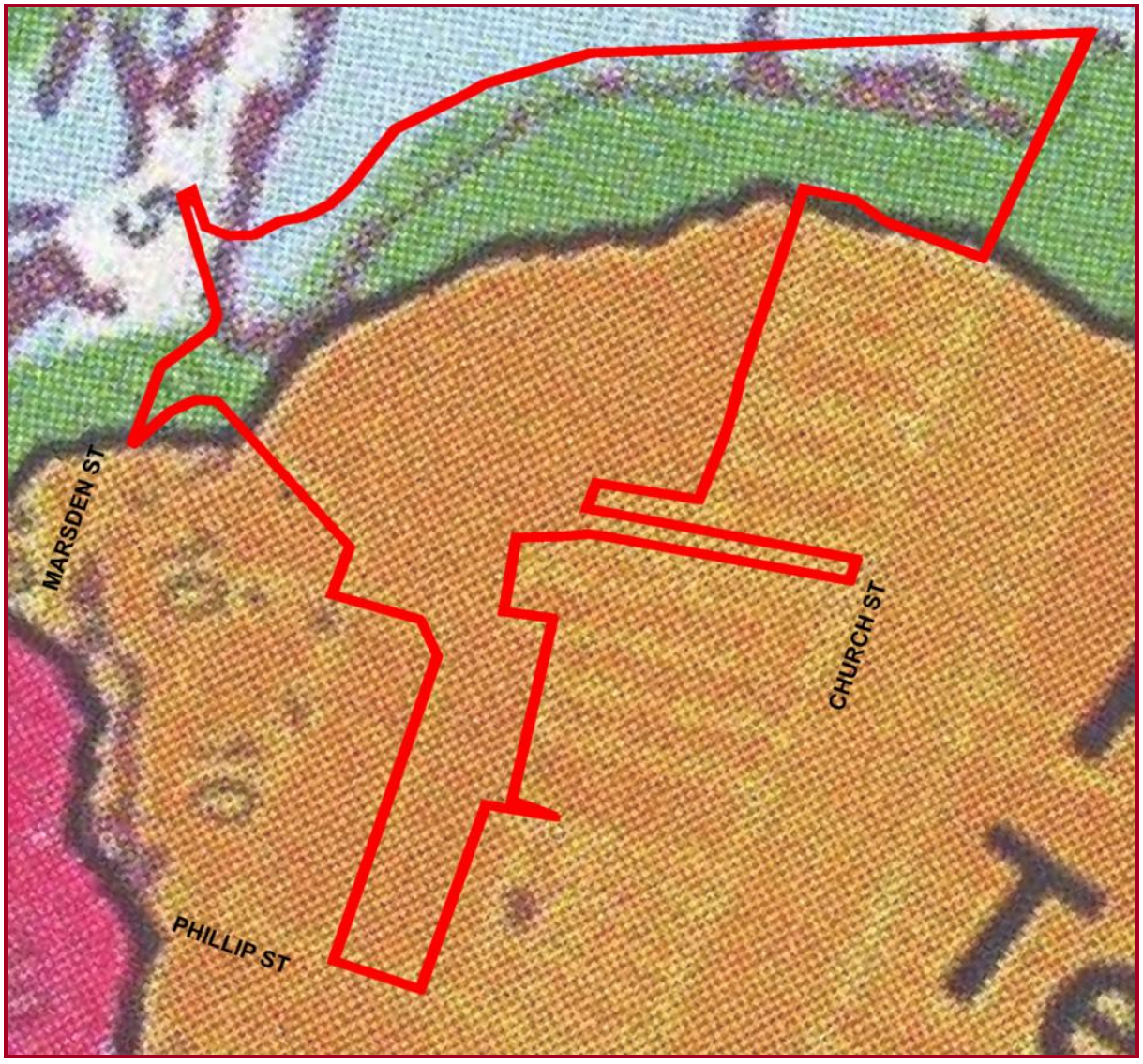


Figure 1. The subject site (red) shown overlying part of Mitchell's (2008) 'Indicative Distribution of different soil parent materials and landscapes along the Parramatta River'. The Pleistocene Parramatta Terrace sand sheet is shown in orange and the Holocene floodplain deposits are shown in green (Source: Mitchell, 2008:7)

2.2.1 The Parramatta Terrace Sand Sheet

The Parramatta terrace sand sheet was first identified during historical archaeological investigations undertaken for the construction of the Meriton Building on the corner of George and Charles Streets in 2002 (further details of the George and Charles Street, and other, Aboriginal archaeological investigations in the local area are summarised in **Part 2 Section 3.3**). During the archaeological investigation, the Parramatta terrace sand sheet was found to contain a large number of Aboriginal objects beneath levels of the remains of

European occupation. A radiocarbon date from the archaeological investigations at George Street indicates an Aboriginal presence in the Parramatta area some 30,000 years ago (JMCHM, 2005a). This is presently accepted as the oldest evidence for human occupation in the Sydney region.

A comprehensive understanding of the geomorphology of Parramatta continued to be developed through various geotechnical and archaeological investigations. Since its identification in 2002, several other archaeological excavations have been undertaken in Parramatta that have identified the Parramatta terrace sand sheet or, conversely, noted its absence (see **Part 2 Section 3.3**).

The results of the previous archaeological investigations as outlined below indicate the presence or absence of the Parramatta terrace sand sheet, its soil profile, depth and relationship to other soil deposits in locations in close proximity of the subject site.

Recent archaeological test excavations by AHMS at the Parramatta Police Station, 20 m south of the Phillip Street boundary of the subject site, identified a sand body and two other deposits: a red brown heavy clay (C-horizon) at a depth of about 85 cm (below natural land surface) at the north side of the site; and an indurated ironstone hard pan was identified at a similar depth at the south side of the site (AHMS, 2011 in prep). The sand body was identified as the Parramatta terrace sand sheet, however, it was heavily disturbed. The sand sheet was shallow in this area due to its close interface with a hill comprising of clay to the west of the site. Discussions with Dr. Mitchell regarding the nature and origin of these deposits suggest that the ironstone hard pan was situated immediately over the basal clay and had developed due to increased water flow and/or water accumulation at the interface between the sand and the clay.

The absence of the Parramatta terrace sand sheet in the vicinity of the clay hill is further confirmed by Haglund & Associates (2006a, 2007) excavations at the Parramatta Justice Precinct approximately 60 m west of the subject site, where only a heavy alluvial clay was identified.

Contour and topographical information indicates the clay hill is located west and south west of the subject site.

The archaeological test excavations undertaken at 109-113 George Street, Parramatta (RTA-G1), approximately 780m south-west of the subject site and within 150m of Parramatta River, identified a deep fluvial sand body (JMCHM 2005a). The sand body stabilised over time with vegetation growth and the development of overlying topsoils through pedogenesis. The soil profile at 109-113 George Street was described by JMCHM (2003:5) as follows:

1. A1-horizon: 0 to 25/30 cm unit depth, pH 5.7, brown (7.5YR4/4m) to brownish grey (10YR 5/1m) loamy sand, weak earth fabric, moderate concentration of plant roots, extensively bioturbated. This unit was missing or highly disturbed over the site. The A1-horizon had a gradual and bioturbated boundary to a bleached A2 horizon as described in point (2).

2. Bleached A2-horizon: 25/30 cm to 50/60 cm unit depth, pH 5.8, greyish yellow brown (10YR6/2m, 7/1d), sometimes light grey (10YR8/1m) single grained fine sand becoming more compact and less porous with depth with a weak earth fabric. The A2-horizon had extensive bioturbation and a diffuse boundary to the B-horizon described in point (3).

3. B-horizon: 50/60 to about 120 cm unit depth, pH 5.6, compact reddish brown (5YR4/6m) to dull orange (5YR7/4d) coherent fine sand with well developed porous earthy fabric.

It is likely that the Parramatta terrace sand sheet would be present in the subject site and may have a similar soil profile to that identified above at 109-113 George Street, Parramatta.

2.2.2 Geotechnical Investigations

Geotechnical testing of the subject site was undertaken by Douglas Partners Geotechnical Consultants in September 2011 (**Appendix 1**). One of the tasks of testing was to obtain information on the presence or absence of the Parramatta Terrace Sand Sheet in the subject site to provide more accurate information to map the likely location of the sand sheet.

The testing involved the drilling of ten boreholes (BH101 to BH110) to depths of approximately 3 m to 4 m below ground surface level and three ground water monitoring wells to depths of 5m to 7 m (MW01 to MW03) (Douglas Partners, 2011). The locations of the boreholes and ground monitoring wells at the subject site are shown in **Figure 2.2**.

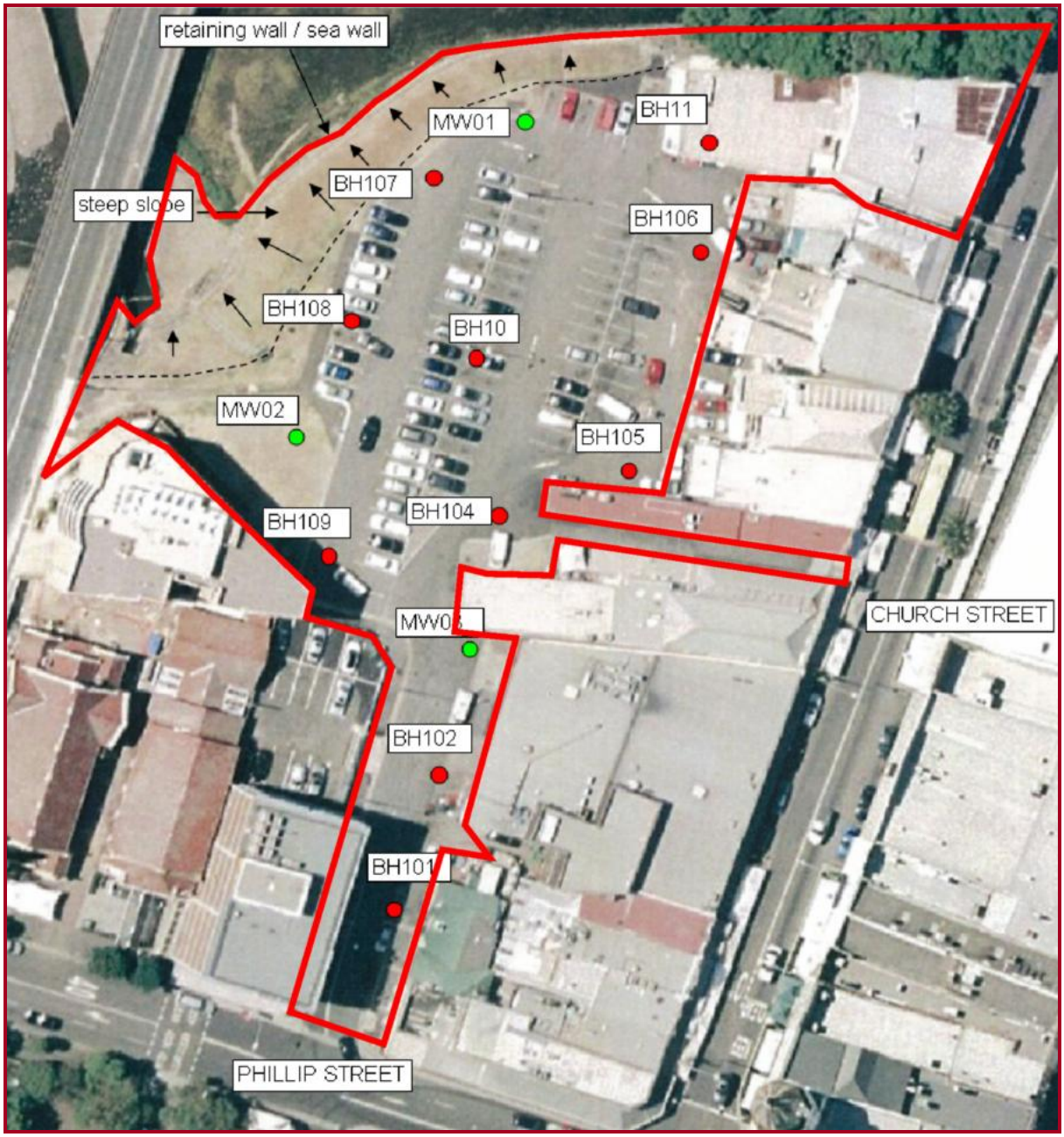


Figure 2. Location of boreholes (red circles)and monitoring wells (green) at the subject site (approximate site boundary shown in red). (Base Map Source: Douglas Partners, 2011)

A review of the geotechnical testing results indicates that the Parramatta terrace sand sheet exists below the current ground surface across the majority of the subject site (refer to **Figure 2.2**). The sand sheet, recorded as 'silty sand' in the borelogs, is generally

orange or orange brown in colour however it is also recorded as yellow, yellowy brown, brown and dark brown. The variation in colour may be the result of pedogenesis, bleaching and/or a record of different depositional events. The results of WM02 revealed 'silty sand' occurs to depths of at least 7 m (where the WM02 was terminated) below the current ground surface.

The results of the geotechnical investigations also revealed varying levels of disturbance, or 'fills' across the subject site. The majority of the cores undertaken in the car park reveal there is 200 mm to 500 mm of 'fill' overlying 'silty sand' (see borelogs BH101, BH102, BH103, BH104, BH108, MW 02 and MW 03).

The soil profiles of borehole BH107 located at the northern boundary of the car park indicates 'fill' exists 1.1 m below the existing ground surface and overlies 'silty sand'. The additional fill at this location is likely due to the cores proximity to an existing water main.

The results of borelogs BH105, BH106 and BH110, at the rear of the Church Street shops, indicate disturbance is deeper in these locations, as 1 m to 2.2 m of various types of fill overlies 'silty sand'.

The only borehole where no sand sheet was recorded was MW01 located at the northern boundary of the car park. The results of the soil profile of borehole MW01 indicates fills to a depth of at least 7 m (where the core was discontinued), consisting of asphalt, concrete and various introduced soil below the existing ground surface. The sand sheet does not appear to exist at this part of the subject site.

In addition, it is unknown whether or not the sand sheet exists below the alleyway from Church Street or below the buildings at 333 Church Street, as these locations were unable to be tested by Douglas Partners due to the location of a service line and the constraints of the existing building, respectively. It is likely that some original soil profile, such as the sand sheet, survives in these areas but is disturbed or truncated by existing infrastructure and developments.

The geotechnical investigations undertaken by Douglas Partners (2011) reveal no Holocene alluvial deposits exist in the areas tested at the subject site. However, according to Mitchell's indicative distribution of soils in Parramatta (2008:7), there is some potential for Holocene deposits to exist at the northern extent of the site (see **Figure 2.3**).

The discrepancy between Mitchell's predictions and the results of the geotechnical investigations is partly due to the scope and aims of each investigation. An aim of Mitchell's study was to predict the soil landscape for the township of Parramatta, specifically predicting the likely locations of the Pleistocene Parramatta terrace sand sheet. Mitchell's methodology did not include geotechnical testing, detailed site visits or a

review of survivability factors due to historical disturbance or natural processes (such as river bank erosion due to flooding events).

The geotechnical investigations of the subject site were site-specific, detailed and included a topographical information, such as the break in slope at the site adjacent to the Parramatta River.

The geotechnical investigations at the car park, where Mitchell predicted Holocene alluvial deposits may exist, identified the Parramatta terrace sand sheet (see BH07 and BH11), deep fill deposits (WM01) and a steep break in slope to the Parramatta River. No Holocene deposits were identified at the northern extent subject site. Based on these results and the location of the break in slope along the northern and north-western extent of the subject site, it is unlikely that Holocene alluvial deposits exist at the car park.

However, based on Mitchell's (2008) study, there is some potential for Holocene deposits to survive beneath the existing building at 333 Church Street Parramatta and adjacent passageway. Geotechnical investigations were unable to be undertaken at this part of the subject site due to the constraints of the existing building, and were therefore unable to verify whether or not Holocene deposits exist at this part of the subject site.

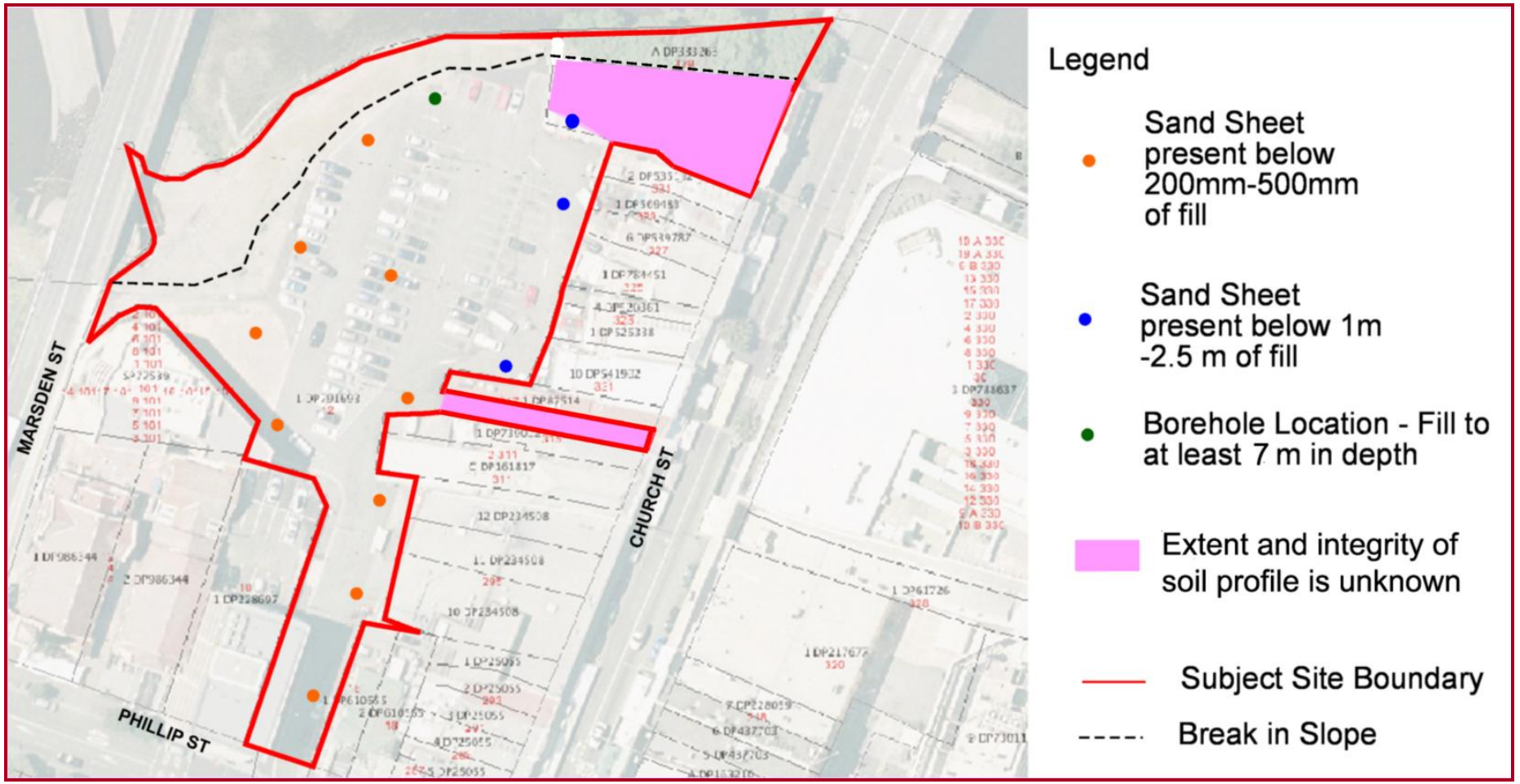


Figure 3. Map of the subject site from the geotechnical results indicating the sand sheet survives in much of the subject site, with some areas of localised disturbance (Source: SixViewer, Department of Lands; Douglas Partners, 2011)

2.3 Vegetation

The natural vegetation of a landscape is an important consideration when preparing an Aboriginal heritage assessment because it provided Aboriginal people with resources. Bark from trees could be stripped to make canoes, shields and other items. The vegetation itself provided food resources such as edible plants and also habitats for animals such as possums and birds, which could be hunted.

Original vegetation was cleared from the site during the historic period and visual inspection at the time of the survey confirmed there are no old growth trees remaining at the subject site. Although no specific details are available about original vegetation within the subject site, historical sources provide an indication of the likely nature of original riparian vegetation along the banks of Parramatta River near the early settlement. Governor Phillip and Surgeon John White camped on the south bank of the river near the mouth of Clay Cliff Creek (to the east of the current subject site) on April 23rd and 24th 1788. They described the ground as:

> *'…open and flat with immense trees quite a distance from each other; the ground free of underbrush and covered with long grass.'*
>
> (Kass et al., 1996:12)

During the same expedition, Governor Phillip and Surgeon White described the Parramatta River below the current site of Lennox Bridge as follows:

> *'the banks of it were now pleasant, the trees immensely large, and at a considerable distance from each other; and the land around us flat and rather low, but well covered with the grass just mentioned [i.e. rich and succulent]'.*
>
> (Benson & Howell, 1990:68)

Benson and Howell (1990) suggest the trees on the flats were grey box and forest red gum. In the tidal section of the creek, some mangroves would be expected, although they would not be as dense as today, and upstream of these, common reed and paperbark would occur along the freshwater reaches. Swamp oak would have been present in more poorly drained areas and as a line of riparian woodland above the high tide mark.

Phillip and White's description of open woodland comprising well-spaced trees with grass understorey would have facilitated access for camping and use of the riverbank by Aboriginal people prior to European settlement. The description of open grassland may also indicate Aboriginal burning along the banks of the River, referred to as fire-stick farming.

2.3.1 Watercourses and Flooding

The subject site is located adjacent to the Parramatta River which would have provided abundant resources to Aboriginal people in the past. The Parramatta River is known to be subject to flooding events that have most likely affected the probability of Aboriginal sites and/or objects to survive within deposits of the banks of the river and may have affected the context and integrity of those deposits that have survived. The following summary of flood events recorded in the historical period is based on the site history in **Part 3** of this report.

Several major floods of the Parramatta River have been recorded in the nineteenth century.

In 1812, the Parramatta River flooded to a considerable extent. Some minor damage was sustained in the township, particularly along the river flats west of the Church Street bridge (Sydney Gazette 28.11.1812:2).

The Parramatta River flooded again on 11 June 1864 and rose to a considerable height, resulting in the displacement of the upper course of stonework in the Marsden Street weir and flooding of the properties between the weir and the Lennox Bridge. A newspaper article indicates that, at Church Street, the water almost reached the top of the bridge arch, indicating that almost all of the study area would have been under water, although no significant damage to structures was reported (SMH 14.06.1864).

The most significant modification of the subject site due to flooding occurred during the 1889 flood. The flood caused scouring down to bedrock of the southern bank of the river between the weir and the Lennox Bridge. The shops and residences in Church Street were flooded but most damage was sustained by the 'Riverside' estate of George Stone, immediately east of the Marsden Street weir (north western portion of the subject site). The scouring removed a large portion of the river frontage of this property and appears to have damaged the house itself to the extent that the main (western) section of the house was demolished. No deposition of soils appears to have occurred due to this event.

Historical and geotechnical evidence indicates that the break in slope at the subject site is in the vicinity of the original cut from the 1889 flooding and scouring event. Historical archaeological excavations undertaken by AHMS at 101 Marsden Street, adjacent to the subject site, identified the cut from the 1889 scouring event in the northern part of the site (AHMS 2004a). Borehole MW 01, which consists of fill to at least 7 m below the existing ground surface, is likely to be in an area that was reclaimed after the scouring event removed the original soil profile from this area. Based on this information, in addition to historical photographs of the subject site (for example **Figure 2.4 - 2.7**), the likely location of the cut at the subject site from the 1889 flooding and scouring event is shown in **Figure 2.8.**

Current flood prediction mapping indicates a significant portion of the subject site is subject to inundation from flood waters, as shown in **Figure 2.9** below.



Figure 4. Photograph of the Riverside Theatre and Lennox Bridge taken from the south bank of the Parramatta River during the 1988 flood. Nineteenth century flooding events reached the height of the arch of the Lennox Bridge (Source: Parramatta Heritage Centre Library)



Figure 5. Photograph of the David Jones building (330 Church Street) taken from the north side of the Parramatta River during the 1988 flood (Source: Parramatta Heritage Centre Library)

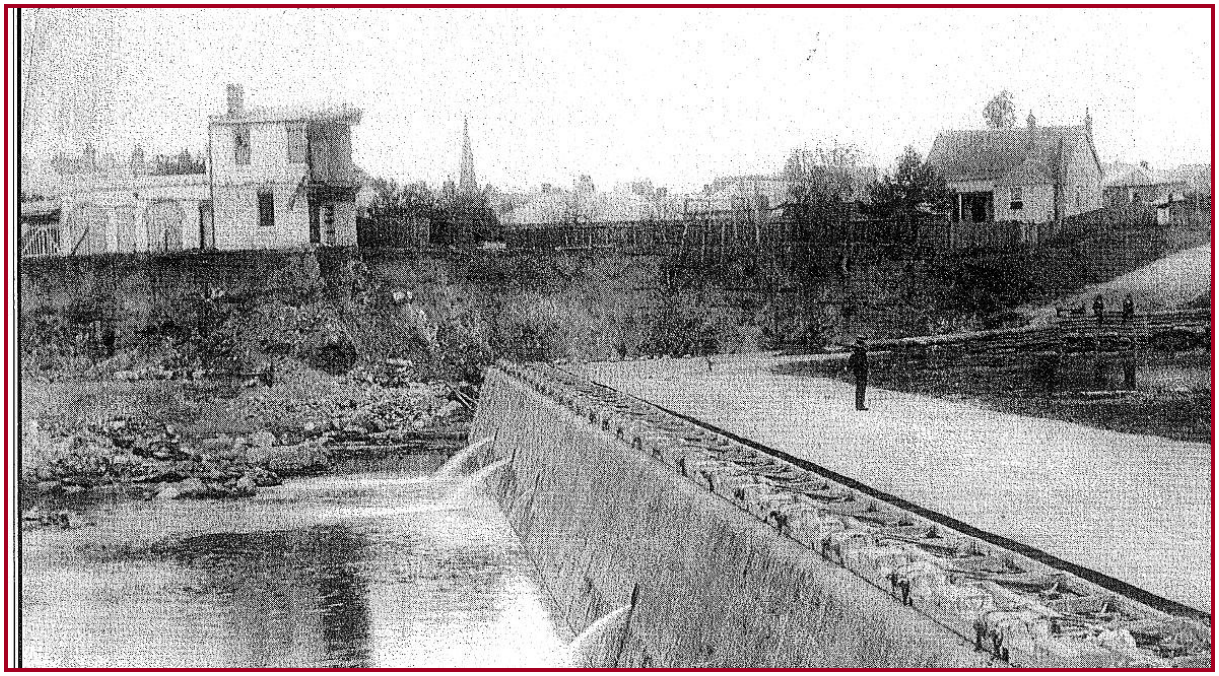


Figure 6. Part of a photograph showing the results of the scouring from the 1889 flood at the north western part of the subject site. The rebuilt Marsden Street weir is at right. Undated photograph c.1890. (Source: McClymont 2001 Pictorial History of Parramatta a Districts).

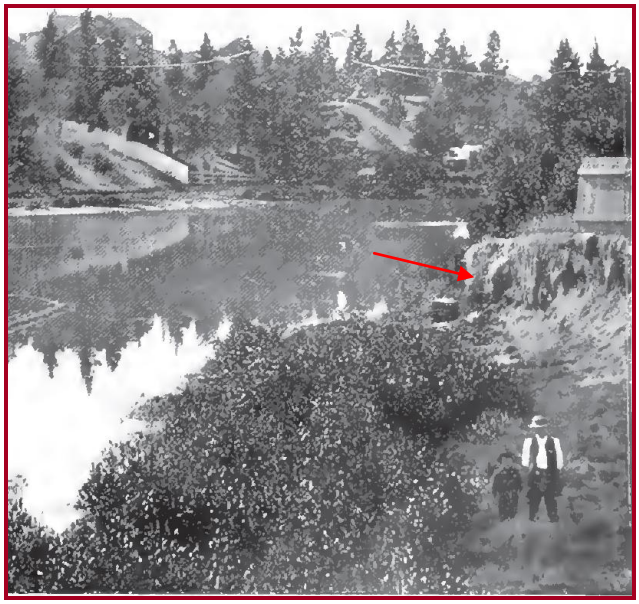


Figure 7. Part of a photograph showing Parramatta River looking east towards Rydalmere Hospital, n.d. The red arrow indicates the effects of a scouring event on the southern bank of the Parramatta River (Source: The Jubilee History of Parramatta, 1911)

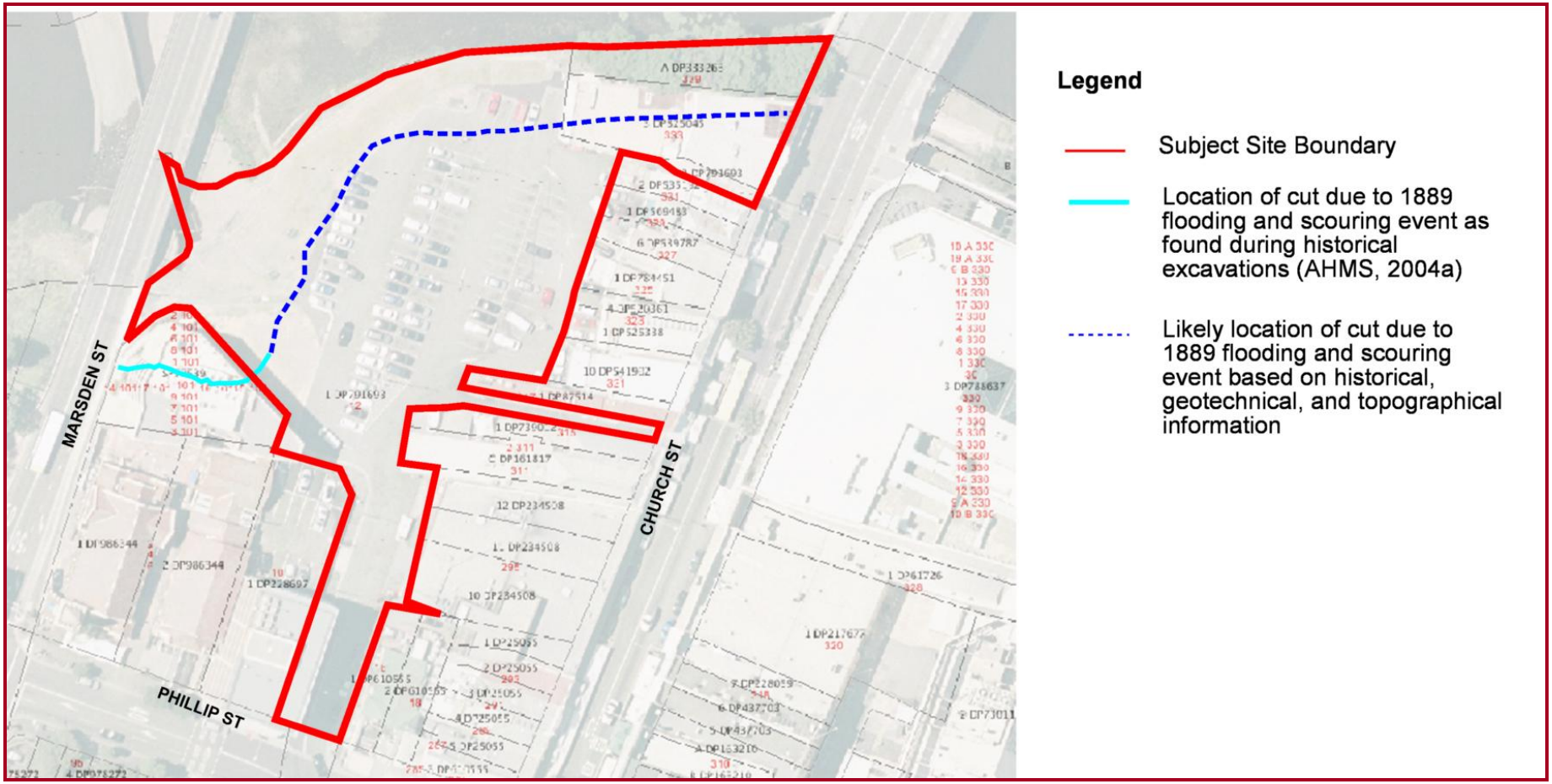


Figure 8. Subject site showing the cut due to the 1889 flooding and scouring event identified during historical excavations of 101 Marsden Street Parramatta and the inferred location of the cut through the subject site established from historical, geotechnical and topographical information (Basemap Source: SixViewer, department of Lands)

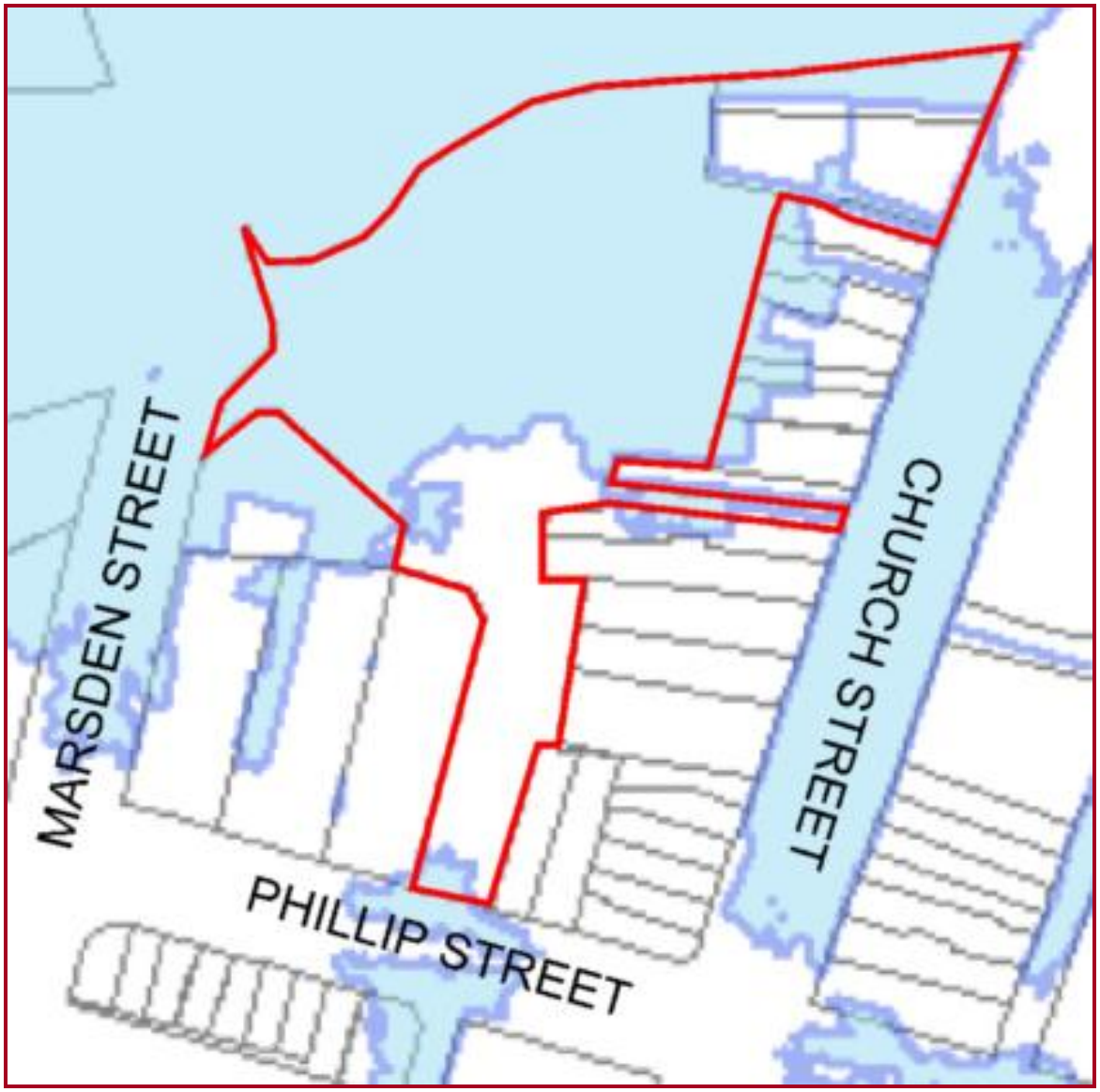


Figure 9. Part of the Parramatta City Council LEP Flood Prone Lands Map, with the subject site outlined in red. A significant portion of the subject site is classified as being subject to inundation. (Source: Parramatta City Council)

2.4 Previous Land Use & Disturbance Factors

This section summarises impacts to the subject site from both historic and more recent activities. A more detailed site history, which informed this summary, is in the Historical Archaeological Assessment of this report (**Part 3**).

2.4.1 General

Past land uses inform Aboriginal archaeological assessments because such activities influence the integrity of the Aboriginal archaeological record. Vegetation clearance for agriculture is considered to have a minor to moderate impact on the archaeological record (depending on the extent of the clearance) because removing vegetation only disturbs the upper units of soil. Vegetation clearance however, is commonly followed by sheet erosion as there are no longer any root systems to hold the soil in place. Ploughing, residential development and major erosion generally have a moderate to high impact on the soil profile because often the natural A-horizon soil is removed or significantly disturbed during these processes. Identifying areas of past land use and soil disturbance is important because it is within undisturbed soils that intact Aboriginal archaeological deposits may be found.

2.4.2 Disturbance Due to Historical Land Uses

The occupation and use of the subject site has been ongoing since the earliest non-Aboriginal settlement of Parramatta in the late 18th Century. An account of the historical activities and land uses of the subject site are outlined in **Part 3** of this report.

Historical land uses of the site have resulted in areas of localised disturbance. These areas are likely locations of historical archaeological resources relating to domestic and commercial land uses from the past two centuries. It is estimated that areas of localised disturbance would occur to depths of up to 1 m.

Deep disturbance of the soil profile is likely in areas of existing and former service lines at the subject site. It is estimated that the installation of service lines, including water mains, sewerage mains and electrical easements, resulted in the excavation of service trenches to depths of approximately 2 m.

The activity that resulted in the broadest disturbance across the subject site was for the construction of the car park in the 1960s. The laying of bitumen for the car park would have likely required initially cutting or 'trimming' of the ground surface and removal of approximately the upper 400mm of the soil profile, at the most.

Overall disturbance of the subject site due to historical activities has been localised or minimal. Areas with potential historical archaeological deposits and features are localised, and would have likely resulted in disturbance of the original soil profile to depths of 1 m. Areas of existing or past service lines would have created localised deep disturbance of the original soil profile of up to 2 m. The construction of the car park would have required grading of the existing ground surface. It is estimated that excavation or 'trimming' of the soil profile to depths of approximately 300 mm across the car park would have occurred.

Figure 2.10 indicates areas of likely disturbance due to historical activities and developments in the subject site.

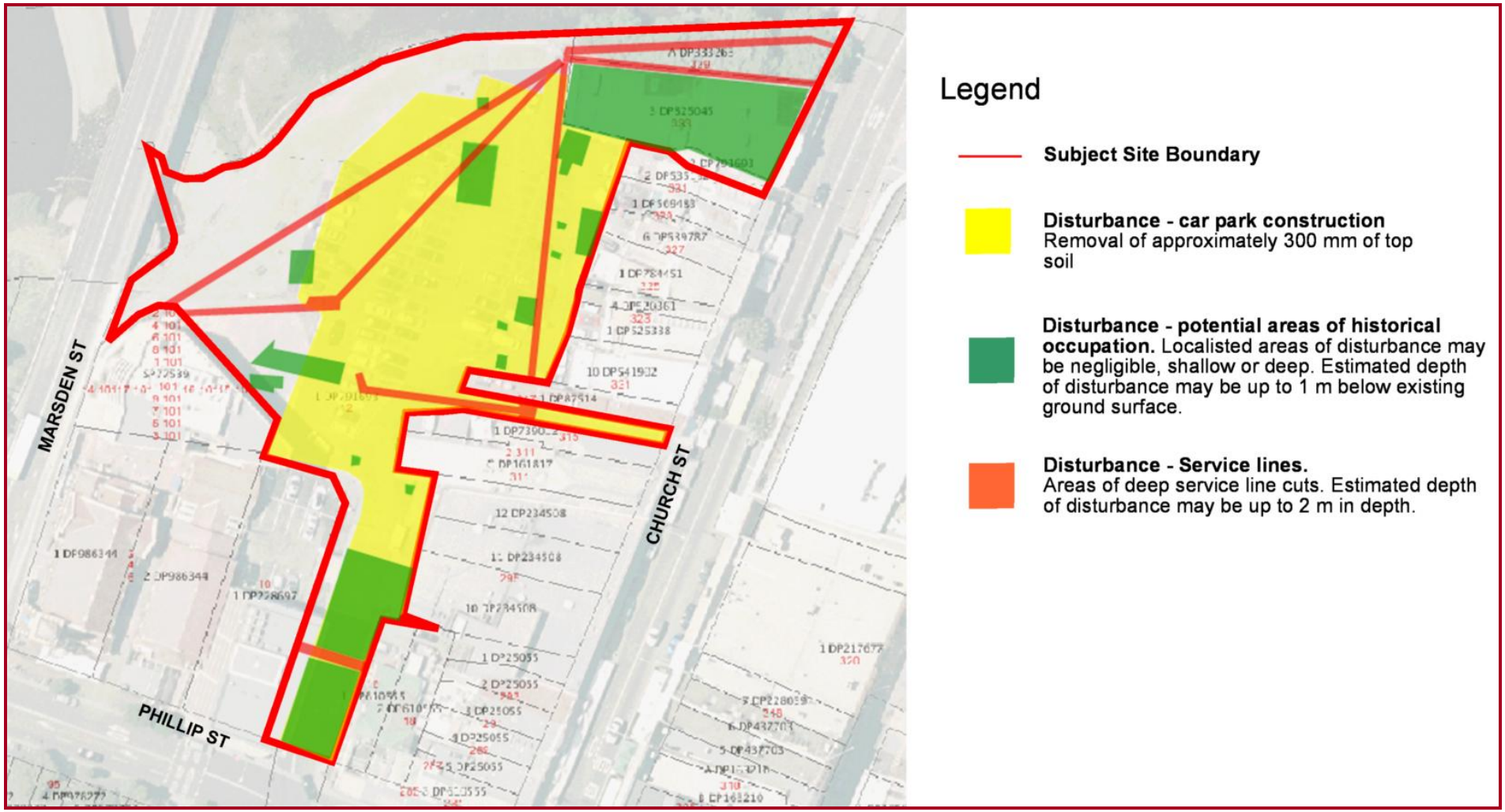


Figure 10. Likely areas of Aboriginal heritage disturbance due to historical activities within the subject site

3. PREVIOUS ARCHAEOLOGICAL WORK

This section discusses the ethnographic, regional and local archaeological context within which the subject site is situated. For the purposes of determining settlement and site location patterns, archaeologists examine regional and local trends in the distribution of known sites in relation to environment and topography. This provides evidence about economic and social systems in the past and also assists to predict likely site types, site locations and the nature of the archaeological resource in any given area.

3.1 Ethnographic Information

3.1.1 The People

The *Darug* people are the traditional owners of the Parramatta area. The *Darug* are part of a language group that originally extended from the eastern suburbs of Sydney as far south as La Perouse, west as far as Bathurst and north as far as the Hawkesbury River (Eades, 1976). Most of our knowledge of this language group comes from the work of pioneer ethnologist R H Matthews who produced 'Dharruk' word/vocabulary lists 'from the lips of old natives acquainted with the language' at Windsor in the early 20th century (Matthews et al., 1900). The term 'Darug' (a wild yam) was only applied to the language group after 1870 (Attenbrow, 2002).

The *Darug* comprised a number of sub-groups often referred to as 'clans', based upon religious and/or totemic associations to country. Ethno-historic sources suggest the clan that occupied the modern day Parramatta area were the *Burramattugal* (Attenbrow, 2002; Kohen, 1986). The words 'Burramutta' and 'Parramatta', appear to have been similar (or the same) words; there being only one sound in Aboriginal language for European equivalents of 'B' & 'P', and 'D' and 'T' (Tench, 1979). 'Burramutta', translates as either 'the head of the river' or 'the place where eels lie down'. The term 'Burramattugal' (with the masculine suffice 'gal') refers to the people, specifically the men, who lived in the Parramatta area (Collins, 1975; Kass et al., 1996; Tench, 1979).

3.1.2 The Parramatta River

The Parramatta area provided a range of different environments that supported a diverse range of plant and animal species. The change in the river from fresh to salt water provided a focus for the exploitation of both freshwater and estuarine species including fish, shellfish, tortoise and waterfowl, while the open forest with its fire-stick generated grasslands supported game. A number of tree species present in the district were important sources of bark that could be used in the construction of shelters, canoes and

twine. The intersection of diverse resources used by Aboriginal people made Parramatta a particularly attractive location for Aboriginal occupation and use.

Shellfish was a significant dietary component of Aboriginal groups that had access to the coast and estuaries. Archaeological evidence from shell middens in the upper estuarine reaches of the Parramatta River indicates that the shellfish procured by Aborigines in this locale included rock oysters and cockles and, to a lesser extent, Hercules whelks, mud oysters, spiny oysters, winks and horn shells (Attenbrow, 2002).

While there is little direct evidence of the utilisation of shellfish in the immediate Parramatta area, we know that shellfish middens once existed at various riverside locations along the length of the Parramatta River. Early 20th century writer Levy recorded 'numerous shell middens along the river', highlighting the existence of large oyster middens at Homebush and Shepperds Bay to the east of Parramatta (Levy, 1947).

Much of this evidence of traditional Aboriginal lifestyle and economy was disturbed in the early years of European settlement. Middens were excavated to provide lime for mortar in early colonial buildings, aggregate for paths and a calcium-rich addition to poultry feed. Much of the disturbance of shell middens occurred early in the post-contact period, particularly in areas of the river close to settlement building activity such as Parramatta and Sydney.

Aside from collecting shellfish, fishing was an activity of particular economic importance to Aboriginal people living on the Parramatta River. Finfish appear to have been a particularly popular species for fishing. Aboriginal fishing methods are known to have been many and varied and included line fishing from bark canoes, spear fishing in the shallow waters and utilising nets, traps and fish poisons.

Fish known to have existed in the Upper Parramatta River prior to, and at the time of contact, were much greater in both variety and number than they are today. Lieutenant David Collins noted that Aborigines living on the upper reaches of the Parramatta River particularly caught Bream and Mullet (Collins, 1975). Other fish that are likely to have tolerated the river conditions at Parramatta may have included Mulloway, Flathead, Estuary perch, Bass and Whiting (Attenbrow, 2002).

Eels appear to have constituted another significant riverine resource and were procured with both pronged spears and hollow log eel traps (Kass et al. 1996). As previously discussed, the word *Parramatta* (also *Burramatta*) may translate as 'place of eels' or 'place where eels lie down'. Aboriginal eel spearing featured in the works of early colonial artist Joseph Lycett (**Figure 2.11**).

The numerous brackish and freshwater streams entering the river near Parramatta (including Duck River and Clay Cliff Creek) once supported a range of food resources such

as ducks, mullet, crayfish and freshwater shellfish prior to their conversion to drains (Kass et al., 1996). Other riverine resources are likely to have included mangrove crabs (in flat muddy areas) and cobra (toredo) worms.

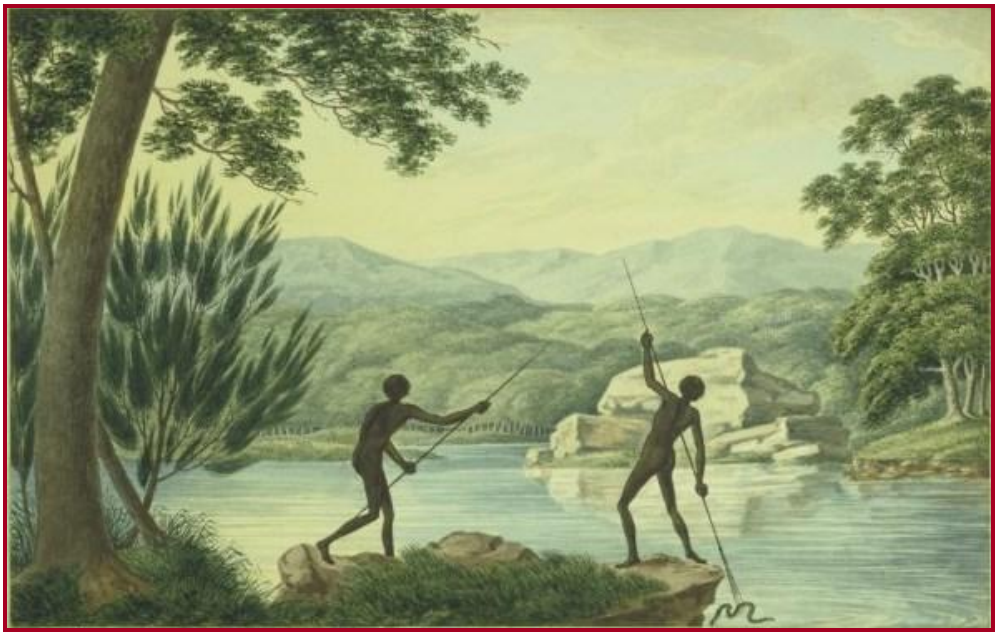


Figure 11. Joseph Lycett c.1817 'Two Aborigines Spearing Eels'.

3.1.3 Aboriginal Contact History After 1788

The traditional life of the *Darug* was broken through the course of the early 19th century. The impact of smallpox and influenza decimated the Aboriginal population, with several epidemics killing large numbers of people. European occupation of traditional hunting lands deprived Aboriginal groups of sources of food and access to camping and ceremonial sites. This forced individuals to either relocate into the potentially hostile lands of neighbouring Aboriginal groups, to partially integrate into colonial society as fringe dwellers or to resist. Resistance by Aboriginal groups was often met with retaliatory action by white settlers and the colonial administration. A combination of these factors led to the demise of traditional lifestyles and a decrease in the Aboriginal population, particularly in and around the early centres of colonial settlement in Sydney and Parramatta.

The Aboriginal presence in the Parramatta district did not cease in 1788 with the establishment of European settlement. *Ballodery* was one of a number of Aborigines who, by June 1791, had established a commercial trade as fishermen with the settlement. This trade was officially encouraged but ceased abruptly when a group of convicts destroyed

his canoe. Ballodery featured prominently in the early post-contact history of Parramatta (**Figure 2.12**). He was the son of a Parramatta man known as Maugoran. Ballodery lived for a period at Government House with Phillip when the Governor was attempting to establish relations with and 'bring in' Sydney Aborigines in 1790/91 (Hunter, 1793).

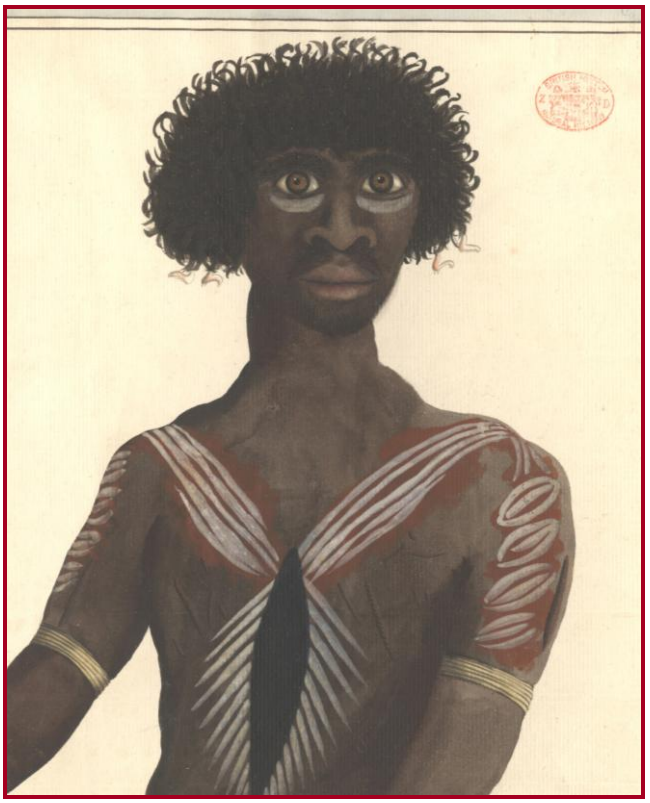


Figure 12. Image of Balloderry (original in the Museum of Natural History – London)

Many of the traditional groups broke up and scattered or re-aligned themselves by the time that colonial diarists, missionaries and early visitors to the area made detailed records of the Aboriginal inhabitants. The various 'tribes' referred to by colonists in the 19th Century were the result of major post-Contact social re-organisation. The displacement and dislocation from traditional lands that occurred soon after European settlement meant that remnant Aboriginal bands were forced to combine 'to provide mutual protection and to maintain viable social and economic units' (Kohen, 1986; Attenbrow, 2002). Some researchers have argued that, by as early as the 1820s, the pre-contact clans and bands no longer existed as identifiable groups (Attenbrow, 2002).

Aboriginal people who stayed in the area in the early to mid-1800s tended to live on the fringes of white society and became increasingly dependent on welfare. Government allocations of blankets and slop clothing and the bartering of fish and game for sugar, flour

and alcohol reflect the changes that occurred in Aboriginal culture and lifestyle. These changes were replicated throughout greater Sydney and no doubt also occurred in the Parramatta district.

The 1828 Census recorded the 'Parramatta Tribe' as comprising 49 people. Blanket Returns for the Parramatta District dating to the 1830s and 1840s, however, make no mention of a distinct 'Parramatta Tribe' but do record groups from Duck River, Prospect, Eastern Creek and Kissing Point visiting Parramatta to collect blankets (Colonial Secretaries Correspondence - Special Bundles (Aborigines) Reel 3076, SR NSW).

The available historical records are largely silent with regards to the presence and activities of Aboriginal people at Parramatta by the 1850s. It is likely that many Aboriginal people of the region had by this time moved away or been 'assimilated' into the developing European social, economic and religious fabric.

3.2 Regional Context

For the purposes of determining settlement and site location patterns, archaeologists examine regional and local trends in the distribution of known sites in relation to environment and topography. This provides evidence about economic and social systems in the past and also assists archaeologists in predicting likely site types, site locations and the nature of the archaeological resource in any given area.

The subject site falls within the Cumberland Plain region. The archaeology of the region has been well documented through a large number of academic studies, regional management studies and impact assessment investigations over the past 30 years. More than 4,500 sites have been recorded and registered with the DECCW *Aboriginal Heritage Information Management System* (AHIMS) for Sydney, reflecting both the wealth of archaeology in the region and the number of archaeological investigations undertaken. The Cumberland Plain is the most intensively investigated archaeological landscape in Australia.

The dominant site types in the Sydney region (in the 15 - 20 % frequency range) are rock shelters with midden deposit, rock shelters with art, rock art engravings and open artefact scatters (Attenbrow, 2002:49). Site types in the 5 - 15 % range include rock shelters with artefacts, grinding grooves and open middens. The distribution, density and size of sites is largely dependent on environmental context. For instance, middens are found in close proximity to marine, estuarine and, less often, freshwater bodies. Rock shelters are only found in areas of exposed sandstone escarpment and grinding grooves are found on areas of exposed flat bedded sandstone near a source of water.

3.2.1 Early Occupation

Aboriginal occupation in the region dates back well into the Pleistocene period (i.e. before 10,000 years ago). This evidence comes from radiocarbon dates retrieved from excavated sites at Cranebrook Terrace (41,700 years before present [BP]), Shaw's Creek K2 (14,700 BP) and George & Charles St, Parramatta (c.25,000 – 30,000 BP). The dating of Cranebrook Terrace is currently under review (Attenbrow 2002:20-21), so at this time the George and Charles Street site is considered as the oldest reliable date for Aboriginal occupation in the Sydney region.

The early occupation sites dating to the late Pleistocene /early Holocene have been found in deep stratified rockshelter deposits and within alluvial deposits, particularly on the margins of large rivers such as the Hawkesbury-Nepean and Parramatta Rivers. Drawing on this evidence, McDonald has recently argued that early occupation of the Sydney basin was focused on these primary river systems and characterised by a high degree of 'residential mobility'[2] between a small number of sites (McDonald 2008, JCMCD 2005b).

It is unclear whether these patterns are real or biased by the exceptional preservation conditions found in deep alluvial deposits created by the large rivers. More work is required to test McDonald's model, specifically identifying and investigating landforms and deposits with potential to contain intact Pleistocene evidence, particularly those further away from the primary river systems.

3.2.2 Intensification During the Holocene

The vast majority of dated sites in the Sydney region are less than 5,000 years old (35 out of a total of 48 dated sites). It has been argued that this is a result of increased populations and 'intensification' of cultural activity during this period. The prevalence of sites dating to the last 5,000 years may also be a result of the last significant rise in sea level, approximately 6,000 years ago. The sea level rise would have submerged many of the older sites along the coastal fringe and forced Aboriginal groups westward to the current coastline.

In an attempt to better understand changes in use and occupation during the Holocene period, Val Attenbrow undertook a detailed study of the Upper Mangrove Creek catchment to the north of Sydney (Attenbrow, 1987 and 2006). Attenbrow's study found significant changes in site patterning during the Holocene, notably, a gradual increase in habitation sites during the early Holocene followed by a dramatic increase 2,000 years ago. During the study, sites were classified as either *base camps* or *activity locations/transit camps* based on comparative millennial artefact accumulation rates. Using these criteria, Attenbrow found that:

[2] frequent movement between campsites

- Very few base camps were established during the early Holocene. It was not until the 4th millennium BP that more base camps were established, at the same time as ground-edged implements were introduced into the assemblage;
- During the 3rd millennium BP, base camps substantially increased with a reversal in the ratio of base camps to activity/transit camps; and
- During the last 2,000 years, a dramatic increase in activity/transit camps occurred, but no new base camps were established - suggesting a dramatic increase in residential mobility.
- Continually changing distribution patterns indicated a re-organisation of mobility patterns of occupation and use at frequent intervals, particularly during the last 4,000 years. Although more detailed studies are required, particularly in regard to the classification of 'base camps', the Mangrove Creek investigations demonstrate at a broad level that:
- The number of occupation sites increased over time, particularly after 2000 BP; and
- Shifts in site patterning indicate periodic re-organisation of residential mobility.

3.2.3 Regional Site Patterns

A study of the regional archaeology of the Cumberland Plain by Dr Jim Kohen made a number of findings about site location patterns in the Sydney area. The study demonstrated that proximity to water was an important factor in site patterning. Kohen found that 65% of open artefact scatter sites were located within 100 metres of permanent fresh water (Kohen, 1986:229-275). Only 8% of sites were found more than 500 metres away from permanent fresh water. In short, Kohen argued that open artefact scatters are larger, more complex and more densely clustered along permanent creek and river lines. Kohen's study also found that Silcrete (51%) and Chert (34%) are the most common raw materials used to manufacture stone artefacts (Kohen 1986: 280-281). Other raw materials include quartz, basalt and quartzite.

Although the patterns described above have been generally supported by subsequent investigations, Kohen's study was limited by a reliance on surface evidence. Extensive excavation across the Cumberland Plain has since shown that areas with no surface evidence often contain sub-surface deposits buried beneath current ground surfaces. This is a critical consideration in aggrading soil landscapes, such as those commonly found across the Cumberland Plain. In a 1997 study of the Cumberland Plain, McDonald (1997) found that:

- 17 out of 61 excavated sites had no surface artefacts prior to excavation;

- The ratio of recorded surface to excavated material was 1:25; and
- None of the excavated sites could be properly characterised on the basis of surface evidence. In short, surface evidence (or the absence of surface evidence) does not necessarily indicate the potential, nature or density of sub-surface material.

The results of McDonald's study clearly highlight the limitations of surface survey in identifying archaeological deposits in this landscape. The study also shows the importance of test excavation in establishing the nature and density of archaeological material on the Cumberland Plain.

McDonald developed a predictive Aboriginal site location model based on previous archaeological studies across the Cumberland Plain and the results of archaeological survey and excavation across the Australian Defence Industries (ADI) site near St Marys. McDonald predicted that archaeological evidence is likely to occur across the entire landscape. Areas of archaeological potential were predicted wherever there has been limited prior surface disturbance (McDonald, 1997:56). It was predicted the size (density and complexity) of archaeological sites will vary according to permanence of water (stream order), landscape unit and proximity to stone sources as follows (McDonald, 1997:57):

- In the headwaters of upper tributaries (first order creeks), archaeological evidence will be sparse and represent little more than background scatter;
- In the middle reaches of minor tributaries (second order creeks), archaeological evidence will comprise sparse but focused activity (one-off camps, single event knapping etc);
- In the lower reaches of tributary creeks (third order), there will be evidence of more frequent occupation including repeated occupation by small groups, knapping floors and evidence of more concentrated activities;
- On major creeks such as South Creek and Ropes Creek (fifth order), archaeological evidence will reflect more permanent or repeated occupation. Sites will be complex and may be stratified;
- Creek junctions may have been a particular focus of occupation;
- Ridge top locations between drainage lines will usually contain limited archaeological evidence, although isolated knapping floors or other forms of one-off occupation may be present; and
- Sites in close proximity to an identified stone source will include stone artefacts with a range of size and cortex characteristics. The general

size of artefacts and percentage of cortex will both decrease with distance from source.

Although the patterns described above may provide a useful general guide to site patterning and inferred cultural behaviour, there are always exceptions such as large waterholes or wetlands on upper tributaries that were important resource zones and attracted repeated and complex Aboriginal occupation. This point is illustrated by McDonald's recent work across the Rouse Hill Development Area (RHDA) (McDonald, 2005b) which found similarity in the composition of lithic assemblages across different landforms. Comparison of 'Marginal' sites (further away from permanent water) with those adjacent to Seconds Pond Creek (a 2nd order permanent water source) showed only subtle variations, such as slightly lower cortical lithics and higher frequencies of modified artefacts in marginal site assemblages. In short, although lithic assemblages decreased in scale and repetition further away from water, the composition of assemblages remained fairly consistent across the entire landscape.

McDonald concludes that classifying various landscape evidence according to site types (such as residential base camps, dinnertime camps etc) is not a useful framework for interpreting the archaeology of the Cumberland Plain.

3.2.4 Stone Artefacts

Aboriginal stone artefacts are an important source of archaeological information because stone is preserved for long periods of time, whereas organic materials such as bone, shell, wood and plant fibres decay. Stone artefacts provide valuable information about technology, economy, cultural change through time and settlement patterning. Stone has also been used for 'relative' dating of sites where direct methods such as carbon-dating cannot be applied. A technological sequence for stone artefacts for the region was first described in the late 1940s by Fred McCarthy and has since been refined over time[3]. Known as the 'Eastern Regional Sequence' (ERS), it was based on direct dating of excavated sequences. Some debate about the precise nature and significance of the technological changes described still continues (Hisckock and Attenbrow, 1998; Hisckock and Attenbrow, 2002), therefore the ERS should be regarded only as a general guide to technological change. The ERS phases are as follows:

- Capertian – is distinguished by large uniface pebble tools, core tools, horsehoof cores, scrapers and hammerstones. Backed artefacts occasionally present. Generally dates to before 5,000 years BP.
- Early Bondaian – Aspects of the Capertian assemblage continue but backed artefacts and ground-edged artefacts increase. Artefacts during this period were

[3]The ERS is currently being re-examined by Hiscock & Attenbrow.

predominantly made from fine-grained silicious stone such as silcrete and tuff. Generally dated from 5,000 BP to 2,800 BP.

- Middle Bondaian – Characterised by backed artefacts, particularly Bondi Points and ground-edged artefacts. Artefacts made from silicious materials, however quartz becomes more frequent. Generally dated from 2,800 BP to 1,600 BP.
- Late Bondaian – characterised by bipolar technology, eloueras, ground-edged artefacts and bone and shell artefacts. Bondi points are virtually absent and artefacts are predominantly made from quartz. Generally dated from 1,600 BP to contact.

3.3 Local Context

Parramatta was one of the first areas settled by Europeans on their arrival on the east coast of Australia in 1788 (Kass, et al, 2001:7). It has been continually developed and redeveloped since that time. As a consequence, ground disturbance in the Parramatta City area is typically very high and often also quite deep. However, Parramatta overlies a sand sheet that runs many metres deep and whose depth extent has yet to be defined. Many Aboriginal sites may exist in the sand sheet below the depth that has been subject to historic ground disturbance. Intact Aboriginal sites have been identified and excavated in Parramatta City, opening a window on the prehistory of the local area.

The following section contains a summary of the archaeological excavations and assessments of nearby locations in the local area (**Figure 2.13**).

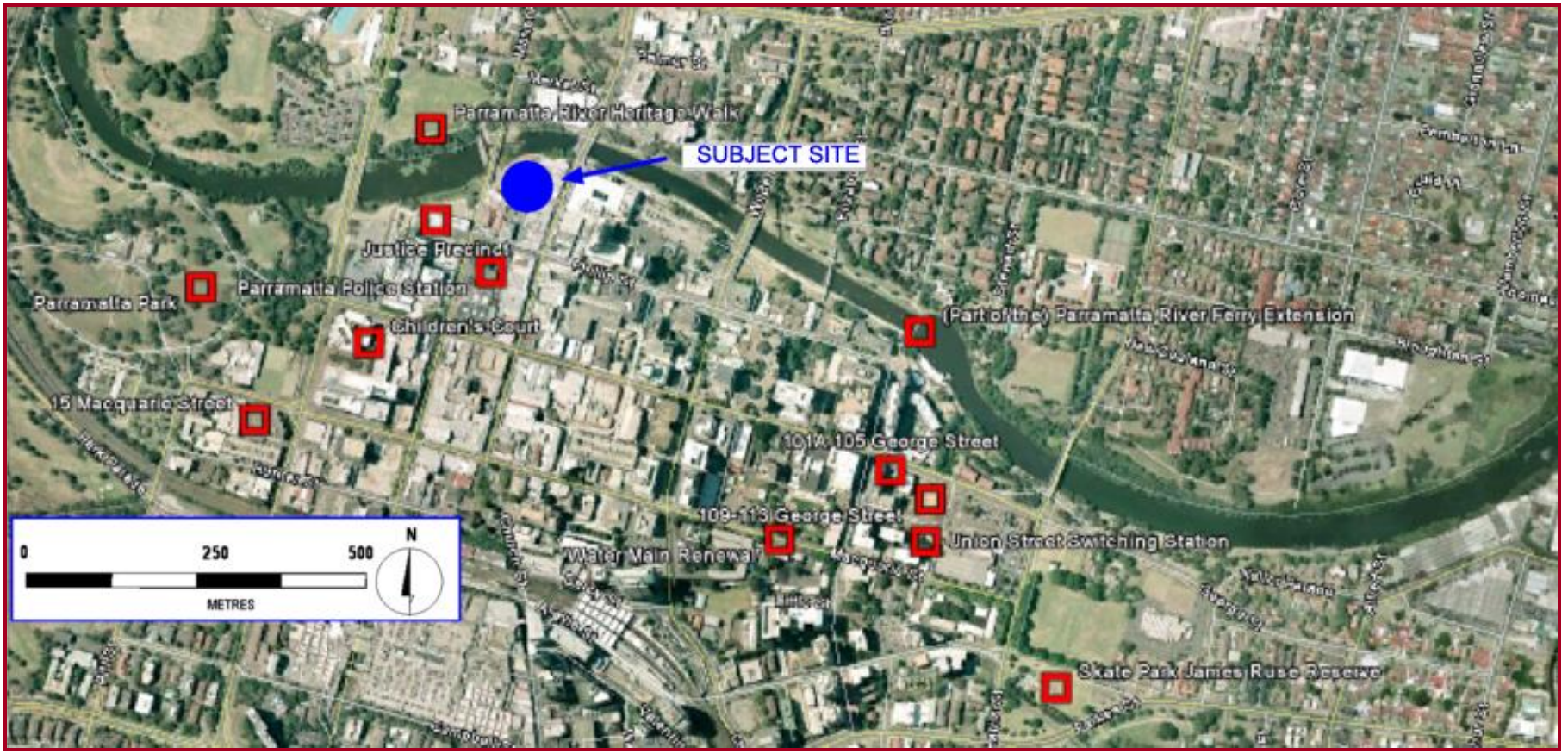


Figure 13. Aboriginal archaeological investigations undertaken in the vicinity of the subject site (Basemap Source: Google Earth Professional)

3.3.1 109 – 113 George St Parramatta – Archaeological Excavation

Jo McDonald Cultural Heritage Management (2005a) carried out excavations at a development site on George Street in the Parramatta CBD.

A total of 10 test trenches were excavated within intact remnant soils across the proposed development area. Aboriginal stone artefacts were recovered in varying densities from each test trench. A total of 292 stone artefacts were recovered. The assemblage was broadly similar to that recovered from the adjacent George & Charles Street excavation in 2002 (discussed in **Part 2 Section 3.3.2**). The soil profile was also similar, indicating a continuity of the same geo-archaeological alluvial sand body.

The alluvial sand body is part of a river terrace that extends south and east to the original line of Clay Cliff Creek. The soil profile at George St comprised a brown loamy sand A1 horizon 250 – 300 mm thick overlying a bleached greyish-brown fine sand A2-horizon 300 – 350 mm thick over a compact reddish-brown fine alluvial sand B horizon 600 mm thick.

Most artefacts were found approximately 600 mm deep, however, one artefact was found at a depth of 1170 mm. The predominant raw material was silicified tuff (49%), particularly in lower levels of excavation. Previous excavations throughout the broader Sydney area have shown that silicified tuff is usually found in early occupation contexts, often associated with pre-bondaian technologies that typically date to before 6000 years ago. McDonald's report also notes that no backed artefacts were found. This artefact type is considered to be a marker of bondaian technology. Five cores were recovered, showing unifacial flaking and some bifacial flaking. None of the cores show evidence of asymmetric alternative flaking, usually associated with backed artefacts. The evidence described above indicates assemblage components of early occupation at the site, possibly pre-dating the bondaian period (6000 years ago). The presence of glossy heat-treated silcrete in upper levels of excavation also suggests some recent occupation at the site, possibly during the last 1,000 years.

McDonald concluded that the depth of sandy deposit at the site protected the bulk of deeper archaeological deposits. Archaeological evidence at the site indicates early occupation and was assessed by McDonald as having moderate to high archaeological significance. McDonald also concluded that the alluvial sand body should be regarded as archaeologically significant at a regional level.

3.3.2 101A – 105 George Street – Site CG3 – Salvage Excavation

Site CG3 was located in George Street, Parramatta, 120 m from the Parramatta River (JMCHM, 2006). It is located on a sandy alluvial levee. During the excavation, it was found that the site had been disturbed by historic buildings in many places to a depth of approximately 30 cm. Although the site was flooded during excavation, 510 stone artefacts were recovered between 50 and 150 cm from top of the deposit. Like Site RTA GI, the top 20 cm of deposit consisted primarily of Bondaian backed and bipolar artefacts. Anvils were located in the top 40 cm. Below 40 cm, tuff predominated as the raw material type and hammerstones were recovered. The pre-Bondaian assemblage (below 40 cm) consisted primarily of cores and flakes, with some retouched tools also present.

3.3.3 Justice Precinct, Parramatta – AHMS

AHMS (2004b) undertook a test excavation of the Justice Precinct, which encompassed a former hospital. The report concerns the area comprising the eastern part of the Parramatta Health Services Area, immediately adjacent to the subject site. The objective of this investigation was to assess whether Aboriginal heritage values were present, potentially present or attached to the various parts of the subject site.

A total of 870 artefacts were recovered during excavations undertaken in three stages. The analysis of these artefacts led the authors to conclude that the area was never a major campsite. Instead, it was visited from time to time by small groups or individuals who chose to stop there to manufacture artefacts. Most tools and usable flakes were apparently taken away for use elsewhere, as there was little evidence found during this study of artefact use on site. Further, this report suggests that this pattern of sporadic use by small groups carried on for several millennia, based on the range of material represented.

This report also notes traces of a sand body extending into the south western part of the site but deems it unclear whether this sand body is related to similar deposits referred to in JMCHM (2005a) and more extensively researched by Peter Mitchell.

3.3.4 Justice Precinct, Parramatta - Haglund and Associates

Following AHMS (2004) initial study at the Justice Precinct, subsequent historical and Aboriginal archaeological salvage excavations were undertaken by Haglund & Associates (2006a, 2007). In combination with Casey & Lowe's historical archaeological excavations, Aboriginal archaeological excavations were undertaken in a series of phases and enabled

both 1 m^2 test pits, as well as larger trenches to be situated across the subject site. Ultimately, the excavations identified only a shallow, generally disturbed, soil profile over-lying heavy clay. Similar results were identified at the Parramatta Police Station (AHMS, 2011, in preparation).

The Aboriginal archaeological excavation identified that the northern part of the site was situated on a ridge. The deposits on the ridge and to some extent on the upper slopes contained Aboriginal objects. These deposits have clearly been disturbed by colonial activities but probably also deflated by wind and sheet erosion. Further south, on a ridge crest as well as slopes, removal of these deposits has been even more extensive and the artefact material recovered was largely small debris that had been transported vertically within the soil profile.

Overall, some 807 Aboriginal objects were recovered. These were primarily debitage with little evidence of usable tools or flakes, all suggesting only limited use of the area by Aboriginal people. Some discussion of the artefacts recovered suggest that they could have been quite old, having similarities with JMCHM's (2005a) RTA-G1. However, they are all in colonial deposits or the remains of a texture contrast soil and cannot be dated.

3.3.5 Parramatta River Heritage Walk

The Upper Parramatta River Catchment Trust commissioned Haglund & Associates (2006b) to carry out excavation along a proposed walkway on the northern bank of the Parramatta River between O'Connell and Marsden Streets, to investigate potential impacts of the walkway on Aboriginal and historic heritage.

The walkway was divided into two parts, Area A (the southern end of the former King's School Oval) and B (the riverbank below the oval). Both areas were found to have very limited Aboriginal archaeological potential, as both areas featured introduced fill deposits that existed well below the development impact levels proposed in the path project.

Archaeological excavations recovered a small number of Aboriginal stone artefacts and potential stone artefacts from the fill deposits at the site. The report suggests that some or much of the fill was likely to be derived from the former slopes immediately to the north of the proposed path, but that it was possible that some of the fill was bought in from elsewhere.

The report concludes that the deposits to be affected by the installation of the proposed walkway were in disturbed fill contexts that had been brought to the site during the historic period. Although Aboriginal artefacts were recovered, they had no cultural or scientific (research) values as they were recovered from fill deposits. The report

recommended that the walkway construction should go ahead without further archaeological investigation.

3.3.6 Parramatta City Council – Aboriginal Cultural Heritage Study

Mary Dallas Consulting Archaeologists (2003) undertook a large scale archaeological review and planning study on behalf of Parramatta City Council. The investigation covered the entire Parramatta Local Government Area (LGA) with the purpose of providing Council with guidelines for the management of the known archaeological resource and for assessment and management of areas of potential archaeological sensitivity. Dallas's investigation found that open campsites (or artefact scatters) are the predominant type within the LGA. The low proportion of rockshelter sites and axe grinding grooves was attributed to the dominant local shale geology in which rockshelters and sandstone outcropping do not occur.

Based on predictions about areas of potential archaeological sensitivity, Dallas recommended that heritage assessments be undertaken in advance of development in areas within 100 metres of creek lines and foreshore which have not been reclaimed. In addition, Dallas recommended that areas which contain a sandstone outcrop or platform should also be investigated.

3.3.7 15 Macquarie Street, Parramatta

Integral Energy commissioned Comber Consultants Pty Ltd (2007) to undertake an Aboriginal archaeological and cultural heritage assessment at the site of a proposed new electrical zone substation in Macquarie Street.

The subject property was a concrete carpark and ground surface visibility during the field survey was nil. No Aboriginal archaeological sites were located. Geotechnical analysis of the site indicated that the concrete pavement of the site was overlying at least 65cm of fill. The geotechnical analysis indicated a natural 'clayey silt' appeared at a depth of 70cm. This report suggests that although the property was initially occupied in 1804, site disturbance was minimal. Construction of the car park appeared to only include the laying of fill prior to pouring the concrete base.

Therefore, this report concluded that the low level of post depositional disturbance at this site indicated that there was a high likelihood that sub-surface Aboriginal archaeological deposits could exist on the site. The report recommended archaeological test excavation prior to construction of the substation.

3.3.8 Union Street Switching Station, Parramatta

Integral Energy commissioned Comber Consultants Pty Ltd (2008) to undertake an Aboriginal and cultural heritage assessment for the existing Switching Station on the corner of Union Street and Argus Lane, Parramatta. The site lies on level ground on a sandy alluvial terrace identified as the Parramatta terrace sand sheet.

No Aboriginal sites or objects were located during a site survey. The report concluded that due to information gained from other archaeological investigations within the Parramatta CBD indicating that there was a high probability of sub-surface archaeological material existing despite later disturbance, the site has high potential to contain undisturbed *in-situ* archaeological deposits.

Archaeological test excavations of the site were undertaken in 2010 (Comber Consultants Pty Ltd, 2010). The preliminary results of the test excavations indicate the Parramatta terrace sand sheet was identified at the site. The sand terrace was located on the western side of the site with evidence of a swamp landscape at the eastern side of the site. A total of 55 artefacts were retrieved from the site and the majority appear to be the result of flaking.

3.3.9 Parramatta Skate Park - Archaeological Test Excavations

AHMS (2004c) was commissioned by the Parramatta City Council to undertake an investigation of a proposed skate park in James Ruse Reserve, east of Parramatta CBD.

The excavations undertook four mechanically-dug test pits within the reserve, which in 2004 was considered to retain the Pleistocene sand sheet. However, excavations revealed only a shallow texture-contrast soil, indicating the sand sheet was not present this far east of the CBD. Thirteen artefacts were recovered from the excavation, primarily composed of silcrete and suggesting a Bondaian age.

3.3.10 Parramatta Water Main Renewal Archaeological Monitoring

AHMS (2009) undertook archaeological monitoring of a water pipeline being installed along Macquarie Street in 2009. This project involved the installation of 5 km of pipeline, requiring a trench some 1 m wide x 1.5 m deep between Church Street and Charles Street. Some parts of Smith Street were also observed.

The archaeological monitoring was undertaken due to the potential for parts of the Pleistocene Parramatta terrace sand sheet to be present, based on work by Mitchell (2008). Despite monitoring for several weeks, no evidence of the sand sheet was found. However, the study did provide a useful guide as to the southern extent of the sand sheet, which clearly did not reach Macquarie Street, some 350 m from the Parramatta River.

3.3.11 Parramatta Children's Court Site

Haglund & Associates (2004, 2007) undertook a test excavation as part of the re-development of the Children's Court on the corner of O'Connell and George Streets. The excavation included some 36 m^2 of excavation in transects across the subject site.

The investigation identified a focus of Aboriginal objects within the centre of the site and was composed primarily of small debitage. While not discussed in detail in the report, the assemblage appeared to be dominated by silcrete and reflected the late Holocene assemblages found across this region. The assemblage was all generally found in the upper units, frequently associated with historical deposits, indicating reworking. Some smaller pieces were found at depth but it was considered to have moved through insect burrowing and bioturbation, rather than being *in situ*.

Importantly, the investigations (which stopped at 0.4 m to 0.6 m below surface) identified a sand body across the majority of the site. However, it should be noted that the colour of the sand body was variable, including red, yellow/grey, grey/brown, light pink and other colours. The geomorphological relationship of the sand body identified at the Children's Court site with the Parramatta terrace sand sheet remains unclear.

3.3.12 Port Jackson Archaeological Project

As part of the Port Jackson Archaeological Project, Attenbrow (1991) surveyed a number of areas in and around Parramatta. During her investigation, Attenbrow excavated a number of sites, including two rockshelters in the Parramatta area. A rockshelter with deposit was excavated at John Curtin Reserve, yielding a radiocarbon date of 5,600 BP for earliest occupation. Another rockshelter with deposit was excavated on Darling Mills Creek, to the north of Lake Parramatta Reserve. Darling Mills SF2 yielded a radiocarbon date of 10,150 BP for earliest occupation. The excavation at Darling Mills SF2 also recovered animal bones, mostly comprising remains of Grey Kangaroo and Wallaby. Attenbrow's investigations show that rockshelter sites in the Parramatta area have potential to contain archaeological evidence of considerable antiquity.

3.3.13 Parramatta River Ferry Extension Archaeological Survey

In 1990, Jo McDonald undertook an Aboriginal archaeological assessment of a proposed ferry service extension along Parramatta River west of Silverwater Bridge (McDonald, 1990). Gutteridge Haskins and Davey Pty Ltd (GHD) commissioned the assessment on behalf of the NSW Department of Transport. Seven terminal sites between Silverwater Bridge and Charles Street, Parramatta were surveyed.

No Aboriginal archaeological sites were located during the survey. Subsequently, no archaeological constraints were placed on the proposed development.

3.3.14 Parramatta Park Aboriginal Sites Assessment

Dr Val Attenbrow conducted an Aboriginal Sites Assessment for Parramatta Park as part of a broad management plan by Parramatta City Council in 1994 (Attenbrow, 1994). The aim of the assessment was to identify Aboriginal sites and provide input into an interpretive plan relating to Aboriginal history and culture in the park.

A number of artefact scatters, scarred trees and isolated finds were located during preliminary surveys of the area. Stone artefacts included silcrete, chert and quartz flakes, flaked pieces, core fragments and broken Bondi points. Due to the presence of archaeological material within the park, it was recommended that further work be undertaken to better preserve and manage the sites.

Some possible interpretations for the presence of archaeological material in the park were also made. Because of the range of stone artefact types found in artefact scatters within the park, the sites were interpreted as being stone tool production areas. Use wear and residue analysis indicated that Bondi points found in the assemblage were used as spear points or for plant processing. The size and shape of the scars on two trees within the park also suggested that sheets of bark had been removed for making canoes, containers and/or shields.

3.4 AHIMS Search Results

A search of the Aboriginal Heritage Information Management System (AHIMS) database was carried out on 24 February, 2011. The search located thirteen registered sites within a 1 km square centred on the subject site (see **Table 2.1**). Nine of the sites consist of potential archaeological deposits (PADs), three are stone artefacts and one is an artefact(s) associated with a PAD. The AHIMS sites are mapped in **Figure 2.14**.

No AHIMS sites are recorded within the subject site.

Table 2.1. AHIMS sites within a 1km square centred on the subject site (Ref: No.330 Church St, 24 February 2011).

AHIMS No.	Site Name	Description	Within subject site?
45-6-2648	Charles/George 1	Artefact	No
45-6-2673	RTA-G1	Artefact	No
45-6-2741	Parramatta Transport Interchange PAD	Potential Archaeological Deposit (PAD)	No
45-6-2746	Old Hospital Site Parramatta Health Services Precinct	Potential Archaeological Deposit (PAD)	No
45-6-2795	150 Marsden Street Parramatta PAD	Potential Archaeological Deposit (PAD)	No
45-6-2739	PAD Unknown	Potential Archaeological Deposit (PAD)	No
45-6-2893	95-100 George St (GSP AD)	Potential Archaeological Deposit (PAD)	No
45-6-2751	Marsden St Carpark	Artefact, Potential Archaeological Deposit (PAD)	No
45-6-1523	George St Parramatta; Family Law Courts	Artefact	No
45-6-2679	Parramatta Children's Court	Potential Archaeological Deposit (PAD)	No
45-6-2756	Parramatta Rehabilitation Centre (formerly O'Connor St PAD)	Potential Archaeological Deposit (PAD)	No
45-6-3630	Macquarie St PAD	Potential Archaeological Deposit (PAD)	No
45-6-2686	Civic Place PAD	Potential Archaeological Deposit (PAD)	No



Figure 14. Map of sites listed on AHIMS database within a 1 km square centred on the subject site.

4. REGIONAL CHARACTER

This section provides a synthesis of the archaeological and environmental information for the subject site to identify key issues and develop predictions in relation to the presence of Aboriginal objects.

4.1 Archaeology

Based on the regional and local archaeological context of Parramatta, a number of conclusions can be reached regarding the Aboriginal archaeological potential of the subject site.

From a regional perspective, Aboriginal people have occupied and utilised the Sydney Basin for a considerable period of time, certainly throughout the Holocene (10,000 years ago to present) and evidence suggests probably also in the late Pleistocene (10,000-50,000 years ago). Importantly, one of the oldest dates comes from the Parramatta sand sheet during the excavation of RTA-G1. Archaeological studies suggest that site distribution is characterised by proximity to permanent water sources and the presence of raw materials, both of which can be found near modern day Parramatta. The permanency of the Parramatta River, with both freshwater and marine resources, would imply the presence of significant and complex archaeological sites based on numerous excavations in the wider Cumberland Plains. While raw materials are lacking in the immediate vicinity of Parramatta, Mitchell notes that potential raw materials may have been sourced from Tertiary gravels which have been recorded at Newington about five kilometres to the east of the subject site. Furthermore, the Dundas Valley diatreme, about the same distance away, originally had a basalt outcrop at the surface and that stone may have been used to make edge-ground axes.

Local investigations in Parramatta have been extensive prior to and following the pioneering excavations on the corner of George and Charles Street in 2002 by JMCHM. The discovery of the Parramatta terrace sand during this and several other excavations demonstrated the extent, significance and archaeological content of this deposit. The deep and diverse nature of the archaeological material within this deposit, combined with its significant age (>30,000 years based on JMCHM's excavations), has identified this deposit as one of the most archaeologically significant features within the Sydney Basin.

It is noted that few archaeological studies have been undertaken of the Holocene floodplain deposits in the town of Parramatta. Several reasons can be identified to account for the

lack of information regarding these deposits, namely that where these Holocene floodplain deposits survive, they tend to be located immediately adjacent to the River where few developments, and therefore archaeological investigations, have occurred. Also, these deposits have been disturbed or removed due to historical development of the area and scouring events associated with the flooding of the Parramatta River. However, many archaeological investigations have been undertaken within Holocene deposits across the Sydney region, as described in **Part 2 Section 3.2**.

Based on these and other excavations, Aboriginal objects are likely to occur in the sand sheet and be potentially of significant age. Archaeological material is likely to include artefactual materials, hearths and other occupational material.

4.2 Geomorphology

Refer to Figure 2.15

Mitchell's (2008) study and the geotechnical investigations indicate the Parramatta terrace sand sheet exists at the subject site. The geotechnical testing indicates the sand sheet is present to depths of 7 m below the existing ground surface.

Fill overlies the sand sheet across the majority of the subject site. The results of the geotechnical investigations reveal the sand sheet consists of a range of colours, which is similar to the results at the Children's Court site excavated by Haglund and Associates (2006a, 2007). At this stage, the cause of the variation in colour is not known, however, it is speculated that it may be caused by bleaching, pedogenesis or evidence of different depositional events.

The geotechnical investigations reveal fill of varying depths overlies the sand sheet at the subject site. The results indicate that 200 mm to 500 mm of fill overlies the sand sheet in the car park area with deeper fill deposits (of depths from 1 m to 2.5 m) at the rear of the Church Street shops.

The northern extent of the subject site has been subject to repeated erosion due to flooding events, which has resulted in minimal survival of more recent (Holocene) alluvial materials. In particular, the 1889 flood resulted in the erosion of a large part of the southern bank of the Parramatta River, including the subject site. Part of the northern extent of the subject site has been reclaimed for the construction of 333 Church Street, the construction of the river bank wall and includes the northern extent of the car park (as shown in ground water monitoring log MW01). Essentially, the break in slope at the northern

extent of the subject site is in approximately the same position as the extent of the erosion that took place during the 1889 flood.

The soil profile of two areas of the subject site remains uncertain: beneath the structures at 333 Church Street and under the alley way from Church Street into the car park. The following observations can be made regarding the potential soil profile of these areas of the subject site:

- The soil profile beneath the existing structures at 333 Church Street is likely to consist of fill, sand sheet and potentially Holocene alluvial deposits. Mitchell (2008) identified that Holocene alluvial deposits are likely to exist along the banks of the Parramatta River. It is not known to what extent the 1889 flooding event resulted in erosion of the bank where 333 Church Street now exists, however, it may have not eroded the eastern part of the subject site to the same extent as the western part of the subject site.

- The sand sheet is likely to survive in the alleyway from Church Street beneath fills of an unknown depth.

In summary, the subject site retains at least 7 m of Parramatta terrace sand sheet. The northern extent of the site, in the vicinity of the break in slope, consists of fill or bedrock.

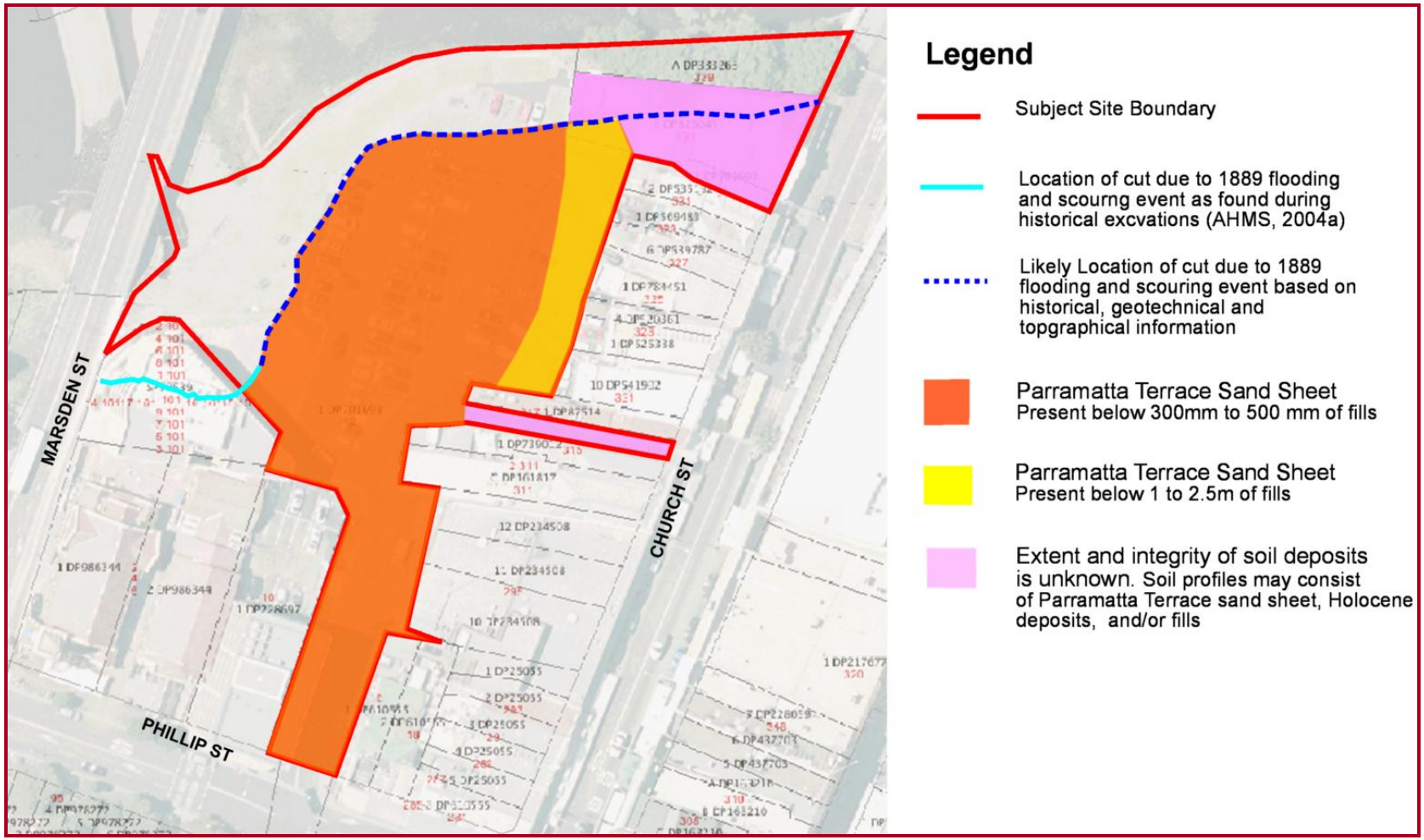


Figure 15. The subject site showing the location of the sand sheet

4.3 Existing Disturbance

Previous archaeological investigation by JMCHM across the Rouse Hill Infrastructure Development area, the most intensively studied shale-based archaeological landscape in the Sydney basin, found that the primary factor in assessing archaeological potential is the degree of prior land-use disturbance of soils.

The geomorphology of the subject site indicates the Parramatta terrace sand sheet exists at depth over certain areas of the subject site with varying levels of fill overlying the deposit. The majority of the sand sheet is overlain by 200 mm to 500mm of fill across the car park with an area at the rear of the Church Street shops with fill at depths of 1 m to 2.5 m. The soil profile beneath 333 Church Street and the Church Street alleyway is uncertain, however it is likely that the soil profiles consist of fills and Parramatta terrace sand sheet.

Disturbance of the soil profile due to historical land uses across the car park area of the subject site has been localised. There is no evidence of substantial excavations across the site. Structures constructed on the site during the historical period would have caused minimal impact to the soil profile of the subject site. Service lines would have caused substantial localised disturbance to depths of 2 m. The construction of the car park would have cause negligible disturbance of the soil profile, with the likely removal of the upper 300mm of soil.

It is likely that some disturbance removed and or truncated the original soil profiles at 333 Church Street and the Church Street alleyway due to the installation of service lines, erosion due to flooding and/or the construction of buildings at these parts of the subject site.

It can be concluded that, while there are several isolated structures and developments within the subject site, all of which have caused localised impacts, in general, the original soil profile is likely to be in a relatively intact across the subject site. The most significant cause of disturbance at the subject site is likely to be scouring cause by the 1889 flood which removed the soil profile from the north and north western extents of the subject site.

4.4 Site Predictions

The subject site is comprised of the Parramatta terrace sand sheet and potentially parts of a Holocene flood plain, both of which have the potential to contain Aboriginal archaeological deposits. The Parramatta terrace sand sheet exists across the majority of the site and there is potential for Holocene floodplain deposits to exist beneath the structure at 333 Church Street. There is the potential for artefactual material, hearths and other occupational material to occur in these deposits.

Previous archaeological investigations have identified that extensive and highly significant archaeological deposits survive in the Parramatta terrace sand sheet. These significant archaeological sites have been located within 200m of the Parramatta River, in locations where the sand sheet has not been heavily modified or disturbed by historical activities and where the soil profile of the sand sheet has a significant depth. These environmental and survivability factors exist at the subject site and there is potential for the subject site to contain significant Aboriginal archaeological sites. Potential archaeological sites that exist within the Parramatta terrace sand sheet may date to up to c. 30, 000 years BP.

Previous archaeological investigations in the Sydney region have also identified that Aboriginal archaeological materials are likely to survive within the Holocene floodplain deposits adjacent to existing water courses. Holocene flood deposits may exist at part of the subject site, beneath the existing building at 333 Church Street. The floodplain deposits at the banks of the Parramatta River are most likely to have been washed in and redeposited from up stream and these deposits may retain archaeological objects. Few archaeological investigations of the banks of the Parramatta River have identified or excavated Holocene deposits, except within disturbed contexts due to historical land uses. Potential Aboriginal archaeological sites and/or objects may survive within Holocene deposits at the subject site.

As discussed, the potential for archaeological material to exist within these deposits at the subject site depends on the degree of prior disturbance due to historical activities and environmental factors. Historical disturbance at the subject site is generally characterised as localised, with minor 'trimming' or excavation for the construction of the car park. The 1889 flood resulted in erosion of the northern and north-west extent of the subject site.

The potential for Aboriginal sites and/or objects exists in areas of the Parramatta terrace sand sheet that have been disturbed by historical activities, as Aboriginal sites are likely to occur at depth. There is nil potential for Aboriginal sites and/or objects to exist north of

the cut from the 1889 flooding event and, at this stage of the assessment, it is not known what type of deposits survive below 333 Church Street or the alleyway from Church Street into the car park. Aboriginal sites may survive in these locations.

Based on the above observations and combining evidence drawn from our understanding of settlement patterning, geotechnical investigation and assessment of site disturbance, the subject site is characterised as having Aboriginal archaeological potential with areas of localised disturbance (**Figure 2.16**).

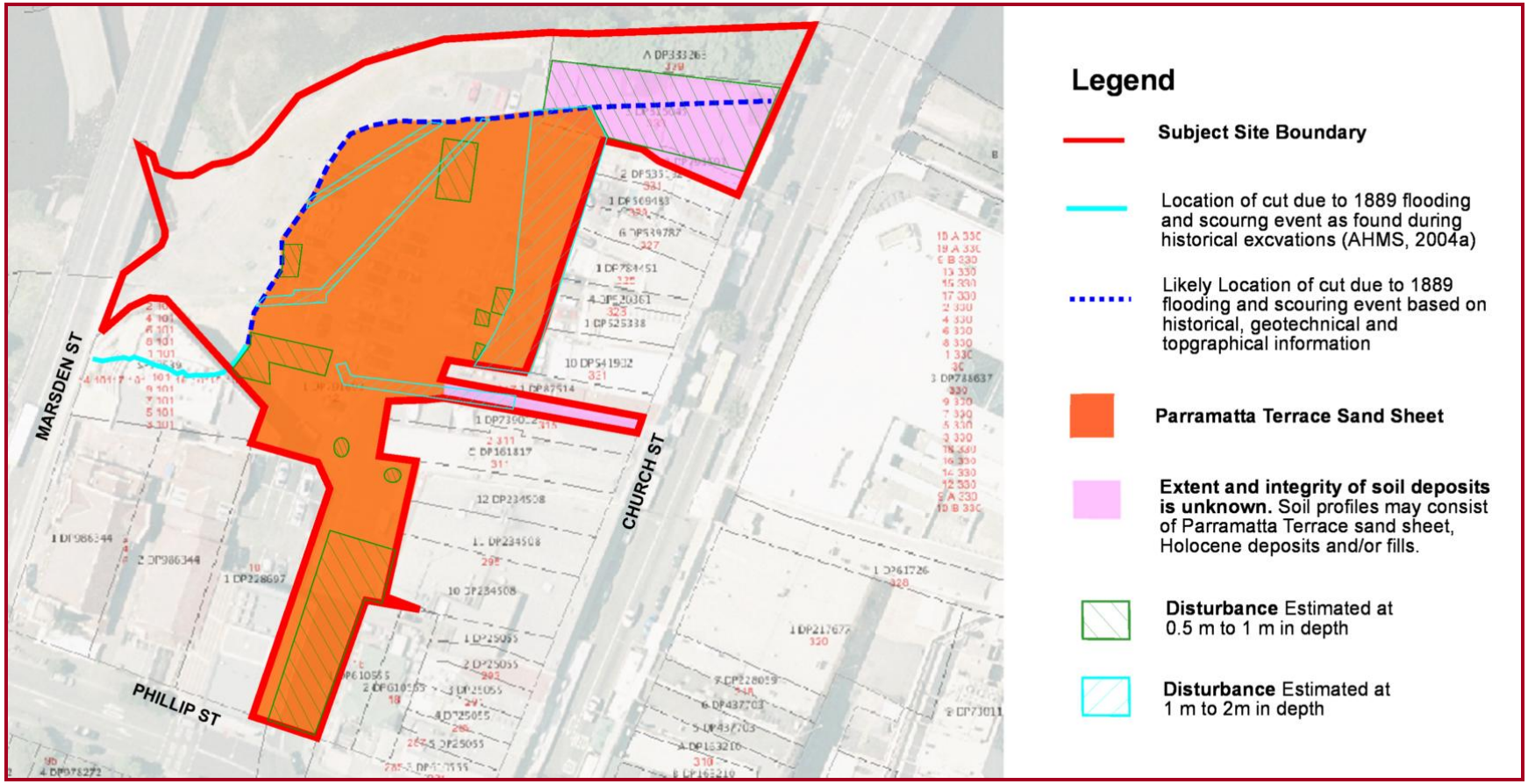


Figure 16. Aboriginal Archaeological Potential at the subject site indicated by the presence of the Parramatta Terrace Sand Sheet.

5. SIGNIFICANCE ASSESSMENT

5.1 General

The significance of Aboriginal archaeological sites is assessed using two criteria: Aboriginal (cultural) and archaeological (scientific) significance. These criteria recognise that Aboriginal sites are valuable in a number of ways, namely:

- To the Aboriginal community as an aspect of their cultural heritage and as part of continuing traditions;
- To the broader community, for educational, historical and cultural enrichment values; and
- To the scientific community for potential research value.

The guidelines outlined in the NSW National Parks and Wildlife (now DECCW) *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH, 2010) provide the basis and background for the evaluation of site significance.

5.2 Cultural Significance

This area of assessment concerns the relationship and importance of sites to the Aboriginal community. Aspects of cultural significance include people's traditional and contemporary links with a given site or landscape, as well as an overall concern by Aboriginal people for sites and their continued protection.

The cultural significance of the subject site was unable to be assessed, as no formal Aboriginal community consultation was undertaken for the Aboriginal archaeological assessment (this report). However, informal consultation was undertaken with two Aboriginal parties, namely the Deerubin Local Aboriginal Land Council (DLALC) and the Parramatta Aboriginal and Torres Straight Islander Advisory Committee (PATSIAC).

A site meeting was undertaken on 19 October, 2011 to discuss the project and the potential cultural heritage values of the subject site. Laura Matarese (AHMS) and Steven Randall (DLALC) attended the site meeting, however, a representative from PATSIAC was unable to attend. The draft report has been sent to both groups for review and comment.

Comments were received from Steve Randall, DLALC dating to the 1 November 2011 (**Appendix 2**) however no comments have been received from PATSIAC relating to this report.

The comments received from DLALC recommend additional Aboriginal heritage assessments be undertaken prior to any proposed development at the subject site due to the prescence of the Parramatta terrace sand sheet

Based on discussions with Steve Randall (DLALC) and a review of other Aboriginal archaeological studies in the area, the Parramatta terrace sand sheet is considered of high cultural heritage value to Aboriginal people. It is considered that archaeological sites discovered in the Parramatta terrace sand sheet may warrant conservation based on their cultural heritage values.

5.3 Scientific Significance

Scientific value is associated with the research potential of a site. Rarity and representativeness are also related concepts that are taken into account. Research potential, or demonstrated research importance, is considered according to the contribution that a heritage site can make to present understanding of human society and the human past. Heritage sites, objects or places of high scientific significance are those which provide an uncommon opportunity to provide information about the specific age of people in an area or a rare glimpse of artistic endeavour or a chronological record of changing life through deep archaeological stratigraphy.

The comparative rarity of a site is a consideration in assessing scientific significance. A certain site type may be "one of a kind" in one region but very common in another. Artefacts of a particular type may be common in one region but outside the known distribution in another.

The integrity of a site is also a consideration in determining scientific significance. While disturbance of a topsoil deposit with artefacts does not entirely diminish research value, it may limit the types of questions that may be addressed. A heavily cultivated paddock may be unsuited to addressing research questions of small-scale site structure but it may still be suitable for answering more general questions of implement distribution in a region and raw material logistics.

The capacity of a site to address research questions is predicated on a definition of what the key research issues are for a region. In the region including the subject area, the key research issues revolve around the chronology of Aboriginal occupation and variability in stone artefact manufacturing technology. Sites with certain backed implements from the Holocene are very common but sites with definite Pleistocene evidence are extremely rare and hence of extremely high significance if found.

The Parramatta terrace sand sheet dating to the Pleistocene period identified within the subject site has scientific (research) potential as indicated by the results of previous archaeological investigations (such as Jo McDonald Cultural Heritage Management excavations at George Street, Parramatta in 2005). Previous archaeological investigations have dated Aboriginal artefacts within the Pleistocene sand sheet to approximately 30, 000 years ago and this is presently the oldest evidence of human occupation in the Sydney basin. The subject site may provide an opportunity to further investigate and date Aboriginal archaeological resources, should they survive in the subject site. The level of scientific (research significance) is likely to be high in areas where the Parramatta terrace sand sheet exists at the subject site.

In addition, there is also research potential investigate the potential archaeological resources within the Holocene alluvial floodplain. Few excavations of Holocene alluvial deposits have been undertaken in the township of Parramatta. However, Holocene period deposits are common in the Sydney region and have been extensively investigated archaeologically. It is predicted that any potential archaeological material that may survive in the deposit would be un-stratified and comprise of redeposited archaeological material

5.4 Discussion

The significance assessment outlined in **Part 2 Section 5.2** and **5.3** above has been based on precautionary principles and existing information. The scientific significance of the potential archaeological deposits of the subject site was able to be only generally assessed based on existing information. Further research, test excavation and/or other information may lead to a re-assessment of the subject site's cultural and scientific significance. The level of assessed significance of the site is a key factor in determining the type of heritage management that may be required for the site, such as undertaking additional investigations, excavations and/or obtaining permits, approvals and consents from relevant government agencies that may be required prior to any proposed development of the subject site.

The presence of the Pleistocene Parramatta terrace sand sheet deposits, which are highly likely to occur within the subject site, indicates that the parts of the subject site where the sand sheet is likely to exist (**Figure 2.16**) have a high level of scientific and, most likely, cultural significance.

It cannot be assumed that all parts of the sand sheet contain archaeological deposits of high significance. Previous archaeological excavations have shown that Aboriginal archaeological material does not occur in all parts of the sand sheet.

Aboriginal archaeological test excavations would assist in identifying whether or not Aboriginal objects and/or sites survive at the subject site, their level of significance and, consequently, the level of future management of Aboriginal archaeology at the subject site.

6. CONCLUSIONS

1. There is potential for Aboriginal archaeological sites and/or objects to survive in the subject site;
2. The Aboriginal archaeological sites and/or objects are likely to survive in the Parramatta terrace sand sheet at the subject site shown in **Figure 2.16;**
3. Potential Holocene deposits may exist beneath the existing building at 333 Church Street;
4. Potential Aboriginal sites and/or objects within the Parramatta terrace sand sheet may date from c.30,000 to 10,000 years BP and have the potential to be of high scientific significance;
5. Potential Aboriginal sites and/or objects within the Holocene deposits may date from 10,000 BP to the present and have moderate scientific significance;
6. Informal consultation was undertaken with Deerubin Local Aboriginal Land Council and the Parramatta City Council Aboriginal & Torres Strait Islander Advisory Committee. Comments received indicate that potential Aboriginal sites within the Parramatta terrace sand sheet and Holocene flood plan deposits are likely to be of cultural heritage significance to Aboriginal people. Based on other Aboriginal heritage assessments undertaken in Parramatta, Aboriginal communities consider the Parramatta terrace sand sheet is considered to have high cultural heritage value;
7. In accordance with Part 6 of the *National Parks and Wildlife Act 1974*, the objectives of the *Parramatta City Centre Local Environmental Plan 2007* and best practice principles, disturbance or harm to known or potential Aboriginal sites and/or places should be avoided. Where avoidance is unfeasible, additional archaeological investigations should be undertaken; and
8. Any proposed development within the subject site that would require the construction of basement levels, footings, services or other features that would require sub-surface excavation, involving the disturbance and/or removal of soils within the area of the Parramatta terrace sand sheet and any potential areas of Holocene deposits, may impact potential Aboriginal archaeological deposits and/or sites.

7. MANAGEMENT STRATEGIES

Further Aboriginal heritage investigations are required to inform the proposed development planning of the subject. This section outlines the type of Aboriginal heritage investigations that may be required and provides Parramatta City Council with options regarding the management of Aboriginal heritage of the subject site. Risks and opportunities for Parramatta City Council or other proponents for each option are also identified. Additional considerations regarding the management of Aboriginal heritage at the subject site are also summarised.

7.1 Aboriginal Heritage Investigations in NSW

In NSW, Aboriginal heritage investigations are undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Object in NSW (OEH, 2010a),* 'the Code' (refer to **Appendix 3**). The Code specifies certain requirements that should be undertaken for all archaeological investigations in NSW, specifically the preparation of an Aboriginal Cultural Heritage Assessment (ACHA) and Archaeological Survey Report.

Aboriginal Archaeological Test Excavations in Accordance with the Code

In addition to the reporting and assessment requirements, the Code allows for archaeological test excavations to be undertaken in accordance with certain prescribed requirements. The results of test excavations undertaken in accordance with the requirements of the Code would form part of the ACHA. Test excavations are warranted under the Code if it is determined that these additional investigations are used to:

- Interpret the Aboriginal history of the area being investigated;
- Assess the cultural heritage significance if the area; and
- Inform future planning decisions (OEH, 2010a:3).

Specifically the Code states that archaeological test excavations can be undertaken in an area of proposed activity, where the activity may harm or disturb Aboriginal objects and/or sites and where the proposed activity requires assessment under Part 4 or Part 5 of the *Environmental Planning and Assessment Act 1979*.

However, a recent policy decision by OEH determined that test excavations in accordance with the Code may also be undertaken for re-zonings. Re-zonings, however, are under Part 3, not Part 4 or Part 5 or the *Environmental Planning and Assessment Act 1979* and re-zonings are not considered a proposed activity that would disturb or harm Aboriginal objects/sites in a given area.

Under OEH's policy decision, test excavations, in accordance with the Code, maybe able to be undertaken for any given area without a proposed activity (Development Application).

AHMS advises written confirmation of this policy position from OEH be obtained prior to considering undertaking additional Aboriginal heritage assessment of the subject site that may include test excavations.

Aboriginal Archaeological Test Excavations undertaken with an Aboriginal Heritage Impact Permit

Aboriginal archaeological test excavations that do not comply with the prescribed requirements of the Code may only be undertaken with an Aboriginal Heritage Impact Permit (AHIP) in accordance with s.90 of the *National Parks and Wildlife Act 1974*. However, AHIPs can only be applied for when a Development Application is prepared under Part 4 or Part 5 of the *Environmental Planning and Assessment Act 1979*. In other words, AHIPs are only able to be applied for when there is a proposed activity in a given area that would harm or desecrate Aboriginal objects or places. AHIPs cannot be applied for when there is no proposed activity, such as for re-zonings that could harm or desecrate Aboriginal objects or places. Essentially, AHIPs cannot be applied for without a Development Application prepared under Part 4 or Part 5 of the *Environmental Planning and Assessment Act 1979*.

7.2 Management Strategies for the Subject Site

As the Aboriginal archaeological assessment (**Part 2** of this report) has identified potential Aboriginal archaeological sites and/or objects exist at the subject site, additional Aboriginal heritage investigations that include test excavations may be undertaken by Parramatta City Council, a future landowner (should PCC sell the land) or a delegated Development Proponent.

It is recommended that the investigations would include:

1. Developing an Aboriginal Cultural Heritage Assessment (ACHA) to address the Aboriginal Cultural heritage issues at the subject site. The assessment would be developed in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (OEH, 2010a),* 'the Code' and OEH's *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (*OEH 2011*);
2. Developing an *Archaeological Survey Report* in accordance with the requirements 1-13 of the Code. The Archaeological Survey Report is required as an Appendix to the ACHA for any permit application to OEH;
3. Undertaking and documenting Aboriginal consultation in accordance with OEH's (2010b) *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (**Appendix 4**); and
4. Undertaking Aboriginal archaeological test excavations, in consultation with registered Aboriginal parties, by **one** of the following options:
    a. In accordance with the Code to inform an ACHA by Council, a new land owner or delegated proponent; or
    b. Through an AHIP application under s.90 of the *National Parks and Wildlife Act 1974*. An AHIP may only be applied for if there is Development Proponent and a Development Application for the subject site where the proposed activity may harm Aboriginal objects, sites, and/or places.

Based on the findings of the ACHA and test excavations or the ACHA without test excavations, salvage is likely to be required prior to any proposed development of the subject site. Salvage involves the preparation of an AHIP application and consent from OEH under Section 90 of the *National Parks and Wildlife Act 1974* to excavate to destroy and/or collect Aboriginal archaeological material.

7.3 Risks and Opportunities

The following section identifies general Aboriginal heritage risks and opportunities for any proposed development of the subject site.

General Considerations and Risks of the Subject site

1. The historical heritage assessment has identified potential historical archaeological resources may exist at the subject site (**Part 3**). Refer to **Part 3 Section 7** of this report for management recommendations relating to potential historical

archaeological resources at the subject site. It is noted that certain additional historical archaeological investigations may be required to be undertaken prior to additional Aboriginal investigations (e.g test excavations).

2. Aboriginal archaeological test excavations, whether undertaken in accordance with the Code or under a s.90 AHIP application, may reveal highly culturally and scientifically significant Aboriginal sites or places. The significance of the site may warrant in-situ conservation of all or part of the Aboriginal archaeological site.

3. There is potential for Aboriginal burials to be discovered in certain environmental contexts, such as sandy soil profiles. Should Aboriginal skeletal material be discovered in the subject site, discussion of appropriate management and mitigation measures with OEH and the Aboriginal community should be undertaken. This may include amendment of the design of the development to avoid the burial remains.

8. REFERENCES

AHMS 2004a. *Report on Archaeological Excavation Former St Andrews Church Site 101 Marsden Street Parramatta, Draft Report*, on behalf of Baulkham Hills Apartments Pty Ltd

AHMS, 2004b. *Parramatta Colonial Hospital: Report on Archaeological Test Excavation at the Site*, on behalf of the NSW Department of Commerce, Government Architects Office

AHMS 2004c. *Parramatta Skate Park Aboriginal Archaeological Test Excavation Report*, on behalf of Parramatta City Council

AHMS 2009. *Sydney Water Parramatta Water Main Renewal – Section 87/90 #2966 Excavation Report*, on behalf of Sydney Water.

AHMS 2011 (in preparation). *Parramatta Police Station Archaeological Investigations* for Gardner Wetherill Associates, on behalf of UGL Services Ltd.

Attenbrow, V. *1991. The Port Jackson Archaeological Project: a study of the prehistory of the Port Jackson catchment, New South Wales;* Australian Museum.

Attenbrow, V. 1994. *Parramatta Park: Management and Interpretation of Aboriginal Sites Stage 1.* Report to Kylie Winkworth, on behalf of Parramatta City Council.

Attenbrow, V 1987. *The Upper Mangrove Creek catchment: a study of quantitative changes in the archaeological record*. Unpublished PhD Thesis, University of Sydney, Sydney, NSW.

Attenbrow, V. 2002. *Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records*. UNSW Press, Sydney.

Benson, D. & Howell, J. (1990) *Taken for Granted: The Bushland of Sydney and its Suburbs*. Kangaroo Press, Sydney

Chapman, G.A. and Murphy, C.L. 1989. *Soil Landscapes of Sydney 1:100,000 sheet*. Soil Conservation Service of NSW, Sydney

Chapman, G.A. Murphy, C.L, Tille, P.J. and Morse R.J. 1989 *Soil Landscapes of Sydney 1:100,000 sheet Map*. Soil Conservation of NSW Sydney.

Collins, D (1798 [1975]). *An Account of the English Colony in New South Wales. Volume 1*. A.H. & A. W. Reed in association with the Royal Australian Historical Society, Sydney.

Colonial Secretaries Correspondence - Special Bundles (Aborigines) Reel 3076, SR NSW.

Comber Consultants Pty Ltd, 2007. *Aboriginal Archaeological Cultural Heritage Assessment 15 Macquarie Street Parramatta*. Report to Integral Energy

Comber Consultants Pty Ltd, 2008. *Aboriginal Cultural Heritage assessment: Union Street Switching Station, Parramatta*. Report to Integral Energy

Comber Consultants Pty Ltd, 2010. *Preliminary Excavation Report: 140 Macquarie Street Parramatta*, for Integral Energy

Douglas Partners Pty Ltd, 2011. P*hase 1 and 2 Contamination Assessment of Lennox Bridge Car park - Borehole plan and results.* Prepared for Parramatta City Council.

Eades, D 1976. *The Dharawal and Dhurga Languages of the New South Wales South Coast*.Australian Institute of Aboriginal Studies, Canberra.

Haglund & Associates, 2004. The Parramatta Children's Court Site. Final report on testing for Aboriginal Heritage

Haglund & Associates, 2007. Parramatta Health Services Area. Parramatta Justice Precinct, Final Report on Investigations completed under Section 87(1) permit# 2160

Hiscock, P. and V. Attenbrow 1998 Early Holocene Backed Artefacts from Australia. *Archaeology in Oceania* 33:49-63.

Hiscock, P. & V. Attenbrow, 2002. *Morphological and Reduction Continuums in Eastern Australia: Measurement and Implications at Capertee 3*. Tempus 7, Anthropology Museum, University of Queensland.

Haglund and Associates, 2006a. *Parramatta Health Services Area, Parramatta Justice Precinct Aboriginal Heritage Aspects: Preliminary Report on Investigations completed under Section 87(1) Permit #2160*.

Haglund and Associates, 2006b. *Parramatta River Heritage Walk: Section along Parramatta River, north Bank, Marsden Street Weir to O'Connell Street Parramatta, NSW*. A report prepared on behalf of the Parramatta River Catchment Trust.

Haglund and Associates, 2007. *Parramatta Health Services Area Parramatta Justice Precinct Aboriginal Heritage Aspects: Final Report on Investigations completed under Section 87(1) permit # 2160*.

Hunter, J (1793[2006]). *An Historical Journal of the Transactions at Port Jackson and Norfolk Island*. Currey, J (ed) The Banks Society, Malvern.

Kass,T., 1996 *Parramatta: A Past Revealed*. Parramatta City Council, Parramatta.

Kohen, J. L. 1986. *Prehistoric Settlement in the Western Cumberland Plain: Resources, Environment, Technology*. PhD Thesis, School of Earth Sciences, Macquarie University, Sydney.

Levy, MCI. 1947. *Wallumetta A History of Ryde and Its District 1792-1945*. Ryde Municipal Council , Sydney.

Mary Dallas Consulting Archaeologists, 2003. *Parramatta City Council Aboriginal Cultural Heritage Study*. Report to Parramatta City Council

McDonald, J., 1990. Proposed Extension to Ferry Services Parramatta River west of Silverwater Bridge. Archaeological Services. Report to Gutteridge Haskins and Davey Pty Ltd.

McDonald, J., 1997. *Interim Heritage Management Report: ADI Site St Marys. Volume 1: Text*. Report to Lend Lease - ADI Joint Venture in Response to the Section 22 Committee Interim Report.

JMCHM (Jo McDonald Cultural Heritage Management Pty Ltd) 2005a *Archaeological Salvage Excavation of Site RTA-G1, 109 - 113 George Street, Parramatta, NSW*. Report to Landcom.

McDonald, J., 2005b. *Archaeological Salvage Excavation of Eight Archaeological Landscapes in the Second Ponds Creek Valley, Rouse Hill Development Area, NSW*. Report to Rouse Hill Infrastructure Pty Ltd and Landcom.

McDonald, J. 2008. *Dreamtime Superhighway. Sydney Basin Rock Art and Prehistoric Information Exchange*. Terra Australis 27. The Australian National University, Canberra.

JMCHM 2006. *Archaeological Salvage Excavation of Site CG3, 109-113 George Street, Parramatta, NSW*. Report prepared for Rahi Developments.

Mitchell, P. 2008. *Nature and Distribution of the Parramatta Terrace Sand*, letter report to Parramatta City Council dated 6 May 2008.

McClymont, 2001. *Pictorial History of Parramatta a Districts*. Kingsclear Books, Alexandria NSW.

Office of Environment & Heritage (OEH). 2010a. *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*, Department of Environment, Climate Change and Water, Sydney South.

OEH (2010b). *Aboriginal Cultural Heritage Consultation Requirements for Proponents* Department of Environment, Climate Change and Water, Sydney South.

NSW Office of Environment & Heritage. 2011. *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*, DECCW, Sydney South.

Sydney Gazette and New South Wales Advertiser, 28 November 1812, page 2.

Sydney Morning Herald, NSW 28 May 1889. *The Flood in Parramatta,* pp 6.

Sydney Morning Herald, NSW 14 June 1864. *Parramatta,* pp5.

Wharton, J. C. (ed). 1911. *The Jubilee History of Parramatta: in commemoration of the first half-century of municipal government, 1861-1911*. T.D Little and R.S Richardson Parramatta

Tench, W (1789, 1793 [1979]). *Sydney's First Four Years. A Narrative of the expedition to Botany Bay and A complete account of the settlement at Port Jackson 1788-1791*. Fitzhardinge, L.F (ed) Library of Australian History, Sydney.

Acts and Planning Instruments – Australian Legislation Website

Parramatta City Centre Local Environmental Plan 2007.

National Parks & Wildlife Act 1974

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

Environment Protection & Biodiversity Conservation Act 1999

Environmental Planning and Assessment Act 1979

Part 3: Historical Archaeological Assessment

EXECUTIVE SUMMARY

The historical archaeological assessment of the study area reaches the following conclusions and makes the following recommendations regarding the future management of any potential archaeological resources that may survive on the site.

The assessment concludes that continuous non-indigenous use and occupation of the study area since c.1790 has had associated with it, activities have the potential to leave physical evidence in the form of archaeological remains. These remains have the potential to be of local or State significance, depending on their integrity.

The assessment also recognized that the study area has been subject to several site formation processes that may have compromised a portion of the potential archaeological resource. These include the flood of 1889, the installation of sewer and stormwater mains during the early twentieth century, construction and subsequent remodelling of the existing car park, and construction of the existing buildings on 333 to 337A Church Street.

Fifteen sites within the study area were identified as the locations associated with significant activities and where archaeological remains may be potentially located. Of these locations one has been destroyed by past actions; two areas may contain remains of local and/or State significance but their current degree of survival is currently unknown, ten locations have the potential to contain archaeological remains of local significance, and two areas have the potential to contain archaeological remains of State significance.

Management of these potential archaeological remains will vary from location to location. Management options include - no further action, site specific assessment followed by test excavation, and test excavation to determine if further archaeological work (salvage excavation) is warranted.

1. INTRODUCTION

1.1 Site Location

The study area includes the Lennox Bridge car park at 12-14 Phillip Street Parramatta and 333 Church Street, Parramatta, NSW (**Figure 3.1** and **Figure 3.2**). It is located in the Parish of St John, County of Cumberland and in the Parramatta local government area. It consists of Lot 1 DP 791693, Lot 2 DP 791693, Lot A DP 333263 and Lot 3 DP 825045.

The greater part of the study area is currently occupied by a bitumen-surfaced car park located behind the Phillip Street (to the west), Marsden Street (to the south) and Church Street (to the east). Part of the study area (Lot 3 DP 825045) is currently occupied by a two storey building fronting Church Street (to the east). This part of the study area, described throughout the report as '333 Church Street', also includes the street numbers 335, 337 and 337A Church Street. Lot A DP 333263 is given a street address as 339 Church Street although no buildings occupy the site.

The Parramatta River is situated at the northern boundary of the study area with Marsden Street Weir and Parramatta Dam situated at the northwest boundary of the study area.

The greater part of the study area is currently occupied by an bitumen-surfaced car park located behind the Phillip Street, Marsden Street and Church Street frontages to the west south and east, respectively. Part of the study area (Lot 3 DP 825045) is currently occupied by a two storey building fronting Church Street (to the east). The Parramatta River is situated at the northern boundary of the study area with Parramatta Weir situated at the northwest boundary of the study area.



Figure 1. Site location arrowed (base map source: http://maps.google.com.au).

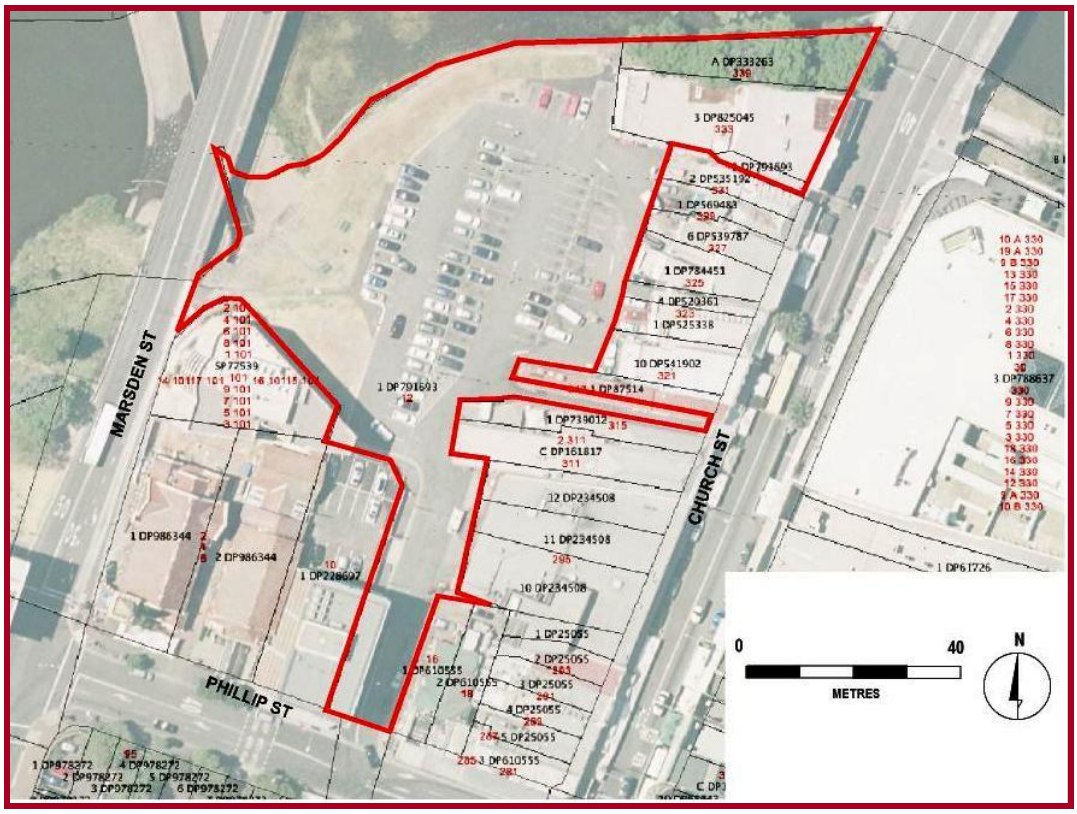


Figure 2. A recent aerial photograph with cadastral information showing the study area outlined in red (source: Six Viewer, NSW Land and Property Information Management Authority). North is oriented at the top of the image

2. STATUTORY CONSIDERATIONS

2.1 Introduction

Historical heritage and archaeology in New South Wales can be protected by a number of pieces of legislation: Commonwealth, State and local. Those of relevance are summarised below, along with a summary of how they may apply to a development proposal considered under Part 4 of the *Environmental Planning and Assessment Act 1979*.

2.2 Relevant Statutory Controls

2.2.1 Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a statutory framework for protecting and managing significant environmental and cultural heritage places, flora, fauna and environmental communities. The Act establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL) and provides protection for places included in the two lists. The Act also provides protection for those Australian places on the World Heritage List (WHL).

The study area does not include any places of historical heritage value that are listed on the WHL, CHL or the NHL.

The study area is in the *vicinity* of a site listed on the WHL and NHL, namely *Old Government House and the Government Domain, O'Connell Street, Parramatta*.[4]

It is noted that the study area is not located within the 'buffer zone' boundary of the WHL listing or within the heritage curtilage boundary of the NHL listing for *Old Government House and the Government Domain, O'Connell Street, Parramatta*.

2.2.2 Environmental Planning and Assessment Act 1979 (NSW)

The *Environmental Planning and Assessment Act 1979* (EP&A Act), together with the *Heritage Act 1977* and the *National Parks and Wildlife Act 1974*, form an integrated system for managing environmental heritage in NSW. Heritage matters relating to non-indigenous occupation are largely controlled by the Heritage Act and by the provisions of local

[4] WHL Serial ID 1306-002 and NHL Place ID 105957 and NHL Place File No. 1/14/028/0109

planning instruments (Local Environmental Plans and Development Control Plans) made in accordance with the EP&A Act.

2.2.3 Heritage Act 1977 (NSW)

The *Heritage Act 1977* is designed to conserve the environmental heritage of New South Wales and to regulate development impacts on the state's heritage assets.

The *Heritage Act 1977* establishes the State Heritage Register (SHR), a list of places and items of State heritage significance. The Act provides statutory protection for items included on the SHR. Approval from the Heritage Council of NSW is required prior to undertaking work that results in any alteration or modification of a SHR-listed item.

No items located within the study area are listed on the SHR.

Two items in the *vicinity* of the study area are listed on the SHR:

- Parramatta Park and Old Government House (SHI Database # 5051462 / # 5045475)[5]; and
- Lennox Bridge (SHR Database # 5051414).

In addition to the SHR, Section 170 of the *Heritage Act 1977* requires that State government agencies maintain registers of heritage assets that they own and/or manage. These listings are reproduced on a Heritage and Conservation Register.

No heritage items listed on any State Government Heritage and Conservation Register (S.170) are located within the study area .

One item in the *vicinity* of the study area is listed on the Roads and Traffic Authority's Heritage and Conservation Register:

- Lennox Bridge (RTA H & C Register – SHI Database # 4300301).

Significant historical archaeological features are afforded automatic statutory protection by the 'relics provisions' of the Act. A 'relic' is defined as:

> *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.*

[5] There is a duplicate listing for Old Government House on the SHR

It is an offence to disturb or excavate land where this may affect a relic without the approval of the Heritage Council of NSW, or unless an endorsed 'Exemption' or 'Exception' applies to the site or the work. The potential for 'relics' to exist is analysed in the Parramatta Historical Archaeological Landscape Management Study and this is discussed further in Section 2.2.6 below.

2.2.4 Parramatta City Centre Local Environmental Plan 2007

The study area falls within the Parramatta City Council (LGA). The relevant environmental planning instrument is the *Parramatta City Centre Local Environmental Plan 2007* (the LEP).

The study area includes two items on Schedule 5 (Environmental Heritage) of the LEP:

- 333 Church Street, shop, local heritage significance, ID 89 (nb. omitted from the SHI); and
- 339 Church Street, shop, local heritage significance, ID 90 (nb. omitted from the SHI)

The LEP includes two listings in the vicinity of the study area:

- Sandstone and Brick Wall, 286 (rear), 288 and 290 Church Street (SHI Database # 2240116);and
- the Lennox Bridge (SHI Database # 2240119);

These heritage items are listed in **Table 1** below. The locations of the heritage items listed on the LEP that are relevant to the study area are shown in **Figure 3.3**.

Analysis of the heritage listed items of the LEP on and in the vicinity of the study area indicates there are several inconsistencies associated with the listings, the descriptions of the items and their geographic locations, as follows:

- The land parcel of '333 Church Street' also includes the street addresses of 333, 335, 337 and 337A Church Street.
- The building at 333 Church Street is comprised of two separate structures on a single title.
- The LEP lists 339 Church Street (Item 90) - this address (based upon the identified Lot numbers) appears to actually be the land parcel immediately north of 337/337A Church Street, adjacent to the river under council control that contains no

buildings. The database entry, on the other hand, describes the structure forming 337/337A Church Street

- The State Heritage Inventory database is a reference database containing statutory and other listings. It includes one item identified as: *286-290 (rear) - Sandstone and Brick Wall (*SHI Database # 2240115) which, although attributed to being included in Schedule 6 (Heritage Items) of the (now repealed) Sydney Regional Environmental Plan No 28 (Parramatta) (the REP) is, in fact, listed in the LEP. A second entry in the SHI for *292 (rear) Church Street- Sandstone and Brick Wall (*SHI Database # 2240116) is attributed to being included in the LEP but is not, nor is this address in the repealed REP.

Table 1: Heritage items (LEP) which are relevant to the study area

Address	Item name	Property description	Significance (according to the LEP)	Item no on Heritage Map
286 (rear), 288 and 290 Church Street	Sandstone and brick wall	Lot 1, DP 210616, Lot 1, DP 128501, Lot 5, DP 516126, Lot 2, DP 216665	State	18
Marsden Street	Parramatta Dam archaeological site weir		State	49
2 Phillip Street (corner of Marsden Street)	Former St Andrew's Uniting Church, hall and potential archaeological site	Lots 1 and 2, DP 986344	State	55
281 Church Street	Shop	Lot 3, DP 610555	Local	74
287 Church Street	Shop	Lot 5, DP 25055	Local	75
289 Church Street	Shop	Lot 4, DP 25055	Local	76
291 Church Street	Shop	Lot 3, Section 24, DP 25055	Local	77
293 Church Street	Shop	Lot 2, DP 25055	Local	78
311-315 Church Street	Shop	Part Lot 2 (c), Sec 24, DP 161817, Lot 1, DP 739012	Local	80
317 Church Street	Shop	Lot 1, DP 87514	Local	81
321 Church Street	Shop	Lot 10, DP 541902	Local	82
323 Church Street	Archaeological/ terrestrial	Lot 4, DP 525338, Lot 4, DP 520361	Local	83
325 and 327 Church Street	Shop	Lot 1, DP 784451, Lot 6, DP 539787	Local	84
329 Church Street	Archaeological/ terrestrial	Lot 1, DP 569483	Local	85
331 Church Street	Archaeological/ terrestrial	Lot 2, DP 535192	Local	87
331A Church Street	Archaeological/ terrestrial	Lot 2, DP 791693	Local	88
339 Church Street	Shop	Lot A, DP 333263	Local	90

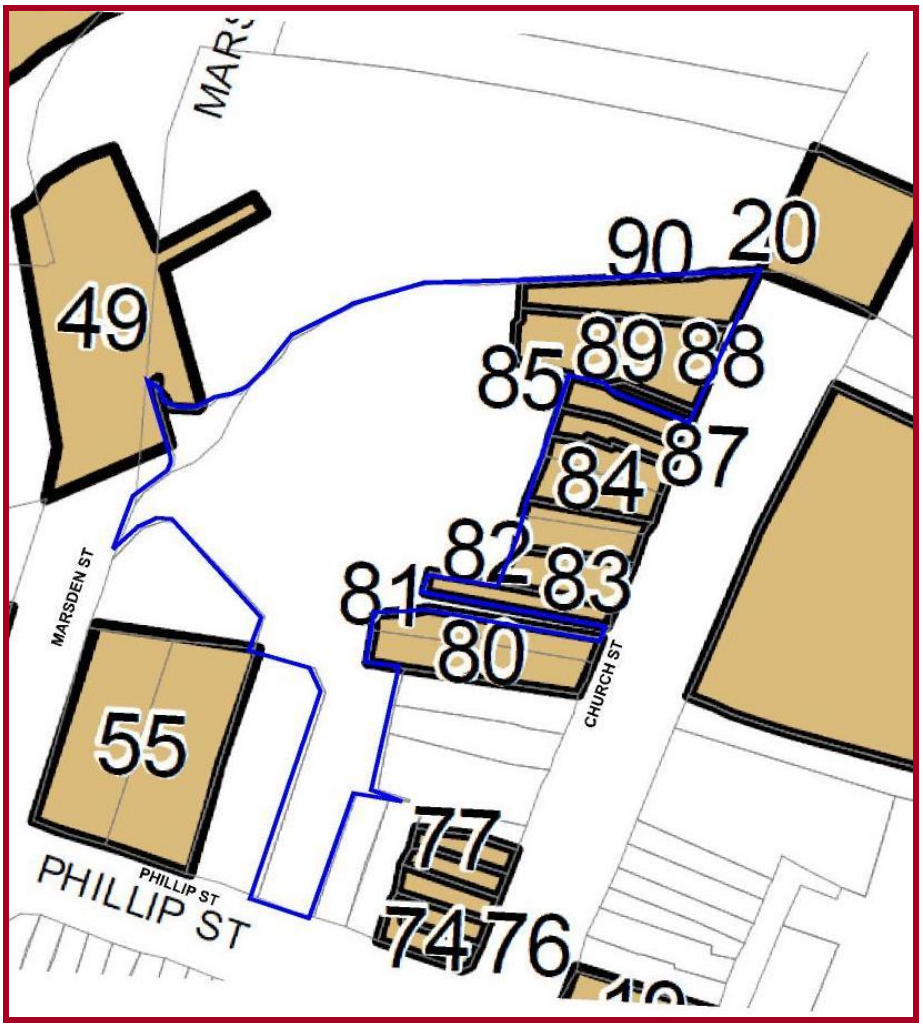


Figure 3. *Figure 3.3. Part of a heritage map showing heritage items listed on Schedule 5 of the PCCLEP 2007. The study area is outlined in blue and north is oriented at the top of the image. (source: Parramatta City Council).*

2.2.5 Non-Statutory Listings

There are a number of non-statutory and information only heritage lists which are relevant to the study area. Some include places and items that are otherwise also included in statutory registers.

The State Heritage Inventory database is a reference database containing statutory and other listings. It includes one item identified as:

- Parramatta Archaeological Management Unit 3084 (ID # 2243084)

The PHALMS system operating in Parramatta is explained further in Section 2.2.6 below.

The non-statutory heritage lists that have been searched are the Register of the National Estate (RNE) and the National Trust Register, compiled by the National Trust of Australia (NSW).

The National Trust Register includes one listing in the vicinity of the study area:

- Lennox Bridge (Item # 8741).

The Register of the National Estate is the former Register compiled by the Commonwealth Government's Australian Heritage Commission (replaced in 2004 by the Australian heritage Council), which was superseded following amendments to the Australian Heritage Council Act 2003. It is a closed Register which will have no statutory status after February, 2012. The Register of the National Estate includes one heritage item located in close proximity to the study area:

- The Lennox Bridge, Registered, (Place ID # 3033).

It is noted that the National Trust and the RNE[6] also have heritage listings for the former Post Office Parramatta with a description of the site as located at 321 Church Street, Parramatta - an address that locates it in the vicinity of the study area. This description is erroneous, as the former Post Office is not located within the vicinity of the study area but several blocks south, at 211-213 Church Street Parramatta.

2.2.6 Parramatta Historical Archaeological Landscape Management Study

PHALMS is a historical archaeological landscape management tool used to identify places with historical archaeological potential throughout the Parramatta CBD and CBD fringe. PHALMS includes a list of Archaeological Management Units (AMUs), identifies the archaeological potential of each unit and recommends how that potential should be managed. It is used as a guideline document by Parramatta Council to determine the need for archaeological investigations as part of any development proposal.

The study area is located within AMU3084 and PHALMS indicates that it has '*exceptional archaeological research potential'* and the AMU is '*of State significance'* (see **Figure 3.4** for curtilage).

[6] Parramatta Post Office (former), 321 Church St, registered (RNE Place ID # 3037) and 321 Church Street, former Post Office façade (National Trust ID # 9327)

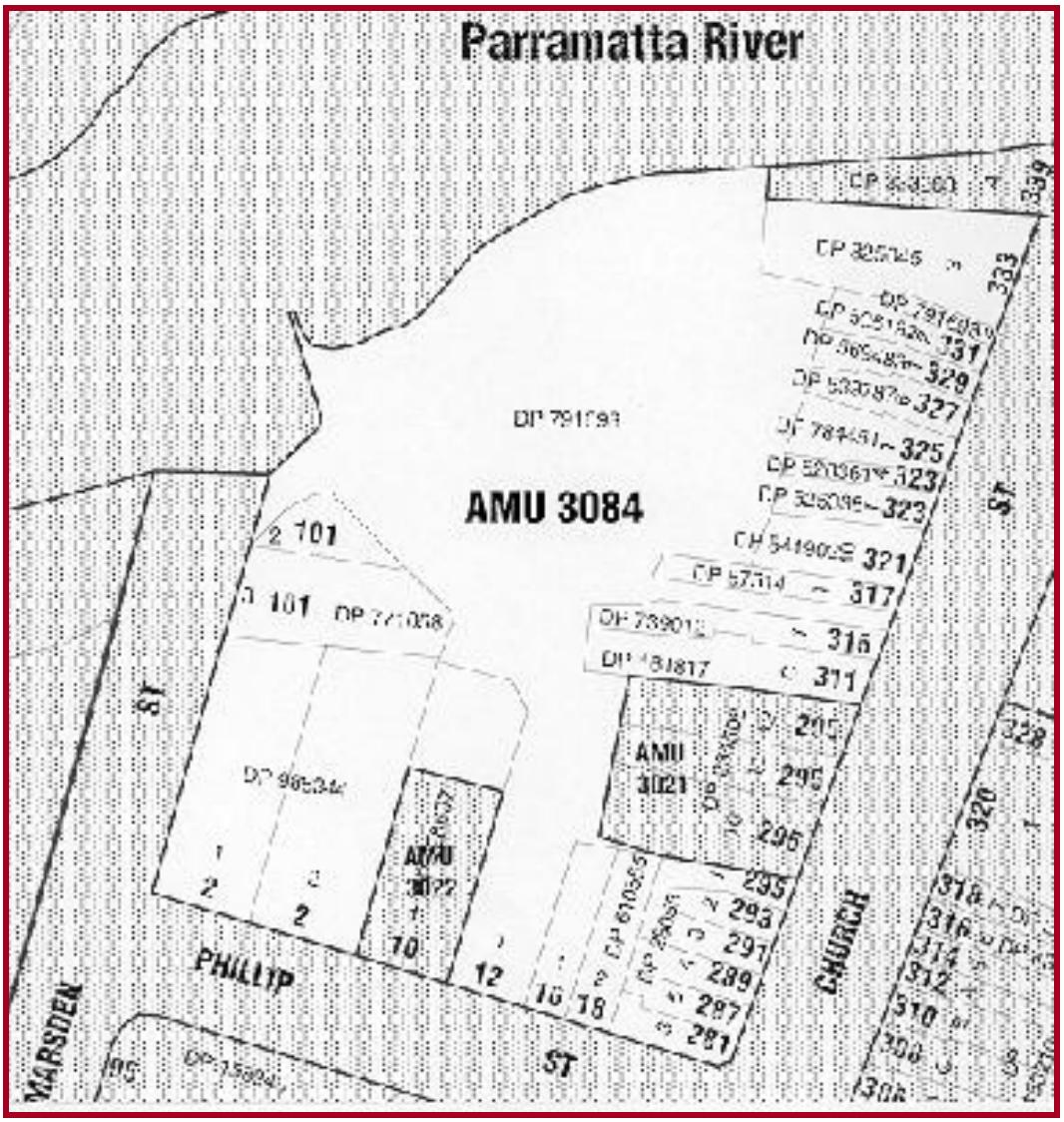


Figure 4. *AMU 3084 encompasses the entire study area (source: SHI listing 2243084, Heritage Branch Website, accessed 12.09.2011)*

3. SITE HISTORY

3.1 Preamble

Historical research undertaken for this assessment was based on primary and secondary source material. The following archives and repositories were visited during the course of the research: State Archives of NSW; Mitchell Library; Land and Property Information; Parramatta Heritage Centre Local Studies Collection; and the Heritage Branch (Office of Environment and Heritage) Library,.

The historical investigation was site specific and examined development of the site within the local historical and social context of which it formed a part. This research also sought to determine factors that may have contributed to, or limited, the survival of relics at the site, that is, site formation processes. The following history provides contextual background to subsequent assessment of the site's potential to contain relics (Section 4) and the cultural significance of these potential archaeological remains (Section 5). Sites, structures and features identified by this study have been numbered as Items 1 to 49. Each Item is referred to in the following development history (Section 3.2). Their locations and summary descriptions are set out in Section 3.3.

For the purposes of this report, the discussion employs the property descriptions that were current between c.1820 and c.1900. The site is located on parts of six allotments - Allotments 1A, 1B, 2, 3, 51 and 54 of Section 24 of the Town of Parramatta. These former divisions are shown in **Figure 3.5** below.

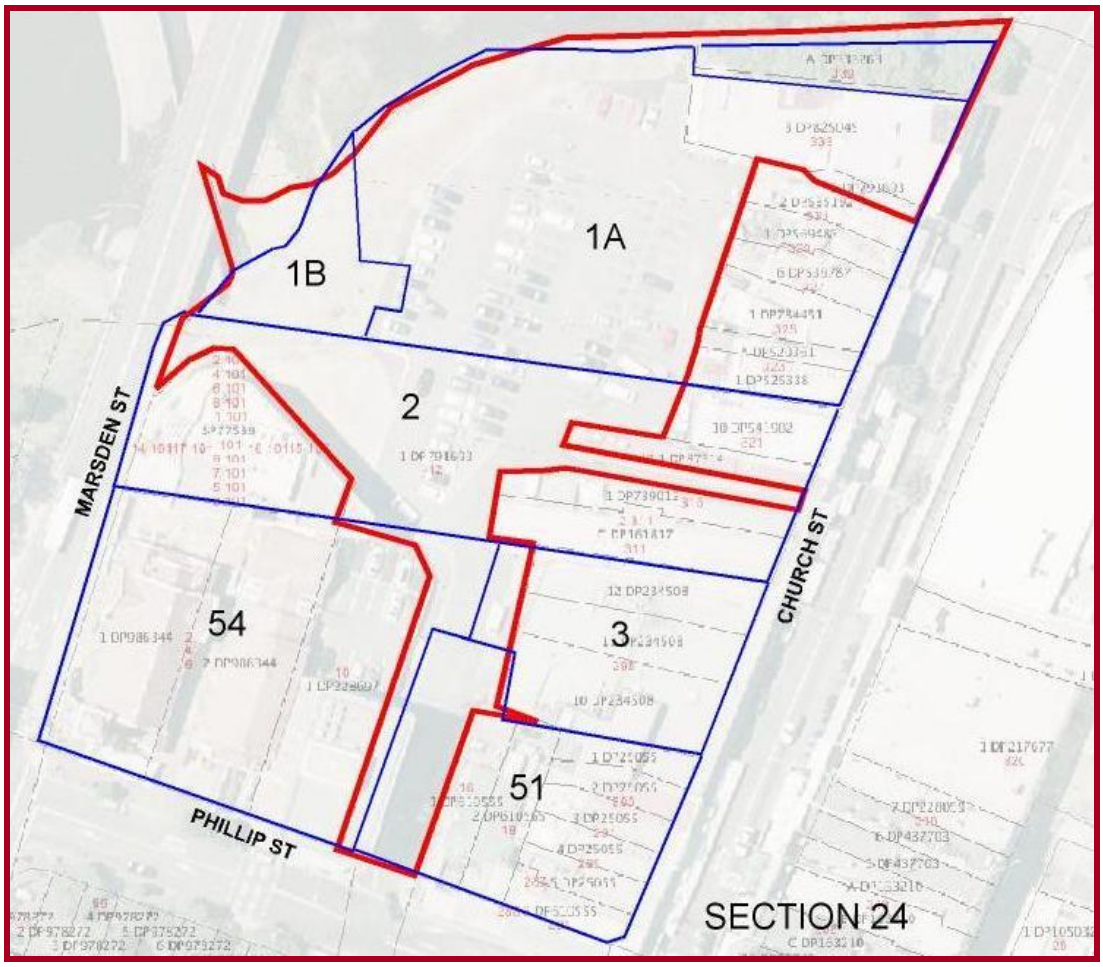


Figure 5. Former property divisions - Allotments 1A, 1B, 2, 3, 51 and 54 of Section 24 are shown in blue. The site is outlined in red.

3.2 Development History

In broad terms, seven historically documented, general occupation and/or land use phases took place on the site. These are as follows:

- Aboriginal Occupation
- Contact and Initial European Occupation (1788-1792);
- Development of the Town (1792-1809);
- Convict & Garrison Town (1810-1839);
- Municipal Development (1840-1870);
- Late Nineteenth Century (1870-1900)
- Twentieth Century Occupation and Development.

3.2.1 Aboriginal Occupation

The history of Aboriginal occupation of the study area is considered in detail in Part 2 of this report.

3.2.2 Contact and Initial European Occupation (1788-1792)

Soon after the British occupied Sydney Cove in January 1788, it became apparent that the scheme to maintain the convict settlement could not be achieved, due to damaged seed stock, the low fertility of the soils at Port Jackson and the lack of farming experience amongst the Marines and convicts. Exploration of the hinterland to locate arable land began almost immediately and, in February 1788, Lieutenant Bradley reached the Duck River (east of Parramatta). In April 1788, Governor Phillip led an expedition of Marines west to the area now known as Pennant Hills. The party explored the Parramatta area on 24 April, noting its suitability for settlement. After returning to Port Jackson, Phillip wrote to Lord Sydney indicating his intention to establish an outpost at Parramatta in the spring.[7]

In November 1788, Governor Phillip accompanied by Alt and Lieutenant John Johnstone journeyed to Parramatta to select a location for a new settlement. By 2 December, twenty convicts and twenty Marines were stationed at Parramatta. Initially, the whole party were housed in tents on an area of flat ground to the south of the Parramatta River known as Pavilion Flat. A redoubt was constructed to the west of the flat near The Crescent and, by July 1789, the convicts at Parramatta were housed in huts. Land clearance began quickly and a Government Farm was soon established on the northern bank of the river. The farming was undertaken by groups of convicts under the supervision of the Superintendant of Agriculture and the Marines. Initially, crop yields were only sufficient to provide enough grain to replace the seed stock and the colony continued to rely on food imports from abroad.[8] An indication of the settlement during its first stage of development is shown in a sketch map by William Bradley dating to 1789 (see **Figure 3.6** below).

[7] Kass *et al* 1996: 12-13
[8] Ibid: 16-17 & 26-27

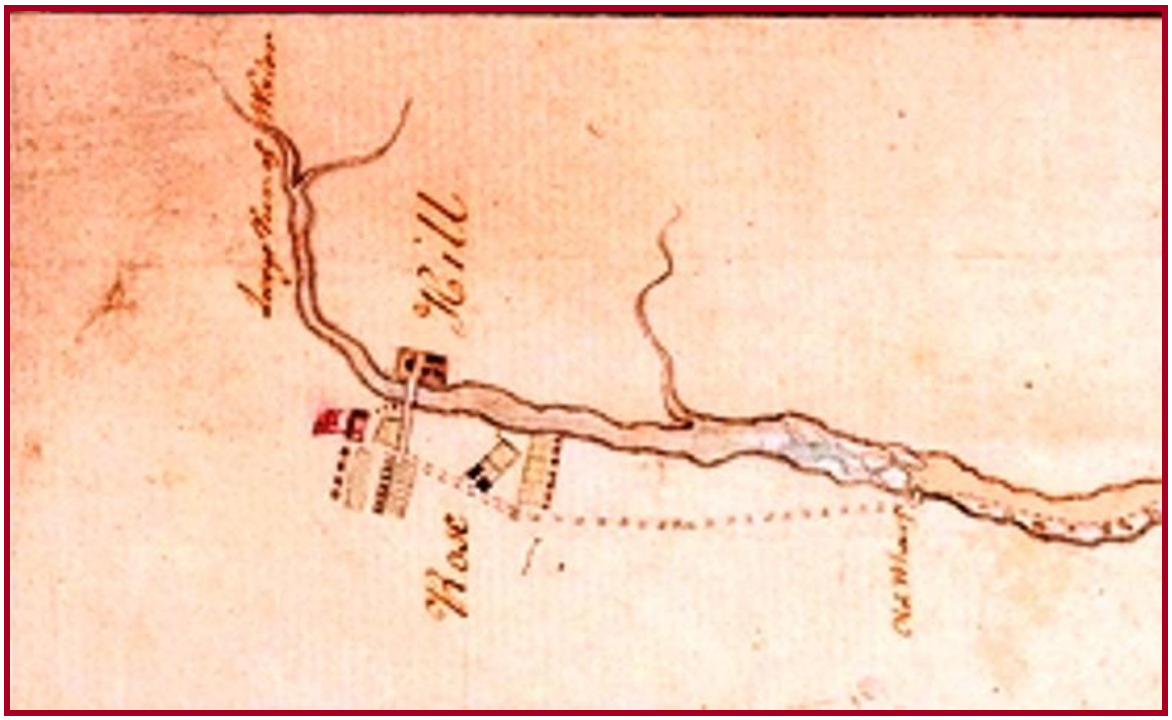


Figure 6. *William Bradley "Flats at the head of Port Jackson & channel up to Rose Hill" 1789 (SLNSW ZMT4 140/1792/. The study area is located adjacent to the river immediately above the kink in the track to the wharf (dotted line).*

Bradley's map shows a row of huts with cultivation behind them extending from the river to the approximate line of the present George Street. The huts appear to have been located on the low ridge forming Church Street. If this interpretation is correct, then the gardens associated with these huts extended across the eastern portion of the study area. The huts were rudimentary structures but their legacy may have been determining the line of the later Church Street.

Governor Phillip took direct control of planning of the settlement. It consisted of two east-west streets: High Street (now George Street) and South Street (now Macquarie Street), crossed by two Streets aligned north-south: Bridge Street (now Pitt Street) and Church Street. Two laneways were also formed: Back Lane, between High and South Streets, and Hospital Lane (on the same alignment as the present Marsden Street). Allotments 100 feet by 200 feet were set in a grid along these thoroughfares with each to contain a hut, capable of holding ten persons, spaced at 100 feet intervals.[9] The main variation in the grid plan was the creation of a large space north of High Street to function as the site of a Town Hall and a market square.

In his journal, Captain Watkin Tench describes the progress of the settlement of Parramatta in November 1790:

[9] AHMS 2002:

> *The main street of the town is already begun. It is to be a mile long, and of such breadth as will make Pall Mall and Portland Place 'hide their diminished heads'. It contains at present thirty-two houses completed, of twenty four feet by twelve each, on a ground floor only, built of wattles plastered with clay and thatched. Each house is divided into two rooms, in one of which is a fireplace and a brick chimney. These houses are designed for men only; and ten is the number of inhabitants allotted to each; but some of them now contain twelve or fourteen, for want of better accommodation. More are building. In a cross street stand nine houses for unmarried women; and exclusive of all these are several small huts where convict families of good character are allowed to reside.*[10]

While Tench's 1790 description of Parramatta is probably the fullest account of the convict huts for this period, it is not specific regarding the location of the huts housing female convicts or families. The main cross street in Parramatta in 1792 was Church Street. Six (or possibly eight) huts are indicated fronting Church Street at this time and it is commonly accepted that these huts were probably occupied by women. The other cross street in 1792 was Marsden Street (Hospital Lane) and it is possible that convict huts fronting Marsden Street were also used as housing for female convicts. However, given the ambiguity of Tench's account, it is also possible that these huts were occupied by families.

Located at the northern end of Hospital Lane, on its eastern side, was a structure larger than the adjacent huts and, unlike the huts, unenclosed. This structure was located on the northwest corner of the study area (Item 1). From all available descriptions, this appears to have been the first hospital constructed in the Parramatta settlement. The hospital was constructed by 1790 and Watkin Tench was able to observe that the structure was *"a most wretched hospital, totally destitute of every conveniency"*. Thirteen months later, the building was described in the following terms:

> *"...a new hospital has been talked of for the last two years, but is not yet begun; two long sheds built in the form of a tent, and thatched, are however finished, and capable of holding two hundred patients; the sick list of to-day contains three hundred and eighty-two names."*

At this period, there were 1628 Europeans at Rose Hill, thus nearly 25% of the population was subject to some manner of illness or another.[11] By November 1792, the 'Second Hospital', a more substantial brick building, replaced the "Tent Hospital'. This was located on the western side of Hospital Lane (Marsden Street).

[10] Tench 1788: 156
[11] Tench 1793: 158

Construction of the second hospital had commenced at the same time as the construction of Phillip's Town Hall (April 1792). As the requirements for the hospital were of a more urgent nature, work on the Town hall was suspended and quickly abandoned. The approximate site of Town Hall is in the centre of Church Street slightly north of the Phillip Street intersection. Not withstanding the failure of the Town Hall to be completed, the area extending 100 feet east and west of the line of Church Street between the present Phillip Street and the river functioned as a market place. [12]

A plan, generally dated to 1792 but showing details such as the Town Hall and the First and Second Hospitals, suggesting a mid to late 1791 date, provides the earliest record of hut locations and land divisions following completion of Phillip's laying-out of the Town (see **Figure 3.7**). Within the present block bounded by Marsden Street, Phillip Street, Church Street and the River, only the western portion of the site had been divided into allotments. Two huts were located south of the First Hospital, while the eastern portion of the block was occupied by the market place. Neither of the two huts was located within the study area, although a small part of the rear sections of their allotments extend across the southern part of the study area.

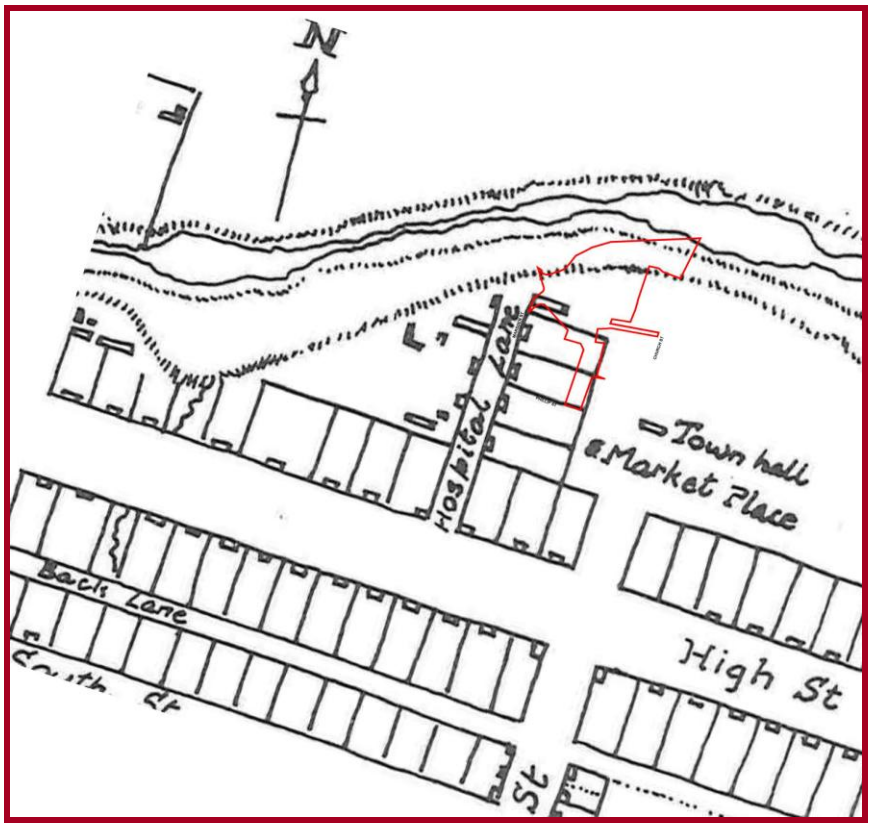


Figure 7. J.S. Kerr 1984 "Town of Parramatta about 1792, adapted from the Plan in PRO CO700.4". Marsden Street is shown as Hospital lane and George Street is shown as High Street. Approximate site boundary in red.

[12] Kass *et al* 1996: 25

3.2.3 Development of the Town (1793-1809)

Parramatta during the 1790s remained very much a convict settlement although it was becoming established as a town and the Colony's second settlement. Fernando Brambila's sketches of the settlement in 1793 suggest an orderly establishment with regularly spaced huts and wide streets. Formal fence lines demarking each allotment are almost entirely absent (**Figure 3.8** and **Figure 3.9**). The three huts located on the site (Items 2, 3 and 4) may have had a very short life-span if Brambila's illustrations cane be relied upon. By 1793 the huts formerly located along the eastern side of Hospital Lane (Marsden Street) as well as the First Hospital had disappeared. Throughout the early 1790s huts continued to be built for convicts although by 1796 many had fallen into decay and required Government intervention in order to repair them.[13] There is no evidence to indicate that the huts located on the Marsden Street frontage were rebuilt in the later 1790s.

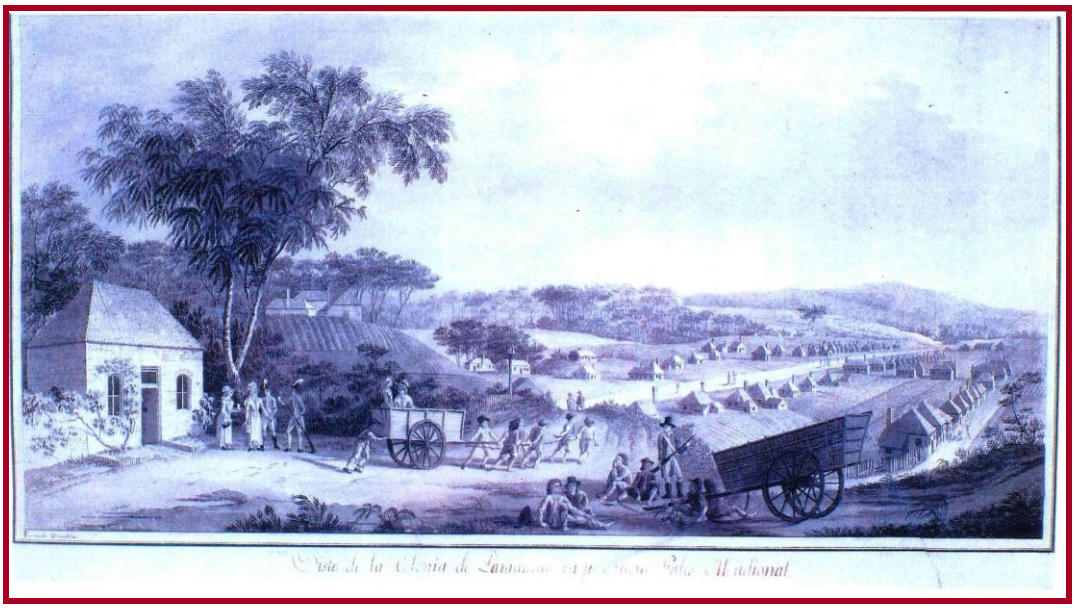


Figure 8. *Vista de la Colonia de paramata en la Nueva Galles Meridional Fernando Brambila 1793 (British Library, Map Library. View of the town of Parramatta from the southwest).*

[13] Archaeological Management and Consulting Group 2003: 7-8

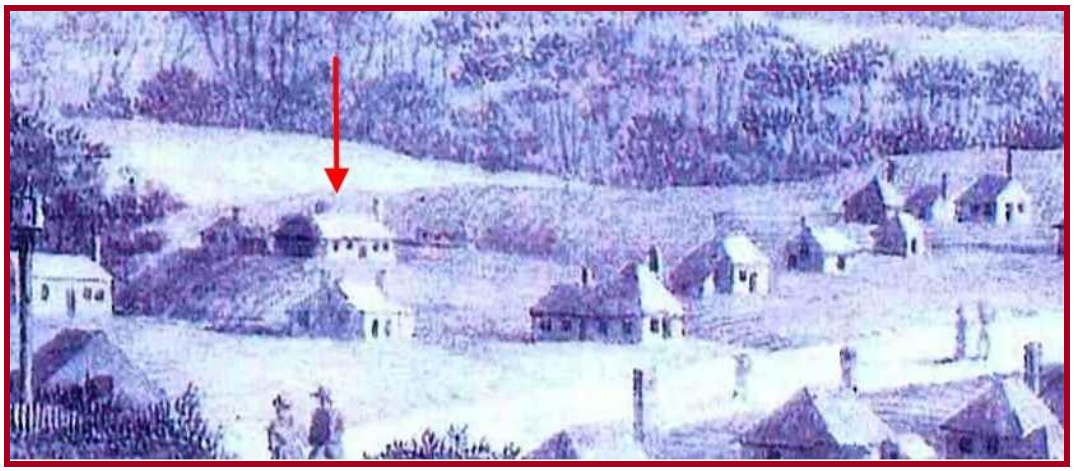


Figure 9. *Detail of above. Arrow indicates approximate location of the site.*

Land ownership in early nineteenth century Parramatta followed a loose and informal process. While some grants were issued, formal allocation of land was more often issued as a lease. The first lease of a town lot was made in 1796 but the rate of allotments being taken up as leasehold was slow. In 1804 there was a concerted effort by the administration to formalise land-holding by the issue of 14-year leases. To this effect, Surveyor James Meehan was sent to Parramatta in order to conduct a comprehensive survey of the settlement, so that leases could be issued. The results of this survey were later drawn by Surveyor George Evans to indicate the position of buildings and the names of those who had decided to convert their properties to formal lease. A copy of this plan is shown in **Figure 3.10**. This plan was however, a sketch plan showing the general relationship between the various properties in Parramatta. When examined in the light of Meehan's original field books for the survey it is clear that the blocks shown on the Evans plan were schematic.[14] In 1800 leases for blocks conforming to Phillip's system of 100' by 200' were still being issued but by 1804 the system had broken down with some blocks having been subdivided and others incorporated with other parcels of land.

[14] State Records NSW Surveyors' fieldbooks 2/4710 James Meehan Book 32

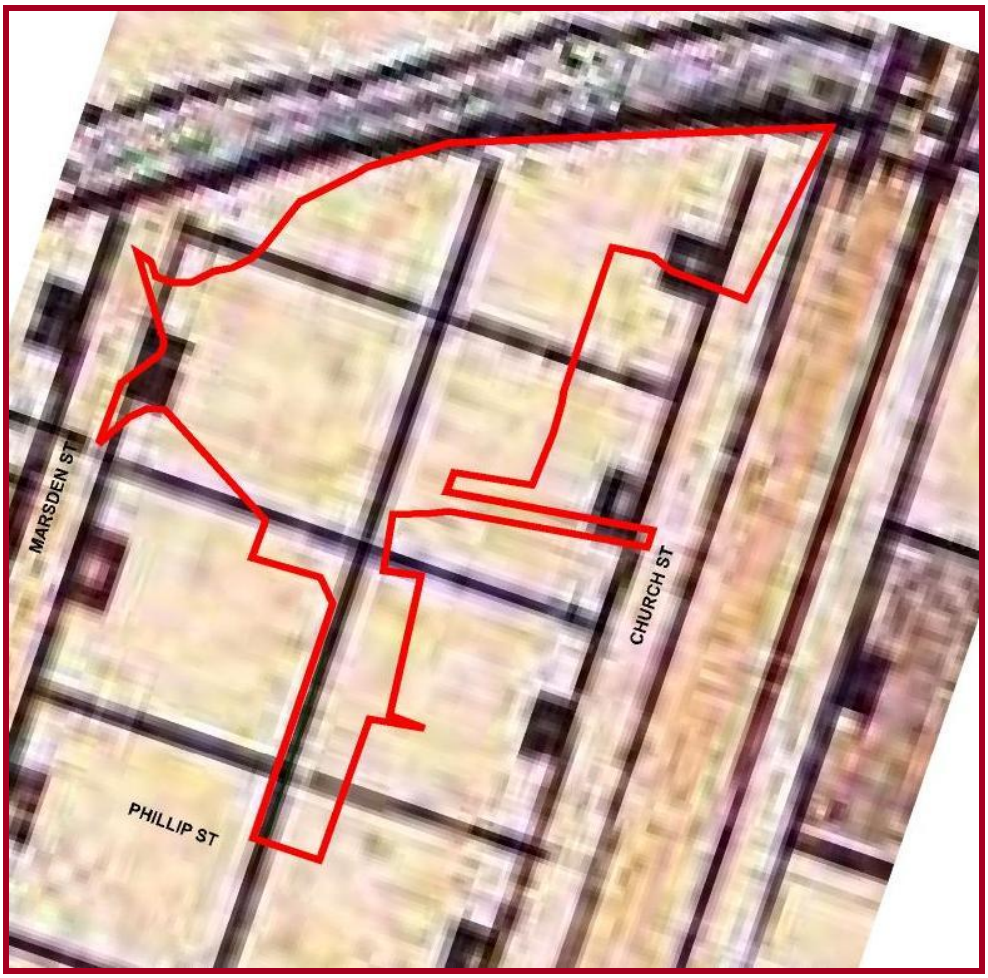


Figure 10. Part of surveyor Evan's 1804 plan of Parramatta Township British Library, reproduced in Rosen 2005. The site location outlined in red.

A view by George Evans of Parramatta from Government House provides a good indication of the layout of the town (**Figure 3.11** and **Figure 3.12**).



Figure 11. 'View of Parramatta' attributed to George Evans c.1805 (Historic Houses Trust). The view is from Government House with George Street in the centre extending into the distance.



Figure 12. Detail of 'View of Parramatta' attributed to George Evans c.1805 (Historic Houses Trust). Approximate site location arrowed. The buildings beneath the arrowhead are the Second Hospital building complex located on the western side of Marsden Street. Marsden Street itself is indicated by the field boundary extending from the hospital complex from left to right. Phillip Street had not been created at this stage.

As best as can be estimated from the available documentary evidence the study area was occupied by five separate blocks. Three blocks were located along the Church Street frontage and two on the Marsden Street frontage with each block containing a hut or house. The survey field book descriptions for Parramatta in 1804 refers to a number of different dwelling types. These include 'huts', 'wattle huts', 'brick huts' and houses. It is

unclear which of these forms of dwelling were located on the Church Street/Phillip Street/Marsden Street block. Only three of these structures were located within the study area, either wholly or in part.

The creation of allotments along the Church Street frontage only became a possibility following the abandonment of Phillip's Town Hall and the closure of the market square. Church Street was extended through the former market square a small bridge that crossed the river at a point adjacent to the eastern side of the present Lennox Bridge. The date of construction of this bridge, and thus the date of creation of the Church Street extension has not been accurately determined. It is however likely associated with events in December 1799. In that month the timber and thatch gaol located on George Street was destroyed through an act of arson. Construction of a more substantial gaol, located on the northern bank of the river (opposite the line of Church Street) was commenced in August 1802 under the supervision of the Rev. Samuel Marsden.[15] Work on the gaol was completed in 1804 and it is likely that prior to commencement of work a bridge was constructed across the Parramatta River to provide access to the site. This crossing would connect the town of Parramatta with the farms on the northern bank of the river as well as providing a crossing for the main roads to the Hawkesbury and Castle Hill.

An indication of the appearance of the study area in the final year of this phase of development may be gained from a view attributed to George Evans dated to c.1809 (**Figure 3.13** and **Figure 3.14**).

[15] Kerr 1984 19-22



Figure 13. 'The landing place at Parramatta, Port Jackson, [1809?]'.The ford in the foreground was the limit of navigation and is in the approximate position of the current Smith Street bridge crossing. The view is towards the west and includes the eastern margin of the Study area. (Source: SLNSW. Series 01: Australian paintings by J.W. Lewin, G.P. Harris, G.W. Evans and others, 1796-1809 vol 3 f.5. (attributed to G. W. Evans)



Figure 14. Detail of above showing the huts fronting Church Street (centre from left to right) located at the top of the break in slope. The new gaol is at right and Government House is in the left distance.

3.2.4 Convict and Garrison Town (1810-1839)

The arrival of Lachlan Macquarie as Governor of the colony in 1810 saw considerable activity in Parramatta in terms of town planning, the construction of public buildings and the regulating of land occupancy. Macquarie inspected Parramatta with the surveyor James Meehan in 1810 to plan the establishment of several new streets. In 1811 he regularised several previously existing roads and renamed High Street as George Street. Other streets were also named or renamed at this time, including Phillip Street suggesting that it was probably one of the streets planned and established by Macquarie and James Meehan in the previous year. Macquarie also set about reforming land tenure in the colony, the issuing of leases and the construction of new buildings was not to occur without permission.[16]

In 1812, during the early phase of Macquarie's tenure as Governor, the Parramatta River flooded to a considerable extent. Some minor damage was sustained in the township, particularly along the river flats west of the Church Street bridge.[17] The extent of the flood is shown in **Figure 3.15** and **Figure 3.16**.



Figure 15. View of Parramatta, New South Wales n.d. (c.1812) detail. The view from the northeast shows the extent of flooding west of the Church Street Bridge. The study area is located immediately left of the bridge.(Source: McCormick 1987)

[16] Kass *et al* 1996: 75
[17] Sydney Gazette 28 November 1812 p.2

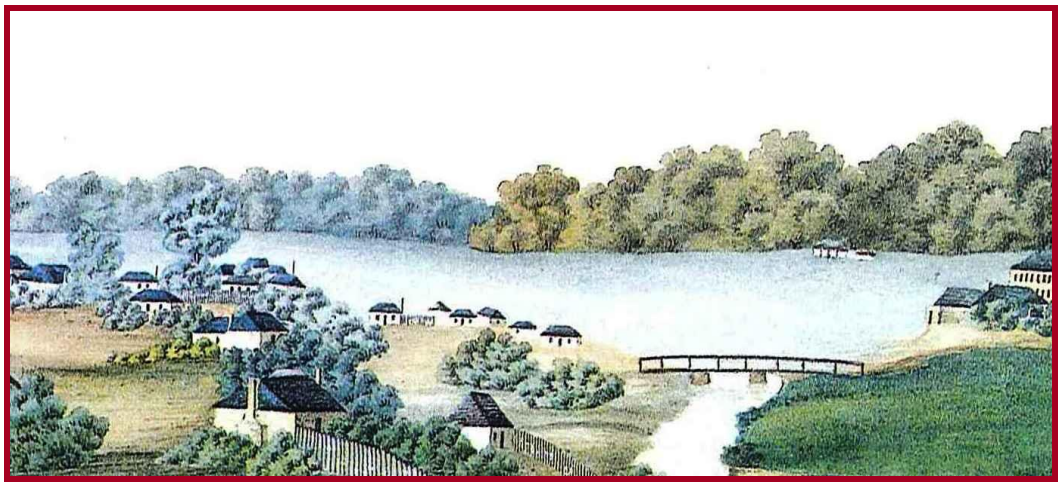


Figure 16. Detail of above showing huts along Church Street (left of bridge) and the study area partly under water.

This flooding event and the requirements for a water supply for Parramatta may have prompted Macquarie to commission the construction of the Marsden Street weir (Parramatta Dam) in 1818. The structure follows the approximate line of the extant weir and provided a further river crossing between the town and the northern bank of the river.

Despite Governor Macquarie's many achievements during his term in office, when his successor Governor Brisbane took control of the administration of the colony in 1821, confusion regarding land tenure persisted in Parramatta. In April 1823 a plan of the Town of Parramatta surveyed by G. C. Stewart (**Figure 3.17**) was transmitted to the Colonial Secretary in relation to concerns regarding the extent of permissive occupancy in the town. The existing 1809 leases were due to lapse in 1823 and in an attempt to gain some consistency in land ownership the Government declared that new 21 year leases would be offered to anyone occupying land in Parramatta.[18] Leases that had been issued before 1809 had technically lapsed but were still traded during the 1820s - a matter that resulted in a series of later court cases regarding inheritance of leases.

[18] *Ibid*: 112-114

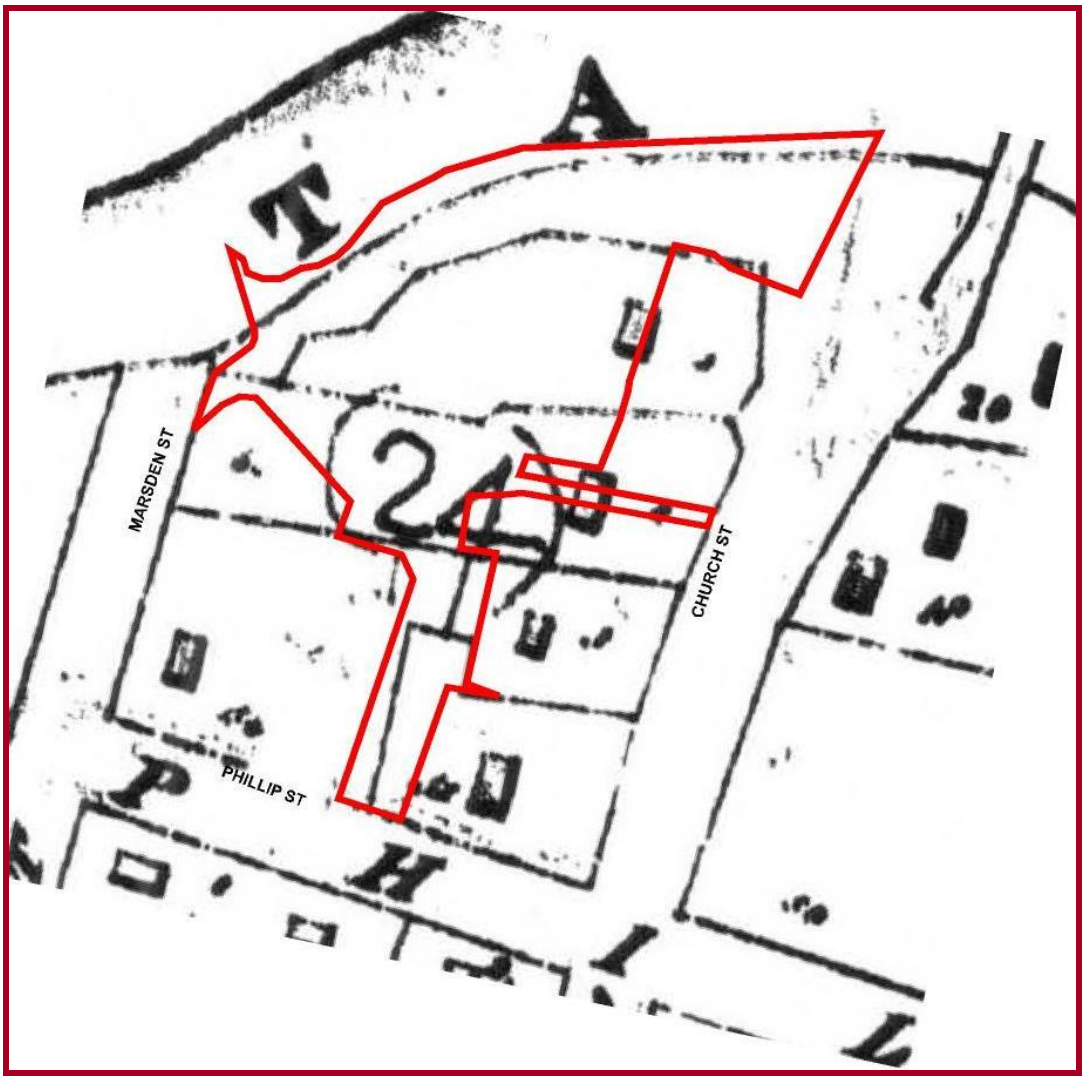


Figure 17. Part of plan of "Parramatta Township", G.C. Stewart 1823 (SR Map 4907). The approximate location of the site boundary is indicated in red.

The Stewart plan indicates that in 1823 the land forming the study area consisted of part of five allotments (1, 2, 3 51 and 54) of Section 24 of the town of Parramatta. The regular blocks established in the period before c.1804 had given way to a collection of irregularly shaped parcels of land. This may be a reflection of the unregulated process of land tenure and land transfer that had developed in the period before 1820. Allotment 1 extended along the river frontage from Church Street to Marsden Street without forming a frontage to Marsden Street itself. A single cottage addressing Church Street was located on the lot (Item 5). In 1823 a lease for this property was issued to William Barnes. [19] Between 1833 and 1836 a small weatherboard building was constructed on the western part of the property (Item 9). It is not clear if this operated as a separate residence or was an outbuilding associated with the earlier cottage in the east. Barnes retained the property

[19] Thorp 1989: 14

until 1835 at which time he sold the lease to John Byrnes, a blacksmith. [20] The river flat to the north of allotment 1 remained unalienated.

Allotment 2 extended from Church Street to Marsden Street with a cottage fronting Church Street (Item 6). In 1823 a lease for this property was issued to George Smith (or Smyth). [21]

Allotment 3 consisted of a small parcel of land with a single cottage fronting Church Street. In 1823 a lease for this property was issued to A. J Beale. [22] John Terry Hughes received a grant for the property although Charles marsh was confirmed as the grantee in 1837. [23] Only a small portion of Allotment 3 extended into the study area.

Allotment 51 was located on the corner of Church Street and Phillip Street and contained a single cottage fronting Church Street. In 1823 a lease for this property was issued to Charles Stuart. [24]

Allotment 54 was located on the corner of Marsden Street and Phillip Street with a single cottage fronting Marsden Street. In 1823 a lease for this property was issued to Richard Partridge. [25] In 1827 the lease was transferred to John Payne and then to Charles Wilson in the same year. The property then changed hands on a regular basis passing to Richard Pritchett in 1829, William Barnes in 1830. In 1832 Barnes sub-let the property, including a cottage and a second building to Edmund Cliffe. [26] Only a small portion of Allotment 54 extends into the study area and does not appear to have been subject to significant change prior to the 1960s.

None of the structures mentioned above appear to date to the pre-1804 development of the site.

The configuration of the northern portion of the site (including the irregular northern boundary of Allotment 1) may be gauged from Charles Rodius' view from the Church Street bridge in 1833 (**Figure 3.18** and **Figure 3.19**). No buildings are shown on this portion of the study area.

[20] Thorp 1989: 14
[21] Thorp 1989: 14
[22] Thorp 1989: 15
[23] Thorp 1989: 15
[24] Thorp 1989: 15
[25] Thorp 1989: 15
[26] Thorp 1989: 15

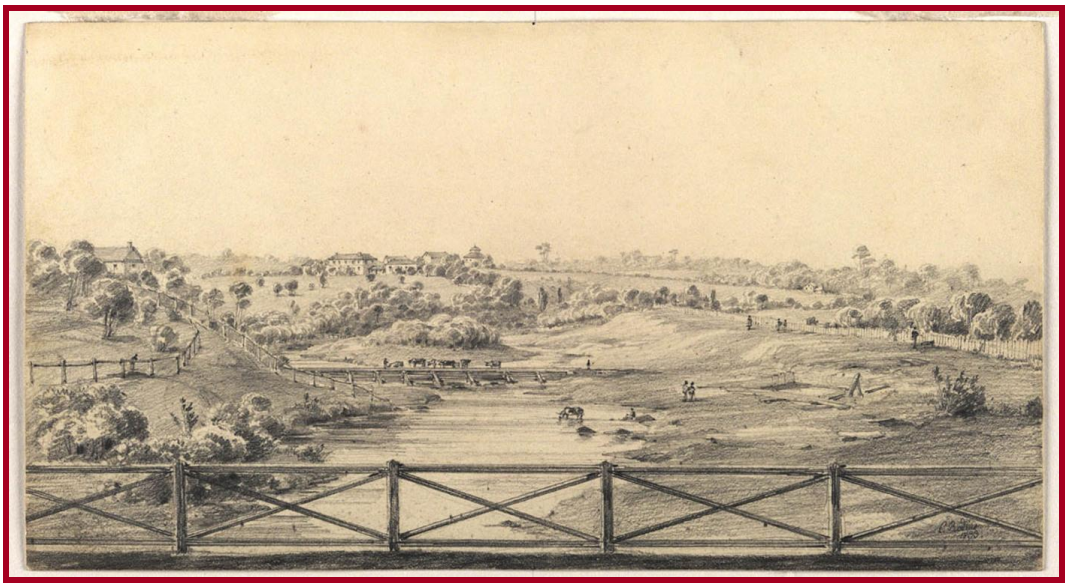


Figure 18. View of the Government House Parramatta from the Bridge over the River Charles Rodius - views of Sydney and Parramatta. State Library NSW. PXA 997. View from the Church Street bridge looking west.

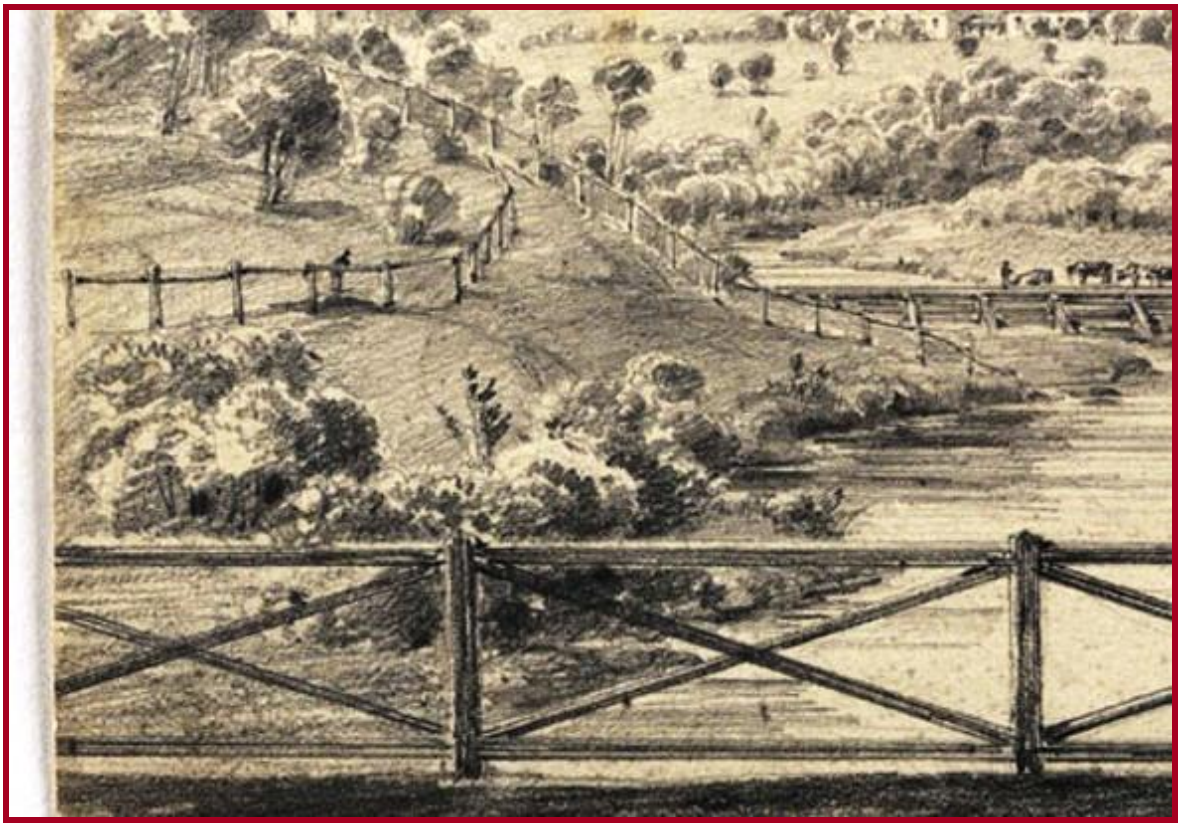


Figure 19. Detail of above showing northern edge of the study area (left) with the Marsden Street weir at right.

The most significant development to affect the site in this period was the construction of the Lennox Bridge between 1836 and 1839. The irregular street frontage along Church Street was straightened and it was probably at this time that the northern boundary of allotment 1 was also realigned so that a straight line was formed from the southwest wing wall of the Lennox Bridge to the southeast corner of the Marsden Street weir. Other changes to allotment 1 included the construction of a timber building on the western side of the property. This may have operated as a separate lease or as an outbuilding to the main structure on Church Street.

A map of Parramatta drawn in 1839 but compiled from survey data gathered in 1836 shows the layout of the study area during the final years of Transportation (see **Figure 3.20**).

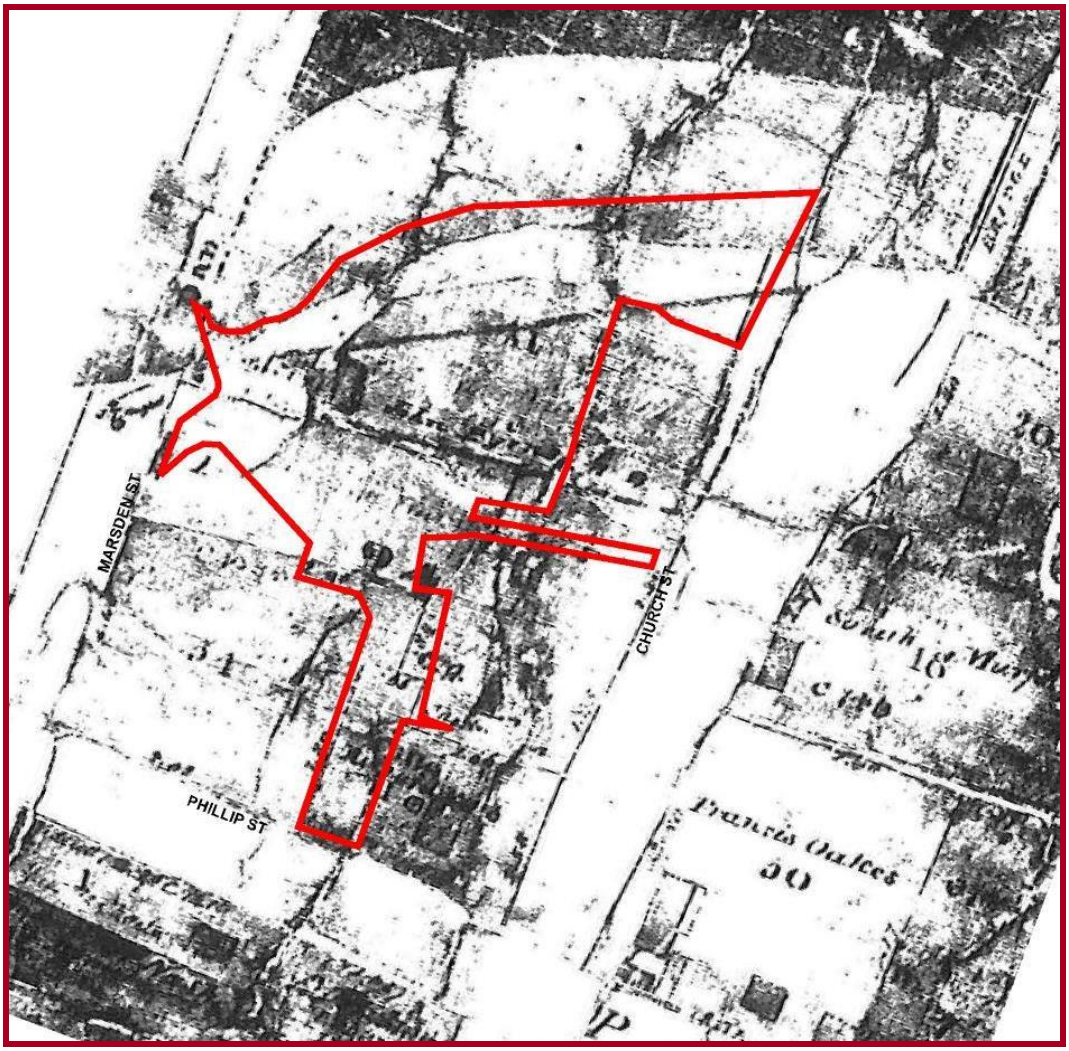


Figure 20. Part of plan of "Map of Parramatta compiled from Richard's survey", Johnstone 1836 (SR Map 4799). The approximate location of the site boundary is indicated in red.

3.2.5 Municipal Development (1840-1869)

By the beginning of the 1840s Transportation had ended and Parramatta was set to develop as a significant regional centre with numerous manufacturing and retail businesses. Drought, followed by severe economic depression in the 1840s slowed growth within the colony as a whole and Parramatta was not immune to its effects. The town entered a period of stagnation with few major developments occurring, except for the introduction of the railway in 1855.

By the mid-1840s the town's demography was changing with more free settlers, and the number of people born in NSW increasing with only 11 percent emancipists and 27 percent convicts under sentence.[27] Confusion regarding land ownership continued in Parramatta during the 1830s and 1840s and following a disputed claim made by Governor Bligh's heirs for an old 105 acre grant in north Parramatta, William Brownrigg made an application to use government records to make a plan indicating portions that had been built upon, and to distinguished grants from leasehold. Part of Brownrigg's plan in shown in **Figure 3.21** below.

[27] Thorp 1989: 15

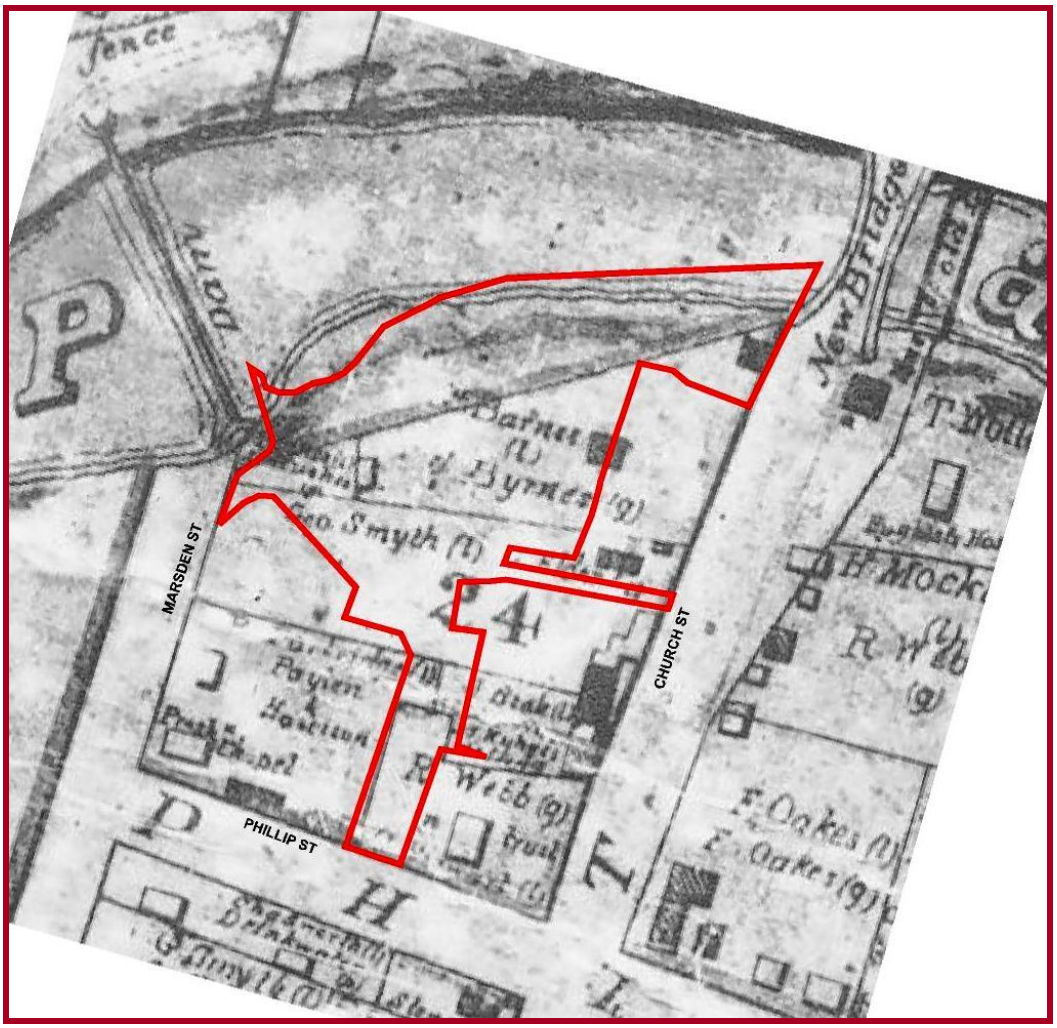


Figure 21. Part of "Map of the Town of Parramatta and the adjacent properties" W.M. Brownrigg 1844 (ML ZM3 811.1301/1844/1). The approximate location of the site boundary is indicated in red.

In 1840 allotment 1 was granted to John Byrnes and in the following year the western portion of the property was sold to John Terry Hughes (Allotment 1B). The allotment boundary for 1B was configured so that it incorporated the existing timber structure (Item 9). On the eastern portion of Allotment 1 (now allotment 1A) a small brick or stone structure, possibly a cottage (Item 7), had been constructed on the Church Street frontage adjacent to the southwest wing wall of the Lennox Bridge. A stone revetment (considered as part of Item 7) was probably constructed at this stage in order to provide both a stable base for the cottage and a means of external access to the rear of the property. A second masonry structure was also present on Allotment 1A on the site of the cottage (Item 5) that had been present here in the period before 1836. It is not clear if this second structure (Item 8) incorporated elements of this earlier building (Item 5) or was a completely new building constructed after 1836. By the 1860s this property was occupied by a shop,

cottage and smithy.[28] As part of this later phase of development the original cottage (Item 7) may also have also been supplied with a detached kitchen (Item 48) and a privy (Item 49).

On Allotment 2 the cottage that had been standing on the site in 1836 (Item 6) had been removed by 1844 and replaced by a group of masonry and timber structures on the Church Street frontage. These structures were restricted to the Church Street frontage and did not extend into the study area itself. No development during the 1840s appears to have been undertaken on the rear portion of this large block and no buildings from this phase are located within the study area. In 1854 the property was sold to John Elder.[29]

Development on Allotment 3 was concentrated on the Church Street frontage with a further cluster of masonry and timber structures replacing the earlier (pre-1823) cottage that had occupied the site into the late 1830s. During the late 1850s or early 1860s significant development took place along Church Street as it developed into one of Parramatta's main retail and commercial streets. **Figure 3.22** shows developments along the Church Street frontage north of Phillip Street. On Allotment 3, commercial premises occupied the Church Street frontage with a substantial two storey masonry structure housing a variety of trades and businesses replacing the mix of small timber and masonry structures that had previously occupied the site. **Figure 3.23** shows the southern portion of this building complex in 1870 (also visible in **Figure 3.22**), the boundary with Allotment 51 forming the corner of Church and Phillip Streets is at left. Only one element associated with this phase of development has been identified within the study area. This was a privy (Item 23) located behind the present 295 Church Street.

[28] Thorp 1989: 17
[29] Thorp 1989: 15



Figure 22. Church Street shops, 1860s looking southwest to the Phillip Street corner. The large range of buildings at right was located on Allotment 3 but outside study area. Source: Jervis 1961

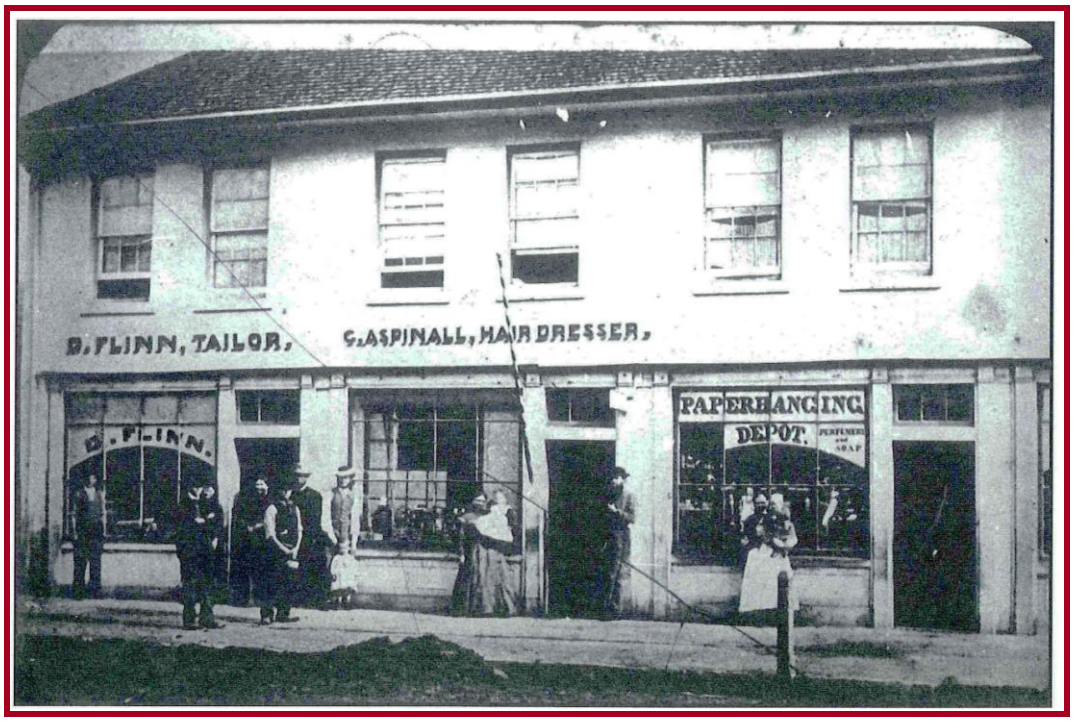


Figure 23. Church Street c.1870 showing the southern half of the main building located on Allotment 3 (outside study area). Source: SAG 5/6237

Allotment 51 was granted to Richard Webb in 1842. [30] Webb was a local timber merchant and property developer who lived on the eastern side of Church Street opposite Allotment 2. Allotment 51 was occupied by a weatherboard cottage in 1844 held as a lease by Charles Stuart. This structure, located outside the study area appears to have survived into the 1860s.

On 11 June 1864 the Sydney region was subject to flooding of most of the major rivers and streams. The Parramatta River rose to a considerable height resulting in the displacement of the upper course of stonework in the Marsden Street weir and flooding of the properties between the weir and the Lennox Bridge. The weir itself does not appear to have been structurally compromised. Fences and gardens were torn up and a number of the shops in Church Street were water damaged. At Church Street the water almost reached the top of the bridge arch indicating that a large portion of the study area would have been under water although no significant damage to buildings was reported.[31] The flooding did extend to the commercial properties in Church Street and caused some damage to stock and fittings.

3.2.6 Late Nineteenth Century (1870-1900)

During the early 1870s the Church Street frontage of the site continued to develop. By 1877 most of the frontage had been filled by two or three storey buildings. One of the exceptions was the building (Item 7) located on Allotment 1A (now the site of 333-335 Church Street). This property remained in the hands of the Byrnes family until its sale in 1888 to Thomas Barber who sold it in quick succession to William Brodie.[32] **Figure 3.24**Error! Reference source not found. shows the southwest approach to the Lennox Bridge with Allotment 1A at right. **Figure 3.25** is a detail showing the rear of the Church Street structures on the site of 333-335 Church Street, including the stone revetment extending from the Lennox Bridge wing wall. Also present are additions to the southern and western side of the cottage (Item 10), a detached kitchen(?) (Item 48), and a privy (Item 49).

[30] Thorp 1989: 15
[31] Sydney Morning Herald 21 June 1864 p.6
[32] Thorp 1989: 16

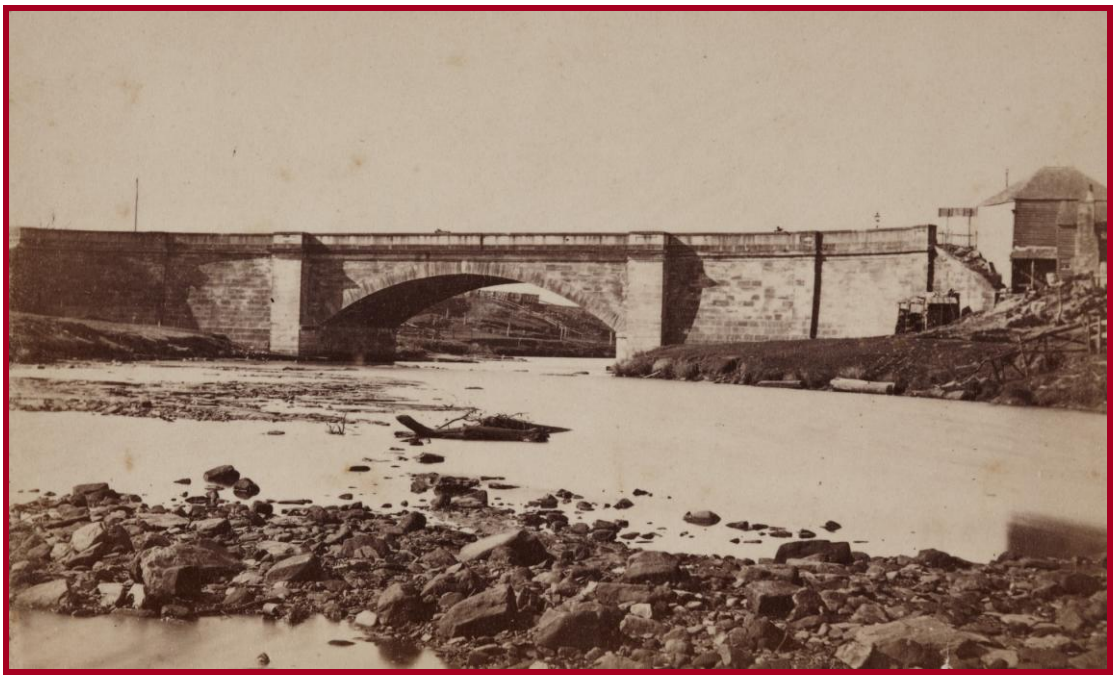


Figure 24. Looking downstream to the Lennox Bridge, spanning the Parramatta River, around July 1870 / American and Australasian Photographic Company. Caroline Simpson Library & Research Collection Historic Houses Trust.

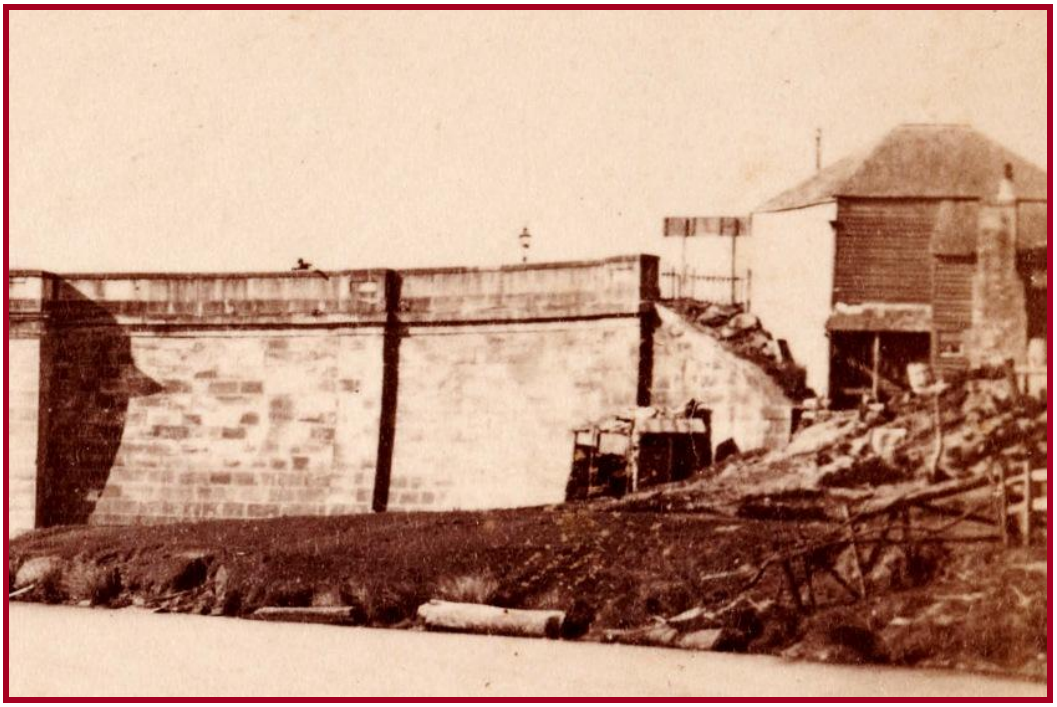


Figure 25. Detail of above showing southwest approach to the Lennox Bridge. The buildings at right are located on the present site of 333-335 Church Street and include Items 7, 48 and 49.

During the period after between c.1870 and c.1888 a substantial building (Item 47) was constructed at the rear of the premises occupying 333-337A Church Street. This appears in an undated photograph and consisted of a three-storey structure of undetermined function (see **Figure 3.26**).[33] The building is one of the most substantial structures erected within the study area but is poorly documented. The precise dates of construction and removal of this structure are currently unknown. The presence of clerestory windows on the lower two floors suggests that this was not a residential structure. This structure may have been associated with the storage or small-scale processing of agricultural produce. It is unclear if this building survived the flood of 1889 (see below) but it had been removed before 1895 and replaced by a large tin shed (Item 26) (see **Figure 3.37**). Also visible in the photograph is what appears to be a small orchard located on the river flat. These trees do not appear in later photographs of the site, possibly indicating that they had been removed by the flood of 1889.



Figure 26. Detail of an undated view of Lennox Bridge from the west. To the right of the bridge are the buildings occupying the Church Street frontage of 333-335 Church Street(items 7, 10 and 48). At the extreme right is a three-storey building of unknown function (Item 47). This is the only record of the structure recovered to date. Source: ML SLNSW SPF/2648 Parramatta-Bridges-Lennox Bridge.

[33] The full image shows the northern bank of the river. This consists of open paddock and indicates that the photograph was taken before 1888 at which time the site was occupied by the Corporation Baths (opened September 1888).

In 1870 a portion of the Church Street frontage was occupied by Robert MacDonald, a cabinet maker and upholsterer (see **Figure 3.27**). This property was located to the south of 333 Church Street but did not extend into the study area. The image does indicate the type and scale of structures present within the general vicinity of the study area.

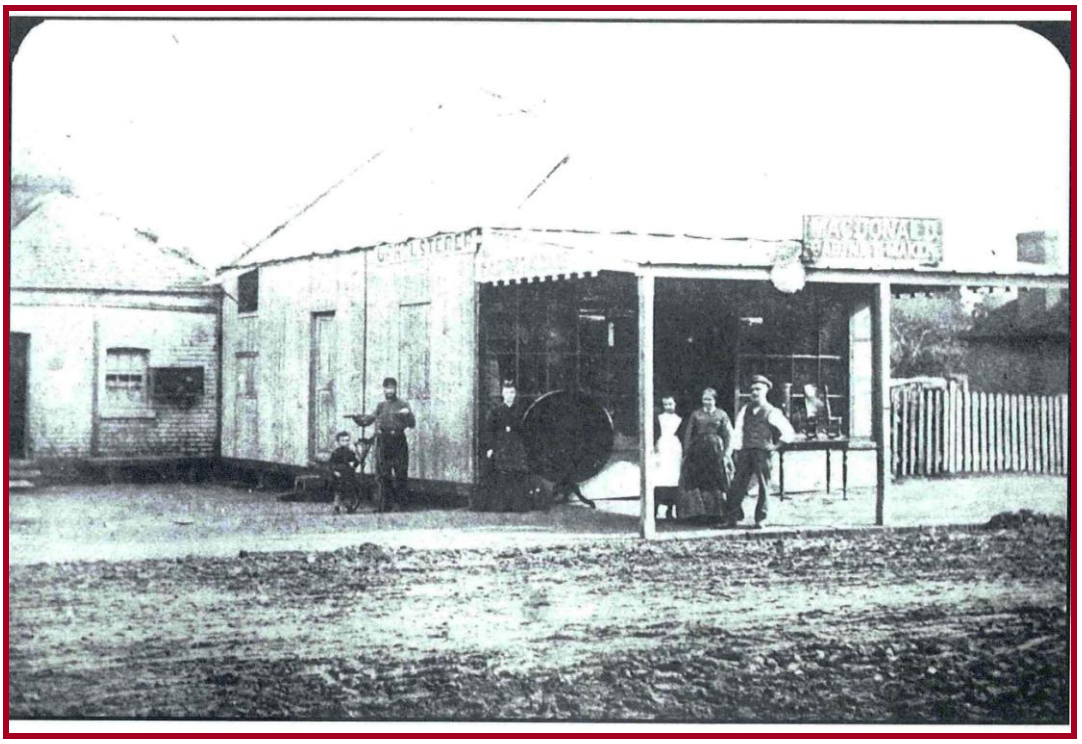


Figure 27. Robert MacDonald, cabinet-maker and upholsterer, c.1870. This Church Street property was located south of 333 Church Street and lies outside the study area. It does however provide an indication of the type of structure present along the Church Street frontage between c.1850 and c.1875.

During the latter part of the nineteenth century the properties on allotment 1A fronting Church Street had their western boundaries formed as a single alignment creating a considerable open space that extended to the boundary with Allotment 1B. The division of the Church Street frontage resulted in the creation of a number of yards, each of which contained outbuildings. The rear portions of these yards extend into the study area and contained the following items:

- 331 Church Street - unidentified outbuilding (Item 13)
- 329 Church Street - privy (Item 14)
- 327 Church Street - kitchen(?) (Item 17) and privy (Item 15)
- 325 Church Street - privy (Item 16)

- 323 Church Street - unidentified outbuilding (Item 18) and privy (Item 19)

The subdivision of the Church Street frontage also created a large block that was accessed from Church Street via a passageway (now occupied in part by 323 Church Street). By 1895 this isolated block was occupied by a shoeing forge (Item 28) and a privy (Item 27).

During the late 1870s or early 1880s the western portion of Allotment 2 was also separated from the commercial premises on Church Street. A separate lot was created fronting Marsden Street and by 1884 this was occupied by John Overton, a plumber.[34] Later evidence suggests that this was a property known as 'Riverside' owned by George Stone. The property was occupied by a two-storey residence with attached stables (Item 12). During the later 1880s or 1890s this western portion o Allotment 2 was further subdivided creating a second residential block on Marsden Street. This was occupied by a large residence known as 'Niagara' constructed between 1890 and 1895. The yard of this property extended into the study area. Associated with this was an outbuilding of unknown function on the northern property boundary (Item 21). The Church Street frontage, like the adjoining Allotment 1 was subdivided into a number of smaller premises each with a yard, one of which extended into the study area. These yards each contained a privy - one associated with 321 Church Street (Item 20), and the other with 311 Church Street (Item 22).

Phillip Street continued to be occupied by residences and small businesses during the early part of this phase including some light industrial activity. **Figure 3.28** shows William Ritchie's workshop located on Allotment 54. This was located on the western side of the current Phillip Street entrance to the car park and provides an indication of the type and scale of building present in the general vicinity of the study area during the early part of this phase.

[34] Thorp 1989: 16



Figure 28. William Ritchie, general smith, c.1870. Phillip Street is in the foreground. This property is located on the western side of the current Phillips Street car park entrance. (Source: SAG 5/6126)

Allotment 51 located on the corner of Church and Phillip Streets underwent significant modification during the period after 1877. The Phillip Street frontage extending into the study area was split into two sections. The section fronting Phillip Street was occupied by six terrace houses with a portion of three of these structures and their outbuildings extending into the study area (Item 25). The section behind these structures was occupied by a large structure constructed around a central yard (Item 24). The function of this structure is not clear but it has a form that suggests it may have been used as a commercial stables.

Figure 3.29 shows the study area in 1877 with Church Street already well developed and small-scale development along Phillip and Marsden Streets. The centre of the block is virtually undeveloped and may have been used for grazing purposes. **Figure 3.30** and **Figure 3.31** shows the repaired Marsden Street weir in 1870. The Marsden Street weir was still an important, if not dangerous crossing point along the Parramatta River, as well as being the source of the town's water.

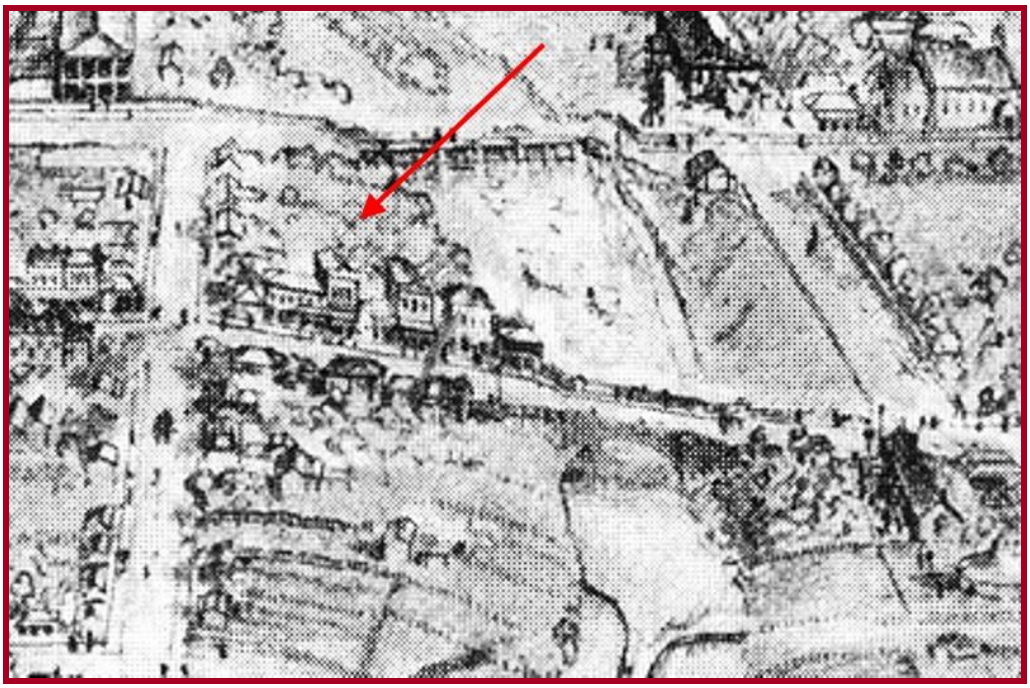


Figure 29. Detail of 'Town and district of Parramatta. New South Wales', Gibbs, Shallard & Co. 1877 (Source: ML XV1B / Parr/1). The view shows development on the study area along the street frontages only. Study area indicated by arrow.

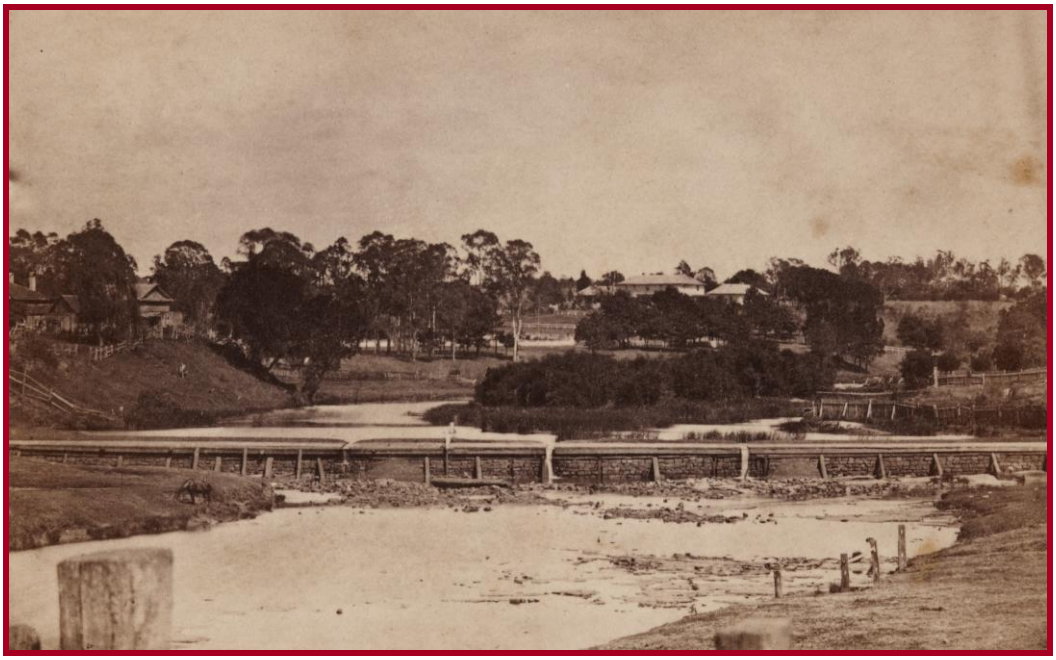


Figure 30. H. W. Burgin, Dam across the Parramatta River at Marsden Street c.1870. Caroline Simpson Library & Research Collection, Historic Houses Trust. The extreme northwest corner of the study area is shown at left.

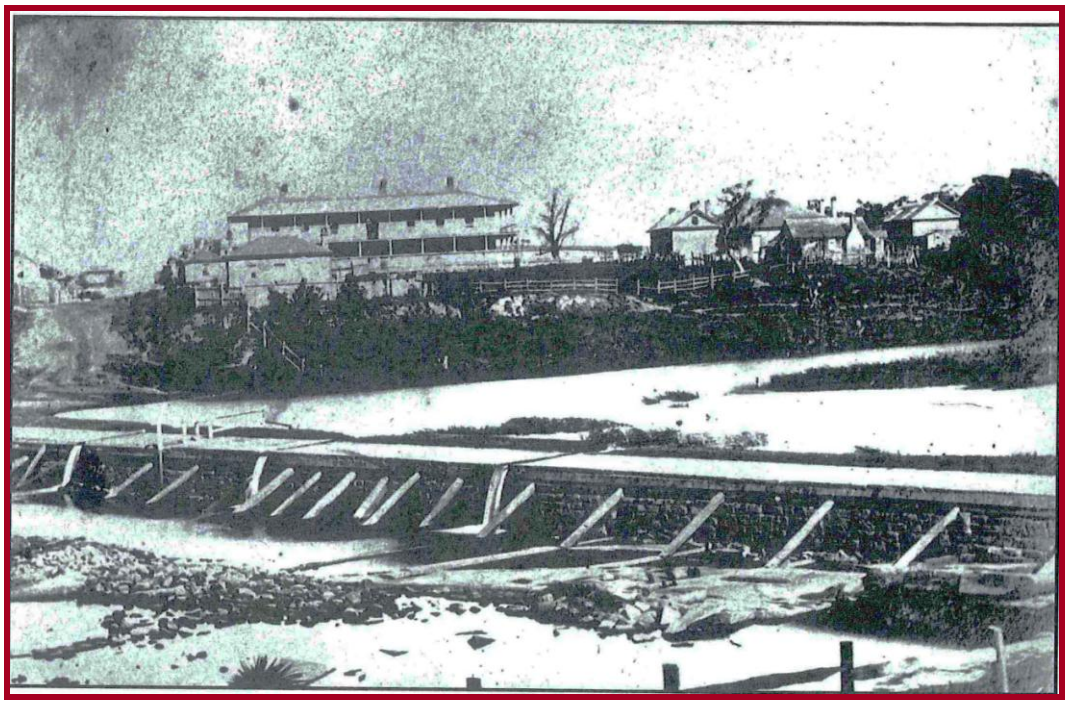


Figure 31. The Parramatta District Hospital and Town Dam c. 1870 (SAG 5/6249).Looking south, Marsden Street is at far left.

In 1889 the study area was subject to significant physical modification as a result of flooding of the Parramatta River. The *Sydney Morning Herald* reported the event as follows:

> *THE FLOOD IN PARRAMATTA. -*
>
> *There has been a deluge of rain in Parramatta. On Sunday night and Monday morning the storm raged with great severity. During Sunday night the wind played mad havoc with all unstable verandahs and sheds in Parramatta North. It took the roofs off a couple of storage sheds, and the rain damaged all stock. A new house in course of erection the in Parramatta South suffered severely ; the roof was swept away. Fences wore levelled, and ornamental trees planted in the various streets by the borough council were torn up by the roots, and in most cases the trees brought with them a few yards of the newly laid asphalt footpath. At noon on Monday the river commenced to rise perceptibly. It nearly reached the top of the Lennox Bridge arch at 2 o'clock. A bridge which spanned the creek near the asylum was covered. Shortly afterwards the iron suspension foot-bridge in Parramatta Park was missed. This was in all probability carried away by the other bridge colliding with it. The shops in the vicinity of Lennox Bridge suffered by the flood waters encroaching on them and carrying away everything loose. The opposite site, occupied by the baths and market buildings, seemed in great danger, as the*

> *waters dashed against the concrete wall with great fury. It has done some damage, but the amount cannot be estimated till the waters subside. The Benevolent Asylum, in George-street, was flooded by the river. One ward, the imbecile ward, near the bank had a foot of water in it. The back waters of the river are rushing over the railway line. It is not known how much of the line is washed away. Traffic is stopped. Passengers to Parramatta and Granville walked from Auburn. The buildings on the banks of the Duck River were submerged.*[35]

Flooding continued over a two day period with the result that a breach formed in the Marsden Street weir. This in turn caused scouring down to bedrock of the southern bank between the weir and the Lennox Bridge. The shops and residences in Church Street were flooded but most damage was sustained by the 'Riverside' estate of George Stone immediately east of the Marsden Street weir. The scouring removed a large portion of the river frontage of this property and appears to have damaged the house itself to the extent that the main (western) section of the house collapsed (**Figure 3.32**). This was later rebuilt between 1890 and 1895 as a single storey residence with a wide verandah (Item 11) following infilling of the foreshore. The rebuilding followed an action by Mr Stone to recover £2000 in compensation for the loss of his property due to the negligence of the council in their management of the weir.[36] The flood also resulted in considerable agitation for the Marsden Street weir to be rebuilt to a higher standard. This work was undertaken in May 1892 but much of the facing work collapsed soon after completion resulting in the need to rebuild much of the structure.[37] An undated image, **Figure 3.33** and detail **Figure 3.34**, show the site following the rebuilding of the weir in 1892 and before 1895, by which time 'Riverside' had been rebuilt.

[35] Sydney Morning Herald 28 May 1864 p.6
[36] Sydney Morning Herald 12 July 1889 p.3
[37] Sydney Morning Herald 4 May 1892 p.5

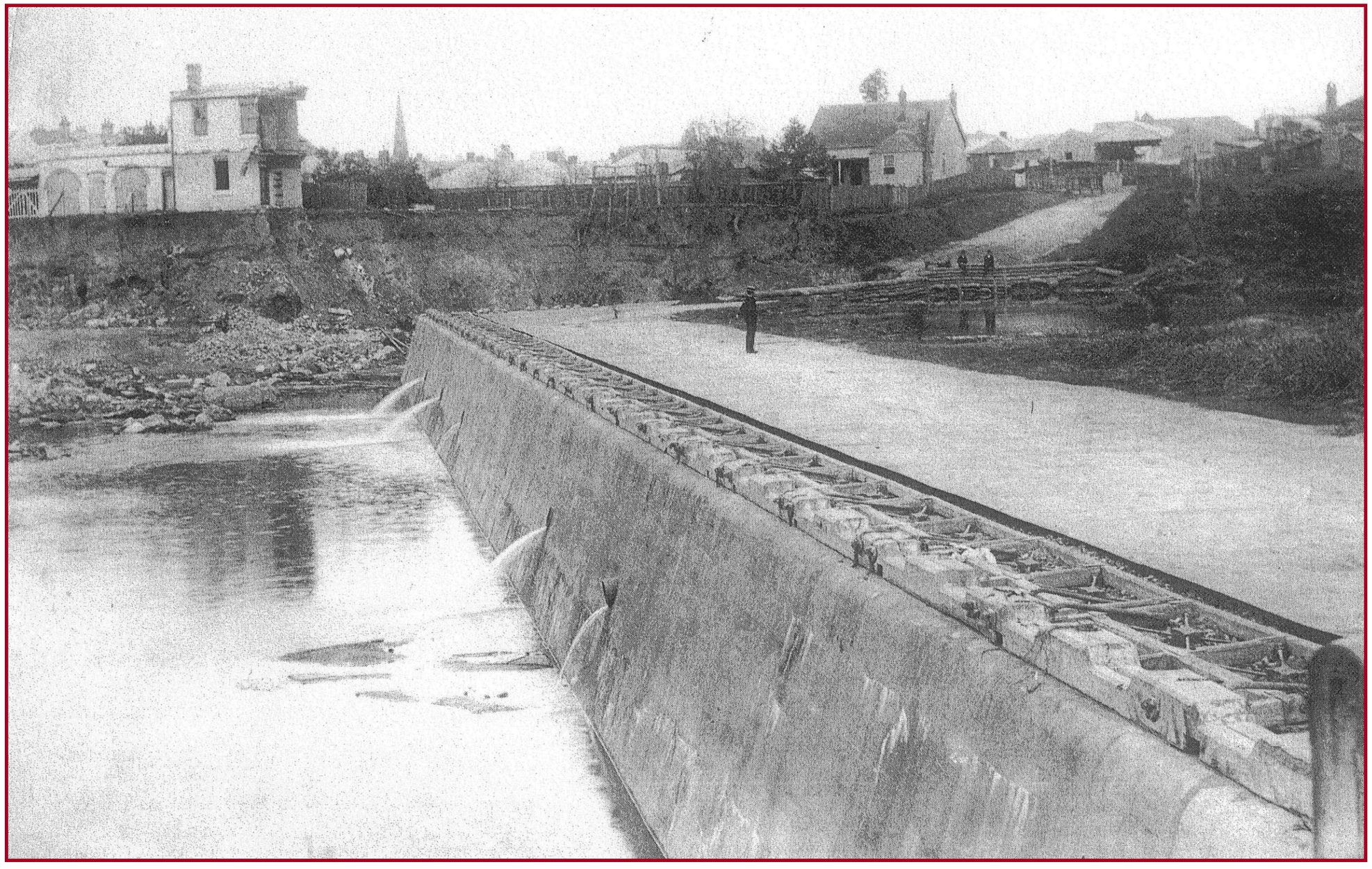


Figure 32. View looking south across the river showing the partly destroyed 'Riverside' residence and scour resulting from the flood of 1889. The rebuilt Marsden Street weir is at right. Undated photograph (1890-1895). (Source: ML SLNSW SPF).

As part of the flood mitigation work a stone retaining wall was constructed from the weir to the Lennox Bridge. An open drainage channel was also formed along the eastern side of Marsden Street discharging into the river on the downstream side of the dam wall. Work on the weir resumed in 1900 with the masonry face of the dam being concreted over and portions of the river bed being filled.[38]

A number of these improvements are shown in the plan of Parramatta in 1895 (**Figure 3.36**).

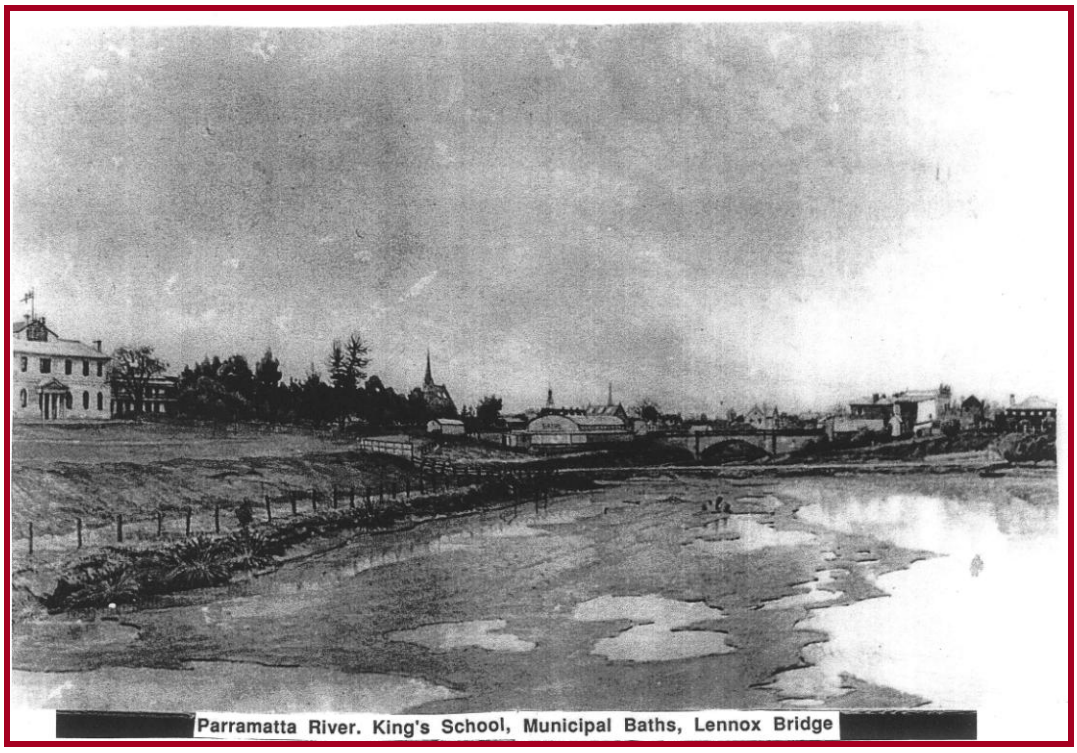


Figure 33. *'Parramatta River, King's School, Municipal baths, Lennox Bridge' (n.d.) 1890-1894. (Source: Parramatta Heritage Centre) A detail showing the study area follows.*

[38] Sydney Morning Herald 21 Nov 1900 p.12

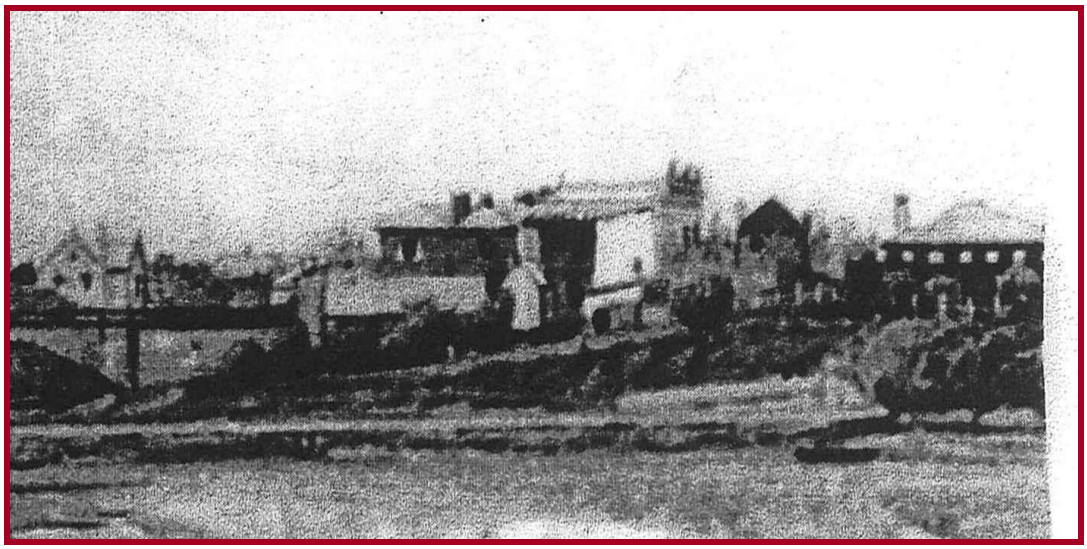


Figure 34. *Detail of above showing the rebuilt 'Riverside 'with the striped verandah roof (right), the southern abutment of the Lennox Bridge (left) and the rear of the premises fronting Church Street (centre).*



Figure 35. *View showing the rebuilt 'Riverside' (at left with striped verandah roof) prior to construction of the retaining wall along the river bank .The large structure behind 'Riverside' is 'Niagara. Undated photograph c.1890-1895. (Source: McClymont 2001 p.47)*

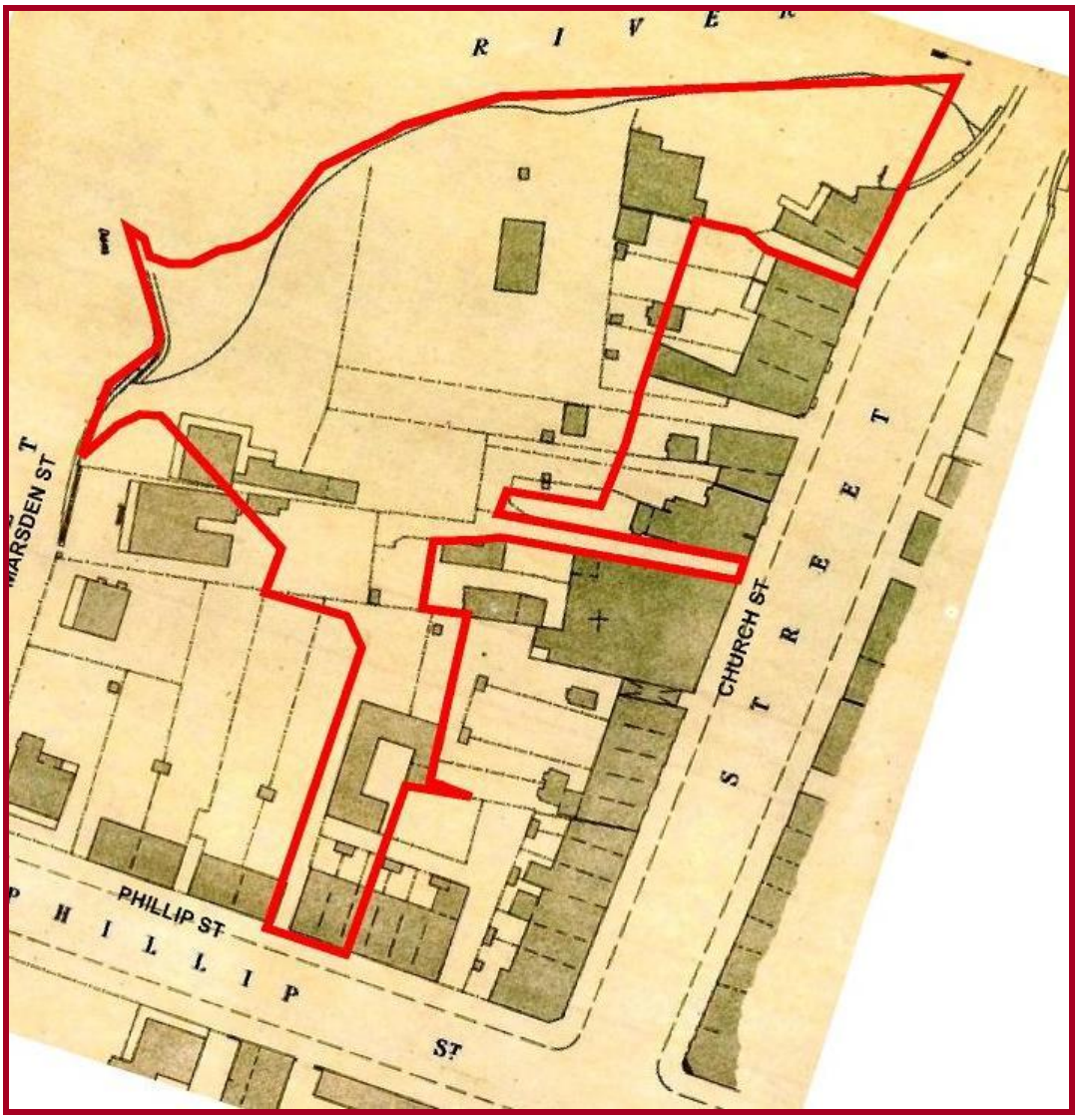


Figure 36. Part of Parramatta Detail Series 1895. Sheet 20 (ML ZM Ser 4 811.1301/1). Site boundary indicated in red.

3.2.7 The Twentieth Century

Work on managing the flow of water between the weir and the Lennox Bridge continued to occupy both the Parramatta Corporation and the Department of Public Works. Between 1900 and 1904 further work on concreting the river bed, construction of a water cushion on the eastern side of the weir and reconfiguration of the stonework along the banks continued. **Figure 3.37** shows the river bed after construction of the retaining wall along the bank and prior to the concreting works. Plans for these works are shown in **Figure 3.38**. By 1904 the weir and riverbed achieved much of its current appearance (see **Figure 3.39**, **Figure 3.40** and **Figure 3.41**).



Figure 37. John Henry Harvey, Lennox Bridge (Church Street) Parramatta N.S.W., n.d. c.1900. The view shows the outbuildings (right) at the rear of 333-357 Church Street.(Source: SLV H91.300/394)

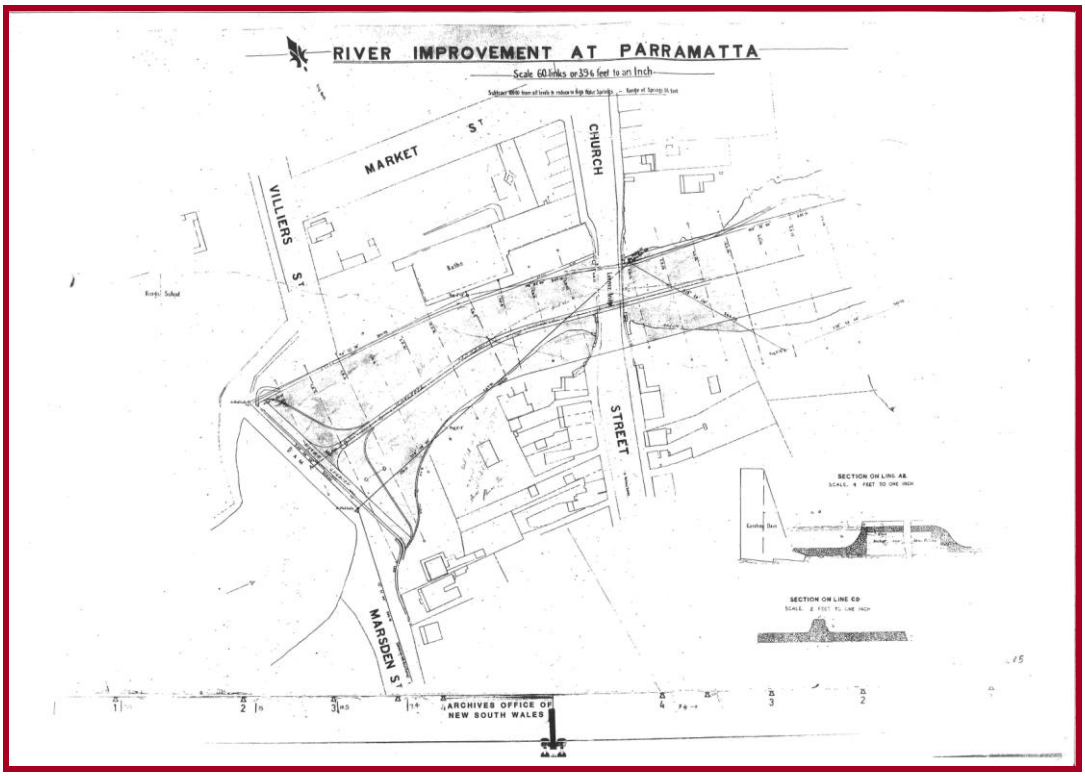


Figure 38. River Improvements at Parramatta n.d. (c.1900). The plan shows concreting work for the weir and construction of a water cushion and channel (Source: SRNSW AO Map 485)

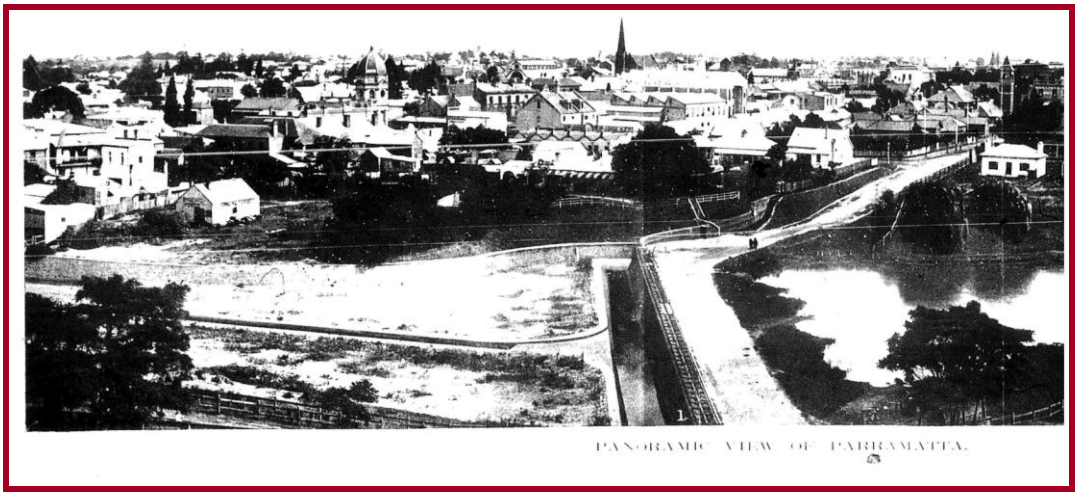


Figure 39. Panoramic View of Parramatta, NSW. The view shows the study area as well as the new works on the eastern side of the Marsden Street weir. The rebuilt 'Riverside' is at right (striped verandah roof). Source: Cumberland Argus and Fruitgrowers Advocate 17 December 1904 supplement). Details of this view follow.

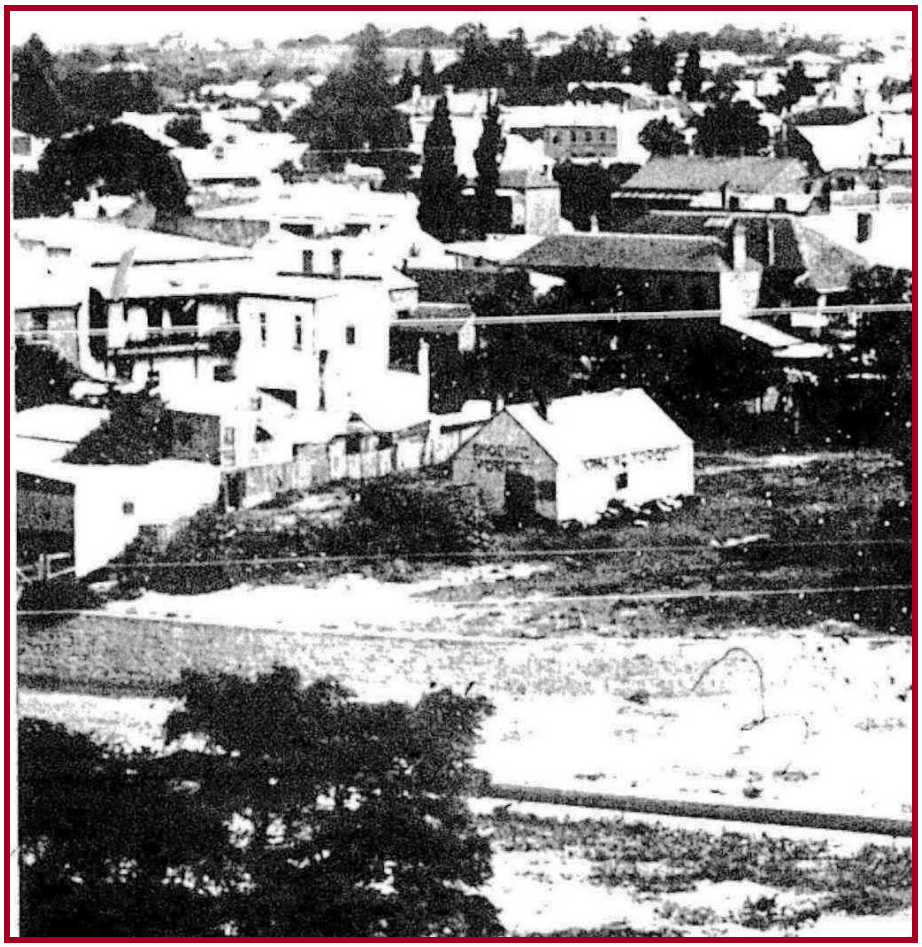


Figure 40. Detail of Panoramic View of Parramatta, NSW (1904). This is the eastern portion of the study area showing the rear of 333-337A Church Street at the extreme left and the shoeing forge in the centre.

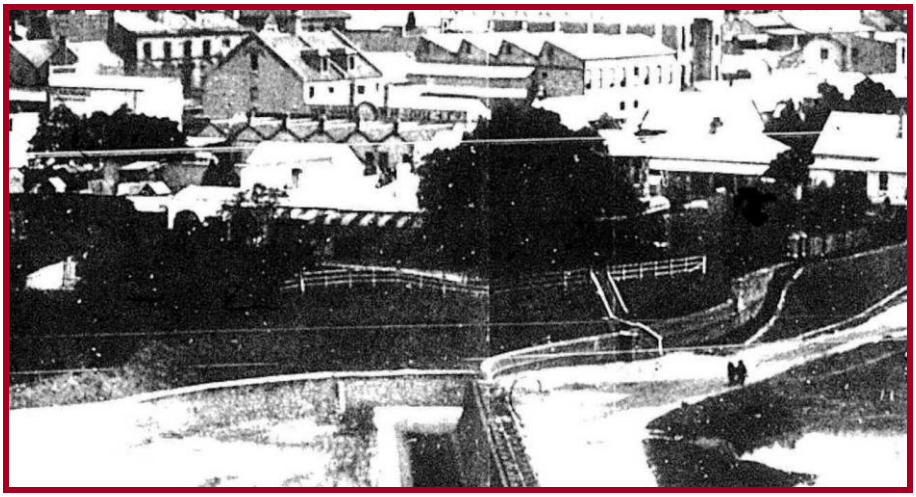


Figure 41. Detail of Panoramic View of Parramatta, NSW (1904). This is the western portion of the study area showing the rebuilt 'Riverside' (striped verandah roof at centre), Marsden Street channel and the stone retaining wall along the northern river bank.

A solution to the general problems of sewerage and drainage was seen in the construction of a regular system of sewers and drains attached to pumping stations and treatment works. In 1905 the New South Wales Parliament introduced the Parramatta Sewerage and Drainage Act (No 23), 1905 for the provision of the necessary works. **Figure 3.42** shows the arrangement of new lines across the study area in 1907 employing the survey 1895 as a base map.

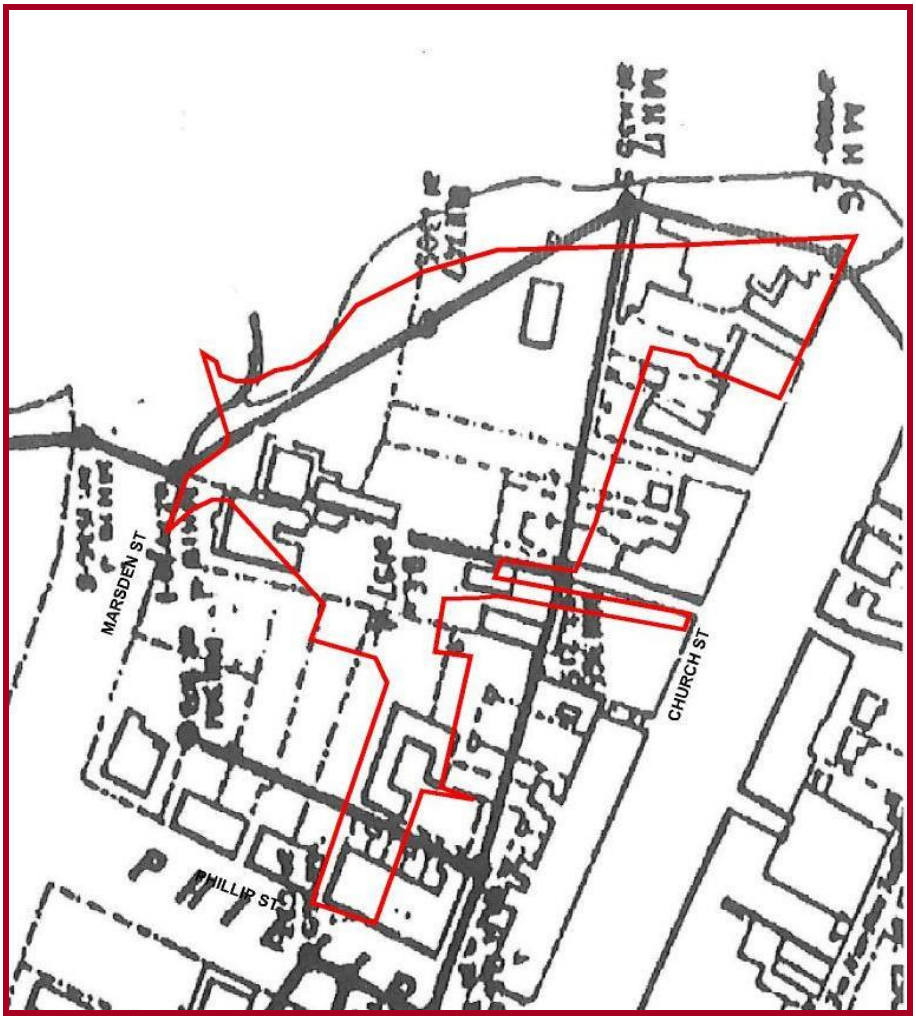


Figure 42. Government Contract Drawing 680 (1907) showing sewer and stormwater lines, study area boundary in red (Source: Sydney Water).

Development in Parramatta during the period between the wars was generally slow in the period between 1900 and 1920 despite the significant suburban expansion taking place around it. Parramatta was the main service centre for a large part of western Sydney. In 1901 the Parramatta district tram service was extended to Baulkham Hills by a route carrying it across the Lennox Bridge. The service operated as both a passenger and freight service bringing fruit from the Hills district into Parramatta for redistribution. Congestion on the bridge, and a number of accidents may have prompted the construction of a cantilevered pedestrian walkway on the western side of the bridge in 1912. This feature is

visible in **Figure 3.47**. In 1923 the tram service to the Hills district was relocated so that the route commenced at Westmead and it is after this date that the Lennox Bridge appears to have been given over to motor traffic.



Figure 43. Detail Church Street Parramatta looking south from Lennox Bridge Parramatta c.1900. (Source: Jubilee History of Parramatta J. C. Wharton (ed) Parramatta 1911 p20). The awning of the shop occupying the site of 333 Church Street is visible on the far right. The striped posts suggest that this was used as a barber's shop.

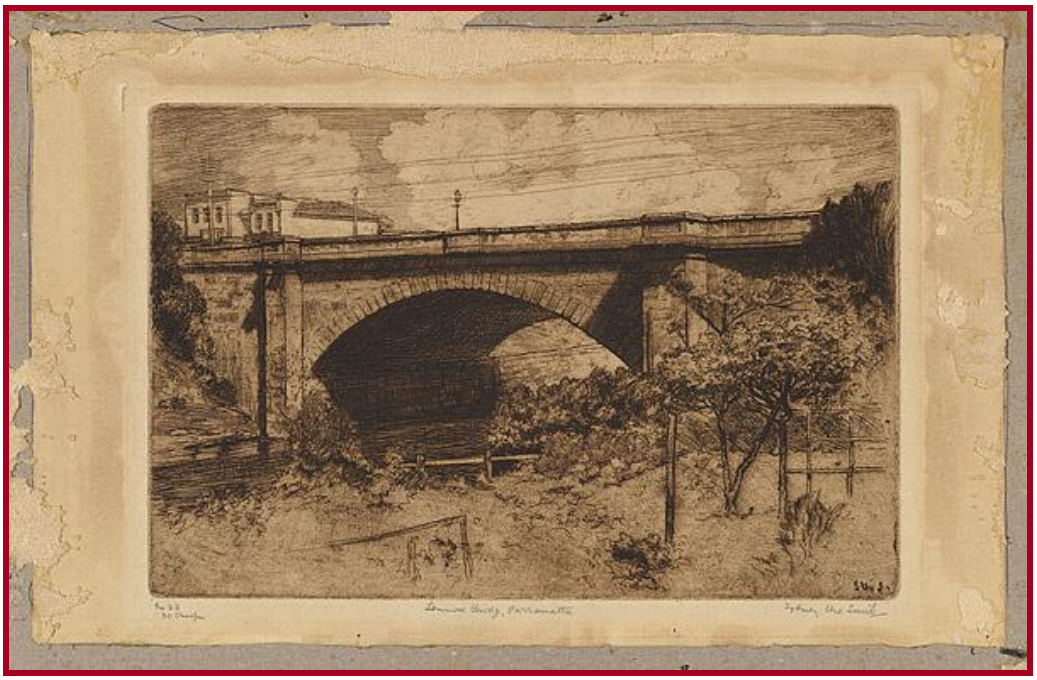


Figure 44. *Ure Smith Lennox Bridge Parramatta 1917. The southeast approach to the bridge is shown at left (View from the northeast).*

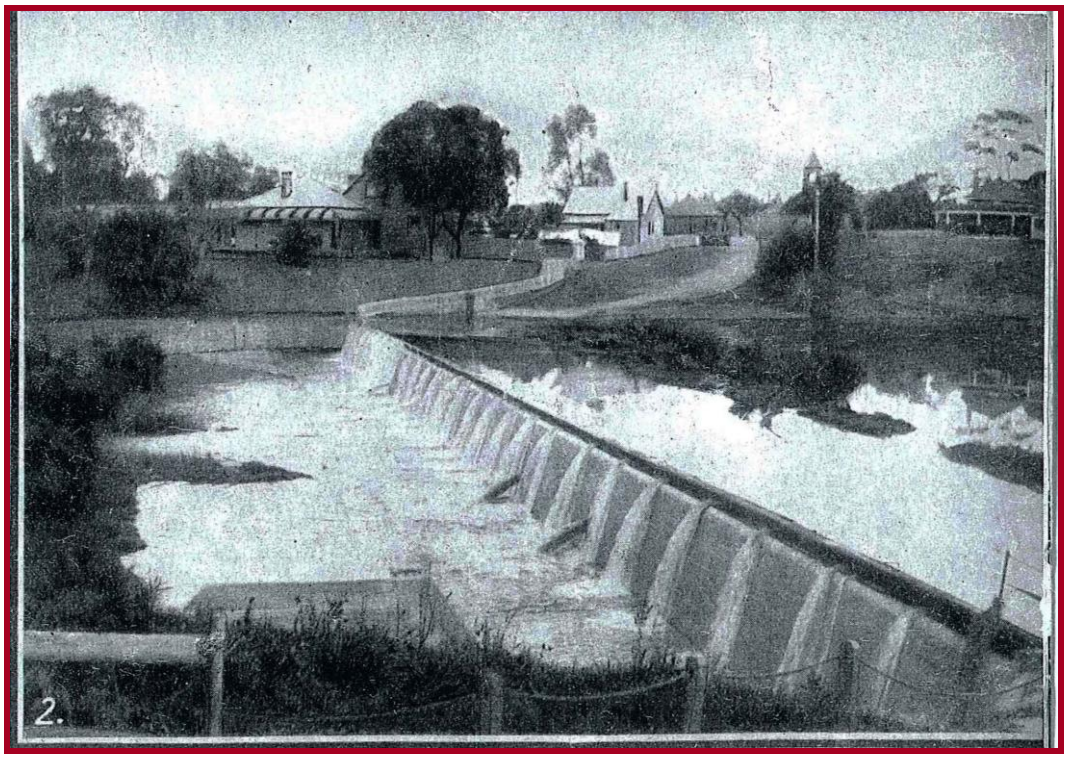


Figure 45. *Parramatta, 1922. View across the Marsden Street looking southeast showing the rebuilt 'Riverside' (striped verandah roof) and the re-formed foreshore (Source: ML- SPF Parramatta).*



Figure 46. *View of the northwest corner of the Study area in c.1928 showing 'Riverside'(striped verandah roof at left) and the newly completed St Andrew's Church on the corner of Phillip and Marsden Streets (Source: Phillips 1928).*

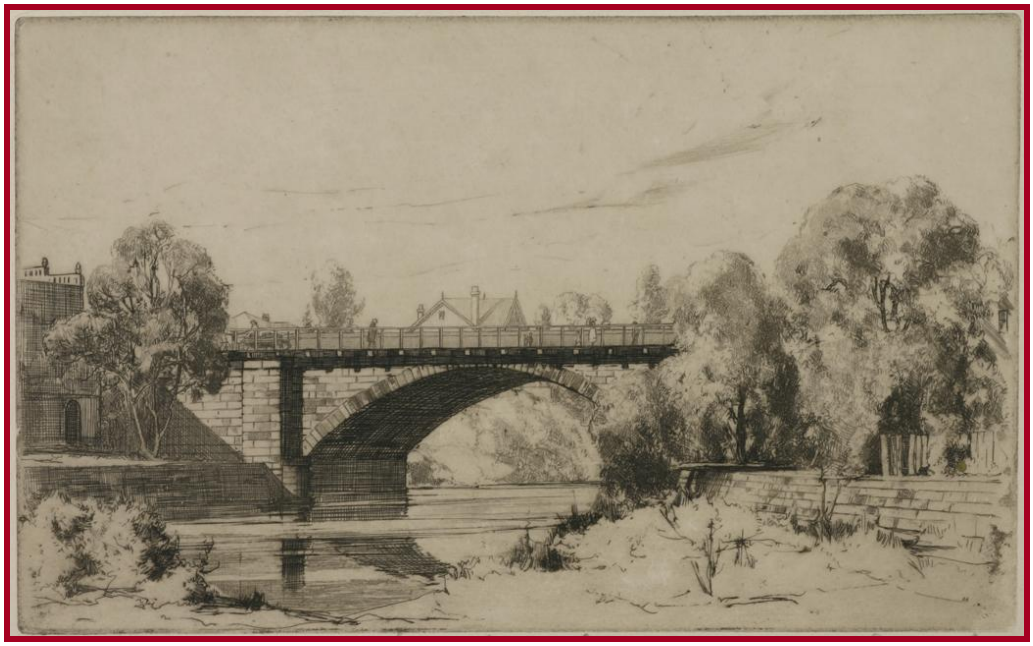


Figure 47. *Douglas Pratt, Lennox Bridge, 1932. The view shows the low stone retaining wall located adjacent to the northeast corner of the study area (right).*

During the 1920s and 1930s Church Street as a retail district developed at a significant pace. Parramatta, rather than Sydney was the preferred retail destination for much of western Sydney and in response most of the major retail chains opened stores in Parramatta by 1937. Increased motor traffic as well as the need to provide sustenance work for the unemployed prompted the widening of the Lennox Bridge. This work was undertaken by the Department of Main Roads who commenced work in 1934 and was completed in 1935. The work entailed the widening of the western side of the deck and arch using both masonry and concrete (see **Figure 3.49**, **Figure 3.50** and **Figure 3.51**). By this stage Allotment 1A had been extended to the edge of the river and consisted of three separate portions - portion C is now occupied by 333-335 Church Street, portion B by 337-337A Church Street and portion A was located immediately adjacent to the river (see **Figure 3.48)**. Widening of the bridge deck created the current building line now occupied by 337-337A church Street.

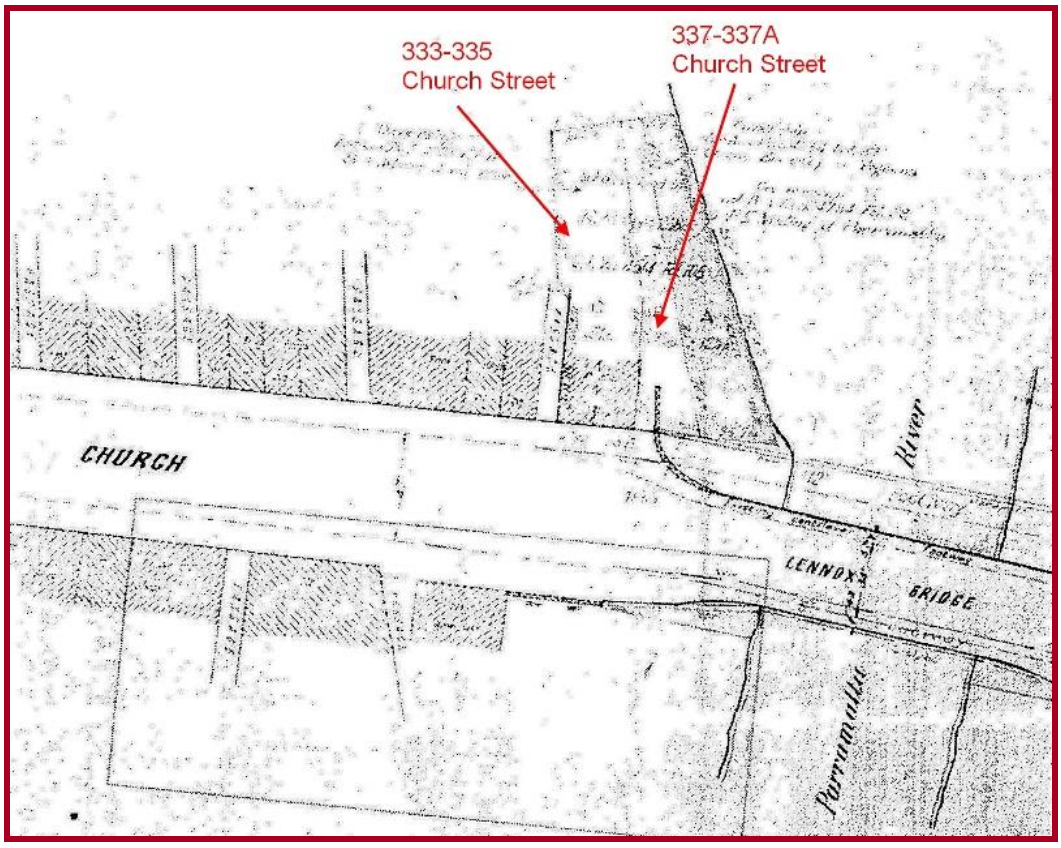


Figure 48. *State Highway No. 13 Church Street Municipality of Parramatta. Acquisition of Land from Mr C. Breasley and another (F. E. Malling) at Lennox Bridge (c.1934). Source: State Records NSW B.39/731.*

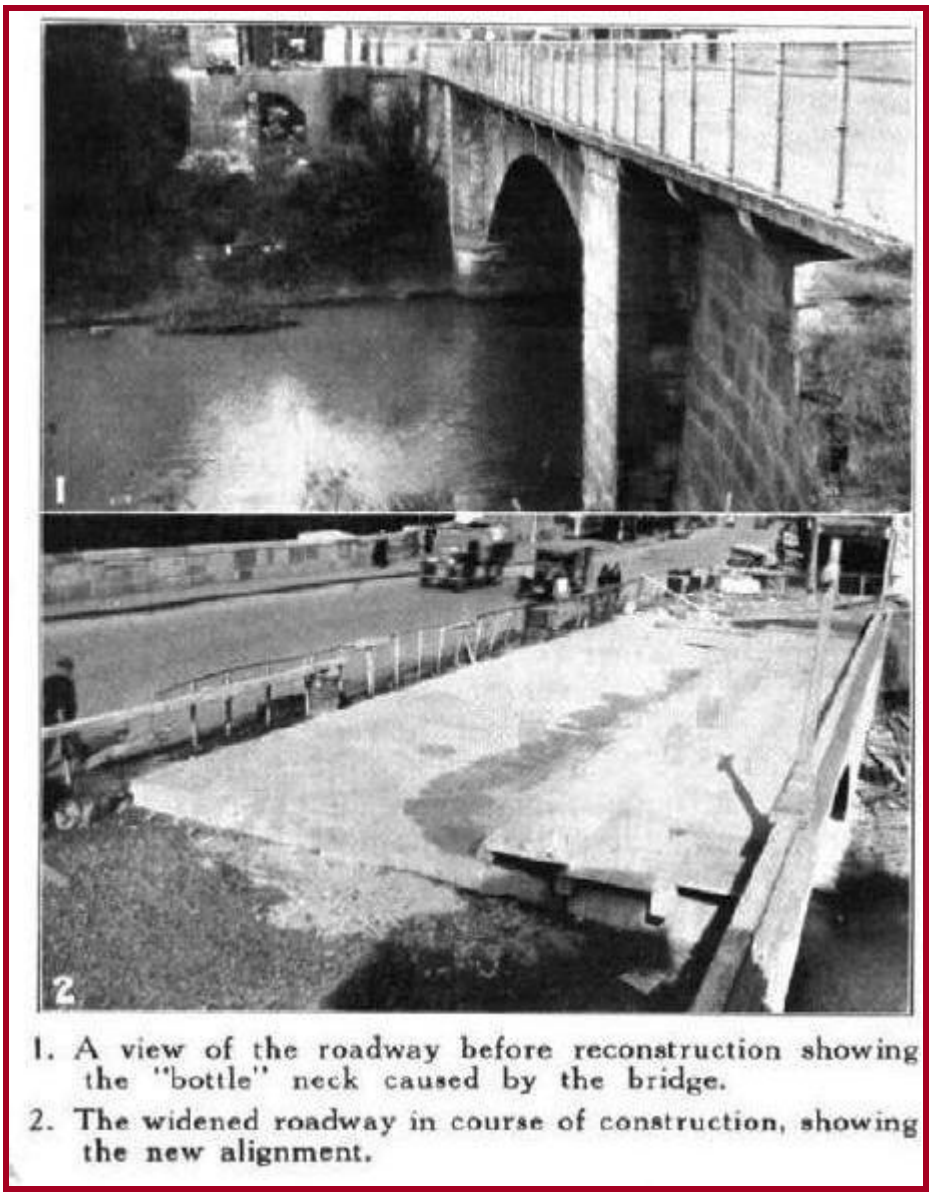


Figure 49. *Widening of the Lennox Bridge 1934-1935. Plate 1 is a view from the study area looking north prior to widening of the road. Plate 2 is a view of the new alignment looking south to 333 Church Street at right. (Source Main Roads Journal November 1935 p.7)*

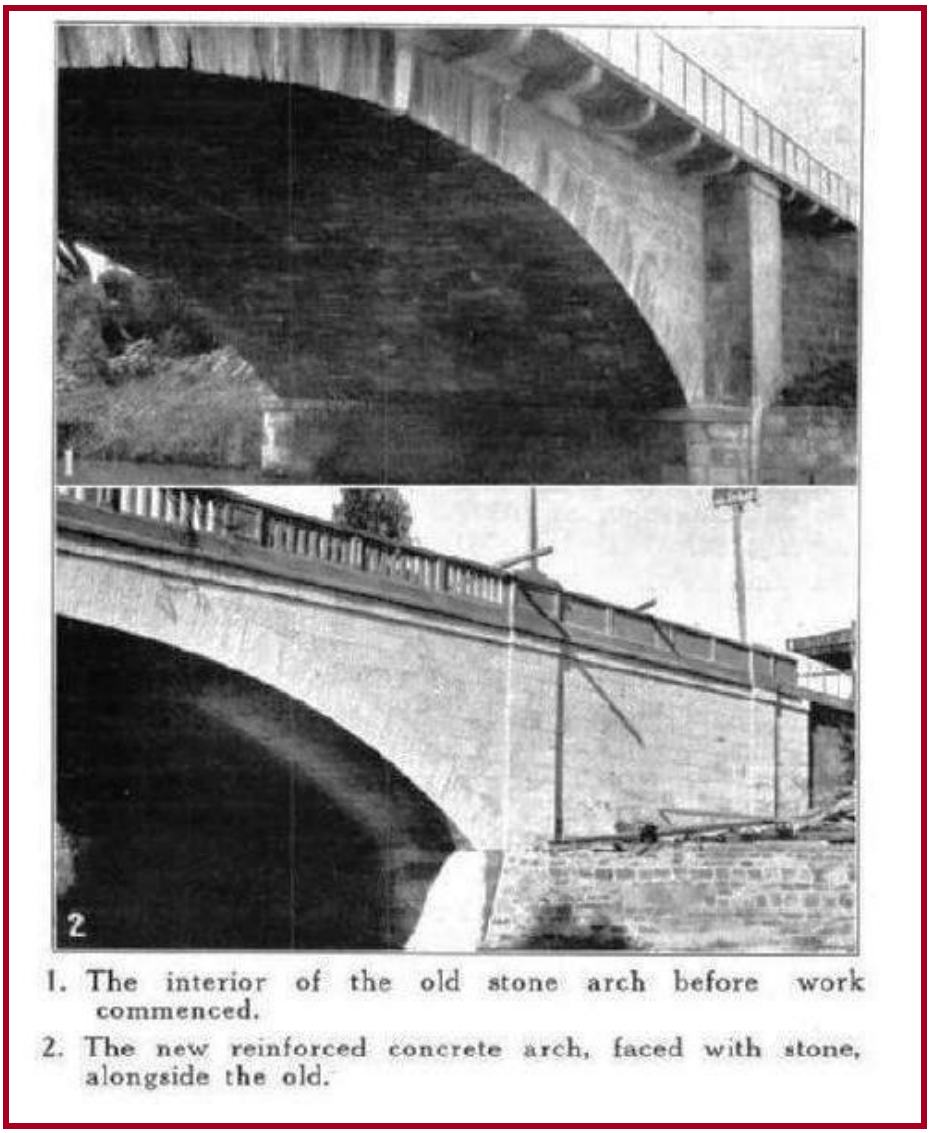


Figure 50. *Widening of the Lennox Bridge 1934-1935. Plate 1 is a view looking southeast prior to widening of the road. Plate 2 is a view of the new alignment looking south to 333 Church Street at right. (Source Main Roads Journal November 1935 p.7).*

Between 1935 and 1938 the shop (Items 7 and 10) that had occupied 333 Church Street was demolished and replaced by a single storey building divided into two shops (Item 31). During this same period the Maling family, owners of the property to the north constructed the building that currently occupies the site of 337-337A Church Street (Item 30). A second storey was not added to 333-335 Church Street until some time between 1943 and 1946. **Figure 3.52** shows both buildings in 1938 with 333 Church Street without its second storey or façade.

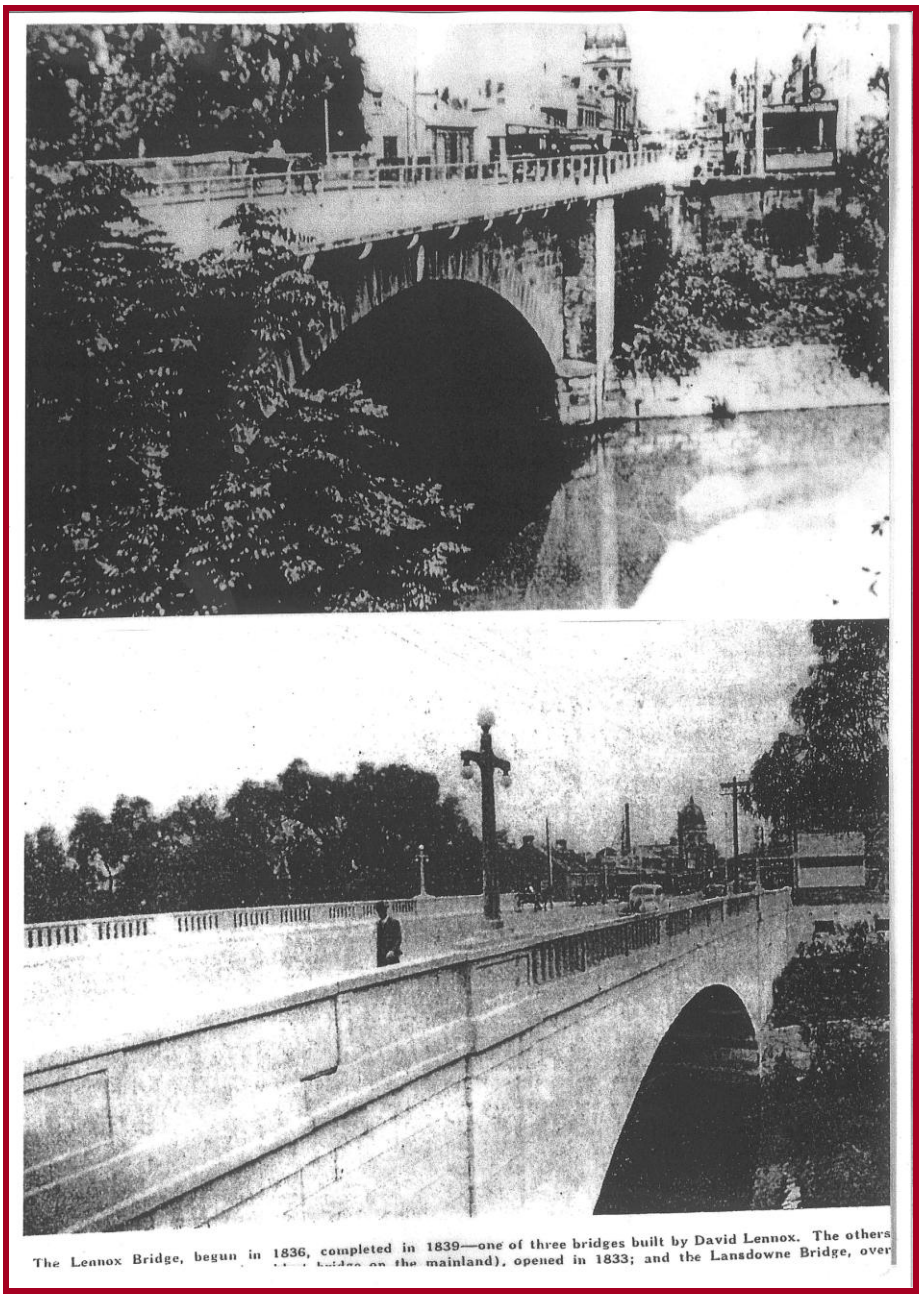


Figure 51. *Widening of the Lennox Bridge 1934-1935. The upper plate shows the side of 333 Church Street (at extreme right) prior to widening of the bridge. The lower plate shows the north face of the newly constructed 337-337A Church Street at right. (Source: Parramatta Heritage Centre)*

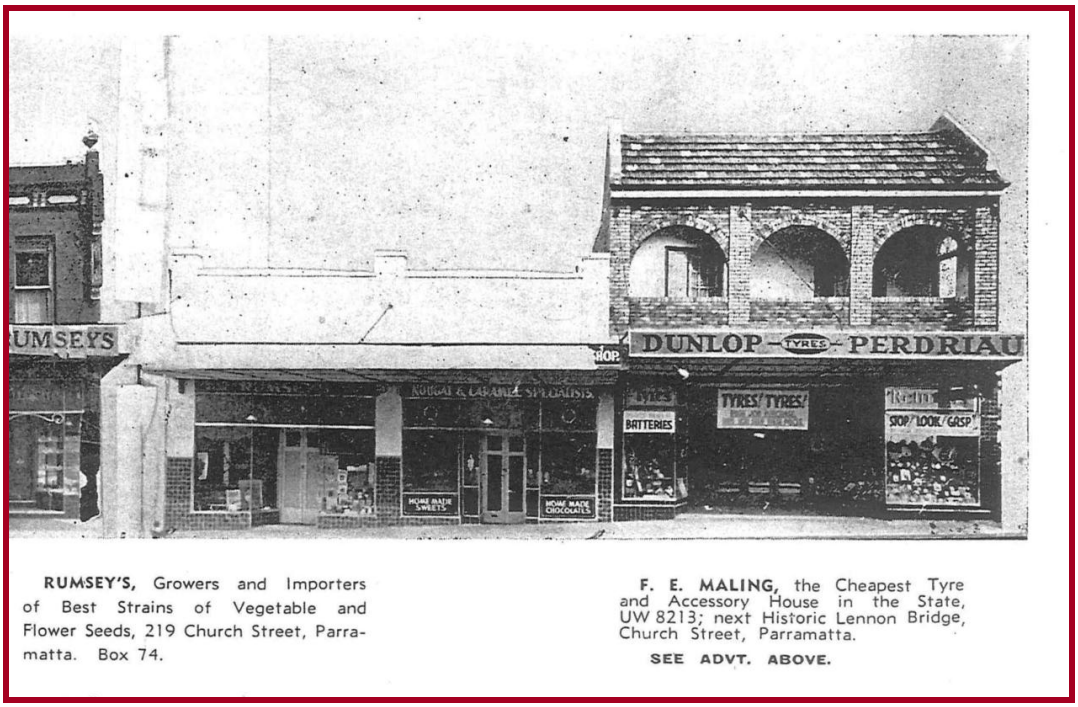


Figure 52. View of 333-335(left) and 337-337A (right) Church Street frontages, 1938. (Source: Baring, G. H., Progressive Sydney as it stands today : 150 years of progress in New South Wales, Adelaide, 1938). The image shows 333-335 Church Street prior to the addition of the second storey.

Other developments to take place within the study area prior to 1943 were restricted to the removal of the terrace houses in Phillip Street, possibly in the late 1920s and their replacement with one, single-storey brick residence (Item 39). The construction of this building also saw the removal of the stables(?) (Item 24), that had formed a separate block within the study area.

Development of all three street frontages during that late nineteenth century had effectively created a large are of ground that did not address the street. By 1938 much of this land was occupied by a commercial yard containing a number of sheds and an office (Items 29, 36, 43, 44 and 45). Vehicular access to the site was possible through a single driveway from Church Street located on the southern side of the present 325 Church Street.

Between 1950 and 1961 an addition (Item 46) was made to the rear the block forming 333-337A Church Street (see **Figure 59** and **Figure 60**). The precise function of this structure is not known but it has subsequently housed a series of restaurants. The structure was utilitarian in form with access from Church Street via a right of way on the southern side of 333 Church Street.

Portion A of allotment 1A, located immediately north of 337-337A Church Street was proclaimed a public reserve on 12 May 1950. Similar proclamations were made for the riverside lands on the northern bank of the river east of Lennox Bridge.[39]

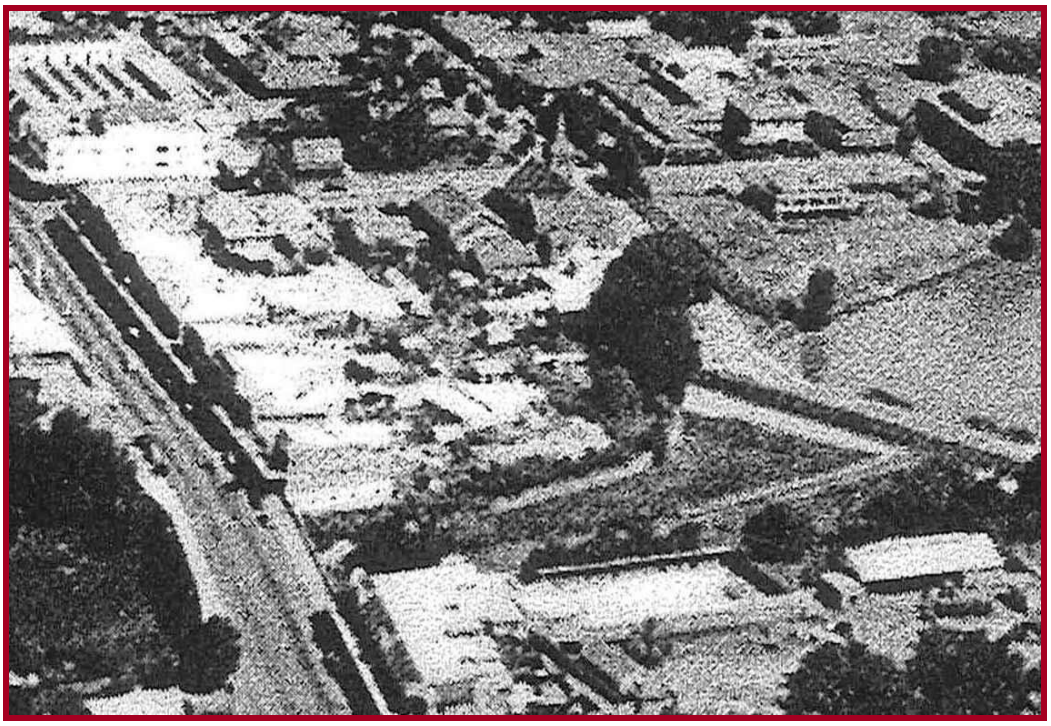


Figure 53. Detail of oblique aerial view of Parramatta c.1938. (Source: Parramatta Heritage Centre). The view is from the north and shows Church Street at left and the Marsden Street weir at right

[39] Department of Lands Ms9583 Sy

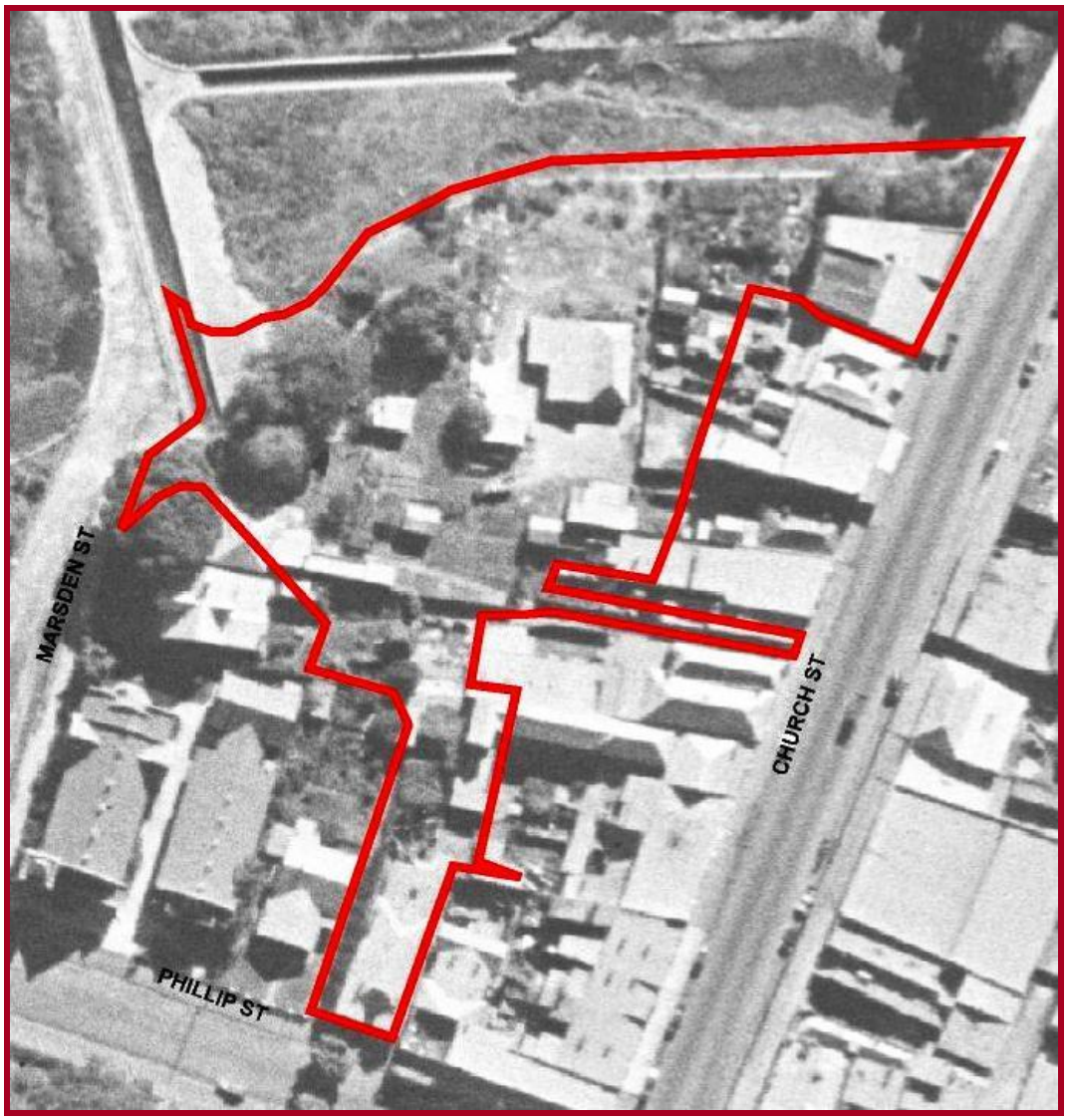


Figure 54. *Part of 1943 aerial photograph of Parramatta. The site boundary is indicated by bold red line (Source" RTA).*

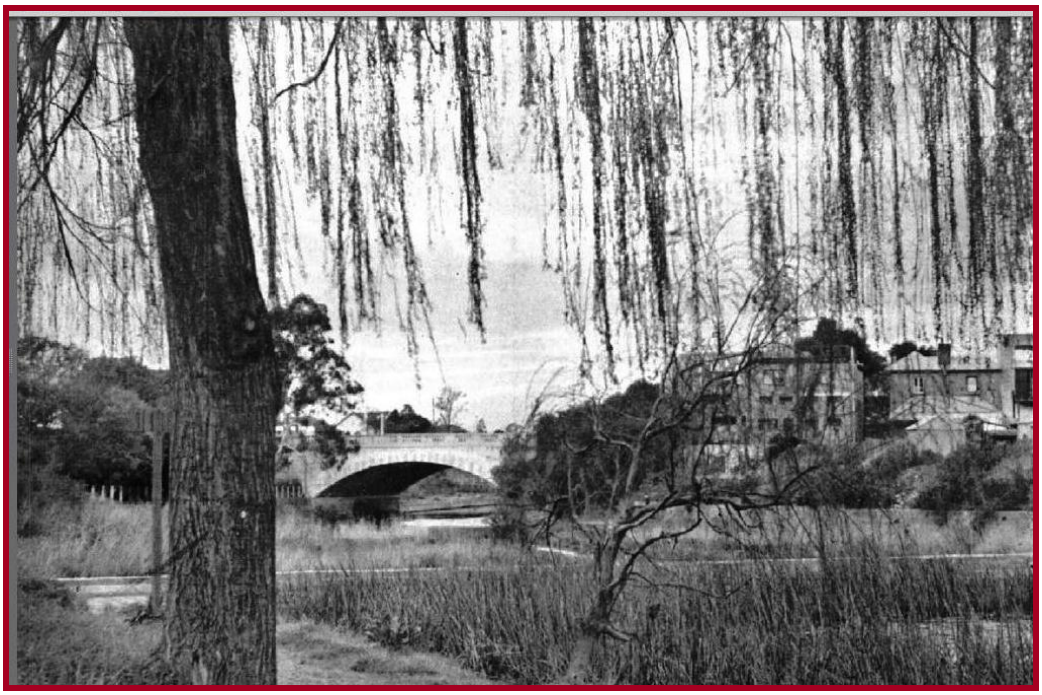


Figure 55. *View of the study area from the west showing the rear of the buildings occupying 333-335 and 337-337A church Street (Source: Main Roads Journal December 1946 cover).*



Figure 56. *Detail of above showing third storey added to 333-335 Church Street (arrowed)*



Figure 57. *View of Church Street (undated - 1940s?) looking south. The second storey has been added to 333 Church Street. (Source: SLNSW Parramatta, Church Street Government Printing Office 1 – 22965).*



Figure 58. *Parramatta, c.1950 showing the central portion of the Study area little changed from 1943. (Source: SLNSW - SPF). A detail of this view follows.*



Figure 59. *Detail of above 333-337A Church Street at left. One noticeable feature is the amount of debris that has been pushed across the northern margin of the site over the retaining wall (Source: SLNSW - SPF).*



Figure 60. *Parramatta, dated c.1950 but on internal evidence this view is dated to c.1960-61. The most notable change to the site was the construction of the premises at the rear of 333-337A Church Street (now the Akropolis restaurant) (Source: Parramatta Heritage Centre)*

From the 1940s onward parking had become a serious problem in Parramatta's retail areas. Parking restrictions were introduced from the mid-1940s and Council began purchasing the back areas of allotments fronting the main streets for public parking.[40] Between 1962 and 1972 the current Lennox Bridge car park was constructed (**Figure 3.61**). This entailed the

[40] Freeman 1997 vol 1 p.35

removal of a residence in Phillip Street for access. At about the same time 'Riverside' on Marsden Street was demolished and formed a car park attached to St Andrew's Church and Hall.



Figure 61. Aerial photograph showing completed car park, plantings along the northern margin of the river and additions to the rear of 333-337A Church Street (Source: NSW Department of Lands Aerial Photo 1972).

3.3 Summary of Items Identified

The following table summarises the structures, sites and elements identified by the historical analysis that were present on the study area. The locations of these items are shown in **Figure 3.62** to **Figure 3.70** below.

Item	Description	Type	Date of construction
1	First Hospital	Medical	c.1790
2	Hut	Domestic	1793-1804
3	Hut	Domestic	1799-1804
4	Hut	Domestic	1799-1804
5	Cottage	Domestic	1804-1823
6	Cottage	Domestic	1804-1823
7	Cottage and revetment	Domestic	1836-1844
8	Cottage	Domestic	1836-1844
9	Cottage?	Domestic	1833-1836
10	Additions to Item 7	Domestic/commercial	1844-1870
11	House 'Riverside' (rebuilt)	Domestic	1889-1895
12	House 'riverside' (original) and service wing	Domestic	1877-1889
13	Outbuilding	Domestic	1844-1895
14	Privy	Domestic	1844-1895
15	Privy	Domestic	1844-1895
16	Privy	Domestic	1844-1895
17	Outbuilding	Domestic	1844-1895
18	Outbuilding	Domestic	1844-1895

Item	Description	Type	Date of construction
19	Privy	Domestic	1844-1895
20	Privy	Domestic	1844-1895
21	Outbuilding	Domestic	1844-1895
22	Privy	Domestic	1844-1895
23	Privy	Domestic	1844-1877
24	Outbuilding (stables?)	Transportation?	1877-1895
25	Portion of three terrace houses and associated outbuildings	Domestic	1877-1895
26	Large shed	Domestic/Commercial	1889-1895
27	Privy?	Domestic	1889-1895
28	Shoeing forge	Light industrial	1889-1895
29	Yard office	Commercial	1904-1938
30	337a Church Street - commercial premises	Commercial	1935-1938
31	333=335 Church Street - commercial premises	Commercial	1935-1938
32	Shed	Domestic	1904-1938
33	Shed	Domestic	1904-1938
34	Shed	Commercial	1904-1938
35	Shed	Commercial	1904-1938
36	Shed	Commercial	1904-1938
37	Shed	Commercial	1904-1938
38	Shed	Commercial	1904-1938

Item	Description	Type	Date of construction
39	Cottage	Domestic	1904-1938
40	Outbuilding	Commercial	1904-1943
41	Outbuilding	Commercial	1904-1943
42	Outbuilding	Commercial	1904-1943
43	Shed	Commercial	1904-1938
44	Shed	Domestic	1904-1938
45	Shed	Commercial	1904-1938
46	Akropolis restaurant (formerly the Casa Esmerilda restaurant)	Commercial	1950-1961
47	Unidentified 3-storey structure	Industrial/commercial?	1877-1888
48	Detached kitchen? associated with Item 7	Domestic	1844-1870
49	Privy associated with Item 7	Domestic	1844-1870

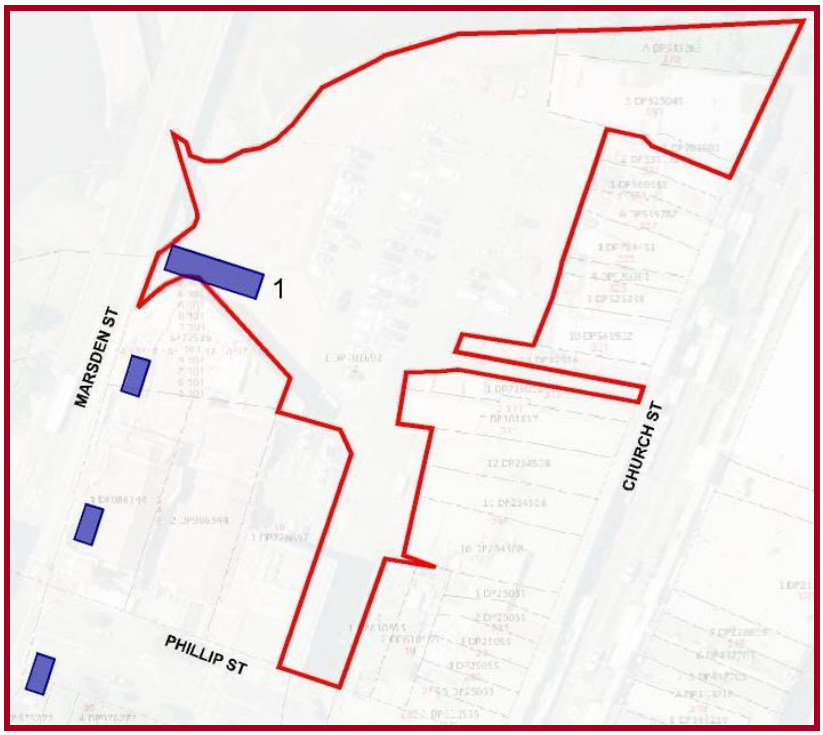


Figure 62. *Features present within the study area in 1792.*

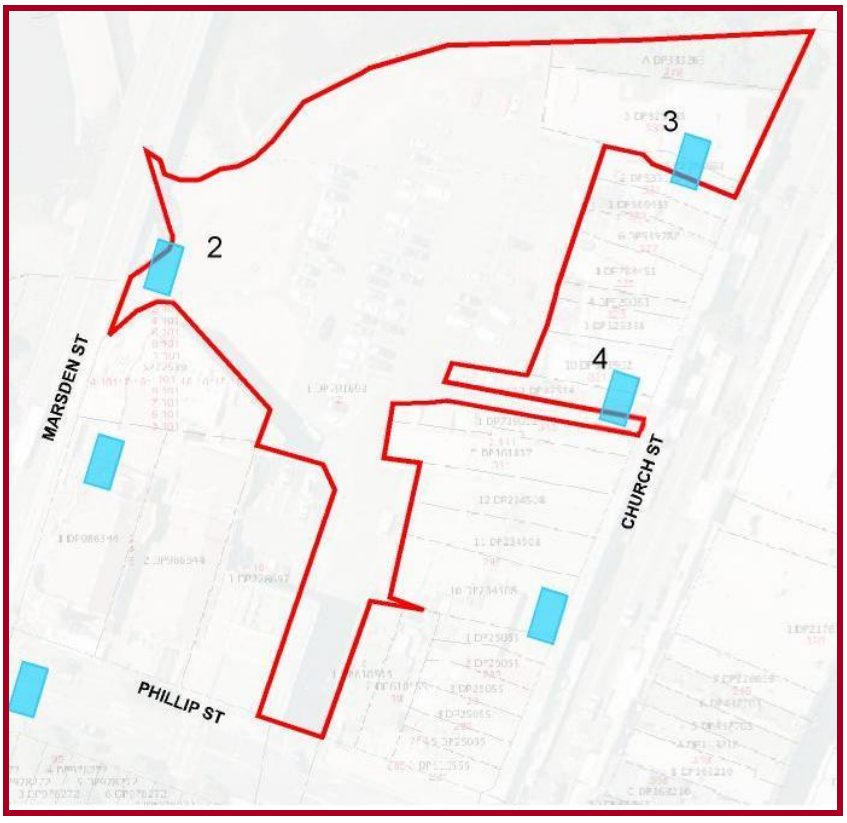


Figure 63. *Features present within the study area in 1804.*

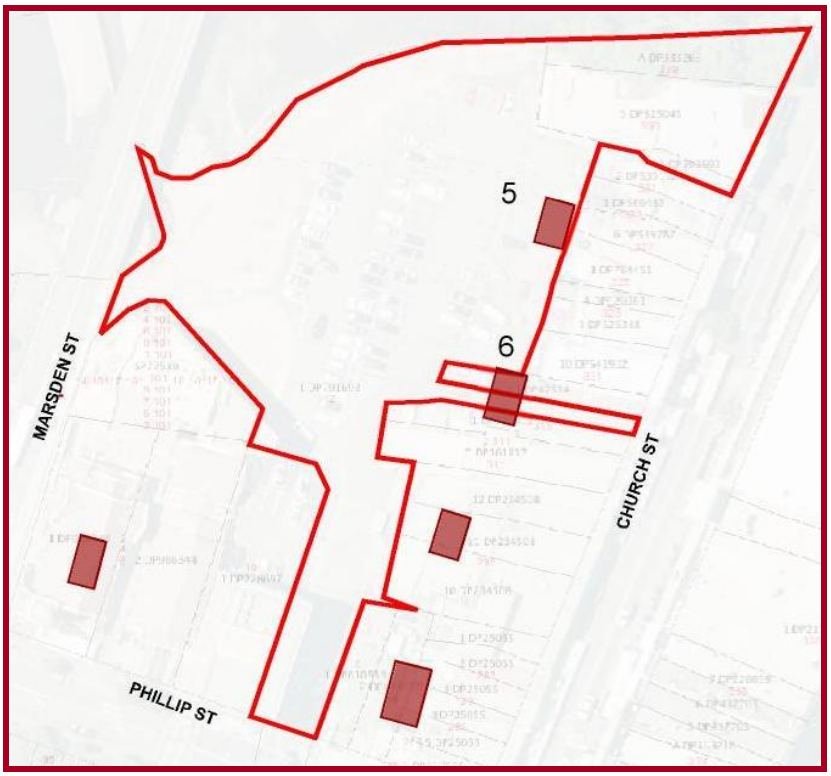


Figure 64. *Features present within the study area in 1823.*

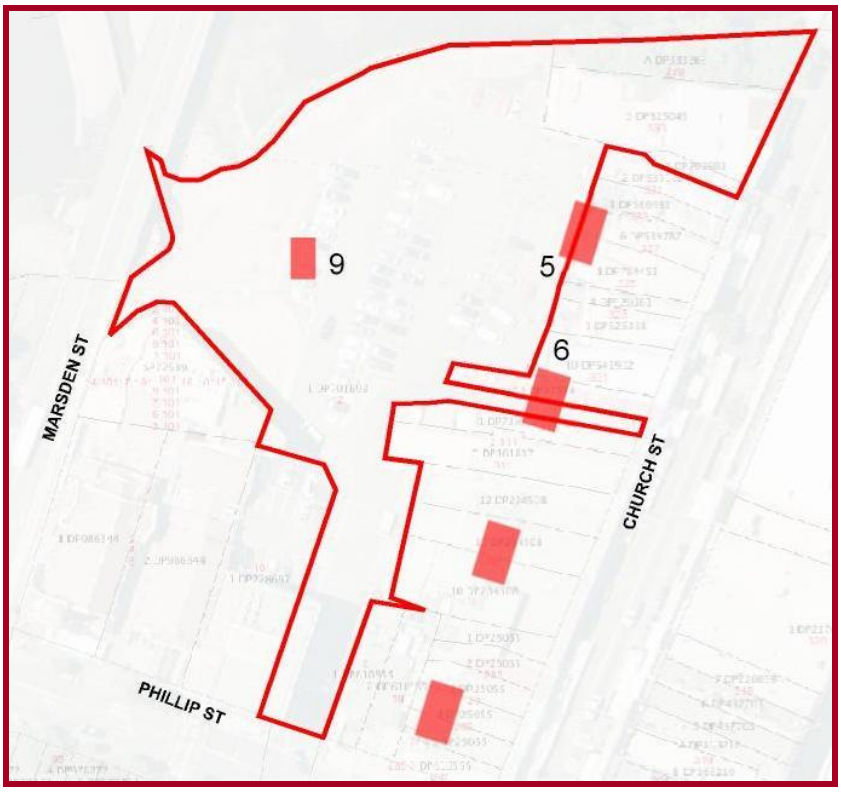


Figure 65. *Features present within the study area in 1836.*

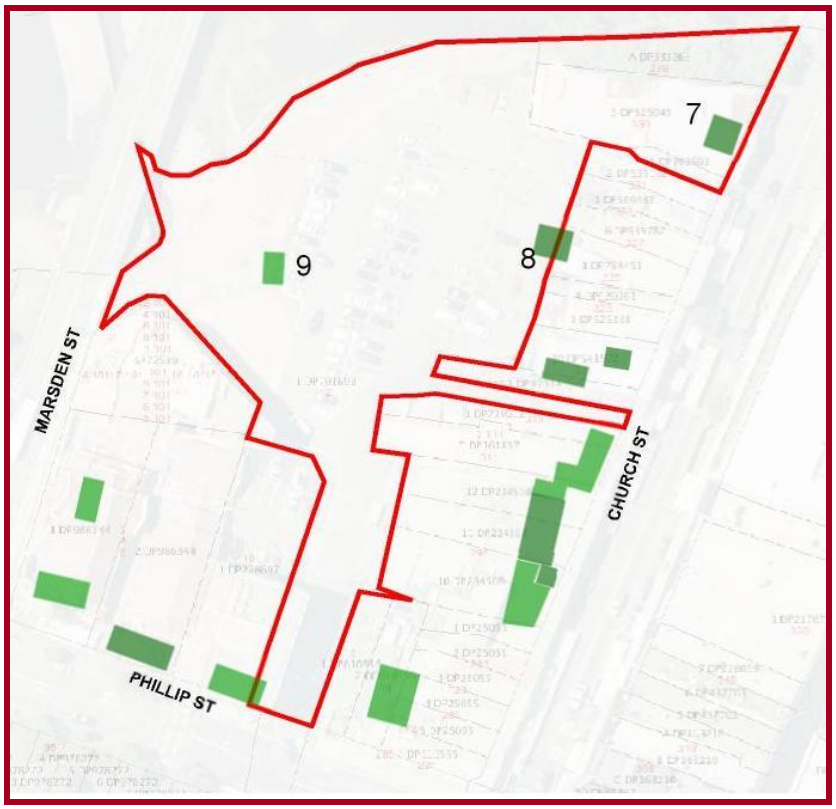


Figure 66. *Features present within the study area in 1844.*

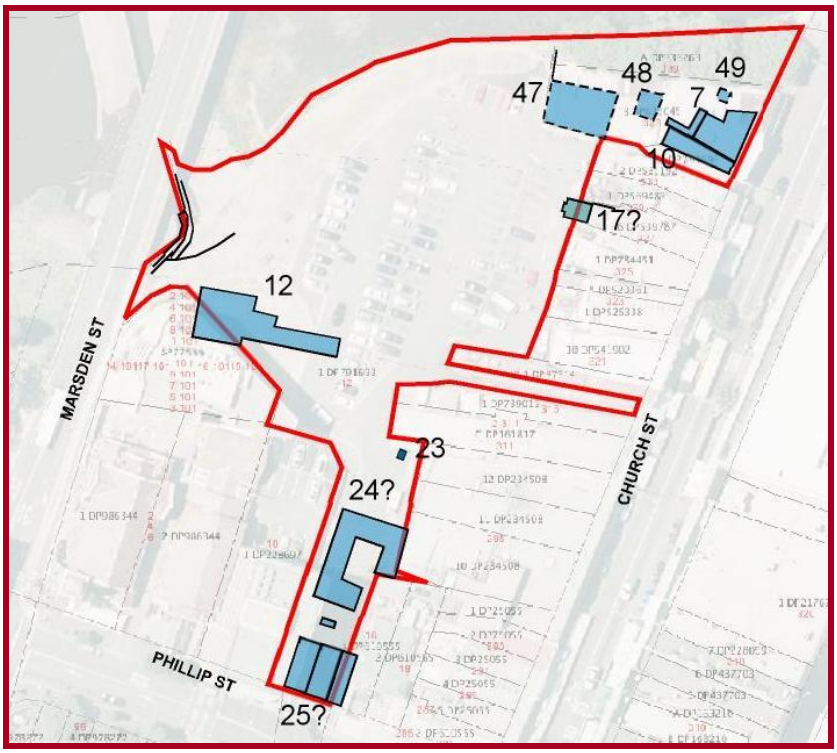


Figure 67. *Features present within the study area in c.1885.*

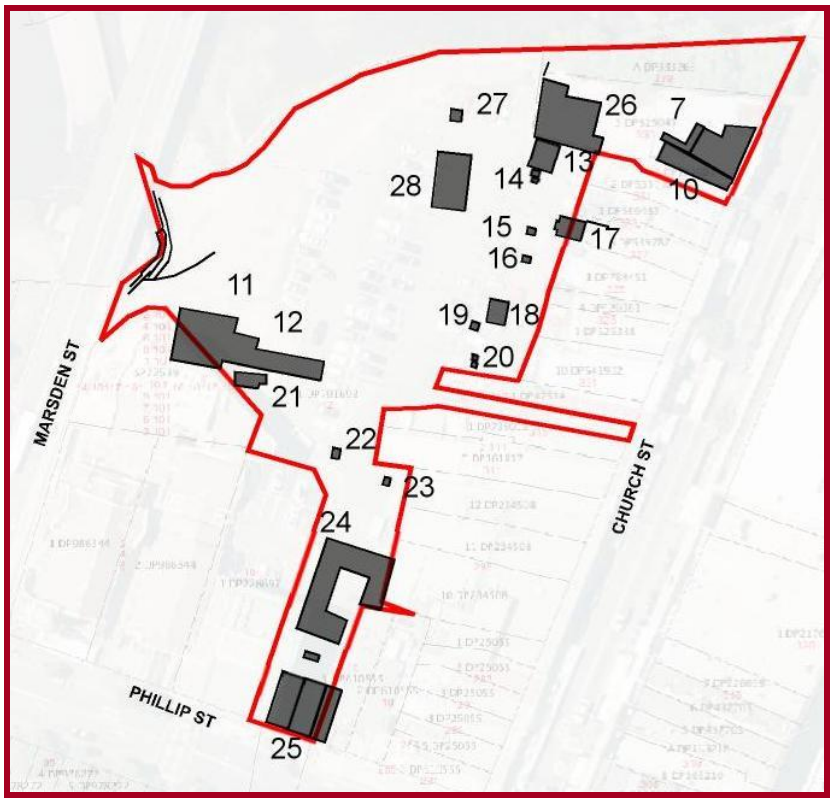


Figure 68. *Features present within the study area in 1895.*

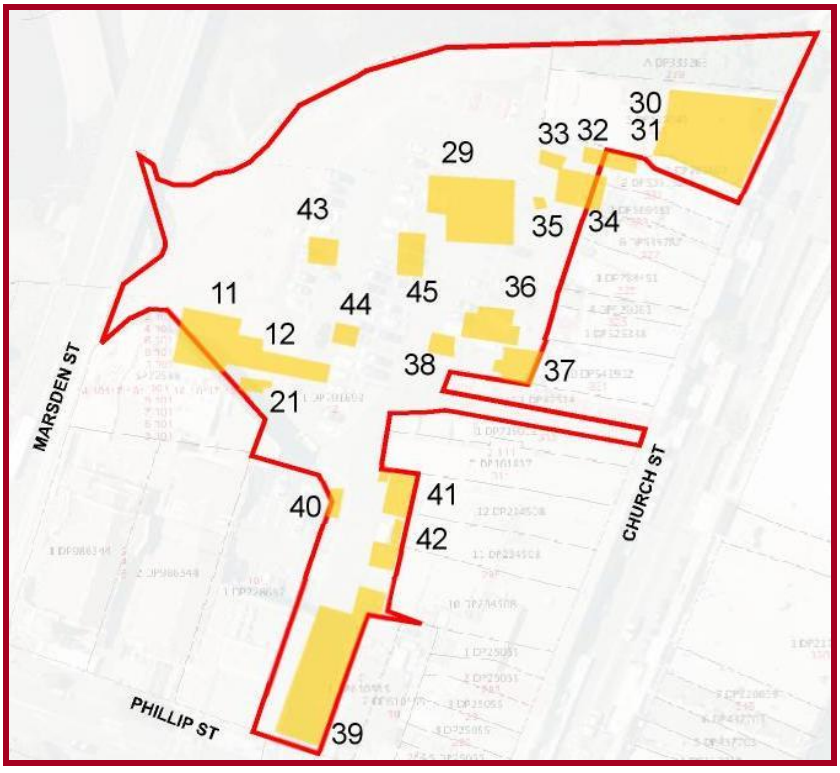


Figure 69. *Features present within the study area in 1943.*

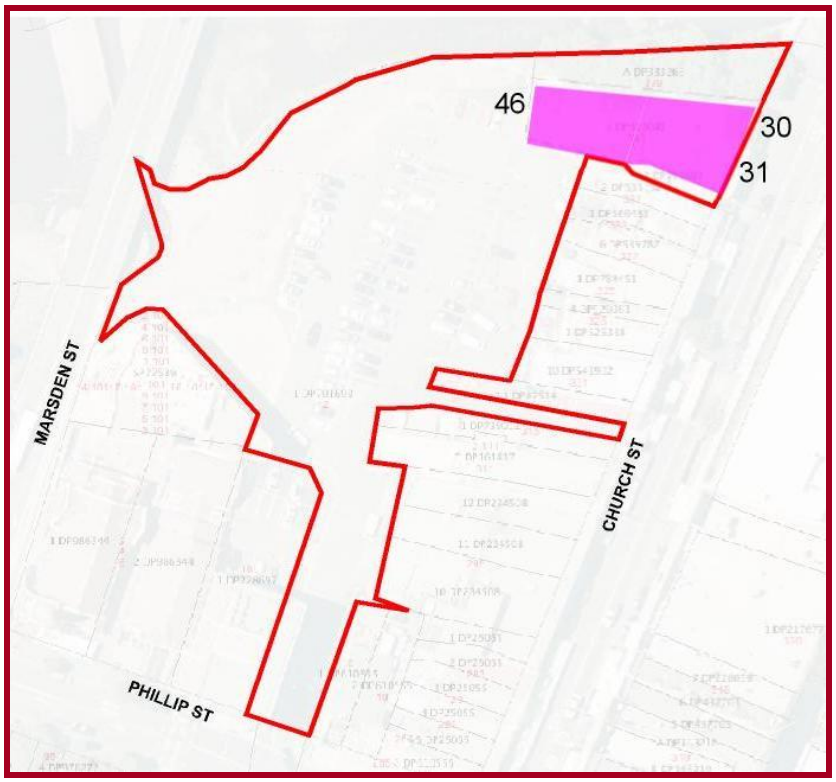


Figure 70. *Features present within the study area in 1972.*

3.4 New South Wales Historical Themes

The Heritage Council of NSW has published a list of Historical Themes, to provide direction and guidance for heritage assessments in NSW. The historical themes relevant to the documented historical occupation of the study area are listed below. Details of the phases of occupation associated with each theme are also included.

Australian Theme	*NSW Theme*	*Notes*	*Relevant Occupation Phase*
Peopling Australia.	Aboriginal cultures and interactions with other cultures	Activities associated with maintaining, developing, experiencing and remembering Aboriginal cultural identities and practices, past and present; with demonstrating distinctive ways of life; and with interactions demonstrating race.	1788-1792 1793-1809 1810-1839
	Convict	Activities relating to incarceration, transport, reform, accommodation and working during the convict period in NSW.	1788-1792 1793-1809 1810-1839
	Migration	Activities and processes associated with the resettling of people from one place to another (international, interstate, and intrastate) and the impacts of such movements.	1788-1792 1793-1809 1810-1839 1840-1869
Developing local, regional and national economies	Agriculture	Activities relating to buying, selling and exchanging goods and services.	1788-1792 1793-1809 1810-1839
	Environment – cultural landscape	Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings.	All phases
Building settlements, towns and cities	Land tenure	Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal.	All phases
	Utilities	Activities associated with the provision of services, especially on a communal basis.	Possibly all phases
Developing Australia's cultural life	Domestic life	Activities associated with creating, maintaining, living in and working around houses and institutions.	Probably all phases

4. PHYSICAL ANALYSIS

4.1 Introduction

Physical analysis of the site (presented below) involved the collation, analyses and synthesis of data from a variety of sources that included the following:

1. Soil landscape maps and results of geotechnical testing to identify the type and depth of soils at the site;

2. Site survey to document details of the age and methods of construction used to establish existing buildings, surfaces and other landscape features. Particular attention was given to identifying the extent of excavation, filling and landscaping that is likely to have previously taken place at the site; and

3. Historical documentation of previous development at the site and the comparative archaeological context within the vicinity of the site.

Analysis of these sources was undertaken to identify site formation processes and to determine the extent to which these processes may have affected the survival of relics associated with various phases of occupation at the site. The end product of this analysis is an historical archaeological model of the site that identifies the likely location, extent and integrity (intactness) of historical relics (***Section 4.2*** *Relics Indicated at the Site)*.

There are no visible remains associated with the eighteenth and early nineteenth century occupation of the study area. Visible remains dating to the late nineteenth century survive in the masonry channel wall forming part of the northern margin of the site. The geotechnical data gathered as part of the general assessment process has indicated that the natural soil profile survives substantially intact across the study area. The northern margin of the site has, however, been subject to disturbance, primarily through the scour resulting from the flood of 1889. In this portion of the study area all deposits and features were removed to bedrock with the area being backfilled on a number of occasions subsequent to repairs to the Marsden Street weir in the 1890s. Localised areas of disturbance are associated with the installation of sewer and stormwater lines during the twentieth century. No documented evidence of large scale removal of deposits to depth has been located.

The geotechnical data gathered as part of the current project suggests that car park construction and subsequent remodelling of the original car park may have resulted in some localised deep disturbance. Generally, preparation of the site for the car park may have resulted in removal or disturbance of the upper 400mm of deposit. Along the eastern margin of the car park however, disturbance may vary from 500mm to almost 2m. This

may have resulted in the localised removal of substantial portions of the archaeological record.

4.2 Relics Indicated at the Site

The extent to which physical remains of past occupation survive across any site is dependent on the nature of the possible relics and modifications made to the site following creation. While each subsequent phase of development and occupation may contribute new deposits and features to the archaeological record, it may also remove or disturb deposits and features associated with previous phases of occupation.

Deep structures such as cellars, wells and cess pits have a greater potential for survival than features located on or close to former surfaces. Built structures are generally less easily disturbed than artefact-bearing soft deposits such as yard soils or underfloor deposits. Based on the information presented in the site history (**Section 3**), comparative archaeological context (**Attachment 1**) and the current site configuration it is possible to make some general observations regarding the likely extent and integrity of relics associated with each occupation phase at the site.

Fourteen areas within the study area were identified as having the potential to contain archaeological material that may provide information regarding the historical development of the site and/or the New South Wales Historical Themes outlined in **Section 3.4**. These fifteen areas (designated A to O) may contain archaeological material relating to one or more phases of the site's history. Their locations are shown in **Figure 3.71** and a summary description follows. The sites described below show the accumulative effect of development on the site between c.1788 and c.1930 with each site having the potential to contain evidence of this development that may be of local and/or State significance. The plan in effect shows the concentration of activities within the study area with the theoretical potential to contain archaeological resources. It does not take into consideration actions that may have removed part or all of the physical evidence that may have formed part of the archaeological record. A discussion of integrity and significance of potential remains follows in **Section 4.3** and **Section 5**. Excluded from the table below are sites that may contain evidence of activities associated with the post-1930 development of the site but do not meet significance assessment criteria for the local threshold. These include site numbers 29 to 46.

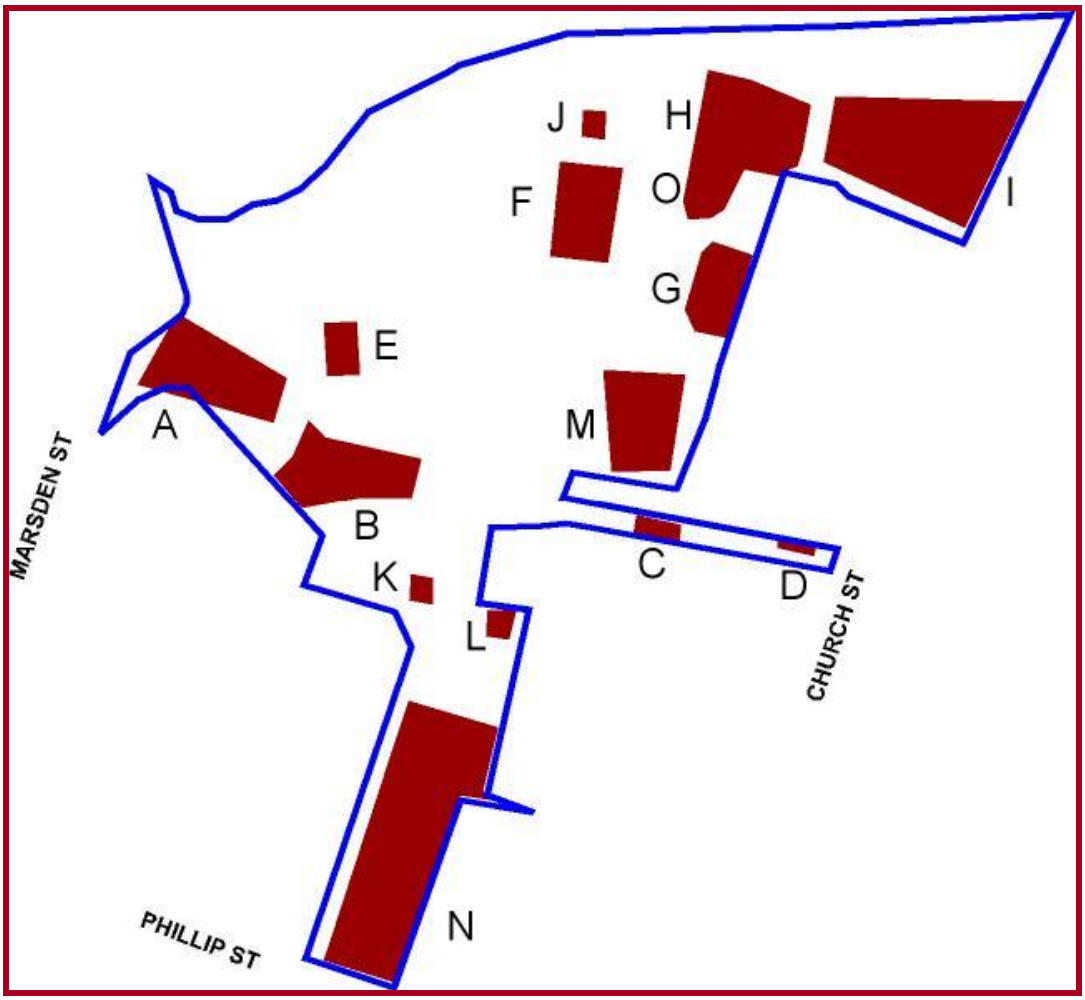


Figure 71. Location of sites with the theoretical potential to contain physical evidence of past activities on the site.

The distribution of potential sites shown in **Figure 3.71** reflects developments on the site prior to conversion of a large portion of the study area into a car park.

Area	Description	Phase	Type	Item number
A	First Hospital	1788-1792	Structural remains	**1**
	Hut	1793-1809	Structural remains, internal occupation deposits, yard surfaces	**2**
B	Part of 'Riverside'	1870-1900	Footing remains, internal occupation deposits	**11, 12**

Area	Description	Phase	Type	Item number
	Outbuilding	1870-1900	Footing remains, internal occupation deposits	**21**
C	Cottage	1810-1839	Footing remains, internal occupation deposits	**6**
D	Hut	1793-1810	Structural remains, internal occupation deposits	**4**
E	Cottage	1810-1839?	Footing remains, internal occupation deposits, yard deposits	**9**
F	Shoeing forge	1870-1900 Post-1900	Footing remains, internal occupation deposits, yard deposits	**28**
G	Cottage	1810-1839	Footing remains, internal occupation deposits	**5**
	Cottage	1810-1839	Footing remains, internal occupation deposits	**8**
	Outbuilding	1870-1900	Footing remains, internal occupation deposits	**17**
	Privy	1870-1900	Cesspit fill, structural remains	**15**
	Privy	1870-1900	Cesspit fill, structural remains	**16**
H	Large shed	1870-1900	Footing remains, internal occupation deposits	**26**
	Unidentified 3-storey structure	1877-1888	Footing remains, internal occupation deposits	**47**
I	Hut	1793-1810	Footing remains, internal occupation deposits, yard deposits	**3**
	Cottage and revetment	1810-1839	Footing remains, internal occupation deposits, yard deposits, stone revetment	**7**

Area	Description	Phase	Type	Item number
	Additions to existing structure	1840-1869	Footing remains, internal occupation deposits, yard deposits,	10
	Detached kitchen? associated with Item 7	1840-1869	Footing remains, internal occupation deposits	48
	Privy associated with Item 7	1840-1869	Cesspit fill, structural remains	49
J	Privy	1870-1900	Cesspit fill, structural remains	27
K	Privy	1870-1900	Cesspit fill, structural remains	22
L	Privy	1840-1969	Cesspit fill, structural remains	23
M	Outbuilding	1870-1900	Footing remains, internal occupation deposits	18
	Privy	1870-1900	Cesspit fill, structural remains	19
	Privy	1870-1900	Cesspit fill, structural remains	20
N	Portions of three terrace houses and associated outbuildings	1870-1900	Footing remains, internal occupation deposits, yard deposits, cesspits	25
	Stables?	1870-1900	Footing remains, internal occupation deposits, yard deposits	24
O	Outbuilding	1870-1900	Footing remains, internal occupation deposits	13
	Privy	1870-1900	Cesspit fill, structural remains	14

4.3 Integrity

The site history has identified a number of land uses, changes and site formation processes that may have resulted in the partial or complete removal of potential archaeological resources within the study area. In some instances these processes have compromised the potential for the archaeological resources to be of local or State significance. The major

site formation processes recognised by the analysis of the documentary and physical evidence are as follows:

- The flood of 1889 - removal of all deposits to bedrock(restricted to north and northwest portion of the study area);
- Installation of major service lines in the period after 1900 (localised);
- Building works associated with the construction of 333-337a Church Street (localised);
- Car park construction and associated drainage lines (general);
- Possible modifications associated with the rear of commercial premises addressing Church Street (unknown but possibly localised in extent).

A summary of the likely degree of survival of archaeological resources is set out in the table below, and in **Figure 3.72**.

Area	Archaeological Resource	Item number	Integrity
A	First Hospital	**1**	Destroyed 1889
	Hut	**2**	Destroyed 1889
B	Part of 'Riverside'	**11, 12**	Partly destroyed, some potential survival of service wing
	Outbuilding	**21**	Possible good survival
C	Cottage	**6**	Likely to be significantly compromised by three stormwater lines, inspection pit and adjoining footings of extant buildings
D	Hut	**4**	Status unknown but likely to be significantly compromised by adjoining footings of extant buildings
E	Cottage	**9**	Some possible survival of remains - a portion of the site may have been removed in 1889
F	Shoeing forge	**28**	Possible good survival - some localised disturbance by service lines

Area	Archaeological Resource	Item number	Integrity
G	Cottage	**5**	Some possible survival - some localised disturbance by service lines and deep excavation
	Cottage	**8**	Some possible survival - some localised disturbance by service lines and deep excavation
	Outbuilding	**17**	Some possible survival - some localised disturbance by service lines and deep excavation
	Privy	**15**	Some possible survival - some localised disturbance by service lines and deep excavation
	Privy	**16**	Some possible survival - some localised disturbance by service lines and deep excavation
H	Large shed	**26**	Possibly compromised by construction of 333-337a Church Street some evidence of extensive removal of deposits, some remains may have been removed entirely in 1889
	Unidentified 3-story structure	**47**	Possibly compromised by the flood of 1889 and by construction of 333-337a Church Street - status unknown
I	Hut	**3**	Possibly compromised by construction of 333-337a Church Street - status unknown
	Cottage and revetment	**7**	Possibly compromised by construction of 333-337a Church Street - status unknown
	Cottage/Commercial premises	**10**	Possibly compromised by construction of 333-337a Church Street - status unknown
	Detached kitchen? associated with Item 7	**48**	Possibly compromised by construction of 333-337a Church Street - status unknown
	Privy associated with	**49**	Possibly compromised by the flood of

Area	Archaeological Resource	Item number	Integrity
	Item		1889 and by the construction of 333-337a Church Street - status unknown
J	Privy	**27**	Possible survival. The site is located in an area that was subject to intensive landscape modification in the period after 1960.
K	Privy	**22**	Possible good survival
L	Privy	**23**	Possible good survival
M	Outbuilding	**18**	Some possible survival - some localised disturbance by service lines and deep excavation
	Privy	**19**	Some possible survival - some localised disturbance by service lines and deep excavation
	Privy	**20**	Some possible survival - some localised disturbance by service lines and deep excavation
N	Portions of three terrace houses and associated outbuildings	**25**	Possible good survival - some localised disturbance associated with construction and removal of 1920s cottage.
	Stables?	**24**	Possible good survival - some localised disturbance associated with construction and removal of 1920s cottage.
O	Outbuilding	**13**	Possibly compromised by construction of 333-337a Church Street some evidence of extensive removal of deposits, some remains may have been removed entirely in 1889
	Privy	**14**	Possibly compromised by construction of 333-337a Church Street some evidence of extensive removal of deposits, some remains may have been removed entirely in 1889

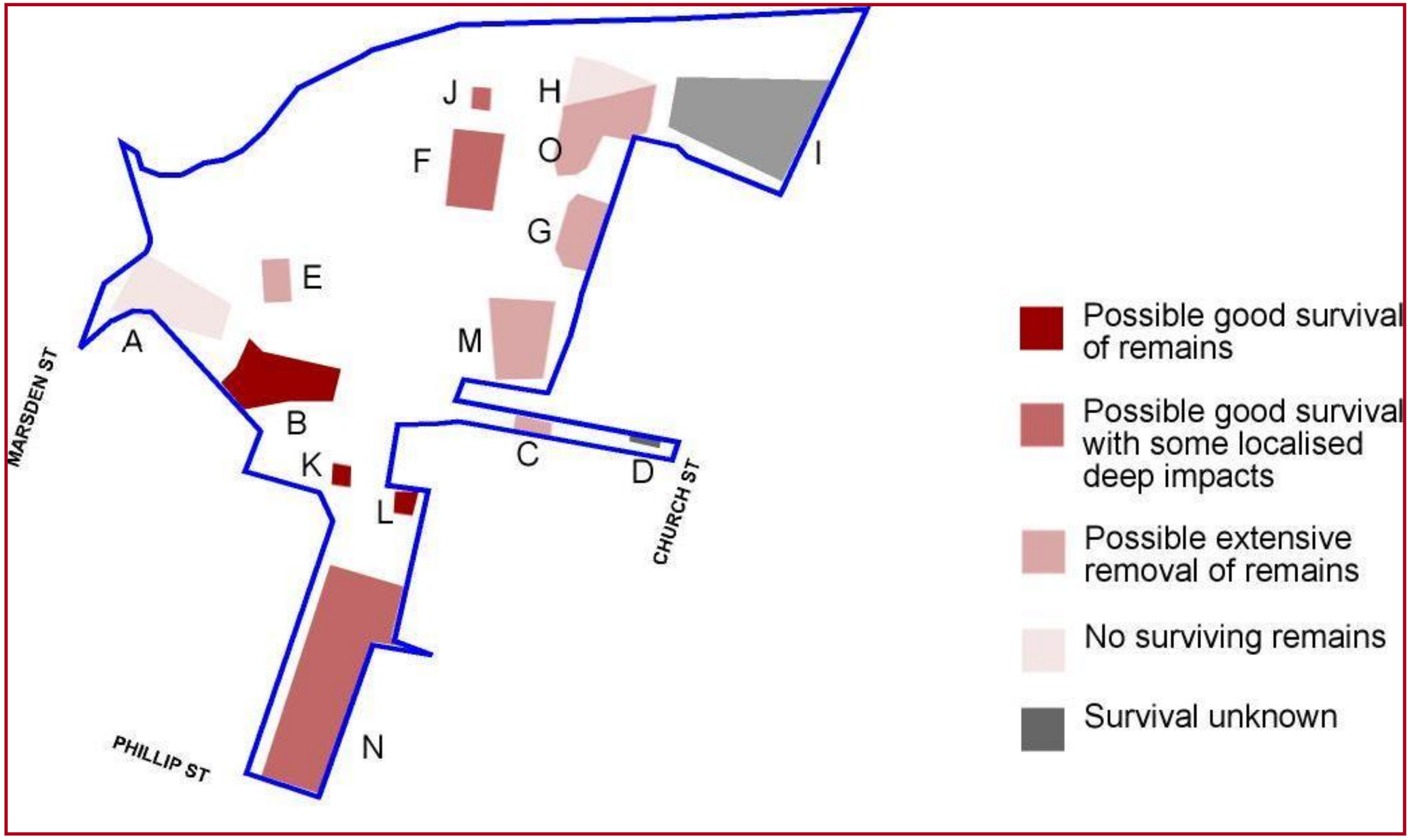


Figure 72. Location of sites with their assessed degree of survival.

5. SIGNIFICANCE

5.1 Principles and Evaluation Criteria

The following evaluation of the cultural heritage significance of the potential relics at the site was made using the NSW heritage evaluation criteria and State historical themes. The evaluation is based on the results of historical research (**Section 3**), discussion of the site's comparative archaeological context (**Attachment 1**), and physical analysis discussed in Section 4.

"Heritage significance" and "cultural significance" are terms used to describe an item's value or importance to our society. The Australian ICOMOS Burra Charter defines cultural significance as,

Aesthetic, historic, scientific or social value for past, present or future generations

This value may be contained in the fabric of the item, its setting and relationship to other items, the response that the item stimulates in those who value it now, or the meaning of that item to contemporary society. Accurate assessment of the cultural significance of sites, places and items is an essential component of the NSW heritage assessment and planning process. A clear determination of a site's cultural significance allows informed planning decisions to be made for places, in addition to ensuring that their heritage values are maintained, enhanced, or at least minimally affected by development.

Assessments of significance are made by applying standard evaluation criteria. These criteria are as follows:

A An item is important in the course or pattern of NSW's cultural or natural history (or the cultural or natural history of the local area);

B An item has strong or special associations with the life or works of a person, or group of persons, of importance in NSW' cultural or natural history (or the cultural or natural history of the local area);

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);

D An item has strong or special associations with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;

E An item as potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);

F An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);

G An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural and natural environments.

The archaeological significance of a site may be seen as directly linked to the scientific or research value of the relics that are present. In Australia this concept is commonly defined as a set of questions that are used as a means of assessing the significance of an archaeological site within a relative framework:

1. Can the site contribute knowledge that no other resource can?
2. Can the resource contribute knowledge that no other site can?
3. Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions? [41]

5.2 Evaluation

The study area is located within AMU3084 and PHALMS indicates that it has 'exceptional archaeological research potential' and the AMU is 'of State significance'. A number of elements that were used in preparing the Statement of Significance for the PHALMS listing are located within the AMU but outside the curtilage of the study area. Similarly the analysis undertaken for this project has indicated that elements that would have been a major contribution to the overall significance of the site are no longer present.

The potential significance of any element located within the study area is determined by the ability to demonstrate aspects of the research values outlined above. An element's integrity, or degree of survival, is therefore a major controlling factor in determining its value (significance).

Set out below are the sites within the study area and an assessment of their likely level of significance.

[41] *Bickford & Sullivan 1984:23*

Area	Archaeological Resource	Item number	Likely level of Significance
A	First Hospital	**1**	Site - no survival
	Hut	**2**	Site - no survival
B	Part of 'Riverside'	**11, 12**	Local
	Outbuilding	**21**	Local
C	Cottage	**6**	Local
D	Hut	**4**	Local
E	Cottage	**9**	Possible State significance if archaeological resource is largely intact
F	Shoeing forge	**28**	Local
G	Cottage	**5**	Possible State significance if archaeological resource is largely intact
	Cottage	**8**	Possible State significance if archaeological resource is largely intact
	Outbuilding	**17**	Local
	Privy	**15**	Local
	Privy	**16**	Local
H	Large shed	**26**	Local
	Unidentified 3-storey structure	**47**	Local
I	Hut	**3**	Possible State significance if archaeological resource is largely intact
	Cottage and revetment	**7**	Possible State significance if archaeological resource is largely intact
	Additions to Item 7	**10**	Local
	Detached kitchen?	**48**	Local

Area	Archaeological Resource	Item number	Likely level of Significance
	associated with Item 7		
	Privy associated with Item	**49**	Local
J	Privy	**27**	Local
K	Privy	**22**	Local
L	Privy	**23**	Local
M	Outbuilding	**18**	Local
	Privy	**19**	Local
	Privy	**20**	Local
N	Portions of three terrace houses and associated outbuildings	**25**	Local
	Stables?	**24**	Local
O	Outbuilding	**13**	Local
	Privy	**14**	Local

The type of archaeological remains that may be associated with Areas C and D if sufficiently extensive, intact and in undisturbed contexts would have the potential be of State significance. However, due to known levels of disturbance associated with adjacent wall lines and services, and the small extent of the archaeological features within the study area, it is considered that the archaeological remains in these locations are so compromised that the threshold values for State significance are not achieved.

6. CONCLUSIONS

This historical archaeological assessment concludes that:

- There has been over 200 years of continuous historical occupation of the site;
- That activities documented for this place had the potential to leave physical remains, or modifications to the landscape;
- That portions of this evidence are relevant to State Historical Themes;
- That the place has previously been assessed as having State significant heritage values for its archaeological research potential (PHALMS);
- That scouring of the foreshore (north boundary of site) in 1889 resulted in the removal of a significant portion of the potential archaeological resource in this part of the site (not recognised in previous assessments);
- That site formation processes associated with the installation of a number of large stormwater and sewer mains that cross the study area are likely to have had localised impacts on the potential archaeological resource at the site. These impacts may be up to 2m deep;
- That site formation processes associated with the construction of the current car park are likely to have made impacts on the potential archaeological resource at the site. These impacts may vary from minor trimming of deposits, to deeper localised excavation for drainage lines and kerbs along the margins of the car park;
- That construction of the extant buildings on the lot occupied by 333-335 and 337-337A Church Street has impacted the archaeological resource in this part of the study area to an uncertain extent, and
- That there is the potential for the survival of relics assessed as being of State significance in a number of locations within the study area.

7. MANAGEMENT RECOMMENDATIONS

7.1 Risks and Opportunities

The following section identifies general and specific heritage risks and opportunities for any proposed development of the study area.

General Considerations and Risks of the Study area

1. This assessment has indicated that potential historical archaeological resources may exist at the study area. A number of these resources fall within the purview of the Heritage Act and will require consideration in advance of any proposed development that requires substantial groundworks.

2. The implementation of the Heritage Act by the OEH seeks in general to retain elements assessed as being of State significance to be retained in situ. This has the potential to quarantine portions of a site from development.

3. Sites assessed as being of local significance can be removed under permit (s139) and under archaeologically controlled conditions if warranted.

4. Sites with identified State significant items, and locally significant items removed as part of an archaeological excavation programme are usually subject to an interpretation programme. This usually takes the form of on-site interpretation of either visible remains left in situ, or interpretation win word and illustration on site.

7.2 Specific Management Recommendations

Four principal types of management for the historical archaeological resources within the study area have been prepared for the Areas (A to N) recognised in the foregoing sections of this report. These management recommendations are as follows:

1. No further requirement for physical action - information about previous uses and structures at this location should be referred to in word and illustration in any interpretation strategy that may be required as part of the site's future development.

2. The block currently occupied by 333-335 and 337-337A Church Street. Prior to any proposed development of this part of the study area a site specific assessment should be undertaken This assessment should include an accurate determination of the location of the Lennox Bridge wing wall. Any assessment of this site should include an examination of internal basement levels in relation to external ground levels. If removal of part or all of the building is to be undertaken then test excavation should be carried out to determine if significant archaeological remains survive, and if in situ conservation or salvage excavation is warranted. At the present time the degree of impact on the potential archaeological resources located within this lot cannot be determined accurately while the structure is still standing. If proposed development requires impacts below current slab level then testing should be undertaken in advance of works to determine the extent and integrity of archaeological remains. This lot was occupied by a several structures that have the potential to have associated archaeological remains that may be of State significance. Testing would enable their significance to be established and to determine if in situ retention, salvage or no further action is required.

3. Test excavation to determine if salvage excavation is warranted. Limited test excavation would be undertaken within any particular Area in order to determine the nature and extent of the archaeological resource within the zone as a whole. If the archaeological resource survives with a high degree of integrity and has the ability to provide data that cannot be obtained from any other source then a second phase of salvage excavation may be required for all or part of the zone. Resources in these zones have the potential to be of local significance.

4. Test excavation to determine if in situ conservation or salvage excavation is warranted. Limited test excavation would be undertaken in zones that have the potential to contain archaeological remains that may be of State significance. If such remains survive there may be a requirement for their retention in situ. If the integrity of these potential remains has been compromised then salvage excavation may be required if any excavation associated with development is required. Resources in these zones have the potential to be State significant.

A schedule of management options for each zone is set out below followed by a site plan showing management recommendations **Figure 3.73**.

Area	Archaeological Resources	Item number	Management Option
A	First Hospital	**1**	No physical action. Include information about the site within any interpretation strategy for the site.

Area	Archaeological Resources	Item number	Management Option
	Hut	**2**	No physical action. Include information about the site within any interpretation strategy for the site.
B	Part of 'Riverside'	**11, 12**	Test excavation to determine if salvage excavation is warranted
	Outbuilding	**21**	Test excavation to determine if salvage excavation is warranted
C	Cottage	**6**	Test excavation to determine if salvage excavation is warranted
D	Hut	**4**	Test excavation to determine if salvage excavation is warranted
E	Cottage	**9**	Test excavation to determine degree of survival - then make a determination about in situ retention or salvage
F	Shoeing forge	**28**	Test excavation to determine if salvage excavation is warranted
G	Cottage	**5**	Test excavation to determine degree of survival - then make a determination about in situ retention or salvage
	Cottage	**8**	Included in G above
	Outbuilding	**17**	Included in G above
	Privy	**15**	Included in G above
	Privy	**16**	Included in G above
H	Large shed	**26**	Specific analysis of site to determine if construction of the extant building has compromised the archaeological resource - then determine if salvage is warranted
	Unidentified 3-storey building	**47**	As for 26 above

Area	Archaeological Resources	Item number	Management Option
I	Hut	**3**	Test excavation to determine degree of survival of remains and to assess significance. This would determine if in situ retention or salvage excavation is required.
	Cottage and revetment	**7**	Included in I above
	Additions to Item 7	**10**	Included in I above
	Detached kitchen? associated with Item 7	**48**	Included in I above
	Privy associated with Item 7	**49**	Included in I above
J	Privy	**27**	Test excavation to determine if salvage excavation is warranted
K	Privy	**22**	Test excavation to determine if salvage excavation is warranted
L	Privy	**23**	Test excavation to determine if salvage excavation is warranted
M	Outbuilding	**18**	Test excavation to determine if salvage excavation is warranted
	Privy	**19**	Included in M above
	Privy	**20**	Included in M above
N	Portions of three terrace houses and associated outbuildings	**25**	Test excavation to determine if salvage excavation is warranted
	Stables?	**24**	Test excavation to determine if salvage excavation is warranted
O	Outbuilding	**13**	Test excavation to determine if salvage excavation

Area	Archaeological Resources	Item number	Management Option
			is warranted
	Privy	14	Included in O above

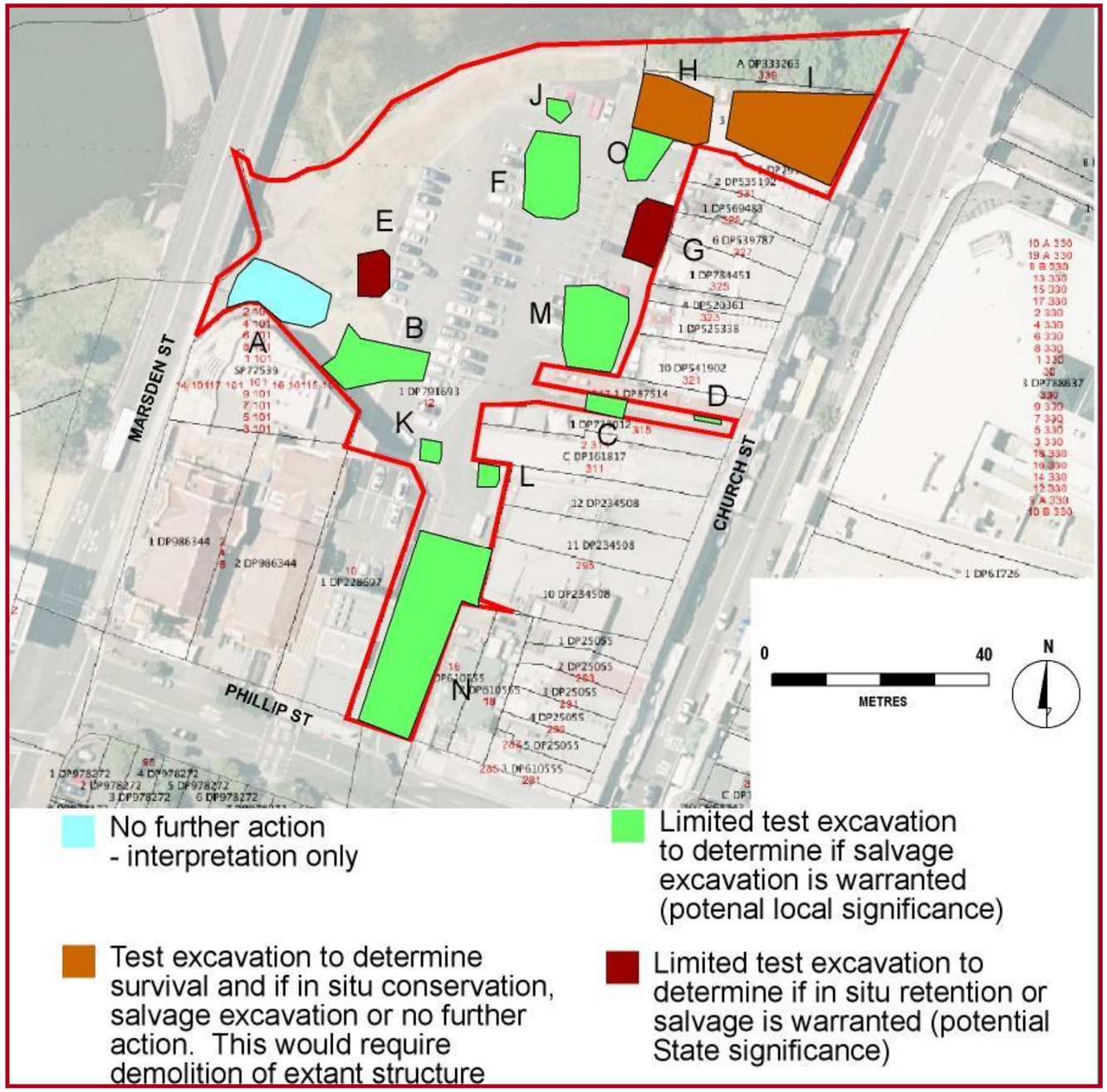


Figure 73. Management recommendations.

8. REFERENCES

AHMS 2002a, *Archaeological Assessment, Research Design & Excavation Methodology for Investigations at 101 Marsden Street Parramatta NSW*, prepared for Baulkham Hills Apartments Pty Ltd

AHMS 2002b, *101 Marden Street Parramatta NSW, Historical Archaeological Test Excavation Report and A Research Design & Excavation Methodology for Additional Investigations Proposed at the Site*, prepared for Baulkham Hills Apartments Pty Ltd

AHMS 2004, *Report on Archaeological Excavation Former St Andrews Church Site 101 Marden Street Parramatta NSW,* prepared for Baulkham Hills Apartments Pty Ltd

AHMS 2011a, *Parramatta Police Station, Parramatta, NSW. Historical Archaeological Impact Assessment and Research Design*. Report for the Heritage Office of the Office of Environment and Heritage and Gardner Wetherill Associates

AHMS 2011b, *Aboriginal & Historical Desktop Preliminary Archaeological Impact Assessment 330 Church Street, Parramatta*. Report for Meriton Apartments Pty Ltd

Archaeological Management & Consulting Group 2003, *Archaeological Excavation: 41-53 George Street, Parramatta (Draft)*, unpublished report

Attenbrow, V. 2002, *Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records*, UNSW Press, Sydney.

Baring, G. H., *Progressive Sydney as it stands today : 150 years of progress in New South Wales*, Adelaide, 1938

Brown S, K. Brown, C Liston & R Irving 1995, *Parramatta: A town caught in time, 1870*, Hale and Iremonger Pty Ltd, Sydney

Casey & Lowe Pty Ltd 2006, *Archaeological Investigation, Parramatta Children's Court cnr George & O'Connell Streets, Parramatta, Volume 1: Main Report*, for NSW Department of Commerce, on behalf of the NSW Attorney-General's Department

Casey & Lowe Pty Ltd 2005, *Extracts Preliminary Results Archaeological Investigation, Stage 1 Parramatta Hospital Site Marden and George Streets, Parramatta*, for NSW Department of Commerce

Cultural Resources Management 2008, *Excavation Progress Reports Weeks 1 6,* unpublished report

Eades, D.K. 1976, *The Dharawal and Dhurga Languages of the NSW South Coast*, Australian Institute of Aboriginal Studies, ANU, Canberra

Family History Group of the Parramatta & District Historical Society 2003, *Parramatta Pioneer Register: Settlement to 1920*, Parramatta & District Historical Society Inc

Flannery T (ed), 2000, *Two classic tales of Australian Exploration: 1788 by Watkin Tench: Life and Adventures by John Nicol*, Text Publishing, Melbourne

Freeman, Peter 1997 Church Street Parramatta : main street heritage study Streetwise Design,. Parramatta, NSW

Higginbotham E, 1994, *Report on the Archaeological Excavation of the site of the Blood Bank, Parramatta Hospital, George Street, Parramatta, NSW*, prepared for N.S.W Public Works, health Department

Higginbotham E, 1993, *Report on the Archaeological Excavations in Advance of Cable Laying on the site of the Telephone Exchange 21A George Street, Parramatta, N.S.W,* prepared for Telecom Australia

Higginbotham E, 1990, *The Babes in the Wood Parramatta. Report on the Archaeological Excavation of the Former Prospect Electricity Staff Carpark, Corner of Smith and George Streets, Parramatta, NSW, prepared for Prospect City Council*

Higginbotham E. 1987, 'The excavation of buildings in the early township of Parramatta, New South Wales', *The Australian Journal of Historical Archaeology*

Jervis, James 1961 The cradle city of Australia : a history of Parramatta, 1788-1961. Council of the City of Parramatta, Sydney

Kass, T., C. Liston & J. McClymont, 1996, *Parramatta; A Past Revealed*, Parramatta City Council

Kerr, J. S. 1984, *Design for Convicts: An account of design for convict establishments in the Australian Colonies during the transportation era*, The National Trust of Australia (NSW) and the Australian Society for Historical Archaeology

Maclehose J, 1939, *New South Wales and Port Phillip General Post Office Directory, for 1839,* Royal Australian Historical Society, Sydney

McClymont, J 2001, Pictorial History - Parramatta and District, McPherson's printing Group, Sydney

McCormick, Tim 1987 First views of Australia 1788-1825 : a history of early Sydney David Ell Press, Sydney

Mitchell P. 2008, *Nature and distribution of Parramatta Terrace Sand*, prepared for Parramatta City Council

Phillips, H 1928. Historic Parramatta: the cradle of Australia. Willoughby.

Rosen, Sue 2003, *Government House Parramatta 1788-2000: a history of the Governors, their home and its domain, Parramatta Park,* Sydney: Caroline Simpson

Ryan, R. J. 1974, *Land Grants 1788-1809*, Australian Documents Library, Sydney

Sainty M. & K. Johnson 1985, *Census of New South Wales: November 1828*, Library of Australian History

Thorp, W 1989, Archival Investigation and Archaeological Assessment, Rivercentre Site, Parramatta, Rivercentre Pty Ltd, Sydney

Wharton, J. C. (ed). 1911. The Jubilee History of Parramatta : in commemoration of the first half-century of municipal government, 1861-1911, T.D Little and R.S Richardson Parramatta

9. ATTACHMENT 1 - COMPARATIVE ARCHAEOLOGICAL CONTEXT

Preamble

Parramatta is one of the most intensively studied historical archaeological landscapes within NSW and Australia. This landscape is significant because the scale of potential survival of eighteenth and nineteenth century archaeological remains in Parramatta is rare within Australia.

Within the past two decades, numerous archaeological excavations have been undertaken within the general vicinity of the study area. These have included small scale test and salvage excavations as well as large scale salvage excavations across sites the size of quarter city blocks. Historical archaeological excavations undertaken within Parramatta have revealed remains associated with the convict beginnings of the town, through to remains of early twentieth century occupation.

The significance of the results of archaeological investigations within Parramatta has been found to differ between sites as well as between occupation phases within single sites. Generally, heritage assessments and archaeological investigations in Parramatta have identified that remains associated with the early historic period (i.e. c1788-1840) are of greater significance than those of later occupation phases (i.e. 1840-1958). This is related in part to the ability of the remains of early historic occupation to provide information, through archaeological investigation, that is not available from other sources such as historical documents. It is also related to the association of many of the early historic remains with convicts and the convict system in NSW which has been identified as a significant State research theme.

Consultancy reports and academic articles describing the results of archaeological excavation within the general vicinity of the site (see **Figure 3.74**) have been reviewed and are discussed below. This discussion aims to identify the types of archaeological remains found on these sites, and the significant results of these investigations. It provides a comparative archaeological framework that, together with the site history (**Section 3**) and physical analysis of the site (**Section 4**), forms the basis for a discussion of the sites potential to contain relics.

Archaeological remains associated with convict settlement of Parramatta c1790-1840

During the 1980s and 1990s archaeological investigations in Parramatta included several excavations of the remains of late eighteenth century and early nineteenth century convict huts (c1790-1810). These sites were situated on George Street, and displayed some broad similarities in integrity and survival of archaeological deposits. The first of these excavations was undertaken in 1985 at the Law Court Site at the northeast corner of O'Connell and George Streets.[42] Investigation of this site revealed disturbed artefact rich occupation deposits together with structural remains of a c1792 convict hut (Figure 3.75).

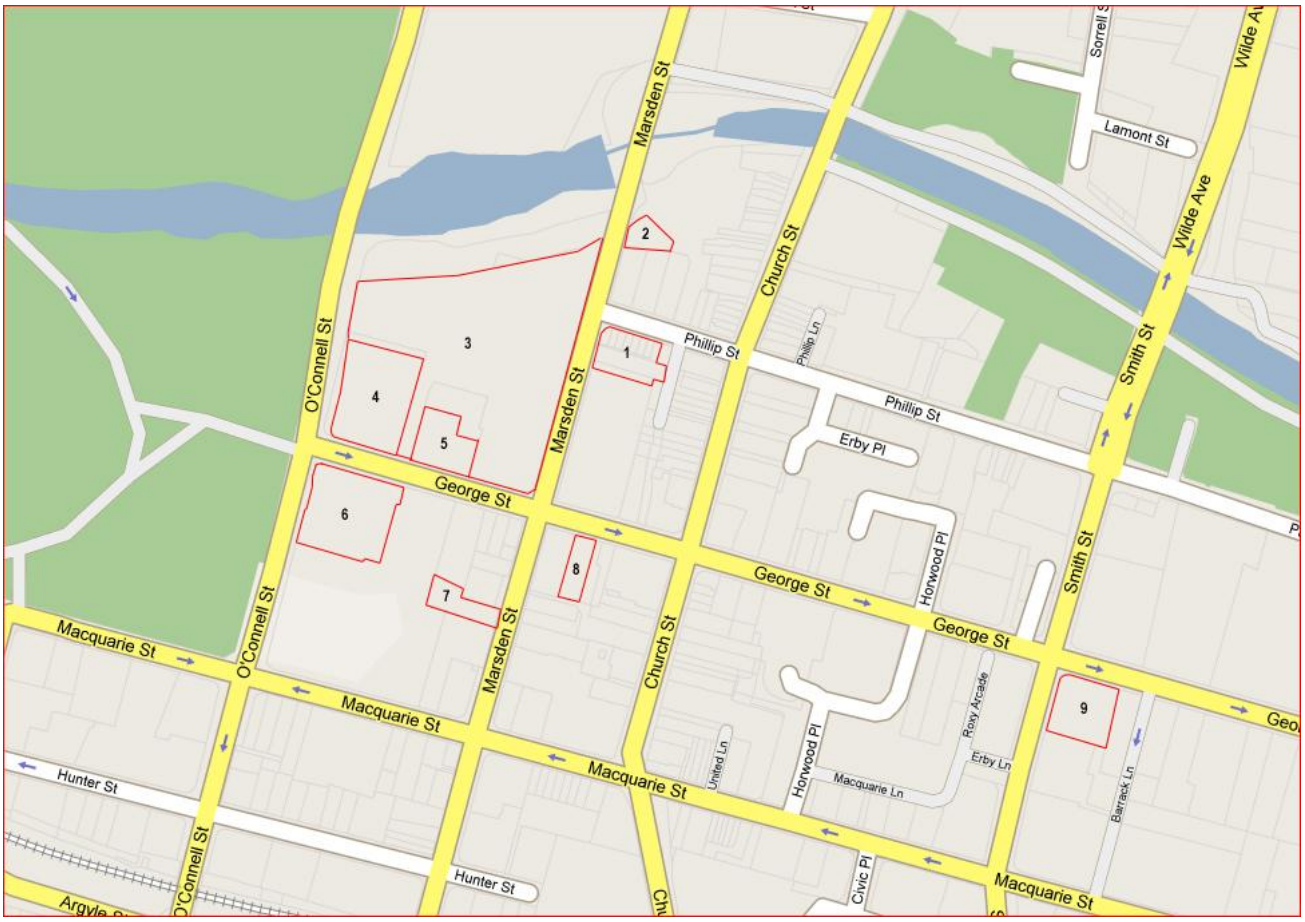


Figure 74. Map showing general locations of previous archaeological excavations undertaken in the vicinity of the site (indicated by 1). The sites discussed below include: 101 Marsden Street (2); the Parramatta Justice Precinct (3); the Children's Court Site 4); the Blood Bank Site (5); The Parramatta Law Courts (6); 150 Marsden Street (7); 21 George Street (8); and, The Babes in the Woods, Corner of George and Smith Streets (9). (Base map: http://maps.google.com.au).

[42] Higginbotham 1987: 3

Disturbed topsoil deposits at the site contained artefacts associated with late Eighteenth and early nineteenth century occupation as well as artefacts from later periods of occupation. These disturbed topsoil deposits had the greatest volume and variety of artefacts recovered from the site.

Remains of the convict hut were found following removal of disturbed topsoils to the level of the underlying clay subsoil. [43] The structural remains of the c1792 convict hut consisted of a series of post holes and grey clay daub that were found within 2 metres of the predicted location of the building.[44] Excavation at the site also revealed the remains of a second building that was not indicated on historical plans. This building was interpreted as the remains of a wooden outbuilding or enclosure, possibly associated with small-scale agriculture or raising of livestock on the allotment during occupation of the site between c1792-1810.[45]

[43] Ibid: 7
[44] Ibid: 11
[45] Higginbotham 1987: 12

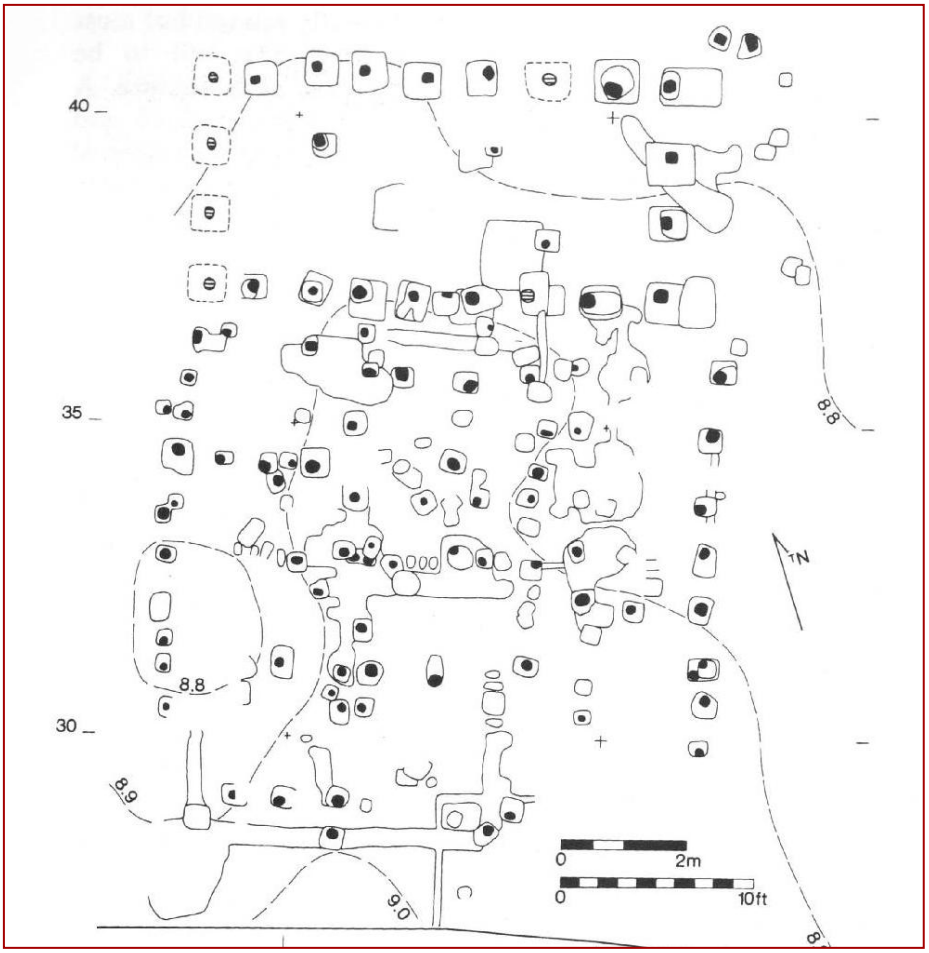


Figure 75. Simplified site plan indicating structural remains of a convict hut and second undocumented structure to the south. The remains of the hut consist of the large sub-square to rectangular post holes at the north of the plan. Evidence of the second structure consisted of the smaller, post holes indicated across the southern half of the plan (From Higginbotham 1985: 8).

Small numbers of artefacts associated with c1790 – 1810 occupation of the site were retrieved from sealed deposits such as post-hole fills.[46] A range of artefacts were recovered from these deposits, including early ceramic building materials, smoking pipes, bottle and window glass and ceramic. One of the most important aspects of the archaeological assemblage recovered from the site was the presence of earthenware ceramics probably of local origin and possibly amongst the earliest Australian made ceramics.[47] In addition to artefacts of European manufacture, Aboriginal objects were also identified within soil deposits at the site.[48]

[46] Higginbotham 1987: 9
[47] Higginbotham 1987: 10
[48] Higginbotham 1987: 11

Low artefact volumes and few artefacts types in the first decade of occupation (c1790-1804) were interpreted as reflecting the meagre existence of the convict inhabitants at the site. An apparent increase in the number and variety of artefacts present at the site in association with the construction of the second building c1804-c1810 have been interpreted as a transition from convict occupation to occupation by free persons.[49]

One of the most important findings of this early investigation was that despite subsequent urban development of the site, remains of the convict huts survived at the site. A significant conclusion stemming from the excavation was the recognition that it was important to excavate other examples of convict huts in order to establish a pattern of design and construction. This investigation also raised a number of significant questions regarding the early occupation of Parramatta related to the possible transition of occupation and use of these buildings from convicts to free persons.

In 1989 archaeological excavation at the corner of George and Smith Street (**Figure 3.74**) revealed significant archaeological remains associated with c1792-1830 occupation of Parramatta. Excavation at this site revealed remains of a convict hut similar to those previously identified at the corner of George and O'Connell Streets. In addition to the remains of the hut, which consisted of post holes, undocumented remains of 1792-1810 occupation of the site included barrel pits and cellars, which together with the artefact assemblage recovered from this site, suggest that during the eighteenth and early nineteenth centuries the occupants of the site had established a small scale dairy. Remains associated with the dairy were not indicated on historic plans, which generally indicated low density occupation in Parramatta between c1792-1810. The information that was recovered through the investigation of the remains of the convict hut and the dairy was considered to be significant because it demonstrated a higher occupation density and different land uses at the site to those indicated by historical records.

Excavations at 21a George Street in 1992 revealed evidence of a convict hut consisting of post holes, which based on the results of the excavation were spaced further apart than in other excavated examples. While this spacing of post holes may suggest variation in the method of construction of the convict hut the size and location of trenching during the excavation meant that only part of the former hut was revealed. Therefore it is possible that the distribution of post holes revealed during the excavation may have resulted as much from the positioning of trenches during the excavation rather than an actual distribution of postholes.

Undocumented remains associated with early nineteenth century Occupation c1800- c1830 were also found 21a George Street. They consisted of an unlined well and its backfill which was largely demolition material and artefacts consistent with occupation of the site during the convict period c1788-1840's. Among these artefacts were nails probably of a type only

[49] Higginbotham 1987

available only from the 1820s onwards. Similar nails were also found in post hole fills of the convict hut suggesting that the this building may have been in use for nearly thirty years before it was demolished. This was considered to be an important result of the excavation as it questioned previous ideas regarding the length of use of this type of building in Parramatta.

Excavations undertaken at the blood bank site on George Street in 1993 revealed the remains of a convict hut and an addition to the original building. Historical evidence indicated that the hut was constructed in the 1790s however based on the archaeological evidence it is not clear if the addition was a later improvement or if the structures were contemporary. The structural remains revealed at this site were considered to be unusual when compared to evidence from previously excavated examples, as there was evidence of at least four stages of repair culminating in the establishment of two rubble footing walls and probably to support a timber frame for weatherboarding.

The archaeological remains revealed during this excavation have been interpreted as providing evidence of an improvement in building techniques with a move away from wattle and daub to weatherboard cladding, with some stone foundation walls. This structural evidence suggests variation in the usage of this hut for which there is little historical information. The artefact assemblage recovered from this site has also been interpreted as indicating evidence for skilled labour, literacy and the presence of children at the site.[50]

Archaeological test excavation undertaken in 2002 at 101 Marsden Street (**Figure 3.74**) to the north of the former St Andrews Church revealed the truncated remains of a convict hut.[51] These remains largely consisted of post holes excavated into deep alluvial sands near to the Parramatta River. The test investigation found that although these remains were associated with State significant historical occupation they were ephemeral in nature, were set within a soil matrix that was friable and prone to subsidence and were limited in their extent when compared to other similar sites in Parramatta. The remains were therefore not considered appropriate for *in situ* retention and it was therefore recommended that salvage excavation was undertaken prior to development of that land.

Archaeological excavations undertaken in 2005 during the Parramatta Justice Precinct development revealed remains of a convict hut, located on the west side of Marsden Street. Remains of the hut were similar to those identified by earlier excavations, consisting of post holes and grey clay daub. Remains of a sandstock brick chimney associated with the convict hut were also identified (**Figure 3.76**) during the excavation of the site. Excavations of other convict huts in Parramatta have not revealed the remains of chimneys. The stratigraphy revealed by excavation at this site was broadly similar to that

[50] Higginbotham 1994: 129
[51] AHMS 2002

at the Parramatta Law Courts site with the structural remains of the hut only visible after the removal of a disturbed artefact rich soil profile. In addition to the structural remains of the convict hut the archaeological investigation revealed evidence of early nineteenth century agricultural activity in the form of hoe marks cut into the subsoil.

The purpose of the investigation of the remains of the convict hut within the Justice Precinct site was to confirm their location so that detailed design plans that allowed for the retention of the relics *in situ* could be prepared. Despite the limited scope of the excavation, some significant historical information relating to the convict occupation of the site was revealed by the investigation. Artefacts associated with bone button manufacture were recovered, indicating that the site was being utilised for small scale domestic industry (**Figure 3.77**). Such manufacture of bone buttons had not previously been identified at other excavated archaeological sites or within historical documentation of convict occupation of huts in Parramatta.



Figure 76. Remains of a brick fireplace from a convict hut revealed by excavation during the Parramatta Justice precinct Development. These remains were recorded and left in situ. (Casey & Lowe 2005: 30)



Figure 77. Evidence of bone button manufacture associated with occupation of the convict hut within the Justice Precinct site. The artefact pictured is a bone "waster" (Casey & Lowe 2005: 32).

Excavation at the Justice Precinct also revealed archaeological evidence of extensive nineteenth century occupation. These included remains of the 1818 colonial hospital, surgeon's residence and ancillary hospital structures, such as kitchens, laundries, and privies. Information regarding the landscape surrounding the hospital was also revealed, including remains of the sandstone boundary wall and gardens. These remains were considered to be State significant for their association with convict beginnings, the transition to the established township of Parramatta in the 1840s, and the development and changing role of the hospital site within this developing town.[52]

In 2001 archaeological test excavation was undertaken at the Children's Court site (see **Figure 3.74**) to confirm a model of potential archaeology provide certainty regarding the location of the remains of convict huts predicted to survive within the site. Following the test excavation, the location of the huts was identified, within an Archaeological Management Plan prepared for the site, as an area that should be conserved in perpetuity.[53] Due to the early identification of the conservation zone it was possible, to plan for the *in situ* retention of the remains of the convict huts during the Children's Court Development. These remains are now preserved below the Children's Court Building constructed at the site in 2005.[54]

Archaeological salvage excavations undertaken at 150 Marsden Street, in 2008 revealed evidence of occupation of the site during the early convict period. There was no historical evidence to suggest that development of this site had occurred during this period however archaeological investigation revealed the remains of an undocumented drainage ditch within the site. This ditch has been interpreted as being related to a series of public work

[52] Casey and Lowe 2005; Casey and Lowe 2006
[53] Casey & Lowe 2006
[54] Casey & Lowe 2006

programmes undertaken in Parramatta in the 1790s.[55] The ditch drain was later modified with a large circular hole dug across it presumably to collect water. Remains of a sandstone box drain that was probably associated with the construction of Marsden Street in c1811 were also revealed by excavation of this site. It is likely that this drain was also constructed by convicts. While this evidence does not provide information regarding the domestic lives of convict occupants in Parramatta it does provide important information regarding the extent and nature of public works undertaken by the colonists during this period.

Historical plans indicate that by c.1820 at least one building had been constructed on the land at 150 Marsden Street. Archaeological excavation at the site revealed remains of a wooden building in the centre of the site dating to c1810-1820. Remains of this building consisted of stone rubble footings that supported timber posts. The building was divided into two rooms by a central wall and was on the same orientation as Marsden Street. Foundations for a single fireplace were revealed and the floor was sealed with compacted grey clay. Evidence of two later additions to the building was also revealed by the excavation. Remains of these additions consisted of post holes and slab "ghosts" or imprints from slab walls. Excavation also revealed a brick lined well and an underground "cool room" that were established during the occupation of the c1820 house. Drains constructed during the occupation of the cottage were linked to the large c1811 Marsden Street drain. Given that the excavation was undertaken in 2008 artefact analysis and detailed interpretation of the results and significance of these excavations were not available for consideration during the preparation of this report.

[55] Cultural Resources Management 2008



Figure 78. View of 150 Marsden Street during excavation. Footings of c1810-1822 Building and associated well are visible (Cultural Resources Management 2008).

Archaeological remains associated with the development of the Town of Parramatta c1840-1900

Substantial archaeological remains associated with c1840-1900 occupation were often also revealed at the sites discussed above. These remains were often not indicated on historical plans and in several instances they have provided evidence of undocumented activities and occupation.

At the Children's Court site archaeological remains associated with c1830 - 1880 and c1840-1865 occupation were recorded, and excavated and then removed. These remains included an 1830s timber and masonry house, robbed walls, floors, cellars and drains associated with the Emu Brewery, together with various artefact deposits. These remains were significant for their association with emancipated convicts who were successful in their transition to free life. Interpretations of the results of the archaeological investigation with reference to evidence from elsewhere in Parramatta suggests that the rural convict origins of Parramatta were fleeting and the town quickly established itself as a commercial and mercantile centre.[56]

[56] Casey and Lowe 2006

The remains of a substantial c1837 house were revealed by excavation at the Blood Bank site Sandstone footings demonstrating the floor plan of this building were recorded and details of an extension at the rear of the house were also revealed. A low frequency of artefacts directly associated with occupation of this building was identified during the excavation, suggesting that either the flooring or the behaviour of the occupants limited the accumulation of material in the subfloor space. Humic topsoils to the west of the house contained a higher frequency of artefacts associated with this occupation however these deposits were not excavated because they survived below the basement floor level of the proposed new Blood Bank building. Other structures and features that were not predicted by historical research included a well and partially completed building, interpreted as an aborted building program.[57]

At 21a George Street remains of a cottage constructed at the site in c1836 were revealed by excavation. Details of the construction of this building were recorded, including its layout as well as details of construction. Sandstock brick footings with sandstone capping found were interpreted as probably being related to economising on the use of stone and/or to hide shoddy workmanship. The building had front and back verandas, front and back rooms and probably a central hall. A series of out buildings associated with the occupation of the cottage were also identified. These included timber skillion sheds, and a brick shed or outdoor toilet. Information gained from the archaeological investigation of these remains was considered to be of some significance however the focus of the investigation and reporting was the State significant convict remains discussed above. Remains of early to mid twentieth century buildings revealed by these excavations were also recorded and described however they were of minimal archaeological significance and therefore they were not discussed at length.[58]

At 150 Marsden Street extensive remains of c1849-1900 occupation was revealed. Historical documentation indicated that there was a substantial change in the configuration of buildings on the site in c1849 when ownership of the land changed. Archaeological evidence supports this observation. Remains of a brick building probably dating to c1849 were revealed during the excavation. The main wing of the building consisted of four rooms each with a fireplace. A stone lined cellar was revealed by excavation in the southern most of the two front rooms. A second wing consisting of three rooms was revealed adjacent to the northern site boundary. There were also several undocumented stone box drains associated with this phase of occupation at the site.

[57] Higginbotham 1994
[58] Higginbotham 1992

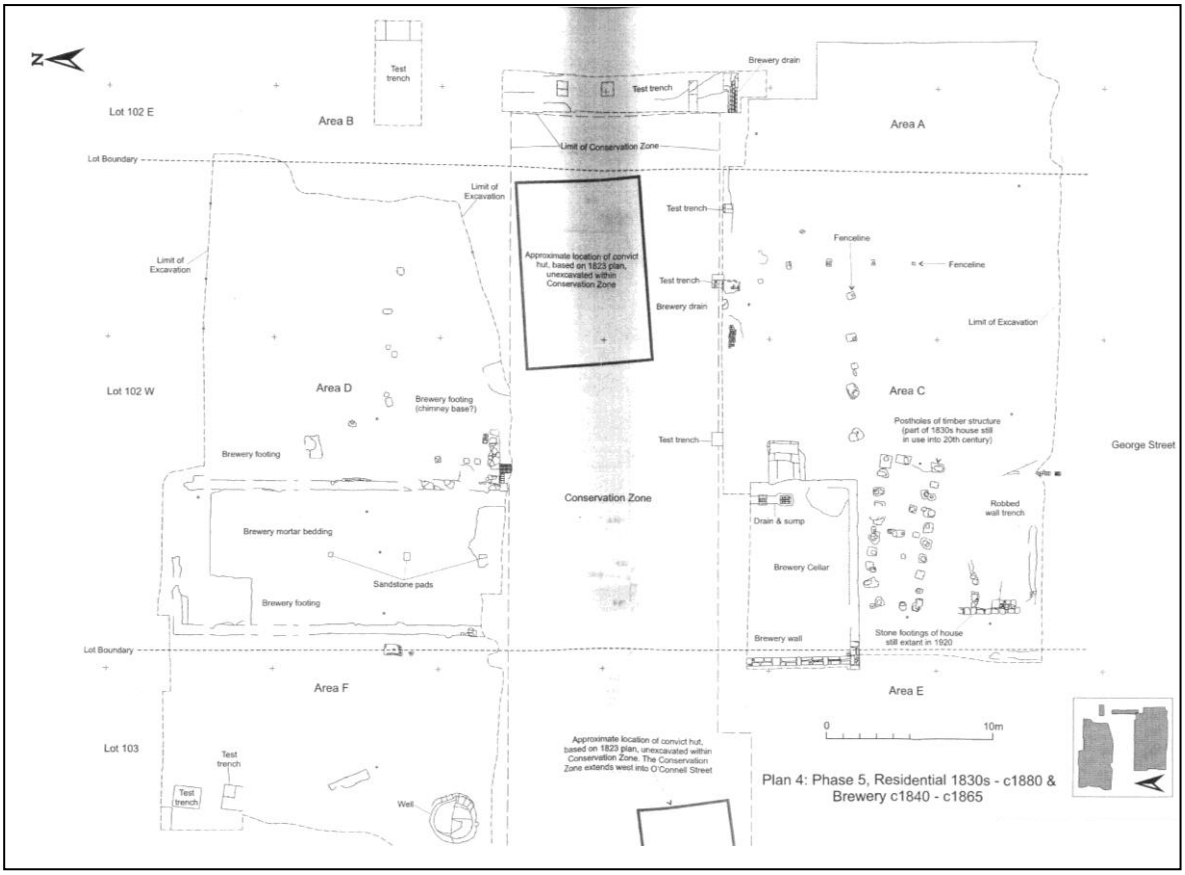


Figure 79. Plan of archaeological remains excavated at the Children's Court site (Casey and Lowe 2006).

Summary

Remains associated with early convict occupation of Parramatta were revealed by excavations at all of the sites discussed above. In each of these locations the remains have been found to be largely intact despite several phases of subsequent development. At every site discussed above excavations revealed archaeological evidence of buildings, infrastructure or activities that were not indicated by historical records. Details of construction techniques of convict huts have been identified and variations in the size and layout of these buildings have been found to occur between sites. Where analysis of artefact assemblages has occurred it has contributed to understanding the history of the individual sites and Parramatta. Through a combination of analysis of artefact assemblages and structural analysis interpretations regarding changes in the demographic of the occupants or at least their legal situation in regard to being convict or free have been made.

Although a significant number of archaeological investigations of sites with early convict period remains have now been undertaken in Parramatta, the value of the information that can be gained from investigations of such remains continues to be high. This is due to several factors, the first being the general absence of historical records relating to the occupation of Parramatta and NSW during this period; the second is the unique nature (or rarity) of the information gained from each site investigated.

Analysis and interpretation of the results of these excavations has often been limited in nature and the full research potential of these archaeological sites has only been partially realised. In particular comparative archaeological analysis and interpretation of the excavated remains and the original interpretation of the excavation results has the potential to provide a more complex and detailed understanding of development and occupation of Parramatta during the early convict period. The creation of detailed site records and artefact assemblages should allow for further exploration of research themes associated with these sites.

At all of the sites described above the remains associated with early convict occupation (c.1788-1822) represented only the first phase of occupation. At several of the sites there were other significant early- to mid- nineteenth century remains (c.1822-1872) that were also investigated. These remains have often been found to be more extensive than historical plans indicate. Archaeological investigations of these types of remains in Parramatta have been able to contribute to an understanding of the development of specific sites and the town. Several of the sites discussed above continued to be occupied by emancipated convicts and information generated from the archaeological investigation of these sites has been able to enrich the story of their lives and their transition from convicts to free persons.

Some of the sites discussed above also had substantial remains of late nineteenth century (c.1870-1900) and early twentieth century occupation. Generally archaeological remains from this period are considered to be less significant than those associated with eighteenth or early- to mid-nineteenth century occupation. This is because intact examples of late nineteenth century remains are more common, and there is much more detailed historical information regarding this period of occupation in Parramatta and NSW generally. Therefore information generated by archaeological investigation of remains of this period is generally of less value than that gained from investigation of earlier periods of occupation

Part 4 - Built and Landscape Heritage Considerations and Advice

1. INTRODUCTION

The subject site includes one built heritage item – a two storey shop at 333 Church Street that is included in Schedule 5 '*Environmental Heritage*' of the *Parramatta City Centre Local Environmental Plan 2007* (the LEP). The subject site is not known to have any other landscape or built heritage values or features, however, it is adjacent to several heritage items included in the LEP and is in the immediate vicinity of two places included on the NSW State Heritage Register. It is also close to, and within a historical view-line of, an item included on the National and World Heritage Lists (Old Government House and Public Domain at Parramatta Park).

This Part of the report reviews the built heritage significance of 333 Church Street in the light of further information about its history and fabric. It also identifies heritage considerations that should be taken into consideration during the design of any new building at the subject site, including views and lines of sight of heritage value that could potentially be adversely impacted by inappropriate building envelopes, set-backs and heights at the subject site. The considerations include a summary of key applicable heritage statutes such as the NSW *Heritage Act 1977*, the *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act), the LEP and its associated Development Control Plan (the DCP). Relevant considerations from the *Parramatta Park Conservation and Management Plan* (CMP) by Parramatta Park Trust 2007 and the *Management Plan for the Old Government House and Domain, Parramatta Park* by the National Trust of Australia (NSW) and the Parramatta Park Trust (MP) 2008 are also noted.

As the CMP and MP each post-date the LEP and DCP, many of the heritage values and recommendations in each Plan are yet to be included or reflected in updated planning instruments and DCPs. The implications of this are discussed as specific issues related to the Old Government House and Domain, Parramatta Park.

Information about the heritage values and significance of places discussed in this section has been primarily taken from information available in the NSW State Heritage Inventory. Other specific sources are referenced where applicable.

Historic heritage items within and in the vicinity of the subject site were identified in Table 1 in Part 1 of this report. **Table 1** is reproduced below, and the locations of the majority of items listed are illustrated in **Figure 4.1**.

The following Sections of this report consider the range of heritage items and other elements within and in the vicinity of the subject site and identify the planning context and statutory requirements associated with each. These items are considered in the order of their legislative priority, from the Commonwealth to the Local level.

Table 1: Historic Heritage items within the study area (highlighted in yellow) and in the vicinity of the study area (highlighted in blue)

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
1	Old Government House and the Government Domain /Parramatta Park and Old Government House						
2	Kings School Group (former) listing Marsden Rehabilitation Centre Group listing (Identical cadastral information)						
3	Marsden Rehabilitation Centre listing: - Dining Hall						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
	- Kitchen & Servants Quarters -Landscape (identical cadastral information, also part of Listing 2 location)						
4	Lennox Bridge						
5	Sandstone and brick wall (286 (rear), 288 and 290 Church Street)						
6	Former ANZ bank and potential archaeological site (306 Church Street (corner of Phillip Street))						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
7	Parramatta hospital archaeological site						
8	Brislington property, Moreton Bay fig tree and potential archaeological site 10 George Street (corner of Marsden Street)						
9	Parramatta Dam archaeological site weir Marsden Street						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
10	Former St Andrew's Uniting Church, hall and potential archaeological site						
11	Shop, office and potential archaeological site (279 Church Street)						
12	Shop (281 Church Street)						
13	Shop (287 Church Street)						
14	Shop (289 Church Street)						
15	Shop (291 Church Street)						
16	Shop (293 Church Street)						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	Item Name /Description	World Heritage List	National Heritage List	Commonwealth Heritage List	State Heritage Register	Section 170 Conservation Register	Parramatta City Centre Local Environmental Plan 2007
17	Shop (311-315 Church Street)						
18	Shop (317 Church Street)						
19	Shop (321 Church Street)						
20	Archaeological/ terrestrial (323 Church Street)						
21	Shop (325 and 327 Church Street)						
22	Archaeological/ terrestrial (329 Church Street)						
23	Archaeological/ terrestrial (331 Church Street)						
24	Archaeological/ terrestrial (331A						

		Environmental Protection and Biodiversity Act 1999			Heritage Act 1977		Local Planning Instruments
ID	**Item Name /Description**	**World Heritage List**	**National Heritage List**	**Commonwealth Heritage List**	**State Heritage Register**	**Section 170 Conservation Register**	**Parramatta City Centre Local Environmental Plan 2007**
	Church Street)						
25	Shop (333 Church Street)						
26	Shop (339 Church Street)						

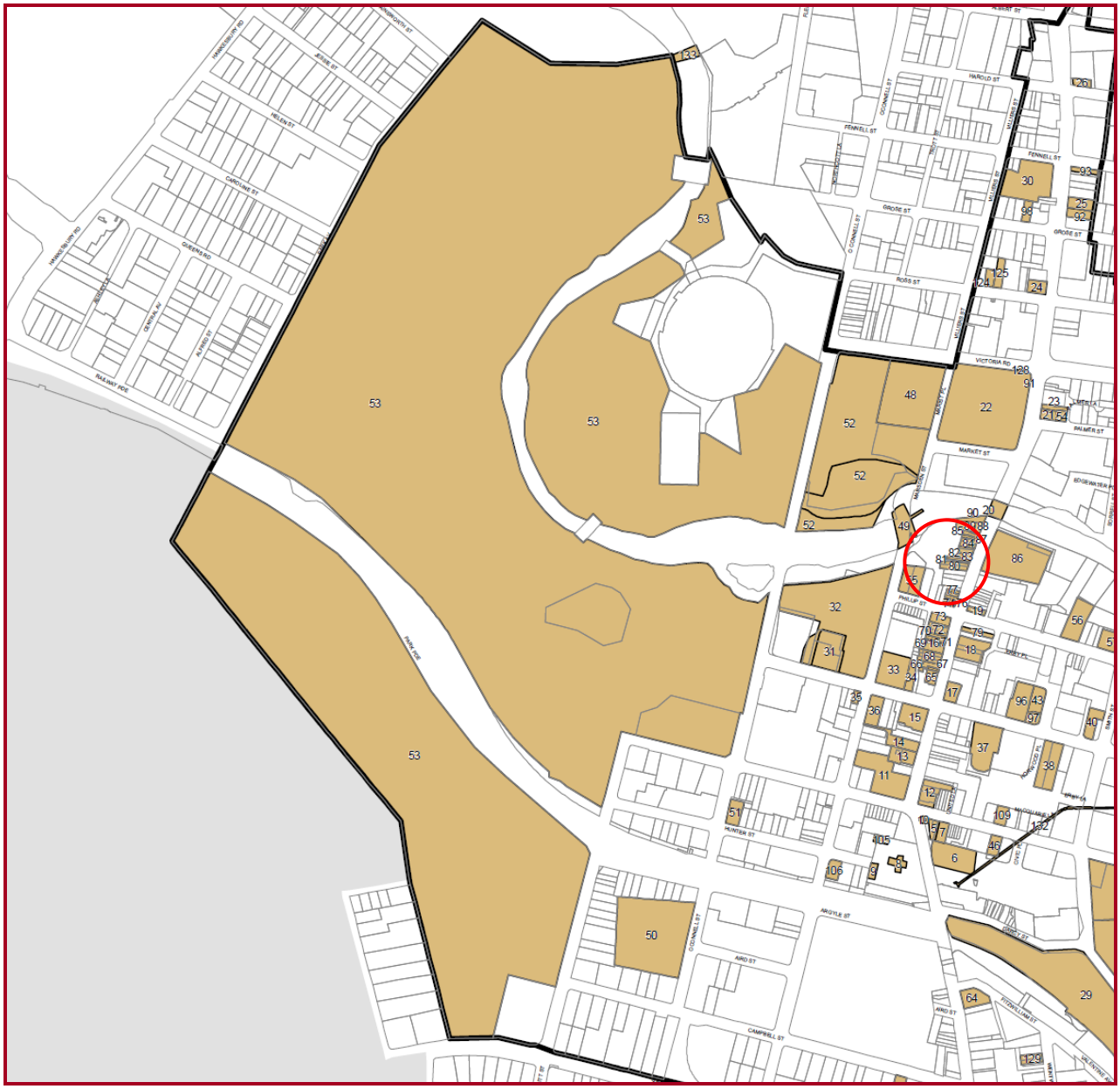


Figure 1. Figure showing heritage listed items (shaded) in the area around the subject site (circled) (Source: Heritage Map, PCCLEP 2007)

2. HERITAGE CONSIDERATIONS

2.1 Views to and From Old Government House and the Government Domain, Parramatta Park, and Lennox Bridge

2.1.1 Heritage Values

Old Government House and the Government Domain, Parramatta Park, is west of the subject site at some 600m distance. It has broad reaching and multiple heritage values and is of World, National, State and local heritage significance. It is best practice and, in some instances, a statutory requirement to consider its heritage values when planning new development in certain parts of Parramatta.

The *Parramatta Park Conservation and Management Plan* (CMP) by Parramatta Park Trust 2007 and the *Management Plan for the Old Government House and Domain, Parramatta Park* by the National Trust of Australia (NSW) and the Parramatta Park Trust (MP) 2008, were developed to provide information about the heritage values of Old Government House and the Government Domain, Parramatta Park, to outline opportunities and constraints for managing the place and to provide conservation and management policies. The CMP notes that a key view of heritage value extends from the Park to Kings School and Lennox Bridge. Lennox Bridge is adjacent to the north and eastern boundaries of the subject site and the view to Lennox Bridge passes through and encompasses the subject site. Similarly, Section 8 of the MP, that establishes policies for managing the park, includes a policy for retaining vistas from Old Government House to the east and north (8.2.1). These include views and vistas to the former Kings School and to Lennox Bridge.

Section 10 of the MP provides more information about important views and vistas that are outside the heritage curtilage and buffer area of Old Government House and the Government Domain, Parramatta Park. Section 10 notes that:

> *Important views from Old Government House over the broader Domain (now forming Parramatta Park) are contained within the buffer zone emphasising the command and control function of Old Government House and Domain and consistent with historical records such as maps and plans, illustrations and paintings. Longer and more extensive views extend from the Domain and*

beyond the Buffer Area eastwards along the Parramatta River to Lennox Bridge, westwards and southwards to Mays Hill, the highest point in Parramatta Park. There are reciprocal views back from these positions to the Domain and Government House within the buffer zone. There is also an occasional vista from the eastern edges of the property along several key streets of the Parramatta CBD, that are also contained within the buffer zone.

Figure 4.2 shows the significant view lines within Parramatta Park from the MP and **Figure 4.3** indicates the viewlines from Old Government House to the former Kings School and Lennox Bridge, as described in the CMP and MP.

2.1.2 Statutory Considerations

1. World and National Heritage Lists and the Commonwealth Environment Protection Biodiversity Conservation Act 1999 (EPBC Act)

Old Government House and the Government Domain, O'Connell Street, Parramatta, is one of a group of eleven places included in the Australian Convict Sites listing on the World Heritage List (WHL). It is also included on the National Heritage List (NHL). The World Heritage List and National Heritage List adopt the site boundaries gazetted when the site was listed in the NSW State Heritage Register, under the title Parramatta Park and Old Government House, in April, 1999.

Places in Australia on the WHL and the NHL are protected at a Commonwealth level through the EPBC Act (and usually also through relevant State and local statutes). Approval under the EPBC Act is required for any action occurring within or outside a place on the WHL or NHL that has, will have, or is likely to have, a significant impact on the World and/or National Heritage values of the place. This is explained in detail in the *Matters of National Environmental Significance - Significant Impact Guidelines 1.1* (Commonwealth of Australia, 1999) that notes that such actions include the construction of buildings or other structures within, adjacent to, or within important sight lines of, a World or National Heritage property.

Construction at the subject site would be within, and impact upon, the important line of sight between Old Government House and the Government Domain and Lennox Bridge, as identified in the MP. To have a significant impact on World Heritage or National Heritage values, it is not necessary for an action to impact upon the whole of a property, all of the values of a property or a whole value of a property. It is sufficient if an action is likely to have a significant impact on a part, element or

feature of a World or National Heritage property, that embodies, manifests, shows, or contributes to the values of that property.

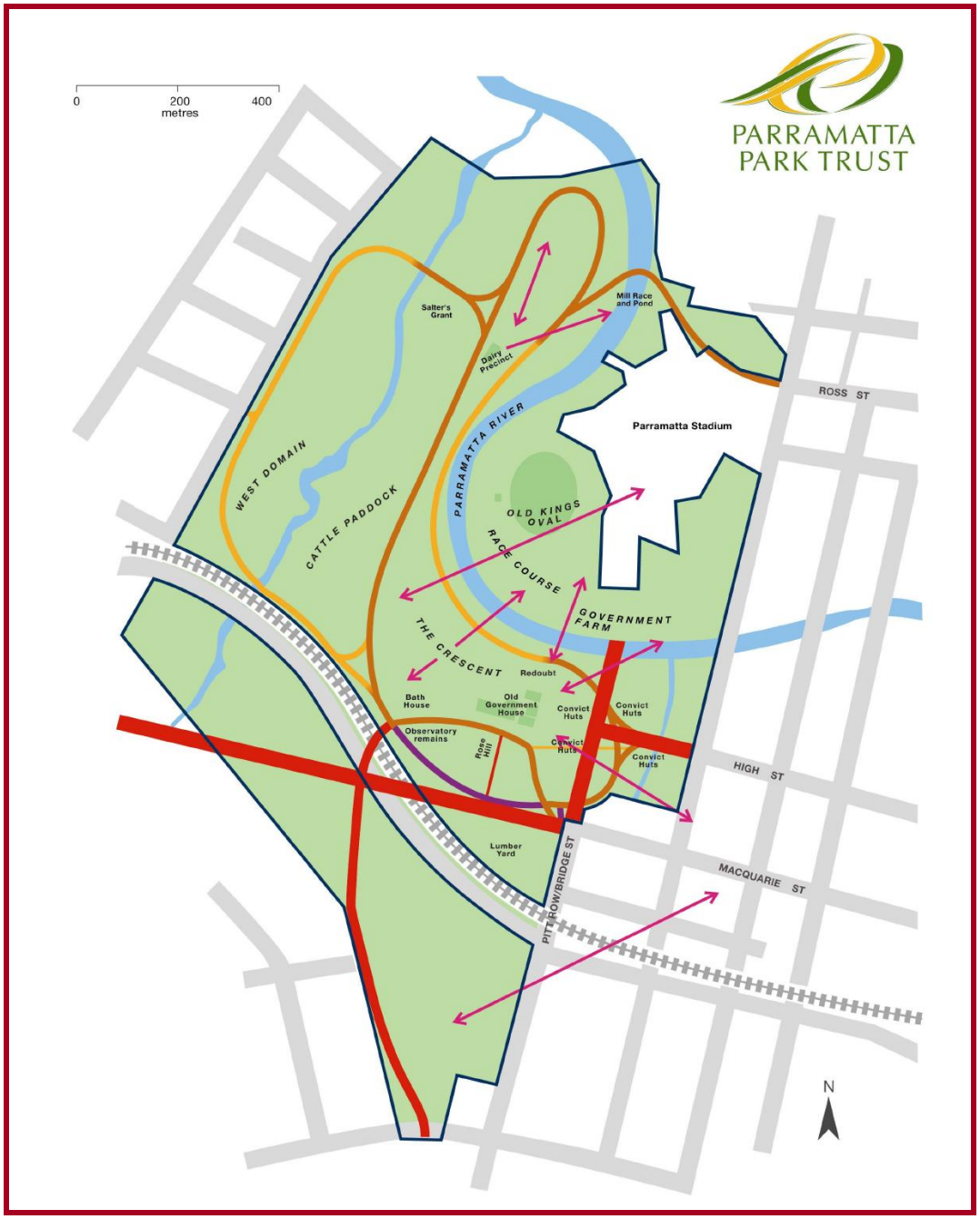


Figure 2. Layout of Parramatta Park and Old Government House showing some of the significant view lines (pink), former colonial roads (red) and carriageways (brown and yellow). (Source: Figure 2, Old Government House and Domain, Parramatta Park, Management Plan 2008)

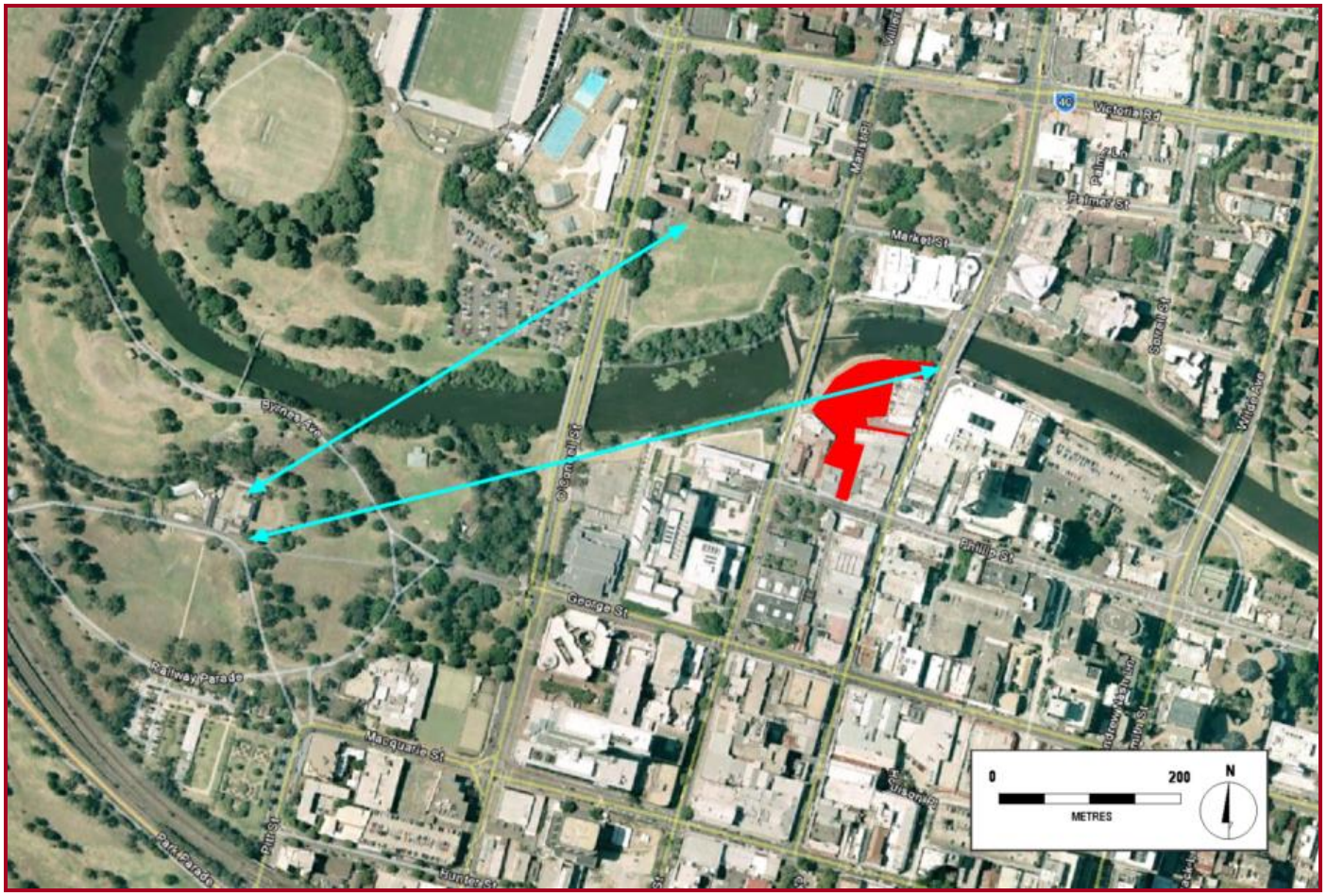


Figure 3. AHMS' interpretation of the view lines from Old Government House based on the text in the Old Government House and Parramatta Park CMP. The view lines from Old Government House to the former Kings School and Lennox Bridge are shown in blue and the subject site is shown in red (Base map: Google Earth Pro 2011)

2. Heritage Act 1977 (NSW)

Parramatta Park and Old Government House are included on the State Heritage Register (SHR) and the Heritage and Conservation (Section 170) Register of the Parramatta Park Trust of NSW (S170), both established under the *Heritage Act 1977*. The SHR citation notes that:

The location of Old Government House was chosen for the expansive views commanded. The garden design augmented the setting to form an aesthetically significant landscape and aspect. The effect created is striking, originally to enforce the status of the Governor over the convicts and free settlers inhabiting the township below - a conscious recreation of an English working manorial estate.

Unlike the EPBC Act, there are no provisions in the Heritage Act that require approvals under the Heritage Act for actions or proposals outside the boundary of a place on the SHR that will have, or are likely to have, a significant impact on the State heritage values of that place. There are, however, applicable heritage guidelines that contemplate these circumstances and their consideration is implemented largely through development consent provisions and considerations in State and local planning instruments and DCPs (this is discussed below).

3. Parramatta City Centre Local Environmental Plan 2007 (LEP) and *Parramatta City Centre Development Control Plan 2007* (DCP)

Parramatta Regional Park, O'Connell Street, is listed in Schedule 5 (Environmental Heritage) of the LEP and mirrors the area listed as Parramatta Park and Old Government House in the SHR, NHL and WHL. It is also an identified as a Special Area in the DCP and Appendix 2 of the DCP identifies, amongst other things, historic views to and from Parramatta Regional Park. One of the stated aims of the LEP (Clause 2 (2)(j)), is *to respect, enhance and interpret the role of Parramatta Park and its historic views and setting as an important cultural and natural focus and link to all parts of the Parramatta City Centre*. Various other clauses in the LEP refer to requirements to preserve the historic views identified in the DCP (Clause 21 – Height of Buildings (1))(g)) and 35A – Historic View Corridors).

It is noted that the historic view corridors from Parramatta Regional Park illustrated in the DCP include views and vistas to the Kings School but not the Lennox Bridge, that relate to the subject site (see Figure 4). This may be because the DCP precedes the development of the CMP and the MP, where the vistas and view-lines to Lennox Bridge were identified.

A stated objective of the Heritage Conservation clauses of the LEP, as set out in (Clause 35(1)(b)), is "*to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, layout, settings and views*". Clause 35(4) requires that the consent authority may require a heritage impact assessment to be prepared before granting consent to any development on land:

(a) on which a heritage item is situated, or

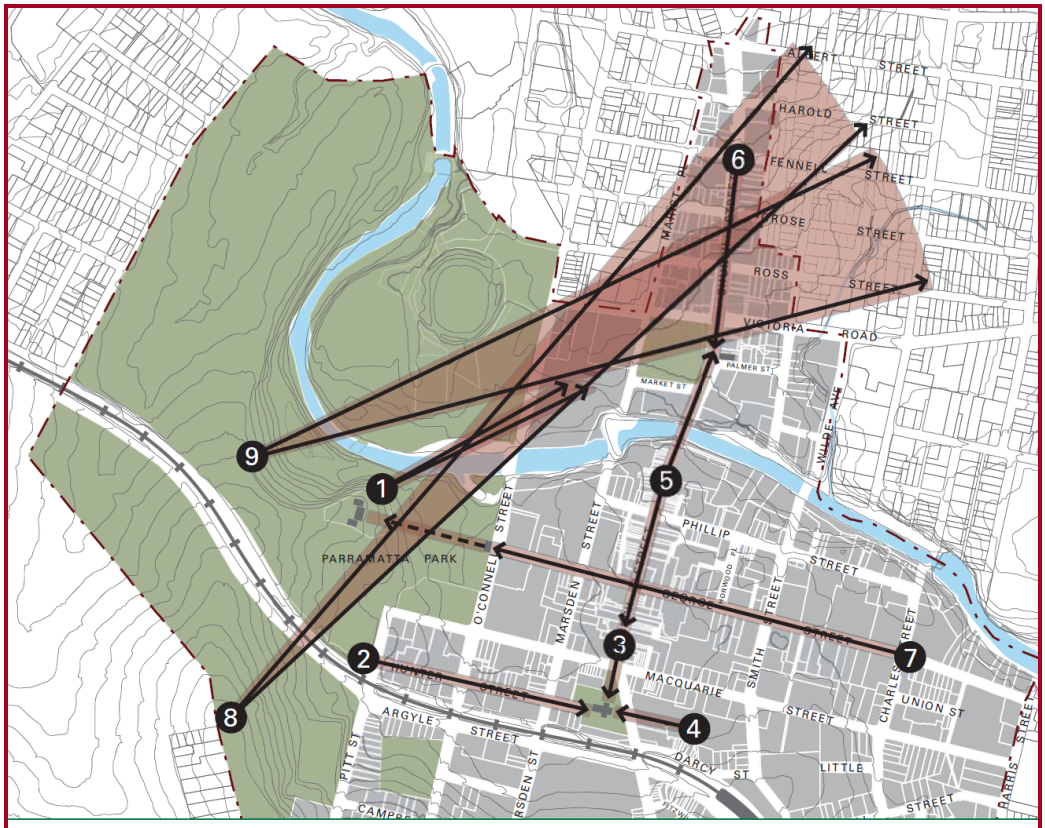
(b) within a heritage conservation area, or

(c) within the vicinity of land referred to in paragraph (a) or (b).

The LEP does not include a definition of 'vicinity', however, it is commonly understood to mean nearby, or the surrounding area or district.

Given the above requirements of the LEP, design development for the subject site should take into account the heritage values of Parramatta Regional Park, including Old Government House. It is likely that a Statement of Heritage Impact that includes an assessment of the heritage impacts of any proposed development at the subject site on heritage items in its vicinity, including views from Parramatta Regional Park and Old Government House, will be required as part of any Development Application package for the subject site.

The Statement of Heritage Impact should include an assessment under the EPBC Act and recommend any referrals under that Act that may be warranted.



Identified View	Significance
1. Old Government House view northeast to the river, Old King's School building and site of former Government farm.	Key historic view demonstrating the relationship between the Governor, early Government farm and major school institution. Setting of both heritage items.
2. Views east to St John's along Hunter Street, available back to Parramatta Regional Park.	Hunter Street framed view to St John's church.
3. Views to St Johns church and square from north	Historic main street approach to city centre and St John's historic church and other heritage items in view.
4. Views west, from eastern side of square, mall, Civic Place and Town Hall.	Backdrop/setting of church. Views to church and spires.
5. Views north and south along Church Street, including view of ANZ Dome and heritage buildings, St John's Church spires to the south and St Peter's church.	Historic main street and approach to city. A number of heritage buildings.
6. Approach to Parramatta south along Church Street from Fennell Street, sequential views.	Historic main street and approach. Relatively consistent scale and setback of streetscape.
7. Views along George Street to Parramatta Park gatehouse and trees.	Key historic street approach to the park. City edge of park, framing views to gatehouse, trees and Old Government House (not now visible), views of streetscape, heritage items.
8. View from Marys Hill across Parramatta's City Centre to distant hills.	Key historic viewing point from the highest part of the Parramatta Park with best views of the city in the river valley, glimpses to hills behind the city between buildings.
9. View from The Crescent to the distant hills	Key historic viewing point from the ridge of The Crescent to glimpses of distant hills between buildings.

Figure 4. Parramatta City Council Development Control Plan 2007 Historic Views (Source: Appendix 2, PCCDCP 2007)

2.1.3 Issues

- Current zoning and development standards for the subject site in the LEP provide for an 80m plus building with a 6:001 Floor Space ratio. The LEP and the DCP also include various clauses that aim to respect and enhance heritage views between Parramatta Park and Parramatta City Centre.

- There is a key identified heritage vista and view between Old Government House in Parramatta Regional Park and Lennox Bridge. The key view-line passes through and encompasses the subject site.

- The key heritage view and vista was identified in Conservation and Management documents that post-date the LEP and the DCP, and that were, in part, developed to inform and support the inclusion of the Old Government House and the Government Domain site on the World and National Heritage Lists.

- It appears that the LEP and the DCP have not been amended with regard to the applicable Conservation and Management planning documents for Old Government House and the Government Domain, or its inclusion on the World and National Heritage lists.

- Development of the subject site to the highest and best land use indicated in the zoning and development standards of the LEP is likely to result in building envelopes, set-backs and heights at the subject site that would adversely affect the identified key vista and view between Old Government House and Lennox Bridge.

- In turn, this could trigger requirements to consider whether the proposed development (an action) at the subject site should be referred to the Australian Government Environment Minister under the Commonwealth EPBC Act, to determine whether the action would be a significant impact on the World and National heritage values of the place.

- If the Minister determines that development (an action) at the subject site would be a significant impact, assessment and approval of the proposed development under the EPBC Act would be required, as well as any State and Local statutory heritage considerations and approvals processes that may also apply.

2.2 The Kings School Group (former), Marist Place, Parramatta and its broader setting and views to and from Parramatta City Centre

2.2.1 Heritage Values

The site of the former King's School, Parramatta is located in Marist Place, across the Parramatta River to the north-west of the subject site at a distance of about 600m. The site is very important in the history of education in the state and was occupied as a school almost continuously from 1836 to 1964. It was the first large private boarding school run by the Anglican Church to provide secondary education in the colony of New South Wales. Many buildings at the site are the work of prominent Australian architects and its foreshore lands to the river are of heritage significance. The major landscape significance of the site is the spatial relationship between the buildings at the site and the river. The setback of the buildings demonstrates the principle of picturesque siting, giving the building group a 'prospect'. This layout greatly contributes to the understanding of the early development of Parramatta as an important centre in the Colony and the attitudes to particular landscape settings.

The most significant views towards the former Kings School site are those obtained from the Parramatta River, with other minor views from O'Connell Street, Marist Place and the Marsden Street bridge.

The broader external setting of The Kings School Group (former), Marist Place Parramatta is not a currently identified heritage value, nor are views to and from the place that encompass, or are to or from, or through, the subject site. Inspections undertaken for this assessment, however, indicate that an 80m plus high building at the subject would alter and truncate current views from the buildings and grounds of the former Kings School site to the retail and commercial centre of Parramatta.



Figure 5. Photograph from the foreshore lands of the former Kings School looking east to Marist Place



Figure 6. Photograph from the foreshore lands of the former Kings School looking south east towards the Marsden Street bridge and weir

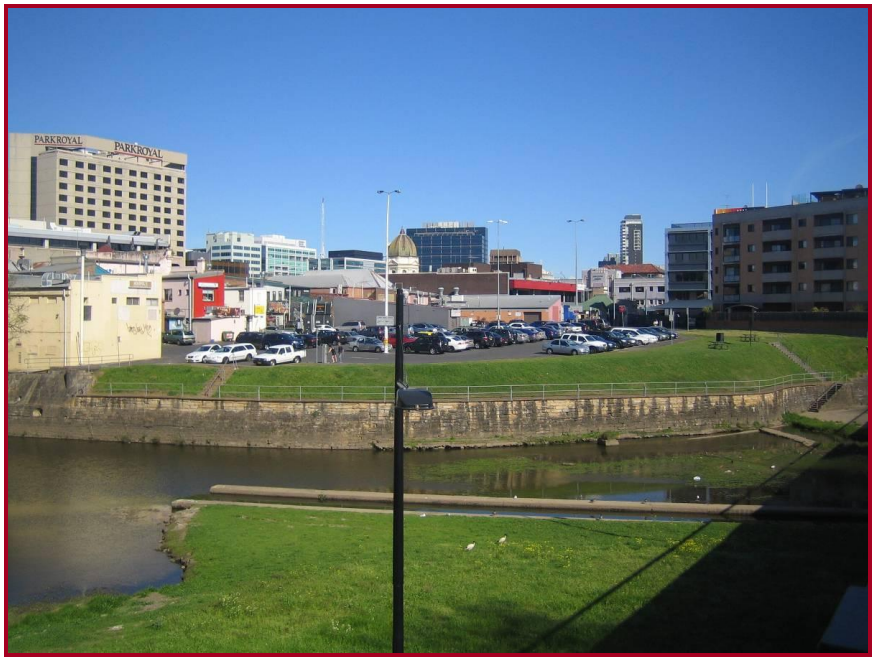


Figure 7. Photograph from the north river bank looking south to the subject site, (showing the Lennox Bridge car park and part of rear of 333 Church Street (to the left).



Figure 8. Close-up view from the north river bank looking south to the subject site, (showing the Lennox Bridge car park and part of rear of 333 Church Street (to the left).



Figure 9. Photograph of Parramatta Riverside Centre (background), part of the subject site visible to the left and part of Marsden Street Weir and archaeological site visible at the centre. Image taken from Marsden Street Bridge looking north east.

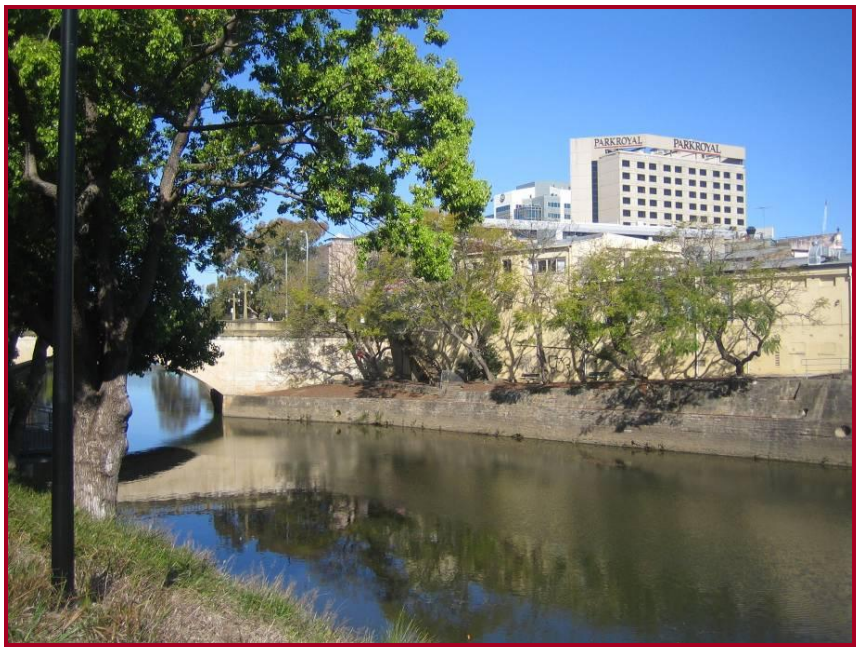


Figure 10. Photograph from the north side of Parramatta River looking towards part of the subject site (333 Church Street (right)) and part of the Lennox Bridge (left)

2.2.2 Statutory Considerations

1. Heritage Act 1977

The Kings School Group (former) or Marsden Rehabilitation Centre, Marist Place Parramatta, is included on the SHR and in the Section 170 Register of the NSW Department of Health, both established under the *Heritage Act 1977* (see **Table 1**). There are no provisions in the Heritage Act that require approvals under the Heritage Act for actions or proposals outside the boundary of a place on the SHR that will have, or are likely to have a significant impact on the State heritage values of that place.

While the subject site may be within the broader, now urban, setting of the former Kings School site at Marist Place, and an 80m plus new building at the subject site may truncate or alter current views to Parramatta from the former Kings School site, the view is not specifically noted as a heritage value in the SHR citation for the Kings School Group (former). Consequently, there is no statutory or other specific requirement or trigger to consider them during the design development of a proposed new building at the subject site, or during any development consent consideration of a proposed new development at the subject site. Notwithstanding this statutory position, the possible urban amenity and heritage value of those views should be further assessed and, if warranted, taken into account during the design of any new building at the subject site.

2. Parramatta City Centre Local Environmental Plan 2007 (LEP) and *Parramatta City Centre Development Control Plan 2007* (DCP)

The Kings School Group (former) is part of the broader heritage listing for the Marsden Rehabilitation Centre and potential archaeological site at 24 O'Connell Street, included as Item 52 in Schedule 5 (Heritage) of the LEP. An objective of the Heritage Conservation clauses of the LEP, as set out in Clause (35(1)(b), is to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, layout, settings and views. Clause 35(4) requires that the consent authority may require a heritage impact statement to be prepared before granting consent to any development on land:

(a) on which a heritage item is situated, or

(b) within a heritage conservation area, or

(c) within the vicinity of land referred to in paragraph (a) or (b),

The LEP does not include a definition of 'vicinity', however, it is commonly understood to mean nearby, or surrounding area or district.

Given the above requirements of the LEP and the proximity of the subject site to Kings School Group (former), design development for the subject site should take into account the heritage values of the Kings School Group, including views and lines of sight not necessarily currently identified. It is likely that a heritage impact statement, that includes an assessment of the heritage impacts of any proposed development at the subject site on heritage items in its vicinity, will also be required as part of any Development Application package for the subject site.

2.3 Lennox Bridge – Potential Heritage Impacts

2.3.1 Heritage Values

Lennox Bridge is directly adjacent to, and its abutments may exist partially under, 333 Church Street, that is the eastern-most allotment of the subject site. The Lennox Bridge was constructed between 1836 and 1839 and was designed by (and named for) David Lennox, then NSW Superintendant of Bridges for the Colony. It is one of the earliest surviving bridges in NSW and Australia and remains largely intact, though it was widened in the 1930s by the addition of a reinforced concrete structure to its western side. Lennox Bridge is one of Parramatta's most important historic structures and one of the earliest bridges in New South Wales and Australia. Its heritage importance lies in its historical and technological/scientific significance, its rarity value and its scenic and aesthetic qualities.



Figure 11. Photograph of the Lennox Bridge taken from the north side of Parramatta River looking south east.



Figure 12. Photograph of part of the Lennox Bridge and part of the subject site (333 Church Street) taken from the north side of Parramatta river looking south.



Figure 13. Photograph of part of the Lennox Bridge and part of the subject site (333 Church Street) taken from the north side of Parramatta river looking south east.

2.3.2 Statutory Considerations

1. Heritage Act

Lennox Bridge and portions of its northern and southern abutments are included on the SHR and in the Section 170 Register of the Roads and Traffic Authority of NSW, both established under the *Heritage Act 1977*.

Approval by Heritage Council of NSW under Section 63 of the Heritage Act, as well as the approval of the RTA (as owner of Lennox Bridge and as authority responsible for managing its heritage values), will be required to undertake any works associated with the development of the subject site that would occur within the SHR and/or S.170 curtilages of Lennox Bridge.

A detailed heritage impact assessment (Statement of Heritage Impact - SOHI) would be required to accompany any application under Section 60 of the Heritage Act to impact upon the Lennox Bridge. The application would require the support and approval of the RTA as land owner as primary manager of the Bridge's heritage values.

The SOHI should clearly indicate and justify works that would affect the fabric of the bridge as they would have some adverse heritage impact. The SOHI should also include considerations of the impact of any proposed new development form at the subject site (building height and envelopes, land uses, set-backs, view truncation, overshadowing etc) on the setting and views associated with Lennox Bridge.

While the extent and form of the proposed development at the subject site has not yet been defined, it is also understood that a continuous riverside pedestrian and cycleway along the southern bank of Parramatta River, east and west of the bridge, is being considered and this would require some penetration of the southern bridge abutment. The pedestrian and cycleway would continue west along the northern boundary of the subject site, including land adjacent to, and/or within, 333 Church Street.

Given any proposal to penetrate or alter the fabric of Lennox Bridge is likely to have an adverse heritage impact, early pre-Section 60 application engagement with the Heritage Branch, Department of Environment and Heritage (OEH) and the RTA is recommended.

It is anticipated that any land owner's approval (RTA) and approval under the Heritage Act to permanently affect the fabric of Lennox Bridge will be difficult to

obtain and justify. Design options that do not include penetrating or affecting the fabric or setting of the bridge should be explored and preferred wherever possible.

2. *Parramatta City Centre Local Environmental Plan 2007* (LEP) and *Parramatta City Centre Development Control Plan 20079* (DCP)

Lennox Bridge is included as Item 20 in the Heritage Schedule (5) of the LEP. An objective of the Heritage Conservation clauses of the LEP, as set out in Clause (35(1)(b), is to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, layout, settings and views. Clause 35(4) requires that the consent authority may require a heritage impact statement to be prepared before granting consent to any development on land:

(a) on which a heritage item is situated, or

(b) within a heritage conservation area, or

(c) within the vicinity of land referred to in paragraph (a) or (b),

Given the above requirements of the LEP, design development for the subject site should take into account the heritage values of Lennox Bridge, including its setting and views and lines of sight not necessarily currently identified. Any proposal to impact upon the fabric of the bridge should be carefully considered and adverse impacts minimised and clearly justified in any heritage impact statement that may be required.

Given any proposal to penetrate or alter fabric of Lennox Bridge is likely to have an adverse heritage impact, pre-DA engagement with Council (or development assessment consultant should this task be delegated or outsourced for probity reasons), is recommended.

2.4 Adjacent and Nearby Heritage Items of Local Heritage Significance – Potential Heritage Impacts

2.4.1 Heritage Values and Statutory Considerations

Heritage items listed in Schedule 5 of the LEP (but which are not included on the SHR, WHL or NHL) in the immediate vicinity of the subject site (which itself includes the heritage item 333 Church Street), are concentrated along Church Street, with a few on the adjacent Phillip Street and Marsden Street. They include:

- Church Street – Nos. 281, 287, 289 , 291, 293, 306 (which is noted as state significant on Schedule 5 but is not on the State Heritage Register (SHR)), 311-315, 317, 321, 323, 325, 329,330 (for which a recent approval includes its demolition), 331, 331A, 335, 339, 349 (adjacent to) & 351, rear of 286, 288 & 290 (a sandstone and brick wall noted as being of state significance in the LEP but which is not on the SHR).

- Phillip Street – No. 2 (Willow Grove & potential archaeological site noted as being of state significance in the LEP but not included on the SHR).

- Marsden Street – Parramatta Dam and archaeological site weir (noted as being of state significance in the LEP but which is not on the SHR).

Heritage items and places listed in Schedule 5 of the LEP (but which are not included on the SHR, WHL or NHL) within the wider context of the subject site that could be affected by its development include:

- Parramatta Hospital and Archaeological site, 4 George Street (noted as state significant in the LEP but not included on the SHR).

- Brislington Property, Moreton Bay Fig tree and potential archaeological site, 10 George Street (noted as state significant in the LEP but not on the SHR).

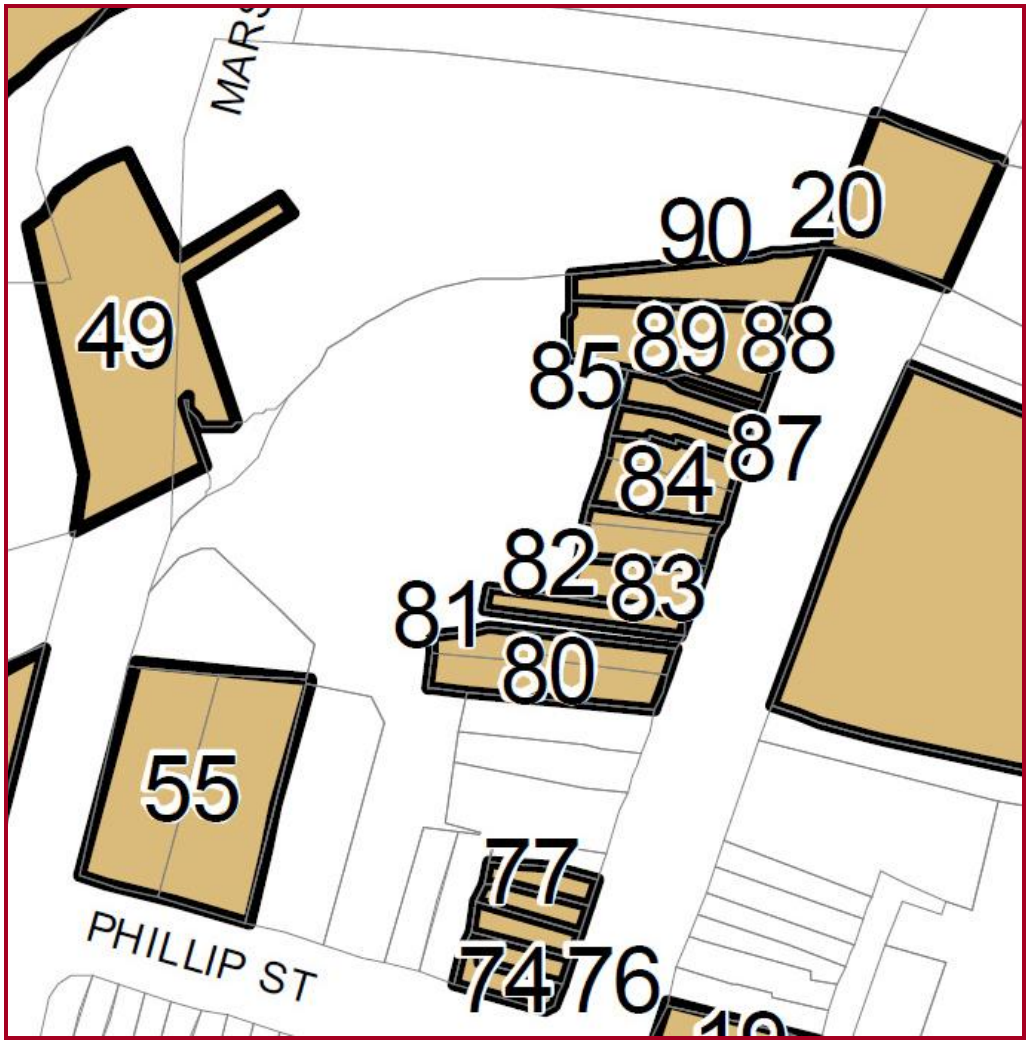


Figure 14. Detail of LEP Heritage Map showing some of the items listed in Section 2.4.1 (Source: PCCLEP 2007)



Figure 15. View of several heritage items located adjacent to or in the vicinity of the subject site on Church Street. Photograph taken from 330 Church Street looking south west.



Figure 16. Photograph of the distinctive cupola of the former ANZ Bank building on the corner of Church and Phillip Streets looking south east along Church Street.



Figure 17. Photograph of the rear of some of the heritage items adjacent to or in the vicinity of the subject site, looking east.

The above indicates that the subject site includes a listed heritage item and is directly adjacent to, and in the vicinity of, many heritage items and places of primarily local heritage significance (though some are listed in the LEP as having State significance although not included on the SHR). This is in addition to being nearby or adjacent to the places included on the World, National and State heritage lists previously discussed.

While development at the subject site would not affect any locally listed item directly, other than 333 Church Street, consideration needs to be given to the impact of the development on the significance and setting of those heritage items likely to be indirectly affected.

Some local heritage and urban design considerations that should be taken into account during design development and in any SOHI for the proposed development at the subject site should include:

- Current views and vistas from heritage listed places in the vicinity of the subject site that may be affected by its development;

- The effect of the likely building envelope, height and set-back on the setting and amenity of adjacent heritage items;

- Current views and vistas to the City Centre from the northern side of the river and the Marsden Street Bridge that currently incorporate the distinctive cupola of the former ANZ Bank building on the Corner of Church and Phillip Streets;

- The effect of any new development on the business and trading viability of the adjacent heritage properties. Trading and business viability is an important part of maintaining and ensuring the conservation of a heritage item;

- The interface and boundary treatments of the new development with the rear of properties facing Church Street which back onto the subject site (a proposed service buffer to those properties will be from the existing Phillip Street entrance); and

- The possibility of dual stacked frontages for the Church Street heritage items to activate and include them as part of the new development and assist with increased permeability, activity/vibrancy and surveillance.

2.5 No. 333 Church Street - Heritage Significance and Potential Impacts

2.5.1 Heritage Listing Clarification

Number 333 Church Street is included on the heritage schedule of the LEP as an item of local heritage significance. Analysis of the land and structures included in the Lot and DP for that listing address, however, indicates that there is an inconsistency or confusion between the LEP map, the LEP schedule and cadastral and street address information.

The LEP Schedule 5 listing information for 333 Church Street indicates that it a shop and its cadastral information is Lot 3, DP 825045. Its heritage item number in the Schedule is 89. A cross-check of the current buildings in Lot 3, DP 825045 indicate that Lot 3, DP 825045 also includes numbers 335 (the northern half of the 333 building) and 337A and 337 Church Street (sometimes called Shop 2, 333 Church Street). There are

actually two separate structures on that single title, each structure of which is divided into two or more, further units, which also have individual street addresses.

None of the street addresses in Lot 3, DP 825045, other than 333, are named in the LEP.

To further complicate this inconsistency, the LEP map gives the impression that item 88 (an archaeological site) is also located on Lot 3, DP 825045, which is incorrect. The Schedule indicates that Item 88 is on Lot 2, DP 791693, which is adjacent to 333 Church Street to the south.

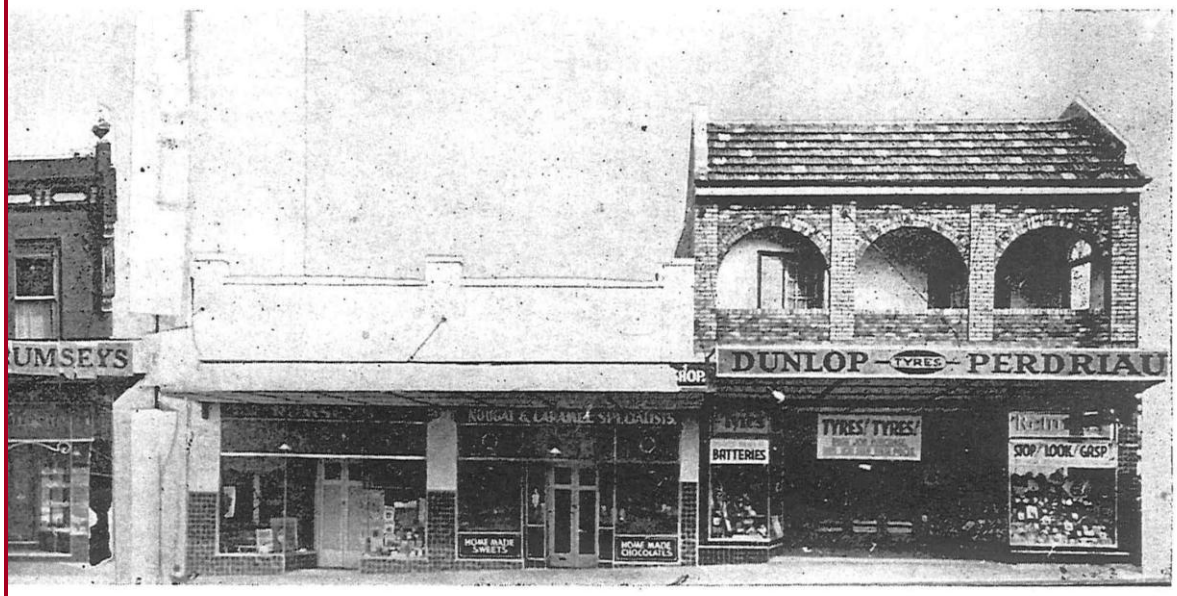
A further confusion is caused by what appears to be the incorrect numbering, listing and mapping of the building which is 337A and 337 Church Street and which is within Lot 3, DP 825045. Review indicates that 337A and 337 Church Street, a two-storey shop consisting of several sub-premises, may actually be Item 90 in the LEP, which is described as a shop. The LEP map, however, places Item 90 on land adjacent to the river directly north and adjacent to 337A and 337, which has been vacant since the 1950s. The Schedule gives Item 90 the Street address of 339 Church Street, Lot A, DP 333263.

2.5.2 Heritage Values

Notwithstanding the listing confusions above, the subject site includes Lot 3, DP 825045, which includes two buildings numbered 333/335 and 337A/337 Church Street. Both buildings were built following the widening of Lennox Bridge to the west between 1935 and 1938. Neither appears in the 1935 construction photographs of the bridge widening but they do appear in photographs by 1938.



Figure 18. Photograph of '333 Church Street' including building numbered 333/335 to the left and building numbered 337A/337 Church Street on the right, looking west.



RUMSEY'S, Growers and Importers of Best Strains of Vegetable and Flower Seeds, 219 Church Street, Parramatta. Box 74.

F. E. MALING, the Cheapest Tyre and Accessory House in the State, UW 8213; next Historic Lennon Bridge, Church Street, Parramatta.

SEE ADVT. ABOVE.

Figure 19. Photograph showing 333-337 Church Street Parramatta in 1938. Note the Art Deco façade has not yet been constructed on the building to the left (Source: Baring, G. H., Progressive Sydney as it stands today : 150 years of progress in New South Wales, Adelaide, 1938)



Figure 20. Photograph of Church Street taken sometime during the 1940s looking south. 333-337A Church Street is located to the right with the 'Dunlop' signage, indicated by a red arrow (Source: SLNSW Parramatta, Church Street Government Printing Office 1 – 22965).

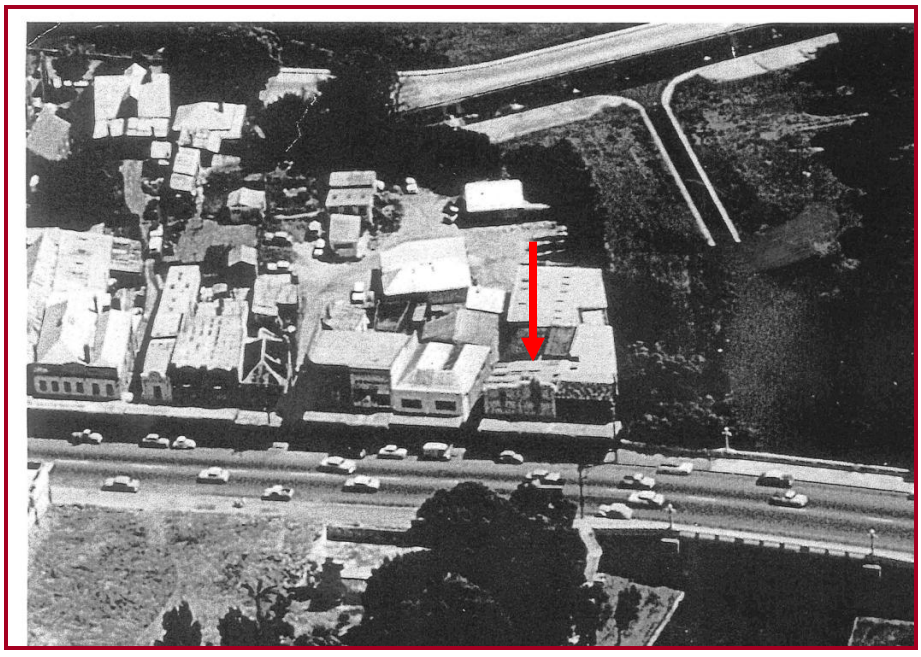


Figure 21. Part of an oblique aerial taken in c.1961 with a red arrow indicating the location of 333-337 Church Street (Source: Parramatta Heritage Centre).

333/335 Church Street was built originally as a single storey shop with the upper floor and Art Deco façade added between 1943 and 1946, based on photographic evidence (see Part 3 - Historical Archaeological Assessment). This construction history suggests its heritage value as a local example of Art Deco may be misleading and that its heritage listing based on those values may not be warranted. The Art Deco façade addition occurred much later than the Art Deco period and is a relatively poor example of its type.

It appears that the building with the street addresses of 337 and 337A was constructed with two storeys to Church Street, with basement and sub-basement storage areas to its rear. It has a an interwar upper storey facade that appears tacked-on to the main structure as an attempt to square-off an otherwise irregular boundary to the street. Partial access to the structure was obtained for this assessment, which revealed that it contained multiple small storage rooms and had been modified extensively in the past.

Neither 333/335 or 337/337A Church Street appear to be of such heritage significance that their loss and replacement with public open space, other uses or structures in sympathy with the form, height, bulk and appearance of other nearby retail and commercial heritage items, would irreparably diminish the heritage value of Church Street and the Parramatta city centre.

2.5.3 Statutory Considerations

Lot 3, DP 825045 is included on Schedule 5 of the LEP and the LEP maps as containing 333 Church Street, a shop of heritage significance listed primarily because of its Art Deco facade, especially its upper storey facade. Lot 3, DP 825045 also includes 335 and 337/337A Church Street.

An objective of the Heritage Conservation clauses of the LEP, as set out in Clause (35(1)(b), is to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, layout, settings and views. Clause 35(4) requires that the consent authority may require a heritage impact statement to be prepared before granting consent to any development on land:

(a) on which a heritage item is situated, or

(b) within a heritage conservation area, or

(c) within the vicinity of land referred to in paragraph (a) or (b),

Given the above requirements of the LEP, design development for the subject site should take into account the heritage values of 333-337 Church Street, including its setting and views and lines of sight not necessarily currently identified. Proposals to impact the structures should be clearly justified in heritage terms.

Pre-DA engagement with Council (or development assessment consultant should this task be delegated or outsourced for probity reasons), is recommended.

3. REFERENCES

Baring, G. H., Progressive Sydney as it stands today : 150 years of progress in New South Wales, Adelaide, 1938

Commonwealth of Australia, 1999. *Matters of National Environmental Significance - Significant Impact Guidelines*.

National Trust of Australia (NSW) and the Parramatta Park Trust, 2008 *Management Plan for the Old Government House and Domain, Parramatta Park*.

Parramatta Park Trust, 2007. *Parramatta Park Conservation and Management Plan Volume 1, Final*

Part 5: Synthesis of Findings

1. Aboriginal Archaeological Assessment – Summary

The Aboriginal archaeological assessment makes the following conclusions and recommendations regarding the Aboriginal archaeological potential and future management of the subject site.

1. The Aboriginal archaeological assessment concludes that there is potential for there is potential for Aboriginal archaeological sites and/or objects to survive at the subject site.

2. Further Aboriginal heritage investigations would be required prior to any proposed development of the subject site.

*Refer to **Figure 5.1** throughout this section*

Specifically, the Aboriginal archaeological assessment identifies that:

3. Potential Aboriginal archaeological sites and/or objects are likely to exist in the Parramatta Terrace sand sheet which has been identified across the majority of the subject site through geomorphological studies and geotechnical testing. The sand sheet has been identified to depths of at least 7 m at the subject site.

4. The Parramatta Terrace sand sheet has been previously identified to contain Aboriginal archaeological material dating from c.30, 000 years before present (BP) to 10,000 years BP at other sites in Parramatta.

5. Potential Aboriginal archaeological sites and/or objects that may exist in the sand sheet have to potential to be of high scientific (research) significance and high cultural significance to Aboriginal people.

6. Potential Aboriginal archaeological materials may also exist in floodplain deposits dating to the Holocene period (from 10, 000 years BP to present). Holocene floodplain deposits may exist beneath the existing building and adjacent laneway at 333 Church Street, however this was unable to be verified due to the constraints of the existing building.

7. Potential Aboriginal archaeological materials within Holocene floodplain are considered to be of moderate scientific (research) significance and have cultural significance to Aboriginal people.

8. It is uncertain what type of soil profile exists in two areas of the subject site adjacent to Church Street. It is likely that the Parramatta Terrace sand sheet and/or Holocene floodplain deposits survive in these areas and that there is the potential for some Aboriginal archaeological potential to exist at these parts of the site.

The assessment identifies that historical activities and flooding events are likely to have disturbed and/or removed original soil profiles where potential Aboriginal archaeological materials may exist. Disturbance due to historical activities appears to be localised and generally up to 2.5 m in depth. Potential for Aboriginal archaeological materials to exist in these areas of historical disturbance remains due to the depths of the original soil profiles.

Specifically, historical activities that would have removed or disturbed the original soil profiles were:

9. The construction of the car park that is estimated to have removed approximately 300 mm of the original soil profile at the subject site;
10. Localised areas of disturbance due to historical occupation of the subject site which may have disturbed the original soil profile from 0.5m to 1 m in depth;
11. Localised areas of disturbance due to historical occupation of the subject site which may have disturbed the original soil profile from 1m to 2.5 m in depth;
12. The construction of trenches for service lines (such as water and sewer mains) that may have removed up to 2.5 m of the original soil profile; and
13. The construction of the building at 333 Church Street may have removed soil profiles up to approximately 2 m in depth.

The most significant disturbance of the subject site was the flood of 1889 which resulted in a scour that removed the land along the northern margin of the subject site, and consequently removed any soil deposits which may have contained Aboriginal archaeological material on that part of the site.

The assessment recommends that in accordance with Part 6 of the *National Parks and Wildlife Act 1974*, the objectives of the *Parramatta City Centre Local Environmental Plan 2007* :

14. Disturbance or harm to known or potential Aboriginal sites and/or places should be avoided.

15. Where avoidance is unfeasible, additional archaeological investigations should be undertaken. It is recommended that the investigations would include:

16. Develop an Aboriginal Cultural Heritage Assessment (ACHA) and Archaeological Survey Report to address the Aboriginal archaeological and cultural heritage issues at the subject site. The assessment should be developed in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (OEH, 2010a),* 'the Code' and OEH's *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (*OEH 2011*);
17. Undertake and document Aboriginal consultation in accordance with OEH's (2010b) *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (**Appendix 2**); and
18. Undertake Aboriginal archaeological test excavations, in consultation with registered Aboriginal parties, by **one** of the following options:
    c. In accordance with the Code to inform an ACHA by Council, a new land owner or delegated proponent; or
    d. Through an AHIP application under s.90 of the *National Parks and Wildlife Act 1974*. An AHIP may only be applied for if there is Development Proponent and a Development Application for the subject site where the proposed activity may harm Aboriginal objects, sites, and/or places.

19. Based on the findings of the ACHA and test excavations or the ACHA without test excavations salvage is likely to be required prior to any proposed development of the subject site. Salvage involves the preparation of an AHIP application and consent from OEH under Section 90 of the *National Parks and Wildlife Act 1974* to excavate to destroy and/or collect Aboriginal archaeological material.

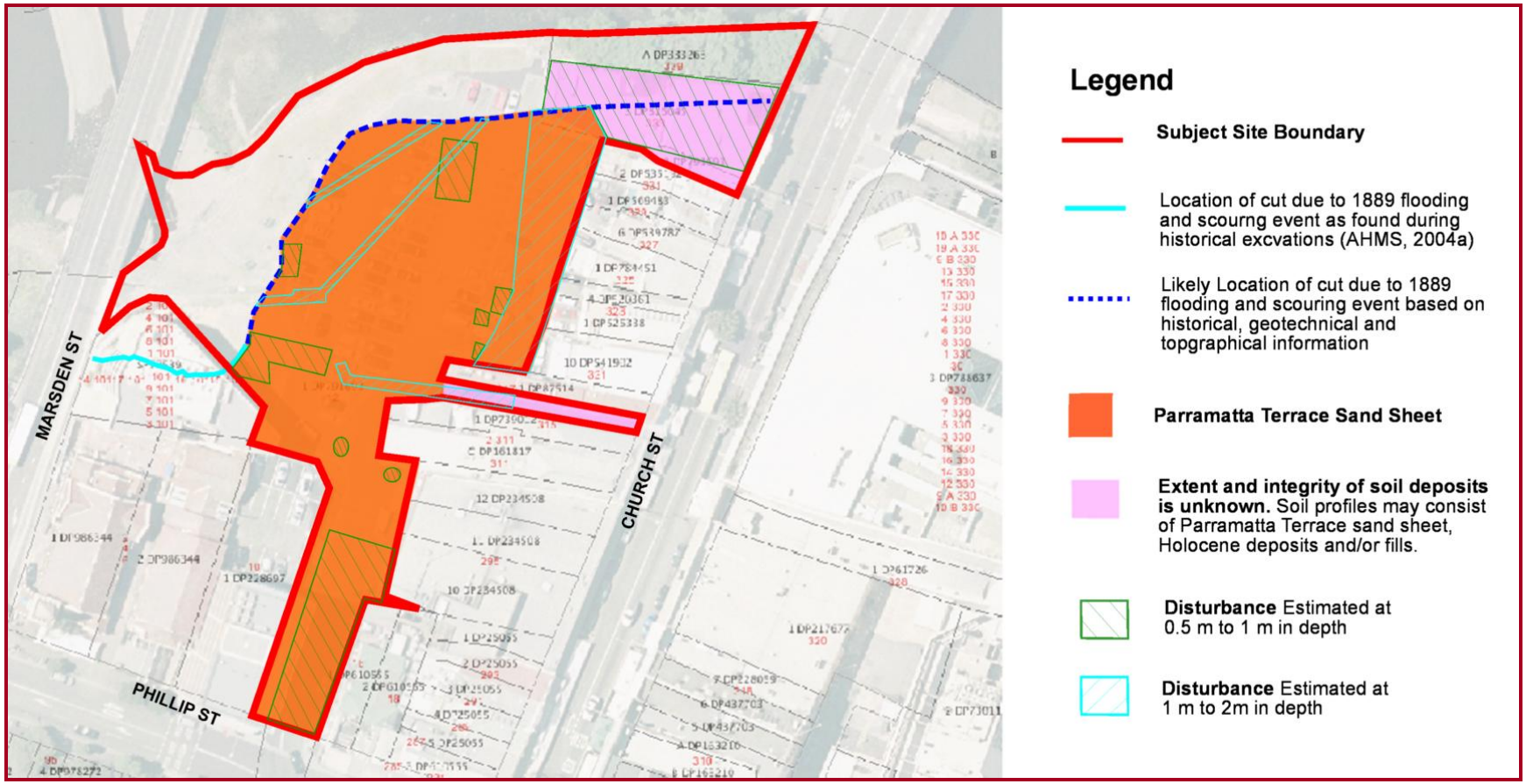


Figure 1. Aboriginal Archaeological Potential at the subject site indicated by the presence of the Parramatta Terrace Sand Sheet.

2. HISTORICAL ARCHAEOLOGICAL ASSESSMENT - SUMMARY

The historical archaeological assessment of the study area reaches the following conclusions and makes the following recommendations regarding the future management of any potential archaeological resources that may survive on the site.

The assessment concludes that:

- There has been continuous non-indigenous use and occupation of the study area since c.1790;
- That some activities associated with this long period of occupation are relevant to State Historical Themes;
- That many of these activities have the potential to leave physical evidence that is capable of adding to our knowledge of the historical development of Parramatta (and the State) if investigated by means of archaeological techniques; and
- That some of the potential archaeological resources on the site may be of local or State significance, depending on their integrity;

The assessment also recognized that the study area has been subject to four sets of significant site formation processes that may have compromised a portion of the potential archaeological resource. These are as follows:

- The flood of 1889 resulted in a scour that removed the land along the northern margin of the study area, and consequently removed any archaeological remains pre-dating 1889 that may have been present on that part of the site;
- The installation of sewer and stormwater mains during the early twentieth century (and their subsequent maintenance) may have resulted in deep localized impacts on potential archaeological resources in a number of locations within the study area. These impacts may have reduced the significance of some of the potential archaeological remains;
- Construction and subsequent remodelling of the existing car park may have resulted in a range of impacts ranging from shallow trimming of deposits to localized deep impacts associated with drainage; and

- Construction of the existing buildings on 333 to 337A Church Street may have had an impact on potential archaeological remains within this block.

Fifteen sites within the study area were recognised as the locations in which activities resulting in archaeological remains were likely to exist. Of these locations:

1. One has been destroyed by past actions;
2. Two areas (located beneath 333-337A Church Street) may contain remains of local and/or State significance but their current degree of survival is currently unknown; and
3. Ten locations have the potential to contain archaeological remains of local significance;
4. Two areas have the potential to contain archaeological remains of State significance.

Management of these potential archaeological remains will vary from location to location. These management recommendations are as follows:

5. No further requirement for physical action - information about previous uses and structures at this location should be referred to in word and illustration in any interpretation strategy that may be required as part of the site's future development.

6. The block currently occupied by 333-335 and 337-337A Church Street. Prior to any proposed development of this part of the study area a site specific assessment should be undertaken This assessment should include an accurate determination of the location of the Lennox Bridge wing wall. Any assessment of this site should include an examination of internal basement levels in relation to external ground levels. If removal of part or all of the building is to be undertaken then test excavation should be carried out to determine if significant archaeological remains survive, and if in situ conservation or salvage excavation is warranted. At the present time the degree of impact on the potential archaeological resources located within this lot cannot be determined accurately while the structure is still standing. If proposed development requires impacts below current slab level then testing should be undertaken in advance of works to determine the extent and integrity of archaeological remains. This lot was occupied by a several structures that have the potential to have associated archaeological remains that may be of State significance.

Testing would enable their significance to be established and to determine if in situ retention, salvage or no further action is required.

7. Test excavation to determine if salvage excavation is warranted. Limited test excavation would be undertaken within any particular Area in order to determine the nature and extent of the archaeological resource within the zone as a whole. If the archaeological resource survives with a high degree of integrity and has the ability to provide data that cannot be obtained from any other source then a second phase of salvage excavation may be required for all or part of the zone. Resources in these zones have the potential to be of local significance.

8. Test excavation to determine if in situ conservation or salvage excavation is warranted. Limited test excavation would be undertaken in zones that have the potential to contain archaeological remains that may be of State significance. If such remains survive there may be a requirement for their retention in situ. If the integrity of these potential remains has been compromised then salvage excavation may be required if any excavation associated with development is required. Resources in these zones have the potential to be State significant.

A schedule of management options for each zone is set out below followed by a site plan showing management recommendations **Figure 5.2**.

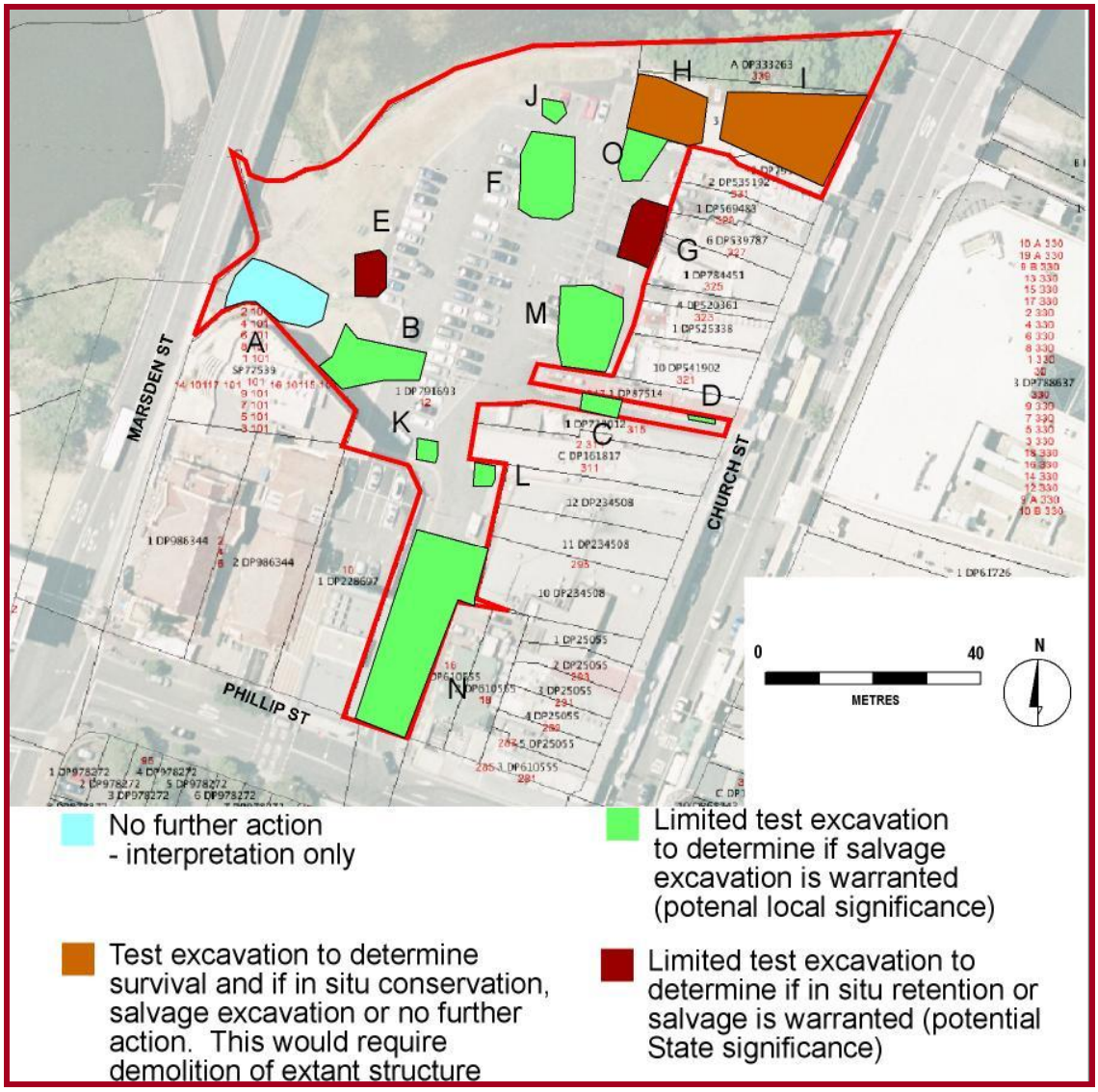


Figure 2. Management recommendations.

3. BUILT AND LANDSCAPE HERITAGE CONSIDERATIONS AND ADVICE – SUMMARY

The built and landscape heritage advice has identified several heritage items that may be directly or indirectly impacted by a proposed redevelopment of the subject site. These items are:

1. Old Government House and Parramatta Park;
2. Kings School Group (Former) Marist Place, Parramatta;
3. Lennox Bridge;
4. No. 333 Church Street; and
5. Adjacent and Nearby Heritage Items of Local Heritage Significance

1. Views to and from Old Government House and Parramatta Park.

- Old Government House and Parramatta Park is listed on the World Heritage List (WHL) and National Heritage List (NHL), State Heritage Register (SHR) and Parramatta City Centre Local Environmental Plan (PCCLEP) 2007.
- Places in Australia on the WHL and the NHL are protected at a Commonwealth level through the EPBC Act. Approval under the EPBC Act is required for any action occurring within or outside a place on the WHL or NHL that has, will have, or is likely to have, a significant impact on the World and/or National Heritage values of the place.
- Construction at the subject site would be within, and impact upon, the important line of sight between Old Government House and the Government Domain and Lennox Bridge (**Figure 5.3**).
- This could trigger requirements to consider whether the proposed development (an action) at the subject site should be referred to the Australian Government Environment Minister under the Commonwealth EPBC Act, to determine whether

the action would be a significant impact on the World and National heritage values of the place.

- It is recommended that a Statement of Heritage Impact should be prepared and include an assessment under the EPBC Act and recommend any referrals under that Act that may be warranted.

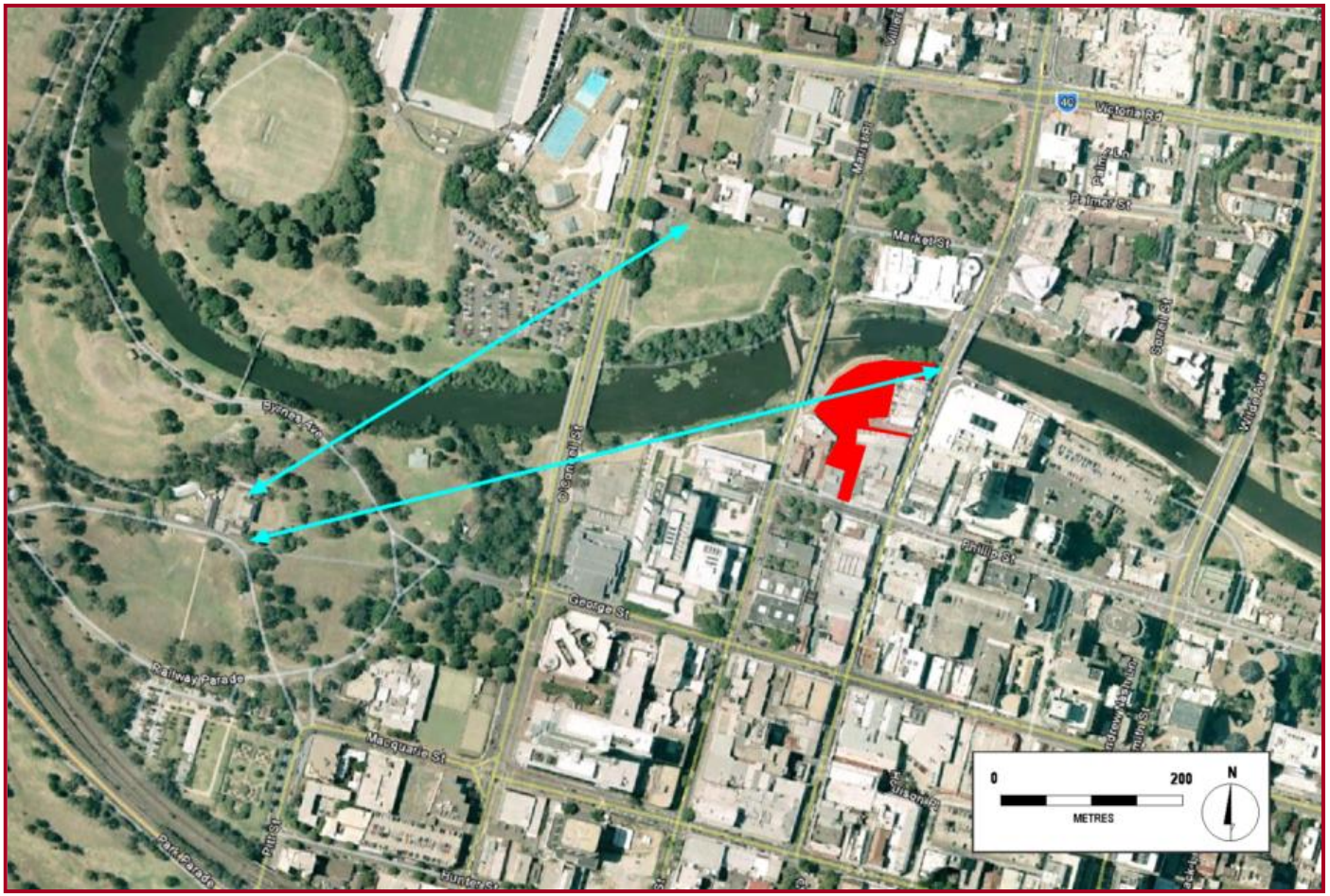


Figure 3. AHMS' interpretation of the view lines from Old Government House based on the text in the Old Government House and Parramatta Park CMP. The view lines from Old Government House to the former Kings School and Lennox Bridge are shown in blue and the subject site is shown in red (Base map: Google Earth Pro 2011)

2. Broader setting and views of Kings School Group (Former) Marist Place, Parramatta to and from Parramatta City Centre

- The Kings Group (Former) is on the SHR and PCCLEP 2007.

- The broader external setting of The Kings School Group (former), Marist Place Parramatta is not a currently identified heritage value, nor are views to and from the place that encompass, or are to or from, or through, the subject site on the SHR.

- However, an 80m plus high building at the subject would alter and truncate current views from the buildings and grounds of the former Kings School site to the retail and commercial centre of Parramatta.

- The requirements of PCCLEP 2007requires design development for the subject site should take into account the heritage values of the Kings School Group, including views and lines of sight not necessarily currently identified.

- It is recommended that a Heritage Impact Statement is prepared that includes:

    - an assessment of the heritage impacts of any proposed development at the subject site on heritage items in its vicinity for any proposed development at the subject site; and, if warranted

    - the possible urban amenity and heritage value of the views to and from the Kings School (former) to be taken into account during the design of any new building at the subject site.

3. Lennox Bridge – Potential Heritage Impacts

- Lennox Bridge is directly adjacent to, and its abutments may exist partially under, 333 Church Street, that is the eastern-most allotment of the subject site.

- The Lennox Bridge is a heritage item listed on the SHR, Roads and Traffic Authority's (RTAs) Section 170 Conservation Register and PCCLEP 2007.

- Approval by Heritage Council of NSW under Section 63 of the Heritage Act, as well as the approval of the RTA (as owner of Lennox Bridge and as authority responsible for managing its heritage values), will be required to undertake any

works associated with the development of the subject site that would occur within the SHR and/or S.170 curtilages of Lennox Bridge.

- A detailed heritage impact assessment (Statement of Heritage Impact - SOHI) would be required to accompany any application under Section 60 of the Heritage Act to impact upon the Lennox Bridge. The application would require the support and approval of the RTA as land owner as primary manager of the Bridge's heritage values.

- Given any proposal to penetrate or alter the fabric of Lennox Bridge is likely to have an adverse heritage impact, early pre-Section 60 application engagement with the Heritage Branch, Department of Environment and Heritage (OEH) and the RTA is recommended.

- Given any proposal to penetrate or alter fabric of Lennox Bridge is likely to have an adverse heritage impact, pre-DA engagement with Council (or development assessment consultant should this task be delegated or outsourced for probity reasons), is recommended.

- It is anticipated that any land owner's approval (RTA) and approval under the Heritage Act to permanently affect the fabric of Lennox Bridge will be difficult to obtain and justify. Design options that do not include penetrating or affecting the fabric or setting of the bridge should be explored and preferred wherever possible.

4. No. 333 Church Street – Heritage Significance and Potential Heritage Impacts

- Number 333 Church Street is included on the heritage schedule of the LEP as an item of local heritage significance.

- The subject site includes Lot 3, DP 825045, which includes two buildings numbered 333/335 and 337A/337 Church Street.

- The buildings were constructed between 1935 and 1938.

- No. 333/335 Church Street was built originally as a single storey shop with the upper floor and Art Deco façade added between 1943 and 1946, based on photographic evidence. The Art Deco façade addition occurred much later than the Art Deco period and is a relatively poor example of its type.

- It appears that the building with the street addresses of 337 and 337A was constructed with two storeys to Church Street, with basement and sub-basement storage areas to its rear. It has a an interwar upper storey facade that appears tacked-on to the main structure

- Given the above requirements of the LEP, design development for the subject site should take into account the heritage values of 333-337 Church Street, including its setting and views and lines of sight not necessarily currently identified.

- Neither 333/335 or 337/337A Church Street appear to be of such heritage significance that their loss and replacement with public open space, other uses or structures in sympathy with the form, height, bulk and appearance of other nearby retail and commercial heritage items, would irreparably diminish the heritage value of Church Street and the Parramatta city centre.

5. Adjacent and Nearby Heritage Items of Local Heritage Significance

- There are several Heritage items listed in Schedule 5 of the LEP (but which are not included on the SHR, WHL or NHL) in the immediate vicinity of the subject site.

- While development at the subject site would not affect any locally listed item directly, other than 333 Church Street, consideration needs to be given to the impact of the development on the significance and setting of those heritage items likely to be indirectly affected.

- Specifically, local heritage and urban design considerations that should be taken into account during design development and in any SOHI for the proposed development at the subject site should include:

    - Current views and vistas from heritage listed places in the vicinity of the subject site that may be affected by its development;

    - The effect of the likely building envelope, height and set-back on the setting and amenity of adjacent heritage items;

    - Current views and vistas to the City Centre from the northern side of the river and the Marsden Street Bridge that currently incorporate the distinctive cupola of the former ANZ Bank building on the Corner of Church and Phillip Streets;

- The effect of any new development on the business and trading viability of the adjacent heritage properties. Trading and business viability is an important part of maintaining and ensuring the conservation of a heritage item;

- The interface and boundary treatments of the new development with the rear of properties facing Church Street which back onto the subject site (a proposed service buffer to those properties will be from the existing Phillip Street entrance); and

- The possibility of dual stacked frontages for the Church Street heritage items to activate and include them as part of the new development and assist with increased permeability, activity/vibrancy and surveillance.

Appendix 1 – Geotechnical Borehole Logs by Douglas Partners PL, September 2011

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH101
PROJECT No: 72628
DATE: 23/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.2	ROADBASE		E	0.2 - 0.3		PID<1		
	0.4 / 0.5	FILLING - dark grey, silty sand filling with roadbase gravel (20mm-40mm) / FILLING - orange and dark brown, silty sand filling		E	0.5 - 0.6		PID<1		
	1	SILTY SAND - orange brown, silty sand, humid - becoming more orange with depth		E	1.0 - 1.1	*DUP08	PID<1		
	2			E	2.0 - 2.1		PID<1		
	3			E	3.0 - 3.1		PID<1		
	3.1	Bore discontinued at 3.1m							

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS: *DUP08 sample BH101/1.0-1.1m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U$_x$	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH102
PROJECT No: 72628
DATE: 23/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.1	ROADBASE		E	0.1 0.2		PID<1		
	0.3	FILLING - dark grey, silty sand filling with roadbase gravel (5mm-30mm)		E	0.4 0.5		PID<1		
	0.5	FILLING - light brown, silty sand filling with trace roadbase gravel (5mm-20mm)							
	1	SILTY SAND - orange brown, silty sand with trace ash		E	1.0 1.1		PID<1		
	2			E	2.0 2.1		PID<1		
	3			E	3.0 3.1		PID<1		
	3.1	Bore discontinued at 3.1m							
	4								
	5								
	6								
	7								
	8								
	9								

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U,	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH103
PROJECT No: 72628
DATE: 22/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.1	ASPHALT		E	0.1 0.2		PID<1		
	0.3	FILLING - dark grey, gravelly sand filling with some roadbase							
	0.5	FILLING - dark grey and orange, silty sand filling with some gravel and roadbase with trace brick fragments		E	0.5 0.6		PID<1		
	1	SILTY SAND - orange brown, silty sand 1.0m: humid		E	1.0 1.1		PID<1		
				E	1.5 1.6		PID<1		
	2			E	2.0 2.1		PID<1		
		2.5m: clayey with depth with trace ash							
	3	3.0 Bore discontinued at 3.0m		E	2.9 3.0		PID<1		
	4								
	5								
	6								
	7								
	8								
	9								

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	⧗	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH104
PROJECT No: 72628
DATE: 22/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.2	ROADBASE							
	0.4	FILLING - dark brown, sandy gravelly filling with some asphalt pieces (10mm-30mm)		E	0.2 0.3		PID<1		
		SILTY SAND - orange silty sand		E	0.5 0.6	*DUP7	PID<1		
1	1.0	SILTY SAND - light yellow brown, silty sand (becoming lighter with depth)		E	1.0 1.1		PID<1		1
				E	1.5 1.6		PID<1		
2				E	2.0 2.1		PID<1		2
3	3.0	Bore discontinued at 3.0m							3
4									4
5									5
6									6
7									7
8									8
9									9

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS: *DUP07 sample BH104/0.5-0.6m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH105
PROJECT No: 72628
DATE: 22/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.2	ASPHALT/ROADBASE							
	0.4	CONCRETE							
		FILLING - dark brown, silty sand filling with some gravel pieces (20mm-40mm) and trace concrete (20mm)		E	0.4 0.5		PID<1		
	1			E	1.0 1.1		PID<1		
		1.2m: some asphalt pieces, trace pottery pieces (100mm)		E	1.2		sample of pottery only		
				E	1.5 1.6		PID<1		
	2			E	2.0 2.1		PID<1		
	2.2	SILTY SAND - yellow silty sand, humid							
	3			E	3.0 3.1		PID<1		
	4.0	Bore discontinued at 4.0m							
	4								
	5								
	6								
	7								
	8								
	9								

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo Ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH106
PROJECT No: 72628
DATE: 22/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.2	ROADBASE		E	0.2		PID<1		
	0.4	FILLING - dark grey, silty sand filling with some roadbase gravel and rocks (20mm-50mm), trace ash/cinder/sandstone (10mm)			0.3				
	0.5			E	0.4		PID<1		
	0.7	FILLING - light grey, sandy silt filling with some clay			0.6				
				E	0.7		PID<1		
1	1.0	FILLING - yellow, sandy silt filling with some clay and sandstone pieces (10mm-50mm)			0.8				1
				E	1.1		PID<1		
		FILLING - dark brown, silty sand filling			1.2				
		SILTY SAND - orange brown, silty sand with trace ash, humid							
2				E	2.0		PID<1		2
					2.1				
3					2.9				3
	3.2			E			PID<1		
		Bore discontinued at 3.2m			3.2				
4									4
5									5
6									6
7									7
8									8
9									9

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U$_x$	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH107
PROJECT No: 72628
DATE: 22/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.1	ASPHALT/ROADBASE		E	0.1		PID<1		
	0.3	FILLING - dark grey, silty sand filling with asphalt gravel (20mm-80mm)			0.2				
		FILLING - dark orange brown, silty sand filling with trace ash		E	0.5		PID<1		
		0.8m: fibre cement pieces - possible asbestos cement pipe			0.6				
	1			E	0.8		PID=31		1
	1.1	- move hole due to refusal			1.0				
		SILTY SAND - orange brown, silty sand with trace ash, damp		E	1.5		PID<1		
	2				1.6				2
				E	2.0		PID<1		
					2.1				
	3			E	2.9		PID<1		3
	3.0	Bore discontinued at 3.0m			3.0				
	4								4
	5								5
	6								6
	7								7
	8								8
	9								9

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH108
PROJECT No: 72628
DATE: 22/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.1	ROADBASE/ASPHALT		E	0.1	*DUP04	PID<1		
	0.3	FILLING - dark grey, gravelly sand filling with asphalt pieces (30mm-80mm)		E	0.2 0.3		PID<1		
	0.4	FILLING - orange brown, silty sand filling with trace gravel/asphalt pieces			0.4				
	1	SILTY SAND - orange brown, silty sand		E	1.0 1.1		PID<1		
				E	1.5 1.6		PID<1		
	2			E	2.0 2.1		PID<1		
	2.5								
	2.6	SILTY SAND - dark brown, silty sand							
		SILTY SAND - yellow brown, silty sand							
	3 3.0	Bore discontinued at 3.0m		E	2.9 3.0		PID<1		
	4								
	5								
	6								
	7								
	8								
	9								

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS: *DUP04 sample BH108/0.1-0.2m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U,	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH109
PROJECT No: 72628
DATE: 23/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.1	ROADBASE		E	0.1		PID<1		
	0.3	FILLING - dark grey, silty sand filling with roadbase pieces (20mm-50mm)			0.3				
	0.4	FILLING - orange brown, sand filling with some roadbase pieces (20-30mm)		E	0.5 0.6		PID<1		
	1	SILTY SAND - dark orange, silty sand, humid		E	1.0 1.1		PID<1		
		- becoming lighter and denser with depth							
	2			E	2.0 2.1		PID<1		
	3			E	2.9 3.0		PID<1		
	3.0	Bore discontinued at 3.0m							
	4								
	5								
	6								
	7								
	8								
	9								

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH110
PROJECT No: 72628
DATE: 23/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.2	CONCRETE							
		FILLING - dark grey brown, silty sandy gravel filling with some asphalt pieces (10mm-30mm), trace brick (30mm) and cinder		E	0.3 0.4 0.5 0.6				
	0.8	FILLING - clayey sand filling with trace ironstone, sandstone pieces (20mm), ash and cinder		E	1.0 1.1				
	1.2	FILLING - light yellow, silty sand filling 1.6m: ash, cinder burnout with shell fragments							
	1.7	FILLING - pink silty sand filling with shale pieces (10mm-30mm)		E	1.7 1.8				
	2.0	1.9m: burnt out area - ash, cinder with hardened (heat affected) orange clay							
	2.2 2.3	SILTY CLAY - brown, silty clay with trace rootlets, ash, hardened orange clay		E	2.5 2.6				
		SANDSTONE - yellow sandstone							
		SILTY SAND - brown silty sand, damp		E	3.1				
	3.2	2.7m: saturated Bore discontinued at 3.2m			3.2				

RIG: Dando Terrier **DRILLER:** Tightsite **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Pushtube
WATER OBSERVATIONS: No free groundwater observed
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U,	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

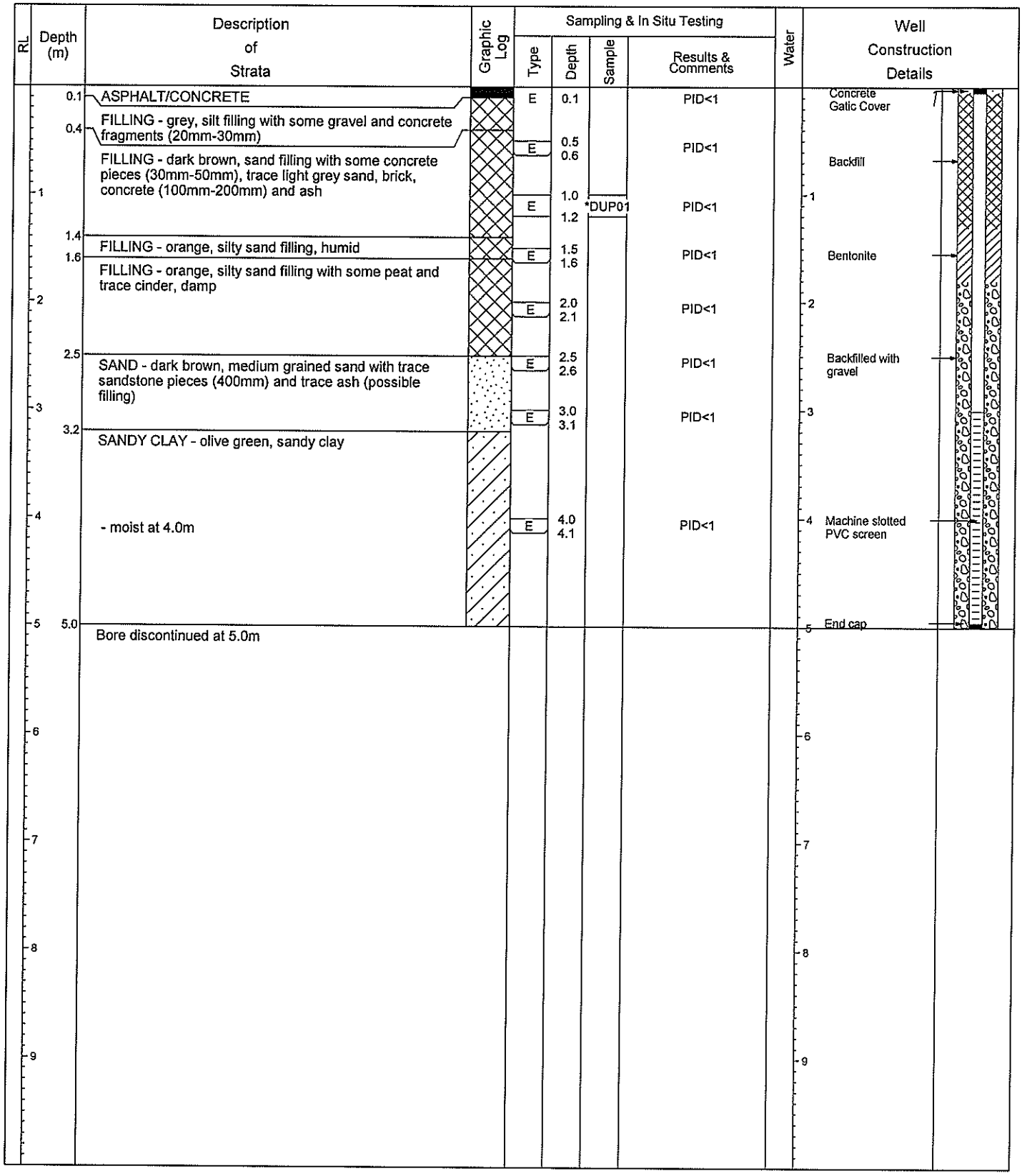
Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: MW01
PROJECT No: 72628
DATE: 19/9/2011
SHEET 1 OF 1



RIG: Scout **DRILLER:** Ground Test **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Solid flight auger
WATER OBSERVATIONS: Moist at 4.0m
REMARKS: *DUP01 sample MW01/1.0-1.2m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U$_x$	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: MW02
PROJECT No: 72628
DATE: 19/9/2011
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.1	GRASS & SANDY TOPSOIL		E	0.1		PID<1		Gatic Cover Concrete
	0.2	FILLING - brown and orange, silty sand filling with trace gravel (concrete, roadbase) (200mm-500mm)		E	0.5	*DUP02	PID<1		
		SILTY SAND - orange silty sand			0.6				
		1.5m: humid		E	1.5		PID<1		Backfill
					1.6				
				E	2.0		PID<1		
					2.1				
				E	2.5		PID<1		
					2.6				
				E	3.0		PID<1		
					3.1				Bentonite
	3.5	SILTY SAND - light grey, silty sand with some clay							
	3.7	SILTY SAND - yellow silty sand							Backfilled with gravel
				E	4.0		PID<1		
					4.1				
	4.5	SILTY SAND - orange silty sand							
		5.0m: damp		E	5.0		PID<1		
					5.1				Machine slotted PVC screen
	7.0	Bore discontinued at 7.0m							End cap

RIG: Scout **DRILLER:** Ground Test **LOGGED:** KS **CASING:** Uncased
TYPE OF BORING: Solid flight auger
WATER OBSERVATIONS: Damp at 5.0m
REMARKS: *DUP02 sample MW02/0.5-0.6m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U$_x$	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

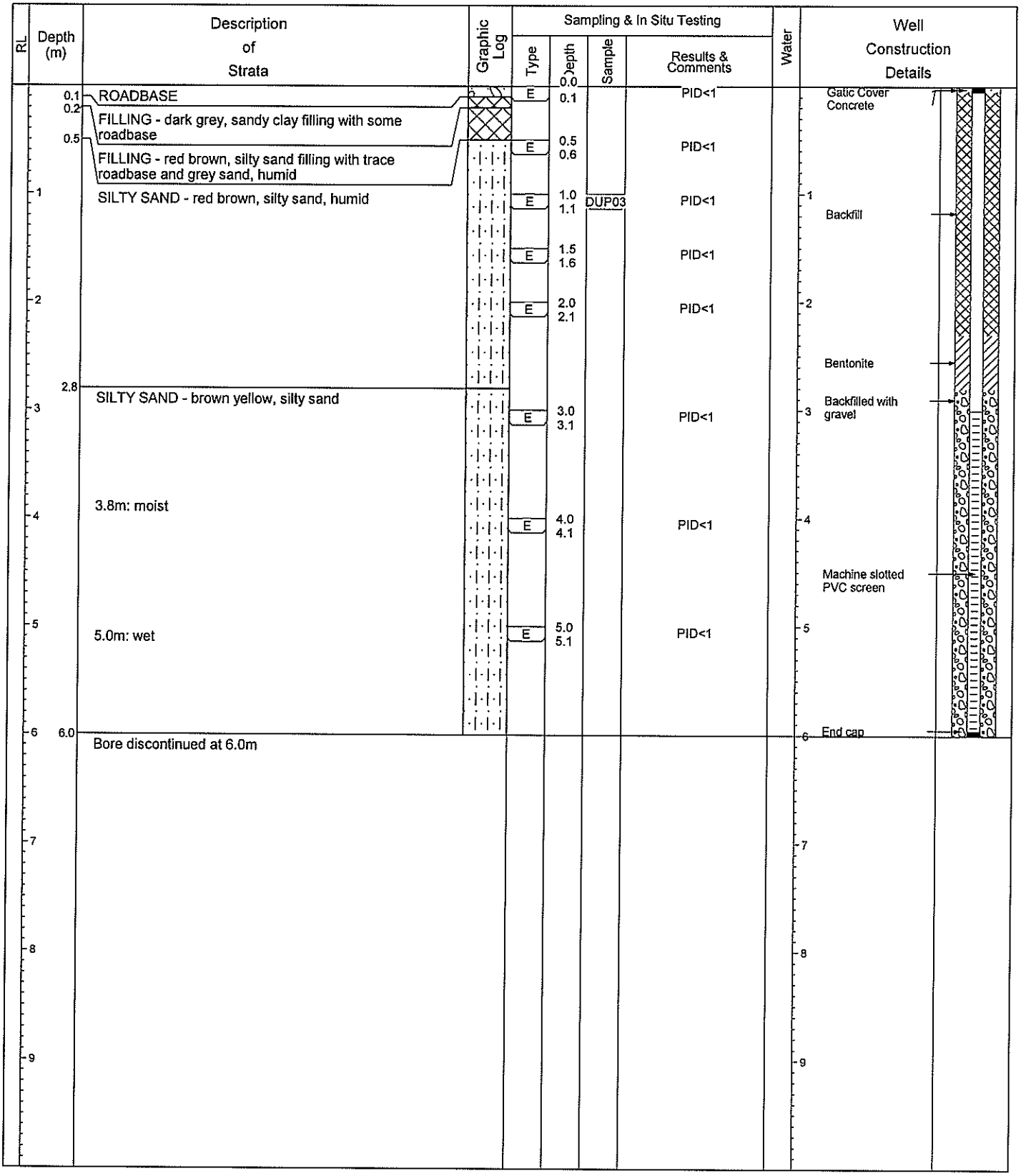
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BOREHOLE LOG

CLIENT: Parramatta City Council
PROJECT: Phase 1 & 2 Contamination Assessment
LOCATION: Lennox Bridge Carpark

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: MW03
PROJECT No: 72628
DATE: 20/9/2011
SHEET 1 OF 1



RIG: Scout **DRILLER:** Ground Test **LOGGED:** KS **CASING:** Uncased

TYPE OF BORING: Solid flight auger

WATER OBSERVATIONS: Wet at 5.0m

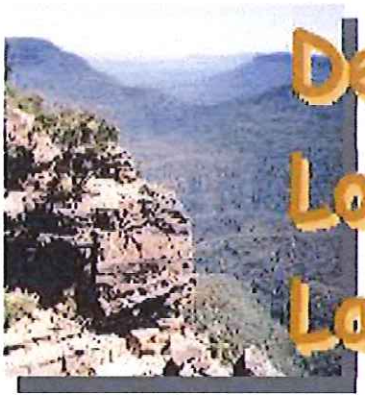
REMARKS: *DUP03 sample MW03/1.0-1.1m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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Appendix 2 – Comments from Aboriginal groups



Deerubbin Local Aboriginal Land Council

Level 2, 9 Tindale Street
PENRITH NSW 2750

PO Box 3184
Mt Druitt Village
NSW 2770 AUSTRALIA

T: (02) 4724 5600
F: (02) 4722 9713
E: Staff@deerubbin.org.au
W: http://www.deerubbin.org.au

Parramatta City Council
C/- Archaeological & Heritage Management Solutions Pty Ltd
349 Annandale Street
ANNANDALE NSW 2038

Reference: 2226

1 November 2011

SUBJECT: PROTECTION OF ABORIGINAL CULTURAL HERITAGE
333 Church Street and Lennox Bridge Carpark
Parramatta

Attention: Laura Matarese,

A representative of the Deerubbin Local Aboriginal Land Council inspected the abovementioned location on Wednesday 19 October 2011. An Aboriginal cultural heritage assessment was undertaken to evaluate the likely impact future development has on the cultural heritage of the land.

Our representative reports that, due to the present infrastructure over the study area, no Aboriginal cultural material (in the form of stone artefacts, for example) were located. Geotech samples indicated the presence of the Parramatta sandsheet.

Deerubbin Local Aboriginal Land Council therefore, recommends further investigations be undertaken before development occurs at this site.

Yours Faithfully,

(Kevin Cavanagh
Chief Executive Officer)

C.c. General Manager – Parramatta City Council

C.c. Miranda Moreton, Aboriginal Heritage & Planning Officer – Office of Environment & Heritage Dept. of Premier & Cabinet

Appendix 3 – The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Office of Environment and Heritage 2010

NSW GOVERNMENT | Environment, Climate Change & Water



Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales

Part 6 *National Parks and Wildlife Act 1974*

Cover:
View of Mutawintji National Park from a rock art site (Patrick Laughton/DECCW)

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Environment Line: 131 555 (NSW only) or info@environment.nsw.gov.au
See also www.environment.nsw.gov.au

Phone: (02) 9995 5000 (switchboard)
Phone: 131 555 (environment information and publications requests)
Phone: 1300 361 967 (national parks, climate change and energy efficiency information and publications requests)
Fax: (02) 9995 5999
TTY: (02) 9211 4723
Email: info@environment.nsw.gov.au
Website: www.environment.nsw.gov.au

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Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales

Part 6 *National Parks and Wildlife Act 1974*

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1 Introduction

The Director General of the Department of Environment, Climate Change and Water NSW (DECCW) is responsible for protecting and conserving Aboriginal objects and declared Aboriginal places in NSW.

Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act) provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm. Harm is defined to mean destroying, defacing, damaging or moving an object from the land. There are a number of defences and exemptions to the offence of harming an Aboriginal object or place.

One of the defences is that the harm was carried out under an Aboriginal Heritage Impact Permit (AHIP). Information about AHIPs can be found at: www.environment.nsw.gov.au/licences/achregulation.htm.

This Code of Practice has been adopted by clause 3A of the National Parks and Wildlife Regulation 2009 (NPW Regulation).

1.1 Purpose of this Code of Practice

The purpose of this Code of Practice is to:

1 establish the requirements for undertaking test excavation as a part of archaeological investigation without an AHIP

   If you comply with these requirements and you harm an Aboriginal object when undertaking test excavations, your actions will be excluded from the definition of harm and as such you will not be committing an offence of harm to an Aboriginal object.

2 establish the requirements that must be followed when carrying out archaeological investigation in NSW where an application for an AHIP is likely to be made.

   Under the NPW Act, the Director General can require that certain information accompany an application for an AHIP. This Code explains what that information is in relation to archaeological investigations.

DECCW recommends that the requirements of this Code also be followed where a proponent may be uncertain about whether or not their proposed activity may have the potential to harm Aboriginal objects or declared Aboriginal places and the proponent is required to:

- undertake further investigation to understand and establish the potential harm their proposal may have on Aboriginal cultural heritage, and
- the further investigation involves archaeological assessment.

For guidance on whether or not further investigation is required, refer to the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* available on the DECCW website.

1.2 Objective of archaeological investigation

The objective of any archaeological investigation (where necessary) is to learn about past human societies through the study of material remains and historical, oral and environmental sources. Archaeological investigations locate, identify and study Aboriginal objects, archaeological deposits and potential archaeological deposits, and historical, oral and environmental sources to provide an assessment of the archaeological significance of the objects and the subject area.

In order to fulfil this objective the following steps are taken:

1 Clearly describe the aims of the project. The rationale for the archaeological assessment must be clearly defined through these aims.

2 Present a feasible and appropriate methodology for the archaeological survey and other investigations to ensure that work can be clearly linked to these aims.

3 Present the findings and interpretation of the results within a wider context of archaeological knowledge and Aboriginal history.

4 Ensure that the findings and interpretation of the results support the assessment of the archaeological significance of the subject area.

Where archaeological test excavation cannot be undertaken in accordance with this Code, or where the Aboriginal cultural heritage assessment concludes that the proposed activity will result in harm to Aboriginal objects or declared Aboriginal places and an application for an AHIP will be made, the application must be supported by an Aboriginal Cultural Heritage Assessment Report (clause 80D of the NPW Regulation). If an Archaeological Report is required under this Code then that report should be an appendix to an Aboriginal Cultural Heritage Assessment Report.

1.3 Preconditions to undertaking an archaeological investigation

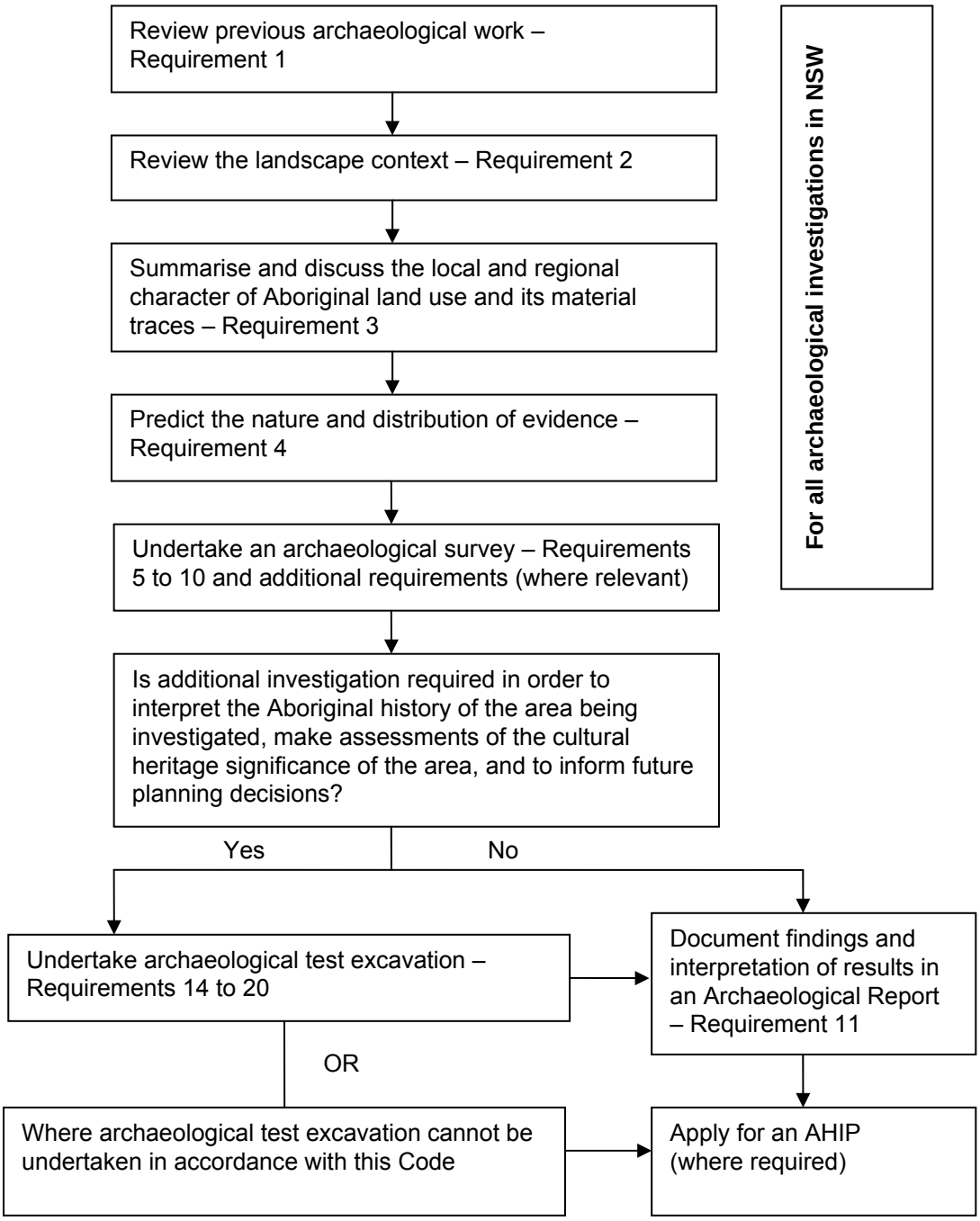
Before undertaking an archaeological investigation you must establish that:

- further investigation is required; for guidance on whether or not further investigation is required you should refer to the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* available on the DECCW website
- your proposed activity requires assessment under Part 4 or Part 5 of the *Environmental Planning and Assessment Act 1979.*

1.4 Application of this Code

This Code has been developed to support the process of investigating and assessing Aboriginal cultural heritage by specifying the minimum standards for archaeological investigation undertaken in NSW under the NPW Act. Where an Aboriginal cultural heritage assessment requires an archaeological investigation to be undertaken, this must be done in accordance with the requirements of this Code. These requirements are summarised in Figure 1 below.

Figure 1: Requirements of the Code



Other requirements

In addition to the requirements of this Code, you may also need to comply with the requirements of other legislation.

1.5 Standard and additional requirements

This Code contains the **standard requirements** (Section 2) that must be met when carrying out an archaeological investigation in NSW. Depending on the investigation required to adequately characterise the proposed development area or the archaeological site type being investigated, **additional requirements** may also apply (Section 3).

Advisory notes

This Code also contains **advisory notes** about some of the steps that may be taken to comply with the standard requirements. The advisory notes are intended as a guide only and may not be appropriate for every situation. Alternative measures may be taken as long as the standard requirements are complied with.

1.6 Minimum qualifications for persons to comply with this Code

When undertaking archaeological investigations in NSW in compliance with this Code, proponents must use the services of people who are skilled and experienced in archaeology and, in particular, the archaeology of Aboriginal people. These skills and experience may be available in-house or sourced from specialist service providers. For the purposes of the Code, an appropriately skilled and experienced person has:

1 a minimum of a bachelor's degree with honours in archaeology or relevant experience in the field of Aboriginal cultural heritage management, and

2 the equivalent of two years full-time experience in Aboriginal archaeological investigation, including involvement in a project of similar scope, and

3 a demonstrated ability to conduct a project of the scope required through inclusion as an attributed author on a report of similar scope.

1.7 Offences under the NPW Act

The NPW Act establishes a number of offences. The following offences and penalties apply to harm to Aboriginal objects.

Offence	Maximum penalty – Individual	Maximum penalty – Corporation
A person must not knowingly harm or desecrate an Aboriginal object	2,500 penalty units ($275,000) or imprisonment for 1 year or both	10,000 penalty units ($1,100,000)
	5,000 penalty units ($550,000) or imprisonment for 2 years or both (in circumstances of aggravation)	

Offence	Maximum penalty – Individual	Maximum penalty – Corporation
A person must not harm an Aboriginal object (strict liability offence)	500 penalty units ($55,000)	2,000 penalty units ($220,000)
	1,000 penalty units ($110,000) (in circumstances of aggravation)	

If a person carries out an archaeological investigation and they do not follow the requirements of this Code, and they harm an Aboriginal object, they would be committing one of the two offences set out above.

If you plan to carry out an archaeological investigation in a declared Aboriginal place you will need to apply for an AHIP.

1.8 Currency of these requirements

This Code is effective from 1 October 2010.

1.9 Amendment of these requirements

This Code may be amended from time to time. An amendment to this Code will require an amendment to the NPW Regulation to refer to the updated version of this Code.

1.10 Definitions

Key terms and phrases used in this Code are defined in Appendix A. If a word is not defined it must be given the meaning it has under the NPW Act or Regulations. If a word remains undefined it has its ordinary meaning.

1.11 Further information

Further information about the Code can be obtained from DECCW Environment Protection and Regulation Group (EPRG) Regional Offices. These locations are provided in Appendix C.

2 General requirements applying to all archaeological investigations

This section of the Code (Section 2) contains a set of requirements that must be followed if an act is to be excluded from the definition of harm.

Depending on the investigation required to adequately characterise the proposed development area or the Aboriginal objects being investigated, additional requirements as set out in Section 3 may also apply.

2.1 Reviewing existing knowledge

The first step is to compile, analyse and synthesise previous archaeological information and relevant contextual information. This process should indicate the nature and range of material traces of Aboriginal land use to be expected within the specific landscape contexts in the subject area. This knowledge provides a framework for interpreting the material traces within the subject area, and for understanding the cumulative impacts to Aboriginal heritage in the subject area.

Requirement 1 – Review previous archaeological work

Purpose: To synthesise available information from previous archaeological and ethnohistorical studies to provide a context and baseline for what is known about Aboriginal cultural heritage in the subject area. This contributes to the assessment of the archaeological significance of the proposed development area.

Requirement 1a – Previous archaeological work

The review of previous archaeological work must:

- be appropriate to the scale of the proposed activity, its anticipated impacts and the size of the subject area
- include an Aboriginal Heritage Information Management System (AHIMS) search (see Requirement 1b)
- synthesise the known archaeology and ethnohistory of the region using relevant published and unpublished sources (such information is available from AHIMS), published material, local knowledge and other sources
- evaluate the results of any previous reports for the subject area in light of current knowledge
- describe the range and nature of Aboriginal sites and features present within and near the subject area, including presentation of the results in tabulated form (at the very least this must summarise the number of sites by type or features present)
- describe existing predictive models that are relevant to the project and subject area, such as models of past Aboriginal land-use strategies and cultural systems together with models of relevant taphonomic processes that highlight the main issues and regional character of the archaeology; depending on the scale of the project and information available this may be simple or complex

- be used to present a map in the Archaeological Report, preferably prepared using a geographic information system (GIS), showing the location of previously recorded sites and, where available, areas of previous surveys. Where there are restrictions placed on data by Aboriginal people, these must be respected and appropriately documented in the Archaeological Report.

This review must be documented in the Archaeological Report as set out in Requirement 11.

Advisory note

The synthesis of information may take the form of an annotated bibliography of relevant sources or statement of relevant sources.

Always clearly describe which are primary and secondary sources.

Requirement 1b – AHIMS searches

AHIMS searches must:

- be contemporaneous with the project
- include an area larger than, and wholly containing, the subject area
- include an area large enough to allow adequate landscape interpretation, and – if available – sites in large enough numbers to allow adequate understanding of the distribution of the sites within the landscape
- include a search for any previous reports relevant to the subject area
- be assessed to determine the robustness of the search, giving consideration to issues that may affect the search results, such as the number, size, intensity and results of previous surveys in the area.

The date of the AHIMS search and AHIMS client service number must be referenced in the Archaeological Report (Requirement 11).

Advisory notes

Refer to the AHIMS webpage for further information.

Some AHIMS searches may already have been conducted at Step 2a of the generic due diligence process described in DECCW's *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. Those searches can be used for the purpose of the archaeological investigation.

Other registers that should be searched are:

- NSW State Heritage Inventory
- The Australian Heritage database.

Requirement 2 – Review the landscape context

Purpose: The purpose of reviewing the landscape context is to assist in the determination or prediction of:

- the potential of the landscape, over time, to have accumulated and preserved objects
- the ways Aboriginal people have used the landscape in the past, with reference to the presence of resource areas, surfaces for art, other focal points for activities and settlement, and
- the likely distribution of the material traces of Aboriginal land use based on the above.

The landscape description must:

- describe the landscape history at a scale that allows the subject area to be characterised into meaningful components (or units) for the archaeological investigation
- describe the landforms present within the subject area using standard or generally accepted classifications
- identify the primary modes of geomorphic activity in the subject area: aggraded, aggraded or eroded (stable), or eroded, and determine if objects are likely to be concealed below the ground surface or revealed by erosional processes
- identify the forms of erosion within the archaeologically surveyed area, and where appropriate, subject area as a whole
- describe the soils present and, where available, outline their formation history
- describe the land-use history of the subject area
- describe, and if relevant, map the natural resources and natural features that will have influenced the use of the landscape in the past.

The landscape description must be explicitly referenced in the predictive model (see Requirement 4), with regard to the potential for material traces of past Aboriginal land use to accumulate, be preserved and be observed.

The landscape context must be documented in the Archaeological Report as set out in Requirement 11.

Advisory notes

Rationale

Consideration of the landscape is essential to the definition and interpretation of Aboriginal land use across a landscape. The landscape will provide clues as to those areas of land that may have been more intensively used by Aboriginal people in the past, and also provide the context within which the material remains of past Aboriginal occupation may be preserved and detectable. Landscape description is undertaken during both the background phase and fieldwork phase of any archaeological investigation.

Land-use history

Land-use history refers to the past land use (e.g. agricultural) of the subject area. The nature and frequency of different land-use activities must be quantified to assess their effect on the survival of the material traces of past Aboriginal land use (e.g. a single ploughing event may have much less impact on any buried archaeological evidence than decades of annual ploughing; land clearing will have had some impact on sub-surface deposits, but may remove culturally modified trees entirely).

Landscape description and recording

For an archaeological survey, the landscape divisions need to be manageable and meaningful units, as derived from, for example, Speight (2009: 15–72). It is these units that will provide the basis for:

- describing and assessing survey coverage
- assessing the detectability of material traces of Aboriginal occupation
- assessing archaeological potential
- considering site variability and patterning.

In areas where other types of published geomorphic or land classification systems are available or commonly used (such as the *Soil Landscapes* series), these may be more appropriate, and may be used in conjunction with The National Committee on Soil and Terrain 'Yellow Book' (2009).

Soils

Soils and landscape information will be recorded for each survey unit (see Requirement 5). This information is expected to derive either from field observations, or ideally from a combination of field observation and available soil mapping.

Speight (2009: 52–54) provides advice and examples for the primary modes of geomorphic activity.

Charman and Murphy (2007: 14–40) and McDonald *et al.* (2009: 133–146) discuss the processes and forms of erosion.

Murphy (2007: 2–13) provides advice on soils and their formation history.

In some cases the advice of a soil scientist or geomorphologist may need to be considered where this will aid in interpreting the site, or landscape and site association.

Paleoenvironmental history

Where available, a statement of the paleoenvironmental history of the subject area should be included.

Additional resources

- List of soil landscapes: www.environment.nsw.gov.au/soils/termsdef.htm
- Glossary : www.environment.nsw.gov.au/soils/glossary.htm
- CSIRO Australian Soil Resource Information System: www.asris.csiro.au/index_ie.html

Requirement 3 – Summarise and discuss the local and regional character of Aboriginal land use and its material traces

Purpose: To present a summary and discussion of the information collected in Requirements 1 and 2.

As set out in Requirement 11, the Archaeological Report must contain a section that synthesises the evidence from Requirements 1 and 2 in a discussion that highlights the main issues and regional character of Aboriginal land use and the material traces that it has produced.

Advisory note

Depending on the scale of the project and the amount and detail of information available, the discussion presented to satisfy this requirement may be simple or complex.

Requirement 4 – Predict the nature and distribution of evidence

Purpose: To present a model, or series of testable statements, about the nature and distribution of evidence of Aboriginal land use in the subject area based on the information collected from Requirements 1, 2 and 3.

Advisory note

For the purposes of satisfying this requirement, predictive models may take the form of simple observations relating past experience and available knowledge, or detailed models and considerations of large landscape areas (see Guilfoyle 2006 and references therein).

Requirement 4a – Predictive model

The predictive model must:

- integrate the distribution of known sites, summarised or modelled using the landscape descriptions derived in Requirement 2 (i.e. landscape units interpreted in terms of their archaeological potential)
- characterise the patterning of material traces from known social and behavioural characteristics evidenced in the ethnohistorical review
- consider the distribution of natural resources, and the probable land-use strategies employed by Aboriginal people in the specific landscape context
- consider the spatial and temporal relationships of sites
- identify what sorts of material traces are predicted to be present, and in what densities
- make inferences about past Aboriginal occupation of the landscape based on the evidence collected and presented.

Advisory note

Natural resources include features such as stone artefact raw materials, ecological communities, and the availability of water including relict water features and micro features that only function after flood episodes or wet periods. Sometimes these features may be evidenced by the vegetation present.

Requirement 4b – Predictive model results

The predictive model results must present statements of archaeological potential about areas – defined as the probability of objects being present (material traces of past land use and archaeological sites) – that can be verified using archaeological methodologies.

The areas of potential must be amended accordingly subsequent to further information – such as information gathered as part of fieldwork

The predictive model must be included in the Archaeological Report as set out in Requirement 11.

Advisory notes

In archaeology, predictive modelling refers to a process that considers variables that may influence the location, distribution and density of sites, features or artefacts across the landscape. As well as a review of the results of previous archaeological work and any available ethnographic information (to make judgements about past Aboriginal settlement of the landscape), the variables often included in a predictive model are environmental and topographic variables such as soils, distance from landscape features, slope, landform elements, and cultural resources (Orton 2000: 77).

Regardless of its size, every project that assesses the archaeological significance of an area of land will require predictive modelling of some sort.

The predictive model provides a basis for sampling strategies to be developed for the archaeological survey and, if required, archaeological test excavation.

More often than not, archaeological predictive models are statements about where in the landscape archaeological remains are likely to occur, rather than models in the sense that they can be mathematically tested. For the purposes of this requirement, both predictive statements and mathematically testable models are considered satisfactory.

It is important that the predictive model is credible, and that the predictions are transparent. The decisions and reasoning behind predictions must be presented logically, and the prediction itself should immediately preface the reasoning (e.g. ‘The area is of low potential because …’ or ‘Scarred trees will not be present because …’) or follow the reasoning (e.g. ‘… therefore the area is determined to be of high archaeological potential’ or ‘… for these reasons, stone artefacts are very likely to occur’).

Sometimes certain variables will not be relevant to the model; in these cases this needs to be stated, and the reason why explained.

2.2 Archaeological survey and data collection

The purpose of the archaeological survey is to identify and make up-to-date records of known and identified objects (traces of past Aboriginal land use and Aboriginal archaeological sites) within the subject area. The approach and method chosen for the archaeological survey must use the information obtained from Requirements 1 to 4 to ensure that the type of archaeological survey which is planned can logically be expected to yield the information necessary to meet the archaeological objectives stated, as set out in Section 1.2 of this Code.

The archaeological survey will contribute to the understanding of site characteristics, local and regional Aboriginal history and conservation requirements for the proposed activity.

Requirement 5 – Archaeological survey

Purpose: The purpose of the archaeological survey (sometimes called a field survey) is to record all (or a representative sample of all) the material traces and evidence of Aboriginal land use that are:

- visible at or on the ground surface, or
- exposed in sections or visible as features (e.g. rock shelters, rock art, scar trees)

and to identify those areas where it can be inferred that, although not visible, material traces or evidence of Aboriginal land use have a likelihood of being present under the ground surface (potential archaeological deposits).

Advisory notes

Vehicle traverses

DECCW encourages the use of reconnaissance observations of the subject area prior to implementing a survey strategy. Vehicle traverses are considered to be reconnaissance activities only. They may be used to inform and design a pedestrian survey strategy. If they are to be used in the assessment, vehicle traverses must be recorded and reported separately from pedestrian survey activities, as they will not allow for suitable survey effectiveness calculations.

Definitions

Refer to Appendix A for definitions of *survey units, vehicle traverses,* and *potential archaeological deposits* for the purposes of this Code.

Requirement 5a – Survey sampling strategy

The archaeological survey must not begin until a sampling strategy has been developed. Sampling must:

- include all landforms that will potentially be impacted. Where there is more than one instance of similar or the same landforms that have the potential to be impacted each individual landform must be sampled.

- place a proportional emphasis on those landforms deemed to have archaeological potential, clearly describing and justifying the reasons for their selection (see Requirement 4).

The sampling strategy must:

- describe how sampling relates to the footprint that is proposed to be impacted by the development
- clearly state when a full coverage survey will be undertaken and justify when it is not.

The sampling strategy must be documented in the Archaeological Report as set out in Requirement 11.

Requirement 5b – Survey requirements

The archaeological survey must:

- survey an area, on foot, for the purposes of discovering Aboriginal objects
- be conducted in accordance with the sampling strategy above
- be carried out using accurately defined and named survey units (see Requirement 5c below)
- include representative photographs of survey units and landforms where informative
- record landform and general soil information (see Requirement 2) for each survey unit
- record the land surface and vegetation conditions encountered during the survey, accounting as appropriate for things like vegetation, rock outcrops, coarse fragments, etc.) and how these impact on the visibility of objects
- record any Aboriginal objects (including those already registered on AHIMS or otherwise known) observed during the survey – see Requirements 6 and 7 and Section 3
- record survey coverage – see Requirement 9
- be used to calculate survey effectiveness – see Requirement 10, and
- be accurately mapped and presented visually at an appropriate scale as part of the Archaeological Report.

The survey must be documented and summarised in the Archaeological Report as set out in Requirement 11.

Advisory note

Land surface and vegetation conditions encountered during the survey can be recorded using definitions such as those in McDonald *et al.* (2009).

Requirement 5c – Survey units

The archaeological survey, using survey units, must:

- record the beginning and end points of transects or boundaries of survey units as otherwise defined

- map and record the beginning, length, and end points of transects using a hand-held GPS receiver, either by recording coordinates at start and end points or using the track function on the GPS to record the area traversed (or both) – see Requirement 8, and
- record the spacing between survey personnel.

The beginning and end of transects, or survey unit boundaries, must be defined by:

- landform boundary
- subject area boundary
- harm area boundary
- significant change in survey conditions, or
- other arbitrary termination.

Requirement 6 – Site definition

Purpose: To clearly describe acceptable criteria for defining sites and their boundaries.

One (or more) of the following criteria must be used when recording material traces of evidence of Aboriginal land use:

1 the spatial extent of the visible objects, or direct evidence of their location

2 obvious physical boundaries where present, e.g. mound sites and middens (if visibility is good), a ceremonial ground

3 identification by the Aboriginal community on the basis of cultural information.

Advisory notes

An AHIMS Site Recording Form must be completed for all isolated objects or sites.

Definitions of the types of archaeological features that can be recorded on AHIMS are available on the AHIMS webpage.

Note: DECCW does not have a formal definition of an open artefact scatter, such as '2 artefacts within 50 m'. Appropriate boundary criteria and recording should be determined as described in Requirements 6 and 7.

Requirement 7 – Site recording

Purpose: To create a record of the material traces or evidence of Aboriginal land use which is used in the archaeological assessment to interpret the Aboriginal history of the subject area. The first priority in recording any Aboriginal object must always be to avoid or minimise, as far practicable, the risk of harm to the object itself.

Requirement 7a – Information to be recorded

- Site recording must provide the information required to complete the current AHIMS Site Recording Form.

- When applicable use the appropriate AHIMS Feature Recording Form (Artefact, Modified Tree, Groove, Art, Shell).
- Identify the site boundaries and indicate how they have been determined (Requirement 6).
- Provide an accurate site plan, using professional judgement to determine the appropriate scale and precision, showing the site boundaries and all internal features and external or internal reference points.

Requirement 7b – Scales for photography

All photographs must include an appropriate graded metric scale – mm or cm graded scales (such as an International Federation of Rock Art Organisations [IFRAO] standard scale) for macro artefact or feature photography, and tens of cm or m graded scales (such as a range pole, surveying staff or tape measure) for wider angle or context photography.

Requirement 8 – Location information and geographic reporting

Purpose: To accurately and consistently record and report on the location of Aboriginal objects in NSW.

Requirement 8a – Geospatial information

Geospatial information must be recorded using GPS receivers. It must include, but is not limited to, the location of:

- objects and sites
- survey units (both location and area of survey units)
- landscape units (Requirement 2)
- test excavation units (Section 3.1)
- other relevant features.

In situations where a GPS receiver cannot function, accurate recording of the location of Aboriginal objects must be undertaken and the method used documented.

Requirement 8b – Datum and grid coordinates

Datum and grid coordinates must be:

- reported as grid coordinates using the Map Grid of Australia 1994 (MGA94) cartesian coordinate system. MGA94 grid coordinates include:
  - zone (NSW is covered by the zones 54, 55 and 56)
  - easting – six digits to the nearest metre
  - northing – seven digits to the nearest metre
- checked and confirmed using a 1:25,000-scale topographic map (or the next best available scale where 1:25,000 is not available).

Advisory notes

Additional information is also available on the DECCW website.

The MGA94 is derived from a Universal Transverse Mercator projection (UTM) of the Geocentric Datum of Australia (GDA94) geographic coordinate system.

Coordinates recorded using a cartesian, geographic or local coordinate system other than MGA94 must be transformed into MGA94 coordinates for reporting to DECCW.

Transformations can be performed using GIS software, or dedicated software or spreadsheets produced by Geoscience Australia.

In NSW, topographic map sheets produced after 1999 use the GDA94/MGA94 grid, while those produced before 1999 use the AGD66/84/AMG grid. The map datum and coordinate system must be identified, and if necessary appropriate transformations applied to the derived coordinates (to produce MGA94 coordinates) before submission to DECCW.

Requirement 9 – Record survey coverage data

Purpose: To document the conditions present during the survey in order to assess the effectiveness of the survey. Recording survey coverage data allows an assessment of the obtrusiveness of Aboriginal objects to be made (i.e. whether objects are readily visible, or buried, or otherwise obscured). This is necessary because the obtrusiveness of Aboriginal objects will influence the survey results. The specific conditions affecting the detection of Aboriginal objects can be described in terms of *what reveals* and *what conceals* the objects (see Burke and Smith 2004: 74–80, NPWS 1999).

When recording survey coverage data:

- visibility and exposure must be independently described for each survey unit
- visibility must be determined and recorded to the nearest 10%
- exposure must be described in terms of the natural erosion processes responsible for its creation and any other contributing or primary processes (e.g. stocking, machinery cutting, vehicle tracks)
- exposure must be estimated to the nearest 10% as the mean percentage of the surface area of the survey where exposure was sufficient to reveal Aboriginal objects on the surface of the ground.

When recording survey coverage data in areas where obtrusive, above-surface archaeological features are the dominant form of archaeology, the survey must:

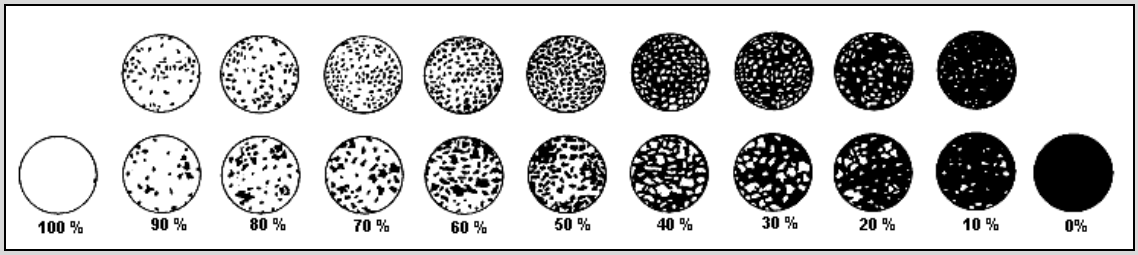
- describe the obtrusiveness of the features present (e.g. ‘rock shelters generally large and clearly visible’ or ‘small and obscured by vegetation’)
- quantify the coverage appropriately by describing any sampling procedures (e.g. ‘all or only some of the visible shelters were inspected’ or ‘inspection was confined to only some terrain units or contours’, etc.).

Advisory notes

Some types of Aboriginal sites are obtrusive and readily identified during a survey (e.g. rock art in shelters, culturally modified trees) but many other types of materials and sites (especially open sites containing stone artefacts) can be difficult to locate and can often go unrecorded due to adverse detection conditions such as thick grass cover or a lack of eroded exposures. Thus in any survey there is a bias against observing this unobtrusive form of evidence, although in most landscapes, open sites with stone artefacts (and in coastal contexts, buried shell middens) are the most common type of archaeological evidence.

Refer to Appendix A for an explanation of how exposure and visibility differ, and the meaning of ‘exposure’ and ‘visibility’ for the purposes of this Code.

The following visual comparison chart may be used to help estimate visibility and exposure conditions.



(**Visual comparison chart** modified from Terry and Chilingar, 1955, Summary of ‘Concerning some additional aids in studying sedimentary formations’, by Shvetsov M. S., *Journal of Sedimentary Research* 25: 229–234.)

An example of a survey in an area where obtrusive, above-surface evidence is the dominant form of archaeology is an environment dominated by rock shelters and rock platforms, where art and occupation shelters and petroglyphs on rock platforms would be the most common traces of past Aboriginal land use. The intent of this part of Requirement 9 is that professional experience and discretion are used to record survey coverage in these instances.

Requirement 10 – Analyse survey coverage

Purpose: To ensure that the survey data provides sufficient evidence for an evaluation of the distribution of objects across the landscape, taking into account archaeological potential. This information is essential to the assessment process and archaeological management recommendations (including any requirement for test excavations) that are derived from the assessment process.

The survey results must:

- be presented in the format of the example tables below or include clear justification where this format is not used, and
- include a descriptive summary of the effectiveness of the survey for each landform unit and then for the whole of the subject area.

Advisory notes

The aim of the survey coverage analysis is not to provide an exact percentage of ground or survey area, but a justifiable estimate.

Refer to Appendix A for an explanation of how to fill in the tables, and the meaning of each category.

Survey coverage (example table)

Survey unit	Landform	Survey unit area (sq m)	Visibility %	Exposure %	Effective coverage area (sq m) (= survey unit area x visibility % x exposure %)	Effective coverage % (= effective coverage area/ survey unit area x 100)
Example 1	Ridge	10,000	20%	50%	1,000	10%
Example 2	Rolling hills	7,000	10%	10%	70	1%
Example 3	Ridge	5,000	80%	50%	2,000	40%

Landform summary – sampled areas (example table)

Landform	Landform area (sq m)	Area effectively surveyed (sq m) (= effective coverage area)	% of landform effectively surveyed (= area effectively surveyed / landform area x 100)	Number of sites	Number of artefacts or features
Ridge	15,000	1,000	6.7%	2	150 artefacts
Rolling hills	7,000	7	0.1%	0	0

2.3 Reporting and assessment of results

The Archaeological Report should take the form of an appendix to the Aboriginal Cultural Heritage Assessment Report. The Archaeological Report needs to be a stand-alone technical report which provides evidence about the material traces of Aboriginal land use that is integrated with the other findings from the assessment of Aboriginal heritage to support the conclusions and management recommendations in the Aboriginal Cultural Heritage Assessment Report.

Requirement 11 – Archaeological Report content and format

General formatting

- All pages must be numbered.
- All sections and sub-sections must be sequentially numbered.
- All tables, charts, plates, figures and appendices must be sequentially numbered.
- Headers or footers with a short project name should be included.

Cover and title page

The cover and title page must include:

- the title, including project name
- the date (month and year)
- local government area
- geographic identifier such as the nearest town or name of the region if this is not included in the title
- consultant ’s name
- author(s) of the report
- proponent’s name.

Report contents

- **Table of contents** – Include a table of contents, including a list of tables, charts, plates, figures and appendices.
- **Summary** – Unless the report is very short, include a summary or abstract at the front of the report. This should be an overview of the main findings, interpretation of the results, and recommendations.
- **Introduction** – Include:
  - details of the proponent
  - explanation of the purpose of the archaeological investigation
  - project brief
  - subject area, and how this is defined
  - objectives of the assessment
  - overall project framework (development application, zoning study, etc.)
- **Investigator and contributors** – Include details of the qualifications and experience of the person carrying out the investigation and a list of contributors and their affiliations, specifically: reviewers, advisors, participants in survey activities

- **Description of development proposal** – Describe the proposed development, highlighting activities that have the potential to harm Aboriginal objects
- **Previous archaeological work** – Provide the information set out in Requirement 1
- **Landscape context** – Provide the information set out in Requirement 2
- **Regional character** – Provide the information set out in Requirement 3
- **Predictions** – Provide the information set out in Requirement 4
- **Sampling strategy** – Provide the information set out in Requirement 5 and Section 3.1 (where relevant)
- **Field methods** – Describe how the archaeological survey, and if relevant, the archaeological test excavation, was conducted and how information was recorded, including the dates and people involved, as set out in Requirements 5, 6, 7, 8, 9 and Section 3.1 (where relevant)
- **Results** – Describe what was found during the survey (and if relevant, archaeological test excavation). Include an interpretation of the results, a table of survey coverage data as set out in Requirement 10, and a table of findings as follows:

Site number	Feature(s)	Survey unit	Landform

- **Analysis and discussion** – The results must be interpreted using an archaeological framework that constructs an Aboriginal settlement history of the subject area.
  - The settlement history must be placed in a local and regional archaeological context.
  - Use graphs, charts and tables to effectively summarise data to support the interpretations where informative.
- **Scientific values and significance assessment** – Identify the archaeological values and assess their significance. The assessment must be supportable and the assessment criteria must reflect best practice assessment processes as set out in the Burra Charter.
- **Impact assessment** – Evaluate and discuss the potential archaeological impacts of the proposal. For known sites and areas of archaeological potential, the information must also be summarised in a table as follows:

Site number	Type of harm	Degree of harm	Consequence of harm
	Direct / Indirect / None	Total / Partial / None	Total loss of value Partial loss of value No loss of value

- **Management and mitigation measures** – Evaluate the various options for management of the archaeological impacts, and justify those that are recommended.

- **Recommendations** – These must be clear recommendations for the conservation of archaeological values and mitigation of impacts to the values. If further archaeological work such as salvage excavation is recommended, justification must be provided for this in the 'Management and mitigation' section of the report.
- **References** – Use Harvard style (author, date) referencing.
- **Maps and figures** – These must be used as necessary to support the report, as set out in the preceding requirements.
- **Appendices** – AHIMS and other heritage register information must be included as appendices to the report.

Advisory notes

The *Style Manual: For authors, editors and printers* (2002) (ISBN 0 7016 3648 3) should be referred to for best practice with abbreviations, notations etc.

Where there are restrictions placed on data or information by Aboriginal people, these must be respected and appropriately documented in the Archaeological Report.

2.4 Record keeping

Requirement 12 – Records

Records generated through implementing the requirements of this Code must be:

- kept in a legible form for at least five years
- provided in a legible form to any authorised officer of DECCW on request.

2.5 Non-compliance

Requirement 13 – Notifying DECCW and reporting

Requirement 13a – Notification of breaches

Any person undertaking works in accordance with the requirements of this Code must notify DECCW of any non-compliance with the Code's requirements that is causing harm to Aboriginal objects or declared Aboriginal places as soon as practicable after the person becomes aware of the incident. Notifications must be made by telephoning the Environment Line on 131 555.

Requirement 13b – Provision of information

Where an authorised officer of DECCW suspects, on reasonable grounds, non-compliance with the requirements of this Code and the non-compliance is causing or is likely to cause harm to Aboriginal objects, the authorised officer may request a written report of the event.

The person undertaking works in accordance with the requirements of this Code must make all reasonable inquiries in relation to the event and supply the report to DECCW within such time as may be specified in the request. DECCW may make a written request for further details in relation to the matter(s) if it is not satisfied with the report provided. The person undertaking works in accordance with the requirements of this Code must provide such further details to DECCW within the time specified in the request.

3 Additional requirements

Depending on the investigation required to adequately characterise the proposed development area or the Aboriginal objects being investigated, the following additional requirements may also apply:

3.1 Archaeological test excavation

3.2 Stone artefact recording

3.3 Rock art

3.4 Culturally modified trees

3.5 Middens

3.6 Burials or human remains

3.7 Artefact disposition and storage

3.1 Archaeological test excavation

Archaeological test excavation will be necessary when (regardless of whether or not there are objects present on the ground surface) it can be demonstrated through Requirements 1, 2, 3, 4, and 5 that sub-surface Aboriginal objects with potential conservation value have a high probability of being present in an area, and the area cannot be substantially avoided by the proposed activity.

The test excavations permitted by this Code are limited in their scope as described below. The first priority in test excavations, and recording Aboriginal objects during test excavations, must always be to avoid or minimise, as far practicable, the risk of harm to the objects under investigation. This means due care must be taken when excavating and collecting objects, and that unnecessary excavations do not comply with this Code.

Purpose: To collect information about the nature and extent of sub-surface Aboriginal objects, based on a sample derived from sub-surface investigations. Test excavations contribute to the understanding of site characteristics and local and regional prehistory and they can be used to inform conservation goals and harm mitigation measures for the proposed activity.

Requirement 14 – Test excavation which is not excluded from the definition of harm

Acts carried out in the course of sub-surface investigation will not be excluded from harm where they are carried out in the following areas:

1 in or within 50 m of an area where burial sites are known or are likely to exist

2 in or within 50 m of a declared Aboriginal place

3 in or within 50 m of a rock shelter, shell midden or earth mound

4 in areas known or suspected to be Aboriginal missions or previous Aboriginal reserves or institutes

5 in areas known or suspected to be conflict or contact sites.

In these circumstances it will be necessary to apply for an AHIP.

Requirement 15 – Pre-conditions to carrying out test excavation

Before archaeological test excavations can start the following conditions must be satisfied:

Requirement 15a – Consultation

Consultation must be undertaken as set out in the NPW Regulation and completed to the stage described in subclause 80C(6) of the Regulation.

Requirement 15b – Test excavation sampling strategy

A sampling strategy must be developed. This strategy must do the following:

- provide a framework for sampling all potential archaeological deposits (PAD) that are at risk of harm (within the subject area)
- describe the differentiation of the PAD to be test-excavated from the surrounding archaeological landscape (i.e. explain why the PAD is anticipated to be of higher significance than the continuous distribution of archaeological material in which it exists), and
  - test those areas of PAD that have no archaeological exposure or visibility, or
  - test the boundaries of known sites (where appropriate)
- confirm areas of low potential (where relevant).
- comply with the methods described in this Code
- describe how the sampling area relates to the area that is proposed to be impacted by the proposed activity.

The sampling strategy must be documented in the Archaeological Report as set out in Requirement 11.

Requirement 15c – Notification

At least 14 days before undertaking any test excavations the relevant DECCW EPRG regional office (refer to Appendix C) must be notified, in writing, of the following:

- the location of the proposed test excavation and the subject area
- the name and contact details of the legal entity with overall responsibility for the project
- the name and contact details of the person who will be carrying out the test excavations where this is different to the legal entity with overall responsibility for the project
- the proposed date of commencement, and estimated date of completion, of the test excavations
- the location of the temporary storage location for any Aboriginal objects uncovered during the test excavations.

A copy of the sampling strategy for test excavation must also be provided.

Requirement 16 – Test excavation that can be carried out in accordance with this Code

Acts occurring in the course of the following test excavations are excluded from the definition of harm if they are carried out in accordance with the requirements of this Code.

Requirement 16a – Test excavations

Acts occurring in the course of test excavations will be excluded from the definition of harm but only if done in order to understand the site characteristics, local and regional prehistory and conservation requirements for the subject area and in accordance with the conditions set out below. This will only be the case where the purpose of the test excavations is to build on the information already obtained through the archaeological investigation carried out in accordance with the requirements of this Code.

1 Test excavation units must be placed on a systematic grid appropriate to the scale of the area – either PAD or site – being investigated e.g. 10 m intervals, 20 m intervals, or other justifiable and regular spacing.

2 Any test excavation point must be separated by at least 5 m.

3 Test excavations units must be excavated using hand tools only.

4 Test excavations must be excavated in 50 cm x 50 cm units.

5 Test excavations units may be combined and excavated as necessary to understand the site characteristics, however:

   i) the maximum continuous surface area of a combination of test excavation units at any single excavation point conducted in accordance with point 1 (above) must be no greater than 3 m^2

   ii) the maximum surface area of all test excavation units must be no greater than 0.5% of the area – either PAD or site – being investigated .

6 Where the 50 cm x 50 cm excavation unit is greater than 0.5% of the area then point 5 (ii) (above) does not apply.

7 The first excavation unit must be excavated and documented in 5 cm spits at each area – either PAD or site – being investigated. Based on the evidence of the first excavation unit, 10 cm spits or sediment profile/stratigraphic excavation (whichever is smaller) may then be implemented.

8 All material excavated from the test excavation units must be sieved using a 5 mm aperture wire-mesh sieve.

9 Test excavation units must be excavated to at least the base of the identified Aboriginal object-bearing units, and must continue to confirm the soils below are culturally sterile.

11 Photographic and scale-drawn records of the stratigraphy/soil profile, features and informative Aboriginal objects must be made for each single excavation point.

12 Test excavations units must be backfilled as soon as practicable.

13 Following test excavation, an Aboriginal Site Impact Recording form must be completed and submitted to the AHIMS Registrar as soon as practicable, for each AHIMS site that has been the subject of test excavation in accordance with the

requirements of this Code. The DECCW Aboriginal Site Impact Recording Form is available on the DECCW website.

The test excavation should be sufficiently comprehensive to allow characterisation of the Aboriginal objects present without having a significant impact on the archaeological value of the subject area. Nothing in this requirement authorises salvage excavation.

Advisory notes

The information collected during test excavation will be used to:

- interpret the Aboriginal history of the area being investigated
- assess the cultural heritage significance of the area, and
- inform future planning decisions.

Test excavations should not be carried out in areas identified by Aboriginal people as places of significant social or cultural value and documented as part of the consultation process that must be carried out in accordance with clause 80C of the NPW Regulation.

Combining test excavation units

Test excavation units may be combined in a number of ways depending on the circumstances being investigated and providing Requirement 16a (5) can be met. It will be up to the person carrying out the test excavation to make this decision. Examples include:

- 0.5 m x 0.5 m test excavation unit
- 1 m x 1 m test excavation squares
- 2 m x 1 m test excavation trenches
- 3 m x 1 m test excavation trenches
- 6 m x 0.5 m test excavation trenches
- other irregular shaped excavations as fit for purpose (e.g. a 2 m x 1 m trench with a 0.5 m x 0.5 m square on each end etc.).

Sieving

The use of nested sieves is desirable. However, there is no restriction on the sieve aperture sizes that may be used above a 5 mm sieve in the nest. Where appropriate (e.g. for clayey soils) wet sieving should be used.

Requirement 16b – Objects recovered during test excavations

Any Aboriginal objects that are moved during test excavation must be reburied as soon as practicable in a secure temporary storage location in accordance with Requirement 26 pending any agreement reached as to the long-term management of the salvaged Aboriginal objects.

The person carrying out the test excavation is responsible for ensuring that procedures are put in place so that Aboriginal objects that are reburied are not harmed.

The location of the secure temporary storage location must be submitted to AHIMS with a site update record card for the site(s) in question.

Requirement 17 – When to stop test excavations

Any test excavation carried out under this Requirement must cease when:

1 suspected human remains are encountered (see Section 3.6), or

2 enough information has been recovered to adequately characterise the objects present with regard to their nature and significance.

Advisory note

To avoid doubt, 'enough information' means that the sample of excavated material clearly and self-evidently demonstrates the deposit's nature and significance, and may include things like:

- locally or regionally high object density
- presence of rare or representative objects
- presence of archaeological features or locally or regionally significant deposits, stratified or not.

3.2 Artefact recording

Stone artefacts are the most common type of Aboriginal object. Usually stone artefacts are the only remains left at the locations where Aboriginal people lived in the past. In the majority of cases the only time a stone artefact site will be recorded prior to harm is during archaeological investigation. This being the case it is important to collect as much information from the sites as possible.

The first priority in artefact recording must always be to avoid harm to the artefact site itself.

Requirement 18 – Artefact recording

Purpose: To document as much information as possible from the stone artefacts and stone artefact sites, without harming them. To make basic inferences about the type of activities that Aboriginal people carried out in different parts of the landscape, as well as identifying significant changes in the technologies used to produce stone artefacts throughout time. Wherever practicable it is preferable that artefacts be recorded in the field and remain on site.

The following requirements apply for both recording or sampling a stone artefact assemblage present on the ground surface.

Requirement 18a – Visible artefacts on the ground surface

1 Before picking up any artefact, the position of each artefact to be observed or recorded must be marked with a stake, flag, nail or similar.

2 Once their positions are marked, each artefact may then be picked up or moved and recorded (attributes, measurements, photography or drawing).

3 The artefact must then be replaced to its original position prior to repeating the process for the next and subsequent artefacts.

4 The requirements above do not authorise removal of artefacts from the site.

Requirement 18b – Artefacts in section

Under no circumstances are artefacts to be removed from a section.

Requirement 18c – Partly buried artefacts

Outside test excavations, if an artefact will not readily yield when pulled with fingers then it should remain buried and must not be extricated for recording or observation.

Advisory note

Stone artefact identification

There is a tendency to take the identification of stone artefacts, in particular flaked stone artefacts, for granted. However, 'we should not underestimate the level of skill required to accurately identify stone artefacts' (Hiscock and Clarkson 2000: 100).

The text book produced by Holdaway and Stern (2004) details the identification of and approaches to analysis of flaked stone artefacts. Hiscock (1989) provides a framework for and advice on the reasons and expectations for recording stone artefacts in the field.

Requirement 19 – Attribute recording

- The attributes that must be recorded for artefacts are contained within the DECCW AHIMS Feature Recording Form and Feature Recording Table – Artefact.
- If sampling a surface artefact assemblage, be clear about the sampling method used, and provide appropriate justification and records (e.g. 'sampled because highest density area', 'sampled using 1 m x 1 m square', 'sample area clearly drawn and labelled on a site plan').

Requirement 20 – Photography and drawing

- Up to six diagnostic or representative artefacts may be collected at a time for group photography or drawing without an AHIP (subject to the restrictions below).
- The artefacts must remain on site and must be returned to their original positions, as described in Requirement 18a above.
- Where informative, photographs showing the relationship of the surface conditions and artefacts (e.g. an area of particular artefact density) must be photographed.
- Photographs illustrating the context of the artefacts in relation to the wider landscape must be taken.
- All photographs must include an appropriate graded metric scale – mm or cm graded scales (such as an IFRAO standard scale) for macro artefact photography, and tens of cm or m graded scales (such as a range pole, surveying staff or tape measure) for wider angle or context photography.

3.3 Rock art

Rock art is images on rock surfaces. Images made by Aboriginal people on rock surfaces in the past are an Aboriginal object under the NPW Act. The images are usually found on suitable surfaces such as rock platforms, vertical rock surfaces or in rock shelters and caves. The images are usually classed with reference to their means of production:

- pictograms (produced by the adding of pigment to the rock surface – painting, drawing, stencilling, printing)
- petroglyphs (produced by breaking through or extracting the rock surface – pecking, pounding, abrading, scratching).

The first priority in rock art recording must always be to avoid harm to the art itself (including the panels or surfaces on which the art is located).

Requirement 21 – AHIMS records

The attributes and features that must be recorded for rock art are contained within the DECCW AHIMS Feature Recording Form and Feature Recording Table – Art.

Requirement 22 – Recording rock art

- People undertaking rock art recording must:
  - not physically touch or interfere with any pictogram or petroglyph
  - minimise disturbance to a shelter floor in the immediate vicinity of the rock art to reduce dust mobilisation
  - minimise movement on or over surfaces with petroglyphs
  - avoid, with the exception of necessity (scales, tape measures or drawing frames for recording), putting equipment on the art or the surface containing the art.
- Photograph:
  - context – landscape, shelter/feature/platform and setting at long-range and medium scales
  - internal context – to show location of panels and art
  - panels and individual motifs – use the IFRAO scale (see www.cesmap.it/ifrao/scale.html); the scale must not be attached to the art panel surface with any adhesive media.
- Cross-reference all photographs, drawings and records using consistent identifiers (e.g. indicate panels or photographs on drawings).
- Include a photographic record of good quality (at least 8 megapixel) electronic images to be submitted with the site record.
- Consider the format the photographic data is recorded and provided in. Recognising that practitioners will use a range of digital cameras with differing capabilities in day-to-day activities, the preference for submission is (in order) RAW, TIFF, JPG. For archival recording RAW is essential.

Advisory notes

Repeated covering and uncovering of petroglyphs with soil and vegetation will adversely affect preservation conditions. Therefore removal of vegetation and soil covering petroglyphs must not be conducted without a plan for ongoing site management (Lambert 2007: 39, 42–43). This may require an AHIP.

Any rock art recording which involves the following activities requires an AHIP because it will harm the Aboriginal object:

- touching the art surface
- tracing or other contact with the art surface
- removal of pigments or other samples.

AHIMS forms must record as much information as possible. However, if harm is imminent and cannot be avoided, detailed recording by a specialist should be conducted.

3.4 Culturally modified trees

Aboriginal people used trees in many ways and in many environments. Bark was removed from trees for the purpose of making artefacts, vessels, shelters and medicines. In some regions of NSW, trees were carved with patterns and motifs for ceremonial purposes, or to mark burials. Bark was removed as both sheets, for shaped artefacts (e.g. canoes), and fibre for the manufacture of twine. Culturally modified trees can be a common type of archaeological site in areas where older trees survive.

The importance of scarred trees lies in their diversity and in the large amount of information they can tell us – individually, and as a class – about how and what Aboriginal people were doing at different times in the past. For example, scarred trees are the most important line of evidence with which to investigate the Aboriginal uses of wood and bark in the past, and they also record how different technologies such as steel axes were adopted and employed, and can give an insight into food-gathering activities (DEC and Andrew Long 2005).

Requirement 23 – Recording culturally modified trees

- Culturally modified trees must not be harmed during recording. Any harm to a culturally modified tree requires an AHIP.
- The attributes and features that must be recorded for culturally modified trees are contained within the DECCW AHIMS Feature Recording Form and Feature Recording Table – Modified Tree.
- DECCW requires that identification and terminology for archaeological consideration and recording of carved and scarred trees be consistent with that specified in *Aboriginal scarred trees in New South Wales, a field manual* (DEC and Andrew Long 2005), available at www.environment.nsw.gov.au/conservation/AboriginalScarredTrees.htm.
- Where groups of culturally modified trees are present this must be noted, and must be mapped at an appropriate level of detail.

- Photographs with a clearly visible, appropriately sized (mm or cm for close-ups, tens of cm or m for distance and context) graded metric scale must be taken, showing:
  - the complete scar
  - close-up details of the scar where this is present and informative (e.g. tool marks)
  - the tree in its environmental context.
- A sketch of the tree must be made. The sketch should show relevant features such as the location and shape of the scar(s), the location of features such as tool marks, overall condition, damage, other identifying marks, nature of the dry-face and epicormic stems (if present).
- The identification of tree scars as being Aboriginal in origin is often subject to uncertainty (DEC and Andrew Long 2005: 36–49). Any uncertainty associated with a decision to record a scarred tree as an Aboriginal object should be detailed on the Feature Recording Form. The advice of an arborist (where it may resolve an issue of potential cultural origin) should be sought prior to a 'possible' scarred tree being recorded and registered on AHIMS.

Advisory note

Unlike many other kinds of Aboriginal objects, scarred trees live, grow, and die and are a relatively short-term component of the archaeological record. The objectives in recording scarred trees are to:

- establish the cause and approximate the time of scarring (e.g. Aboriginal, pre-contact, post-contact, recent, etc.)
- document the features of the scar for recording purposes and as a means of comparison with other trees and other areas, and
- document the conservation status of the tree and the scar for long-term management, monitoring and management decision-making.

The likelihood of previously unrecorded carved trees being located in NSW is low but should not be discounted. 300 sites with carved trees were known in the early years of the 20th century but by mid-century only about a third of these could be located, and by the end of the century only 78 were known to remain in their original locations (Geering *et al*. 1991: 42).

3.5 Middens

Given the poor conditions for the preservation of organic remains at most Aboriginal sites in NSW, shell midden sites, both coastal and inland, provide the greatest insight we have into the past Aboriginal food economy. While the same best practices relevant to the general recording of open sites and closed sites apply equally to middens, best practice for shell middens has much to do with the treatment of faunal remains.

Requirement 24 – Recording shell middens

When recording shell middens the following steps must be followed:

- The attributes and features that must be recorded for middens are contained within the DECCW AHIMS Feature Recording Form and Feature Recording Table – Shell.
- Do not harm the midden in any way.
- Record the full range of shells (to species level if possible) and other materials visible on the surface of exposed middens.
- Provide an estimate of the rank and order of abundance (e.g. pre-dominant, common, rare) of species present.
- Draw and photograph any obvious changes in midden stratigraphy where middens are visible in section.
- Draw and photograph any features (e. g. pits or hearths) present.
- Estimate the density of shell (or bone) present, expressed as a ratio of shell (or bone) to sand (or other sedimentary context) on the basis either of ground surface exposure or exposed sections (e.g. eroding banks).

Advisory notes

Sullivan (1989: 51) provides a checklist of basic information about middens to record in the survey context.

Always be aware that in many cases in NSW, shell middens are also associated with Aboriginal ancestral remains.

Best practice in midden recording includes making the observations necessary to have reasonable confidence in distinguishing natural shell accumulation from an Aboriginal midden. Attenbrow (1992) and Bailey (1994) discuss the main criteria that archaeologists use to distinguish between middens and shell beds. However, there is no foolproof system of distinguishing natural shell deposits from shell midden deposits. Particular problems arise in estuarine contexts and in landscapes modified by European activities. Where there is uncertainty, best practice involves calling for an expert opinion from a person with expertise in coastal geomorphology or the archaeology of shell middens.

Best practice in midden recording includes making a determination on whether a midden has been redeposited or seriously disturbed. Expertise may be required in coastal geomorphology or shell midden archaeology.

The detectability of shell middens is limited by surface-obscuring vegetation as in the case of open sites. Middens may also be buried under metres of sand resulting from normal dune build-up and destabilisation.

Many middens are partially exposed in eroding coastal dunes or coastal and inland creek and river banks and the rest of the midden is covered by sand and vegetation.

3.6 Burials or human remains

Aboriginal ancestral remains may be found in a variety of landscapes throughout NSW, although most frequently they are found in middens, sand dunes, lunettes, bordering dunes and other sandy or soft sedimentary soils.

Aboriginal ancestral remains have a very special importance to Aboriginal people. This must always be acknowledged and respected.

Requirement 25 – Aboriginal ancestral remains

In all cases, the special importance of Aboriginal ancestral remains must be acknowledged and respected and the wishes of the Aboriginal community must be respected when making decisions regarding ancestral remains.

To avoid doubt, the precautionary principle must be applied to all physical remains suspected to be Aboriginal ancestral remains.

If any human remains are disturbed in, on or under the land, you must:

1 not further disturb or move these remains

2 immediately cease all work at the particular location

3 notify NSW Police

4 notify DECCW's Environment Line on 131 555 as soon as practicable and provide available details of the remains and their location

5 not recommence any work at the particular location unless authorised in writing by DECCW.

An Aboriginal community representative must be present where it is reasonably suspected burials or human remains may be encountered. If human remains are unexpectedly encountered and they are thought to be Aboriginal, the Aboriginal community must be notified immediately.

Recording of Aboriginal ancestral remains must be undertaken by, or be conducted under the direct supervision of, a specialist physical anthropologist or other suitably qualified person.

Archaeological reporting of Aboriginal ancestral remains must be undertaken by, or reviewed by, a specialist physical anthropologist or other suitably qualified person, with the intent of using respectful and appropriate language and treating the ancestral remains as the remains of Aboriginal people rather than as scientific specimens.

3.7 Stone artefact disposition and storage

Archaeological investigation frequently involves the collection of stone artefact assemblages.

Requirement 26 – Stone artefact disposition and storage

Purpose: To describe the procedures for the disposition of stone artefacts dealt with under AHIPs or this Code.

For Aboriginal objects that are to be submitted to the Australian Museum, contact the Museum for any specific requirements they may have.

For Aboriginal objects that are to be held by an Aboriginal community or other party named in a Care Agreement, refer to that agreement.

For Aboriginal objects kept or returned to the location they originated from:

- A full catalogue, including photographic and drawn records for diagnostic stone artefacts, must be made.
- The catalogue must be in printed form, but may also include an electronic database in the form of a table containing all records.
- All stone artefacts must be either individually bagged or bagged in appropriate and identifiable units (e.g. excavation or collection units) that can be referenced back to the catalogue.
- The stone artefacts must be stored in good quality, double-bagged plastic zip-lock bags.
- The bags must be externally labelled using permanent marker, and an 'independent' label on robust material (e.g. tyvek) written with permanent marker must be placed inside each bag.
- The collection must be placed in a suitable impervious and permanent container, which must be labelled as above, or engraved.

- A full record of the final location of the collection must be made, including:
  - grid coordinates derived as set out in Requirement 8
  - a site plan or mud map referring to permanent features
  - depth of burial, if buried
  - full photographic record of the disposition.
- The record must be submitted to AHIMS with a site update record card for the site(s) in question.

Advisory notes

Many Aboriginal communities wish to have care of Aboriginal objects which have been excavated, disturbed or moved by development activities, erosion or other processes.

The NPW Act allows the transfer of Aboriginal objects to an Aboriginal person or Aboriginal organisation for safekeeping. The person or organisation must enter into a care agreement with DECCW.

A care agreement is a document that sets out the obligations of DECCW and the Aboriginal person or Aboriginal organisation for the long-term safekeeping of the transferred Aboriginal objects. The Aboriginal person or organisation does not become the owner of the Aboriginal objects.

More information can be found at: www.environment.nsw.gov.au/licences/CareAgreements.htm or by contacting your local DECCW EPRG regional office (see Appendix C).

Appendix A – Definitions of terms used in this Code

Aboriginal object has the same meaning as 'Aboriginal object' in the *National Parks and Wildlife Act 1974* (NPW Act): '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'.

Archaeological survey is a method of data collection for Aboriginal heritage assessment. It involves a survey team walking over the land in a systematic way, recording information about how and where the survey is conducted, recording information about the landscape and recording any archaeological sites or materials that are visible on the land surface. The activities undertaken by a survey team do not involve invasive or destructive procedures, and are limited to note taking, photography and making other records of the landscape and archaeological sites (e.g. sketching maps or archaeological features).

Artefact: For the purposes of this Code, 'artefact' has the same meaning as object, (excluding the extension of the term to 'deposits') as defined in the NPW Act.

Conflict site means a site where confrontation occurred between Aboriginal and non-Aboriginal people or between different Aboriginal groups.

Contact site means a site relating to the period of first contact between Aboriginal and non-Aboriginal people.

Culturally modified tree means a tree that has been scarred, carved or modified by an Aboriginal person by:

(a) the deliberate removal, by traditional methods, of bark or wood from the tree, or

(b) the deliberate modification, by traditional methods, of the wood of the tree.

Declared Aboriginal place is a statutory concept, meaning any place declared to be an Aboriginal place (under s.84 of the NPW Act) by the Minister administering the NPW Act, by order published in the Gazette, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects.

Exposed in section and **section** refers to the vertical exposure of a soil that reveals the stratigraphy or the profile of the soil and any objects it may contain. Sections may:

- be revealed during archaeological excavations (formed by the walls of the excavation)
- occur naturally in creek and river banks, land slips, wind-eroded dune faces or other such naturally formed vertical profiles, or
- be formed artificially, for example in road and railway cuttings.

Exposure is different to visibility because it estimates the area with a likelihood of revealing buried artefacts or deposits rather than just being an observation of the amount of bare ground. It is the percentage of land for which erosion and exposure was sufficient to reveal archaeological evidence on the surface of the ground. Put another way, exposure refers to 'what reveals' (see also Burke and Smith 2004: 78–80, NPWS 1999).

Exposure type refers to the results of erosional processes: sheet wash, gullying, blow-outs, salt scalds, tracks or animal pads. As well as erosional processes, ground exposure may be caused by earth-moving machinery (e.g. bulldozers and graders, vehicle traffic etc.).

Full coverage survey means a survey conducted on foot in which all surfaces within the subject area are systematically observed and recorded.

Hand tools include spades, trowels, shovels, pans and brushes.

Landforms are the units (or similar) of land description explained and defined as 'landform elements' in The National Committee on Soil and Terrain (eds) *Australian Soil and Land Survey Field Handbook.* Landforms have a characteristic dimension of about 40 m. There are 70 landform elements defined in the *Australian Soil and Land Survey Field Handbook* (Speight 1990: 16; 17–44). Landforms are the primary subdivisions for the survey stratification.

Material traces of past Aboriginal land use has the same meaning as 'Aboriginal object' in the NPW Act. See 'Aboriginal object'.

Objects has the same meaning as 'Aboriginal object' in the NPW Act. See 'Aboriginal object'.

Potential archaeological deposit (PAD) is an area where sub-surface stone artefacts and/or other cultural materials are likely to occur (DEC 2005: 67).

Rock shelters are vertical or overhanging rock formations, including any flat or not steeply inclined ground surface below the overhang or at the base of the vertical face, which contain, or may be reasonably expected to contain, material traces of past Aboriginal land use (objects).

Section: See 'Exposed in section'.

Sites is sometimes used as another name for Aboriginal objects and material traces of past Aboriginal land use. The term is commonly used in archaeological assessments and discourse.

Survey units are strictly defined by DECCW to include only units of land that have been surveyed on foot. A survey unit may include more than one landform unit, correspond to a landform unit or be smaller than a landform unit depending on how the sampling strategy is structured. The survey unit is the minimum analytical or descriptive unit for the survey, and may be the same as the landform. A single survey unit should not cross the boundaries of different landforms, but there may be more than one survey unit within a landform. Sometimes survey units are also referred to as 'sampling units'.

Subject area refers to the area that is the subject of archaeological investigation. Ordinarily this would include the area that is being considered for development approval, inclusive of the proposed development footprint and all associated land parcels. To avoid doubt, the subject area should be determined and presented on a project-by-project basis.

Types of sites or **types of features** refers to the particular characteristics of material traces of past Aboriginal land use. For example, a rock shelter site is a type of site distinct from a scared tree. In addition, a rock shelter site (and indeed many sites) may contain multiple archaeological or cultural features: rock art, stone artefacts, archaeological deposits.

Vehicle traverses are activities involving the archaeological observation of a subject area from a vehicle.

Visibility is the amount of bare ground (or visibility) on the exposures which might reveal artefacts or other archaeological materials. It is important to note that visibility, on its own, is not a reliable indicator of the detectability of buried archaeological material. Things like vegetation, plant or leaf litter, loose sand, stony ground or introduced materials will affect the visibility. Put another way, visibility refers to 'what conceals' (see also Burke and Smith 2004: 78–80, NPWS 1999).

Definitions used in survey results tables

Survey coverage definitions

Survey unit	See definition above.
Landform	The landform within the survey unit; see definition above.
Survey unit area	The area surveyed, calculated as the length of the survey unit multiplied by the width of the survey unit.
Visibility %	See definition above.
Exposure %	See definition above.
Effective coverage area	The survey unit area multiplied by the visibility % and exposure % – either square metres or hectares.
Effective coverage %	The effective coverage area divided by the survey unit area and multiplied by 100.

Landform summary – sampled areas definitions

Landform	The landform within the survey unit; see definition above.
Landform area	The total area of the landform within the subject area.
Area surveyed	The area of the landform that has been surveyed. Calculated by summing by landform the results in the survey coverage table.
Area effectively surveyed	The area of the landform effectively surveyed. Calculated by grouping by landform the results in the survey coverage table.
% of landform effectively surveyed	The area effectively surveyed divided by the landform area multiplied by 100.
Number of sites	A count of the number of previously recorded and newly recorded sites, grouped by landform.
Number of artefacts or features	Where the data is available, a count of features and artefacts grouped by landform.

Appendix B – References

Attenbrow, V., 1992, 'Shell bed or shell midden,' *Australian Archaeology* 34: 3–21.

Bailey, G., Chappell J. and Cribb R.,1994, 'The origin of *Anadara* shell mounds at Weipa, North Queensland, Australia,' *Archaeology in Oceania* 19: 69–80.

Burke, H. and Smith C., 2004, *The Archaeologist's Field Handbook,* Allen and Un win, Crows Nest.

Charman, E. V. and Murphy B. W. (eds), 2007, *Soils: Their Properties and Management*, Oxford University Press, South Melbourne.

DEC and Andrew Long, 2005, *Aboriginal scarred trees in New South Wales, a field manual*, Department of Environment and Conservation NSW, Sydney.

DEC, 2005, *Comprehensive Coastal Assessment: Aboriginal Cultural Heritage Data Audit,* A report prepared for the Coastal, Rural and Regional Strategy Division of DIPNR as part of the NSW Comprehensive Coastal Assessment by the Department of Environment and Conservation, Hurstville.

Department of Communications, Information Technology and the Arts, Snooks & Co., (ed), 2002, *Style manual, For authors, editors and printers*, 6th edition, John Wiley & Sons, Milton.

Flood, J., Johnson, I. and Sullivan, S. (eds), 1989, *Sites and Bytes: Recording Aboriginal places in Australia*, Australian Heritage Commission Special Australian Heritage Publication Series Number 8, Australian Government Publishing Service, Canberra.

Geering, K., Ravenscroft, M. and Roberts, C., 1991, 'The preservation and management of Aboriginal carved trees,' *Historic Environment* 8: 42–46.

Guilfoyle, D., 2006, *Aboriginal cultural heritage regional studies: an illustrative approach,* Department of Environment and Conservation NSW, Sydney.

Hiscock, P., 1989, 'Artefact recording in the field', In Flood, J., Johnson, I. and Sullivan, S. (eds), 1989, *Sites and Bytes: Recording Aboriginal places in Australia*, Australian Heritage Commission Special Australian Heritage Publication Series Number 8, Australian Government Publishing Service, Canberra, pp. 20–38.

Hiscock and Clarkson, 2000, 'Analysing Australian stone artefacts: An agenda for the twenty first century', *Australian Archaeology* 50: 98–108.

Holdaway, S. and Stern N., 2004, *A Record in Stone: the study of Australia's flaked stone artefacts,* Museum Victoria, Melbourne and Aboriginal Studies Press, Canberra.

Lambert, D., 2007, *Introduction to Rock Art Conservation: A guide to the preservation of Aboriginal rock art,* Department of Environment and Climate Change, Sydney.

McDonald, R. C., Isbell, R. F. and Speight, J. G., 2009, 'Land surface', in The National Committee on Soil and Terrain (eds). *Australian Soil and Land Survey Field Handbook,* CSIRO Publishing, Collingwood, pp. 127–146.

Murphy, B. W., 2007, 'The Nature of Soil', in Charman, E.V. and Murphy, B. W. (eds). *Soils: Their Properties and Management*, Oxford University Press, South Melbourne, pp. 1–13.

NPWS, 1999, *Aboriginal Cultural Heritage Standards and Guidelines Kit*, NSW National Parks and Wildlife Service, Hurstville.

Orton, C., 2000, *Sampling in Archaeology*, Cambridge University Press, Cambridge.

Speight, J. G., 2009, 'Landform', in The National Committee on Soil and Terrain (eds). *Australian Soil and Land Survey Field Handbook,* CSIRO Publishing, Collingwood, pp. 15–72.

Sullivan, M., 1989, 'Recording shell midden sites,' Flood, J., Johnson, I. and Sullivan, S. (eds), 1989, *Sites and Bytes: Recording Aboriginal places in Australia*, Australian Heritage Commission Special Australian Heritage Publication Series Number 8, Australian Government Publishing Service, Canberra.

Terry and Chilingar, 1955, Summary of 'Concerning some additional aids in studying sedimentary formations', by Shvetsov, M. S., *Journal of Sedimentary Research* 25: 229–234.

The National Committee on Soil and Terrain (eds), 2009, *Australian Soil and Land Survey Field Handbook,* CSIRO Publishing, Collingwood.

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Planning & Aboriginal Heritage Section
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North West

Dubbo

Department of Environment, Climate Change & Water NSW
Environment & Conservation Programs
PO Box 2111
DUBBO NSW 2830

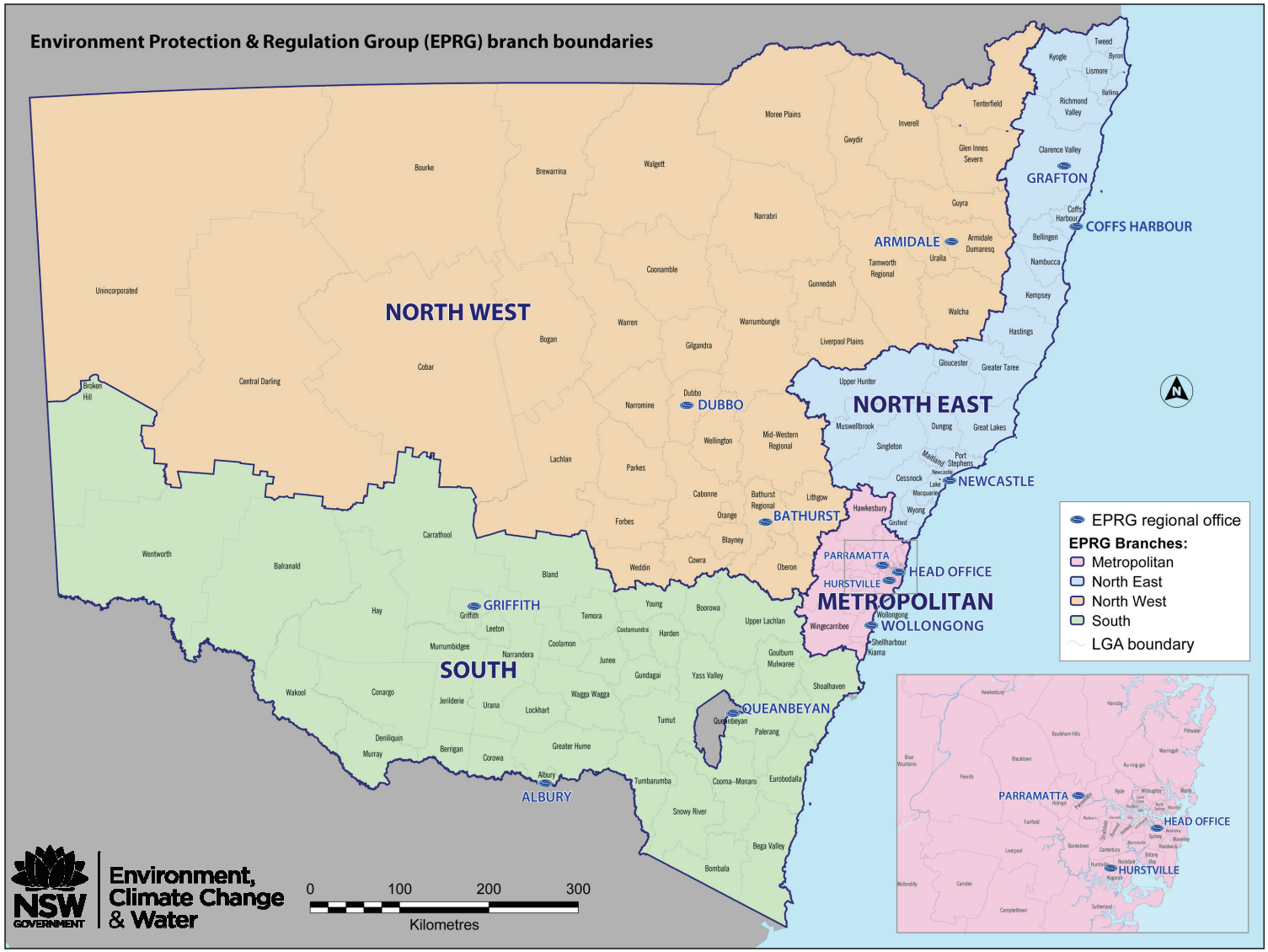
Phone: (02) 6883 5330
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South

Queanbeyan

Department of Environment, Climate Change & Water NSW
Landscape & Aboriginal Heritage Protection Section
PO Box 733
QUEANBEYAN NSW 2620

Phone: (02) 6229 7188
Fax: (02) 6229 7001

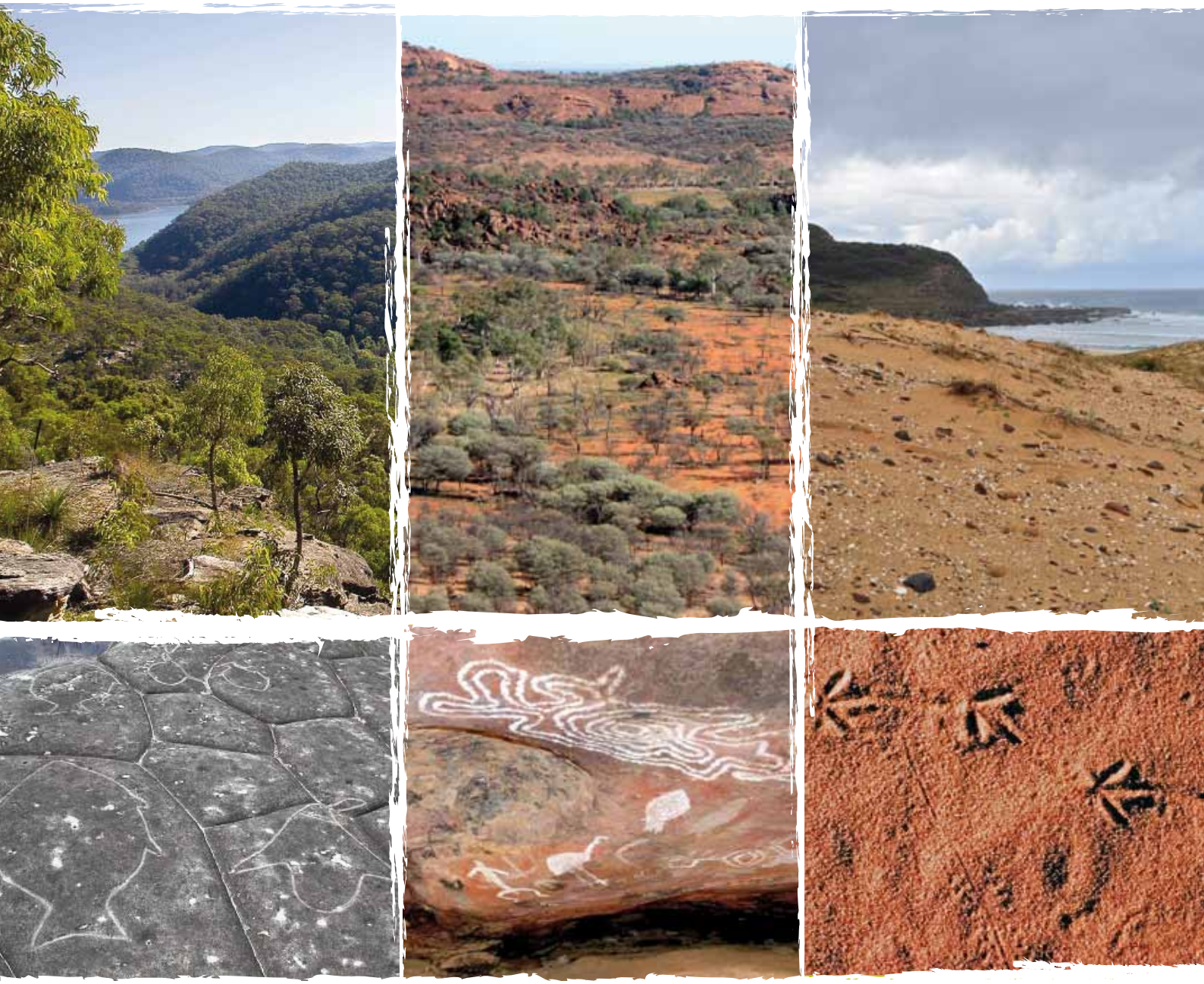

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NORTH EAST
SOUTH
METROPOLITAN
GRAFTON
COFFS HARBOUR
ARMIDALE
DUBBO
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HEAD OFFICE
PARRAMATTA
HURSTVILLE
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QUEANBEYAN
ALBURY
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Metropolitan
North East
North West
South
LGA boundary
Environment, Climate Change & Water
NSW GOVERNMENT
0 100 200 300
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Appendix 4 - Aboriginal Cultural Heritage Consultation Requirements for Proponents, Office of Environment and Heritage 2010

NSW GOVERNMENT
Environment, Climate Change & Water



Aboriginal cultural heritage consultation requirements for proponents 2010

Part 6 *National Parks and Wildlife Act 1974*

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Aboriginal and Torres Strait Islanders are warned that this publication may contain images of deceased people.

Cover photos, clockwise from top left: Remant volcanic crater in Mougamarra Nature Reserve (Michael van Ewijk/DECCW); view of Mutawintji National Park from a rock art site (Patrick Laughton/DECCW); middens at Garie Beach in Royal National Park (Cultural and Heritage Division/DECCW); raven tracks in sand (DECCW); rock art in Gundabooka National Park (Andrew Drane/DECCW); fish engraving at The Basin, Ku-ring-gai Chase National Park (M Cooper/DECCW).

DECCW wishes to thank Local Aboriginal Land Councils and other Aboriginal community organisations for supporting the use of photographs of objects and Country from their respective regions, including the Aboriginal Co-Management Group at Bourke, the Mutawintji Joint Management Committee, the Mt Grenfell Joint Management Committee, the Narrabri Aboriginal Community and the Metropolitan LALC.

Aboriginal cultural heritage consultation requirements for proponents 2010

Part 6 *National Parks and Wildlife Act 1974*

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Overview

The NSW Government acknowledges the Aboriginal people of Australia as part of the oldest and continuous living culture in human history. Aboriginal people's cultural heritage is recognised and valued as a unique and essential component of the identity of all Australian people.

Aboriginal people have occupied the NSW landscape for more than 42,000 years (Bowler et al, 2003). Evidence and important cultural meanings relating to this occupation are present throughout the landscape. Aboriginal cultural heritage also lives in the memories, stories and associations of Aboriginal people to their traditional land or Country.

Aboriginal cultural heritage provides essential links between the past and present – it is an essential part of Aboriginal people's cultural identity, connection and sense of belonging to Country. The effective protection and conservation of this heritage is important in maintaining the identity, health and wellbeing of Aboriginal people.

The *National Parks and Wildlife Act 1974* (NPW Act), administered by the Department of Environment, Climate Change and Water NSW (DECCW), is the primary legislation for the protection of Aboriginal cultural heritage in NSW. Under Part 6 of the NPW Act, the Director General of DECCW is responsible for the protection and conservation of Aboriginal *objects* and Aboriginal *places*.

The NPW Act provides specific protection for Aboriginal *objects* and Aboriginal *places* by providing offences for unauthorised harm. The NPW Act establishes the Director General of DECCW as the decision-maker for Aboriginal heritage impact permit (AHIP) applications. DECCW requires the effective consultation with Aboriginal people as a fundamental component of the AHIP assessment process and acknowledges that:

- Aboriginal people should have the right to maintain culture, language, knowledge and identity
- Aboriginal people should have the right to directly participate in matters that may affect their heritage
- Aboriginal people are the primary determinants of the cultural significance of their heritage.

This document focuses on the requirements for consultation with Aboriginal people as part of the heritage assessment process:

- to determine potential harm on Aboriginal cultural heritage from proposed activities
- that informs decision making for any application for an AHIP where it is determined harm cannot be avoided.

This document is broken down into the following sections.

Section 1	Outlines the purpose, aim, scope, and application of these requirements along with the guiding principles and intended outcomes of consultation.
Section 2	Outlines Aboriginal cultural heritage and the legislative framework for Aboriginal cultural heritage regulation in NSW.
Section 3	Provides a broad overview of what consultation is, explains why DECCW requires consultation, and outlines the objectives of consultation, information required for decision-making, and the difference between consultation and employment.
Section 4	Details the steps for consultation.
Section 5	Outlines the roles, responsibilities and functions of the various participants in the consultation process.

Glossary

For the purposes of these requirements, the following definitions apply.

Aboriginal Heritage Impact Permit (AHIP)	The statutory instrument that the Director General of DECCW issues under s.87 and/or s.90 of the NPW Act: *s.87 Aboriginal Heritage Impact Permits –* required to disturb or move an Aboriginal object or disturb or excavate land for the purposes of discovering an Aboriginal object *s.90 Aboriginal Heritage Impact Permits –* required to destroy, damage or deface an Aboriginal object or Aboriginal place.
Aboriginal object	A statutory term, meaning: '… any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains' (s.5 NPW Act).
Aboriginal owners	Aboriginal owner is a term used under the *Aboriginal Land Rights Act 1983* and the *National Parks and Wildlife Act 1974*. Aboriginal owners are defined as 'persons whose names are entered on the Register of Aboriginal Owners because of the persons' cultural association with particular land.'' (ALR Act 1983) Registration as an Aboriginal owner under the *Aboriginal Land Rights Act 1983* provides statutory recognition of an Aboriginal person's cultural associations with land. For more information about the ALR Act see section 2.2.4 of these requirements.
Aboriginal place	A statutory term, meaning any place declared to be an Aboriginal place (under s.84 of the NPW Act) by the Minister administering the NPW Act, by order published in the *NSW Government Gazette*, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects.

Cultural knowledge	For the purpose of these requirements, cultural knowledge is directly associated with Aboriginal lore. Aboriginal people connect to their land through their lore, and through lore, people acquire knowledge of all aspects of their environment along with responsibilities, obligations and behaviours that are required to sustain their survival. Cultural knowledge has been passed on through the generations in a complex system of stories, language, art, songs, dance, ceremonies and customs that have been practiced since the time of creation (Dreamtime). The lore continues to govern all aspects of life for Aboriginal people on their traditional land/Country and waters. While cultural knowledge can be interpreted to mean something that is 'in the past' or 'fixed' and 'unchanging', in the context of these requirements it is considered as a living, dynamic force that is adaptive and innovative and as belonging to living communities.
Decision-maker	The Director General of DECCW or delegate with authority to issue or refuse an AHIP.
Local Aboriginal Land Councils	Local Aboriginal Land Councils, or LALCs, are corporate bodies constituted under the *Aboriginal Land Rights Act 1983*. Under the ALR Act, LALCs have defined boundaries within which they operate. For more information about the ALR Act refer to section 2.2.4 of these requirements.
Native title	Native title refers to those rights and interests in land and water of Aboriginal and Torres Strait Islander people that are derived from the traditional laws and customs of their nations (see s.223 of the *Native Title Act 1993* (Cth) for a detailed statutory definition). For further information regarding native title refer to section 2.2.5 of these requirements.
NTSCORP Limited	NTSCORP, formerly NSW Native Title Services Ltd, is the body funded under s203FE of the *Native Title Act 1993* (Cth) to perform the functions of a native title representative body in NSW and the ACT.
Proponent	A person undertaking consultation which may lead to an application for an AHIP under the NPW Act.
Registered Aboriginal parties	Aboriginal people, Aboriginal organisations or their representatives who have registered an interest in being consulted in accordance with stage 1 of these requirements.
Registered native title claimant(s)	A person or persons whose name or names appear in an entry on the Register of Native Title Claims as the applicant in relation to a claim to hold native title in relation to the land and waters. Note: The Register of Native Title Claims is administered by the National Native Title Tribunal.

Abbreviations

AHIP	Aboriginal heritage impact permit
ALR Act	*Aboriginal Land Rights Act 1983*
DECCW	Department of Environment, Climate Change and Water NSW
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPRG	Environment Protection and Regulation Group
LALCs	Local Aboriginal Land Councils
NPW Act	*National Parks and Wildlife Act 1974*
NSWALC	New South Wales Aboriginal Land Council
NTA	*Native Title Act 1993* (Cth)

1 Introduction

The Director General of DECCW is responsible for protecting and conserving Aboriginal *objects* and Aboriginal *places* in NSW. Part 6 of the NPW Act provides specific protection for Aboriginal objects and declared Aboriginal places by providing offences for harm.

AHIPs are required for harm to Aboriginal objects and places in NSW. AHIPs are issued under s.87 and/or s.90 of the NPW Act.

DECCW acknowledges and respects the right of Aboriginal people to determine the cultural significance of their heritage. This document sets out the requirements for consulting with those Aboriginal people who can provide information about the significance of Aboriginal cultural heritage as part of the heritage assessment process that informs any application for an AHIP.

1.1 Purpose and aim

The purpose of this document is to establish the requirements for consultation with the registered Aboriginal parties as part of the heritage assessment process to determine potential impacts of proposed activities on Aboriginal objects and places and to inform decision making for any application for an AHIP.

The aim is to facilitate positive Aboriginal cultural heritage outcomes by:

- affording an opportunity for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal objects(s) and/or place(s) in the area of the proposed project to be involved in consultation so that information about cultural significance can be provided to DECCW to inform decisions regarding applications for an AHIP
- providing Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal objects (s) and/or place(s) in the area of the proposed project with the opportunity to participate in decision making regarding the management of their cultural heritage by providing proponents information regarding cultural significance and inputting into management options.

1.2 Scope and application

All AHIP applicants are required by DECCW to undertake consultation with Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places as relevant to the proposed project area in accordance with these requirements.

DECCW recommends that these requirements also be used where a proponent may be uncertain about whether or not their proposed activity may have the potential to harm Aboriginal *objects* or *places* and the proponent is required to undertake a cultural heritage assessment to establish the potential harm their proposal may have on Aboriginal objects and places.

These requirements:

- apply to all activities throughout NSW that have the potential to harm Aboriginal *objects* or *places* and that also requires an AHIP
- replace the *Interim Community Consultation Requirements for Applicants*, December 2004
- support other DECCW policies and procedures that provide direction and guidance for AHIP applicants in determining Aboriginal cultural heritage impacts.

The requirements apply to all applications lodged from 12 April 2010.

1.3 Consultation guiding principles

In recognising the rights and interests of Aboriginal people in their cultural heritage, all parties concerned with identifying, conserving and managing cultural heritage should acknowledge, accept and act on the principles that Aboriginal people:

- are the primary source of information about the value of their heritage and how this is best protected and conserved
- must have an active role in any Aboriginal cultural heritage planning process
- must have early input into the assessment of the cultural significance of their heritage and its management so they can continue to fulfil their obligations towards their heritage
- must control the way in which cultural knowledge and other information relating specifically to their heritage is used, as this may be an integral aspect of its heritage value.

In identifying and managing Aboriginal cultural heritage, uncertainty about Aboriginal cultural heritage values at a site should not be used to justify activities that might harm this heritage. Adhering to cultural restrictions on information about an Aboriginal cultural heritage site is important to maintaining its heritage value (Adapted from *Ask first – a guide to respecting Indigenous heritage places and values,* 2002).

For the purposes of these requirements:

- effective consultation requires a commitment by all parties to work in the spirit of cooperation, mutual understanding and respect
- the richness, ancient and ongoing significance of Aboriginal culture and heritage to Aboriginal people and the broader community should be appreciated, valued, protected and conserved for the benefit of current and future generations
- consultation with Aboriginal people is important and needs to be sustained throughout the heritage assessment process to ensure cultural perspectives, views and concerns are taken into account.

1.4 Intended outcomes

Effectively implementing these requirements should result in:

- decision making informed by Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of objects and/or places regarding the conservation and management of Aboriginal objects and/or places
- the opportunity for effective involvement of Aboriginal people or groups with relevant cultural knowledge in the heritage-impact assessment processes
- credible and robust administrative and regulatory methods, standards and procedures throughout NSW for protection and conservation of Aboriginal cultural heritage
- greater clarity and certainty for all stakeholders
- Aboriginal people efficiently identifying those within their communities who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places
- more streamlined and refined lists of known Aboriginal people.

2 Background

2.1 What is Aboriginal cultural heritage?

Aboriginal cultural heritage consists of places and items that are of significance to Aboriginal people because of their traditions, observances, lore, customs, beliefs and history. It provides evidence of the lives and existence of Aboriginal people before European settlement through to the present.

Aboriginal cultural heritage is dynamic and may comprise physical (tangible) or non-physical (intangible) elements. It includes things made and used in traditional societies, such as stone tools, art sites and ceremonial or burial grounds. It also includes more contemporary and/or historical elements such as old mission buildings, massacre sites and cemeteries. Tangible heritage is situated in a broader cultural landscape and needs to be considered in that context and in a holistic manner.

Aboriginal cultural heritage also relates to the connection and sense of belonging that people have with the landscape and with each other. For Aboriginal people, cultural heritage and cultural practices are part of both the past and the present and that cultural heritage is kept alive and strong by being part of everyday life.

Cultural heritage is not confined to sites. It also includes peoples' memories, story-lines, ceremonies, language and 'ways of doing things' that continue to enrich local knowledge about the cultural landscape. It involves teaching and educating younger generations. It is also about learning and looking after cultural traditions and places, and passing on knowledge. It is enduring but also changing. It is ancient but also new.

Aboriginal cultural heritage provides crucial links between the past and present and therefore represents an essential part of the identities of Aboriginal people and all Australians.

For information on cultural knowledge, see DECCWs *Fact sheet 1: What is Aboriginal cultural knowledge?* For information on cultural landscapes, see DECCWs *Fact sheet 2: What is an Aboriginal cultural landscape?*

2.2 Relevant legislation

The following legislation provides the primary context for Aboriginal heritage management in NSW: the *National Parks and Wildlife Act 1974* (NPW Act), the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Heritage Act 1977* (the Heritage Act). Other relevant legislation includes the *Aboriginal Land Rights Act 1983*, the *Native Title Act 1993* (Cth) and the *NSW Native Title Act 1994* and other Australian Government legislation.

2.2.1 National Parks and Wildlife Act 1974

The NPW Act, administered by DECCW, is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in NSW. One of the objectives of the NPW Act is:

> *'the conservation of objects, places or features (including biological diversity) of cultural value within the landscape, including but not limited to: (i) places, objects and features of significance to Aboriginal people …'* (s.2A(1)(b))

Part 6 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to harm them. If harm to Aboriginal objects and places is anticipated, apply for an AHIP. AHIPs can be issued under ss.87 and 90 of the NPW Act.

A list of declared Aboriginal places can be found at:
www.environment.nsw.gov.au/conservation/AboriginalPlacesNSW.htm

Further information on the NPW Act can be found at:
www.legislation.nsw.gov.au/viewtop/inforce/act+80+1974+first+0+N.

2.2.2 Environmental Planning and Assessment Act 1979

The EP&A Act, administered by NSW Department of Planning, provides planning controls and requirements for environmental assessment in the development approval process. It also establishes the framework for Aboriginal heritage values to be formally assessed in the land-use planning and development consent processes.

Further information on the EP&A Act can be found at: www.legislation.nsw.gov.au.

2.2.3 Heritage Act 1977

The Heritage Act, administered by NSW Department of Planning, protects this states' natural and cultural heritage. Aboriginal heritage is primarily protected under the NPW Act but may be subject to the provisions of the Heritage Act if the item is listed on the State Heritage Register or subject to an interim heritage order (IHO).

The Heritage Act established the NSW Heritage Council, which provides advice and recommendations to the Minister for Planning. The Minister approves the listing of items and places on the State Heritage Register and can also prevent the destruction, demolition or alteration of items of potential heritage value through an IHO until the significance of the item has been assessed.

Further information on the Heritage Act can be found at www.legislation.nsw.gov.au.

2.2.4 Aboriginal Land Rights Act 1983

The NSW *Aboriginal Land Rights Act 1983* (ALR Act), administered by NSW Department of Aboriginal Affairs, establishes the NSW Aboriginal Land Council (NSWALC) and Local Aboriginal Land Councils (LALCs). The Act requires these bodies to:

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

(b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

These requirements recognise and acknowledge the statutory role and responsibilities of NSWALC and LALCs.

The ALR Act also establishes the registrar whose functions include, but are not limited to, maintaining the Register of Aboriginal Land Claims and the Register of Aboriginal Owners.

Under the NSW *Aboriginal Lands Right Act 1983*, the Registrar is to give priority to the entry in the Register of the names of Aboriginal persons who have a cultural association with:

(a) lands listed in Schedule 14 to the NPW Act

(b) lands to which section 36A of the ALR Act applies.

Note Schedule 14 to the NPW Act lists lands of cultural significance to Aboriginal persons that are reserved or dedicated under that Act.

Section 36A of the ALR Act applies to lands that are the subject of a claim by one or more Aboriginal Land Councils under section 36 of this Act and that the crown lands Minister is satisfied would be claimable lands except for the fact that the lands are needed, or likely to be needed, for the essential public purpose of nature conservation.

2.2.5 Native title legislation

The *Native Title Act 1993* (Cth) (NTA) provides the legislative framework to:

(a) recognise and protect native title

(b) establish ways in which future dealings affecting native title may proceed, and to set standards for those dealings, including providing certain procedural rights for registered native title claimants and native title holders in relation to acts which affect native title

(c) establish a mechanism for determining claims to native title

(d) provide for, or permit, the validation of past acts invalidated because of the existence of native title.

The NSW *Native Title Act 1994* was introduced to ensure that the laws of NSW are consistent with the Commonwealth NTA on future dealings and validates past and intermediate acts which may have been invalidated because of the existence of native title.

The National Native Title Tribunal has a number of functions under the NTA including maintaining the Register of Native Title Claims, the National Native Title Register and the Register of Indigenous Land Use Agreements and mediating native title claims.

2.2.6 Other Acts

The Australian Government *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) may be relevant if any item of Aboriginal heritage significance to an Aboriginal community is under threat of injury or desecration and state-based processes are unable to protect it. The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) may also be relevant to some proposals, particularly where there are heritage values of national significance present.

3 Understanding community consultation

When administering its statutory functions under Part 6 of the NPW Act, DECCW requires proponents to consult with Aboriginal people about the Aboriginal cultural heritage values (cultural significance) of Aboriginal objects and/or places within the proposed project area.

For the purposes of these requirements, **community consultation** must be an open and honest two-way communication process between the proponent and Aboriginal people who have cultural heritage knowledge relevant to a proposed project area.

Effective consultation should consist of:

- consultation by proponents with Aboriginal people in the *early stages* of project planning
- building a shared understanding, between the proponent and Aboriginal people, of how advice from Aboriginal people will inform project design or decision-making processes
- building a shared understanding between the proponent and Aboriginal people of how timely feedback will be provided to participants to ensure their views were accurately taken into account and to show how the information provided by Aboriginal people contributed to the final outcome
- adherence to cultural restrictions by the proponent (e.g. Aboriginal men's business should only be discussed by men with men, and Aboriginal women's business only between women)
- avoiding culturally inappropriate days/times for consultation (e.g. NAIDOC week) and having a contingency plan should the planned consultation unexpectedly fall on the day of a funeral or other 'sorry business'
- consideration by the proponent of issues such as transport (how Aboriginal people get to meetings) and fitting in with work and family responsibilities.

Informed input made by registered Aboriginal parties relating to the significance of Aboriginal objects and/or places will usually require the collective input of a number of knowledge holders and therefore consultation should be designed to allow the internal decision-making processes of Aboriginal people to function effectively.

When undertaking consultation, proponents should use the services of people who are skilled and experienced in consultation and, in particular, consultation with Aboriginal people. These skills and experience may be available in-house or sourced from specialist service providers. Skills and competencies required to deliver effective consultation (adapted from *Community engagement skills profile*) include the ability to:

- plan community consultation
- develop and implement community consultation strategies
- select the right consultation method or strategy
- build and maintain community relationships, group facilitation skills and conflict resolution skills
- speak to large and small groups with influence
- reflect upon process and outcomes.

3.1 Why consult?

Consultation with Aboriginal people is necessary to understand their views and concerns about the proposed project but also to understand the cultural values present in the area that may be harmed.

DECCW also recognises that:

- Aboriginal cultural heritage has social/cultural, historic, aesthetic and scientific (archaeological) significance. All aspects should be given the same weight and assessed equally by the proponent in the Aboriginal cultural heritage assessment report.
- Aboriginal people are the primary determinants of the cultural significance of their heritage.
- The involvement of Aboriginal people should occur early in the assessment process. This is necessary to ensure their cultural values and concerns are taken fully into account and their decision-making structures are able to function effectively.

3.2 The objective of consultation

The objective of community consultation is to ensure that Aboriginal people have the opportunity to improve assessment outcomes by:

- providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s)
- influencing the design of the method to assess cultural and scientific significance of Aboriginal object(s) and/or place(s)
- actively contributing to the development of cultural heritage management options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed project area
- commenting on draft assessment reports before they are submitted by the proponent to DECCW.

3.3 Information required for decision making

The AHIP application and determination process requires an assessment (by the proponent) and evaluation (by DECCW) of the Aboriginal heritage values of Aboriginal object(s) and place(s) potentially harmed by an activity.

Proponents must provide the opportunity for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places as relevant to the proposed project area to be involved in consultation. The information provided through this process will assist DECCW to assess the cultural significance of objects and places that are the subject of an application to damage or destroy an Aboriginal object or place.

When evaluating an application, DECCW will consider, among other things, the:

- cultural and scientific significance of the Aboriginal object(s) and/or place(s)
- potential or likely impact of the proposal on the Aboriginal object(s) and/or place(s)
- adequacy of any proposed measures to avoid or reduce impacts
- the results of consultation with Aboriginal people.

The information required to inform the assessment of cultural significance includes:

- the location of the objects and places in this development area that are of cultural and social significance to the local Aboriginal community
- the types of objects/sites that occur across the development area (e.g. early occupation sites, dreaming sites, art sites, ceremonial, resource areas, quarries, missions etc)
- a description of the significance of all the Aboriginal *objects*/sites to Aboriginal people past and present.

This information will then be used by the proponent to:

- understand the cultural significance of objects and places
- identify any objects or places of high significance that the Aboriginal community considers a priority for conservation/protection
- apply the results of the assessment of cultural significance to inform the development of culturally appropriate archaeological survey and excavation methodologies (where required)
- inform negotiations with the registered Aboriginal parties to identify options for avoiding, minimising or mitigating damage to cultural heritage
- integrate the results of the assessment of cultural significance and the archaeological assessment into an Aboriginal cultural heritage assessment report that is submitted to support any application for an AHIP.

3.3.1 Who can provide this information?

Aboriginal people who can provide the information outlined in 3.3 above are, based on Aboriginal lore and custom, the traditional owners or custodians of the land that is the subject of the proposed project. Traditional owners or custodians with appropriate cultural heritage knowledge to inform decision making who seek to register their interest as an Aboriginal party are those people who:

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

In some cases, the information required for decision making will be held by Aboriginal people with statutory recognition for certain lands:

- Aboriginal owners in accordance with the NSW ALR Act

  and/or

- Native title holders or registered native title claimants in accordance with the *Native Title Act 1993* (Cth) and NSW *Native Title Act 1994*

It is acknowledged that Aboriginal people who, through a historical presence in a particular area, may have developed cultural knowledge relevant to the Aboriginal objects and/or places based on knowledge passed down to them by Aboriginal people with a traditional connection to Country. DECCW respects the rights of Aboriginal people with a historical connection to Country to, with their permission, act on behalf of Aboriginal people with a traditional connection to Country. DECCW acknowledges that in some cases it will only be Aboriginal people with a historical connection to an area who have the knowledge to inform the assessment of cultural significance of certain objects/places; e.g. on Aboriginal reserves and missions.

3.3.2 The role of Local Aboriginal Land Councils

Under the LRA Act, Local Aboriginal Land Councils (LALCs) are required to:

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

and

(b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

In accordance with these requirements, LALCs may:

- assist a proponent to identify Aboriginal people who may have an interest in the proposed project area and who hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places through step 4.1.2

  and

- where the LALC has cultural knowledge relevant to determining the significance of Aboriginal objects and places in the proposed project area, register an interest to be involved in the consultation process.

In the case where LALCs have not registered an interest to be involved in the consultation process through the requirements, LALCs with the necessary skills and experience may be commissioned by a proponent to provide any of the following services:

- administration, such as organising meetings and arranging venues, transport etc
- facilitating aspects of the consultation on behalf of the proponent, especially Stage 2 – Presentation of information about the proposed project
- assisting registered Aboriginal parties to contribute to the consultation process; for example, assisting in writing submissions.

3.4 Consultation should not be confused with employment

The consultation process involves getting the views of, and information from, Aboriginal people and reporting on these. It is not to be confused with other field assessment processes involved in preparing a proposal and an application. Consultation does not include the employment of Aboriginal people to assist in field assessment and/or site monitoring. Aboriginal people may provide services to proponents through a contractual arrangement; however, this is separate from consultation.

The proponent may reimburse Aboriginal people for any demonstrated reasonable out-of-pocket expenses directly incurred in order to participate in the consultation process. A demonstrated reasonable expense would include documented loss of wages caused by the need to take time from paid employment to participate in meetings.

The proponent is not obliged to employ those Aboriginal people registered for consultation. Consultation as per these requirements will continue irrespective of potential or actual employment opportunities for Aboriginal people.

4 Consultation stages

The main phases of consultation with Aboriginal people are:

1. Informing Aboriginal people about the nature and scope of the proposal.
2. Understanding what might be present in the landscape and its cultural significance.
3. Determining the potential impacts and the proposed strategies to deal with them.
4. Reviewing the report.

All parties are expected to comply with and progress through the stages below in an efficient manner to ensure the successful achievement of the intended outcomes of these requirements (see section 1.4).

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

Aim

To identify, notify and register Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

4.1.1 Proponents are not required to comply with the requirements of steps 4.1.2 to 4.1.7 where there is an approved determination of native title that native title exists in relation to the proposed project area. In this circumstance, proponents need only consult with the native title holders. If a prescribed body corporate has been established to hold native title on behalf the native title holders then proponents should consult with the prescribed body corporate.

Where native title is determined to exist over part of the proposed project area, proponents are required to comply with the requirements of steps 4.1.2 to 4.1.7 in relation to the area not covered by the native title determination.

4.1.2 Proponents are responsible for ascertaining, from reasonable sources of information, the names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal *objects* and/or *places*. Reasonable sources of information could include (a) to (g) below. Proponents must compile a list of Aboriginal people who may have an interest for the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal *objects* and/or *places* by writing to:

(a) the relevant DECCW EPRG regional office

(b) the relevant Local Aboriginal Land Council(s)

(c) the Registrar, *Aboriginal Land Rights Act 1983* for a list of Aboriginal owners

(d) the National Native Title Tribunal for a list of registered native title claimants, native title holders and registered Indigenous Land Use Agreements

(e) Native Title Services Corporation Limited (NTSCORP Limited)

(f) the relevant local council(s)

(g) the relevant catchment management authorities for contact details of any established Aboriginal reference group.

In that correspondence, proponents must include the information required in 4.1.3 (a) and (b).

See Appendix A (page 21) for a list of DECCW EPRG regional offices and a map of EPRG branch boundaries.

4.1.3 Proponents must write to the Aboriginal people whose names were obtained in step 4.1.2 and the relevant Local Aboriginal Land Council(s) to notify them of the proposed project. The proponent must also place a notice in the local newspaper circulating in the general location of the proposed project explaining the project and its exact location. The notification by letter and in the newspaper must include:

(a) the name and contact details of the proponent

(b) a brief overview of the proposed project that may be the subject of an application for an AHIP, including the location of the proposed project

(c) a statement that the purpose of community consultation with Aboriginal people is to assist the proposed applicant in the preparation of an application for an AHIP and to assist the Director General of DECCW in his or her consideration and determination of the application

(d) an invitation for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation with the proposed applicant regarding the proposed activity

(e) a closing date for the registration of interests.

4.1.4 There must be a minimum of 14 days from the date the letter was sent or notice published in the newspaper to register an interest. The time allowed to register an interest should reflect the project's size and complexity.

4.1.5 The proponent must advise Aboriginal people who are registering an interest that their details will be forwarded to DECCW and the Local Aboriginal Land Council (LALC) unless they specify that they do not want their details released.

4.1.6 The proponent must make a record of the names of each Aboriginal person who registered an interest and provide a copy of that record, along with a copy of the notification from 4.1.3 to the relevant DECCW EPRG regional office and LALC within 28 days from the closing date for registering an interest.

4.1.7 LALCs holding cultural knowledge relevant to determining the significance of Aboriginal objects and places in the proposed project area who wish to register an interest to be involved in consultation must register their interest as an Aboriginal organisation rather than as individuals.

4.1.8 Where an Aboriginal organisation representing Aboriginal people who hold cultural knowledge has registered an interest, a contact person for that organisation must be nominated. Aboriginal cultural knowledge holders who have registered an interest may indicate to the proponent they have appointed a representative to act on their behalf. Where this occurs, the registered Aboriginal party must provide written confirmation and contact details of those individuals to act on their behalf.

4.2 Stage 2 – Presentation of information about the proposed project

Aim

To provide registered Aboriginal parties with information about the scope of the proposed project and the proposed cultural heritage assessment process.

4.2.1 The proponent must initiate arrangements for presenting the proposed project information to the registered Aboriginal parties (from Stage 1).

4.2.2 The presentation of proposed project information should provide the opportunity for:

(a) the proponent to present the proposal, outline project details relevant to the nature, scope, methodology, and environmental and other impacts

(b) the proponent to outline the impact assessment process including the input points into the investigation and assessment activities

(c) the proponent to specify critical timelines and milestones for the completion of assessment activities and delivery of reports

(d) the proponent and registered Aboriginal parties to clearly define agreed roles, functions and responsibilities

(e) the registered Aboriginal parties to identify, raise and discuss their cultural concerns, perspectives and assessment requirements (if any).

4.2.3 The proponent should record or document that the proposed project information has been presented. This record or documentation should include any agreed outcomes, and any contentious issues that may require further discussion to establish mutual resolution (where applicable). The proponent should provide a copy of this record or documentation to registered Aboriginal parties.

4.2.4 Depending on the nature, scale and complexity of the proponent's project, it may be reasonable and necessary for the proponent to:

(a) conduct additional project information sessions to ensure that all necessary information about the project is provided and enable registered Aboriginal parties to provide information about the cultural significance of Aboriginal object(s) and/or place(s) that may be present on the proposed project area

(b) create the opportunity for registered Aboriginal parties to visit the project site.

4.3 Stage 3 – Gathering information about cultural significance

Aim

To facilitate a process whereby registered Aboriginal parties can:

(a) contribute to culturally appropriate information gathering and the research methodology

(b) provide information that will enable the cultural significance of Aboriginal objects and/or places on the proposed project area to be determined

(c) have input into the development of any cultural heritage management options.

4.3.1 The proponent must present and/or provide the proposed methodology(s) for the cultural heritage assessment to the registered Aboriginal parties.

4.3.2 The registered Aboriginal parties must be given the opportunity to review and provide feedback to the proponent within a minimum of 28 days of the proponent providing the methodology.

The review should identify any protocols that the registered Aboriginal parties wish to be adopted into the information gathering process and assessment methodology and any matters such as issues/areas of cultural significance that might affect, inform or refine the assessment methodology. Comments should be provided in writing, or may be sought verbally by the proponent and accurately recorded.

4.3.3 As part of this consultation, the proponent must also seek cultural information from registered Aboriginal parties to identify:

(a) whether there are any Aboriginal objects of cultural value to Aboriginal people in the area of the proposed project

(b) whether there are any places of cultural value to Aboriginal people in the area of the proposed project (whether they are Aboriginal places declared under s.84 of the NPW Act or not). This will include places of social, spiritual and cultural value, historic places with cultural significance, and potential places/areas of historic, social, spiritual and/or cultural significance.

4.3.4 Some information obtained from registered Aboriginal parties may be sensitive or have restricted public access. The proponent must, in consultation with registered Aboriginal parties, develop and implement appropriate protocols for sourcing and holding cultural information. In some cases the sensitive information may be provided to the proponent by an individual and the proponent should not share that information with all registered Aboriginal parties or others without the express permission of the individual.

For further information on cultural knowledge and its protection see DECCWs *Fact sheet 3: Cultural knowledge and its protection.*

4.3.5 Information obtained in 4.3.4 is used to understand the context and values of Aboriginal object(s) and/or place(s) located on the proposed project site. This information must be integrated with the scientific (archaeological) assessment of significance. Together the context, values, and scientific assessment provide the basis for assessing Aboriginal heritage values and recommending management options.

The information collected by the proponent during the consultation process must be used only to inform decision making for any application for an AHIP, unless the registered Aboriginal parties agree otherwise.

4.3.6 The proponent must seek the views of registered Aboriginal parties on potential management options. Management options will include ways to avoid or mitigate harm and/or conserve known Aboriginal object(s) and/or place(s). Management options should consider how Aboriginal people can continue their association with identified Aboriginal heritage values.

4.3.7 The proponent must document all feedback received in Stage 3 from registered Aboriginal parties in the final cultural heritage assessment report. This must include copies of any submissions received and the proponents response to the issues raised. In some cases this may require an acknowledgment of sensitive information and a list of Aboriginal people who should be contacted for permission to receive further details.

4.4 Stage 4 – Review of draft cultural heritage assessment report

Aim

To prepare and finalise an Aboriginal cultural heritage assessment report with input from registered Aboriginal parties.

4.4.1 The proponent must prepare a draft cultural heritage assessment report.

4.4.2 The proponent must provide a copy of the draft cultural heritage assessment report to registered Aboriginal parties for their review and comment.

4.4.3 The proponent must give registered Aboriginal parties a minimum of 28 days from sending the draft report to make submissions. The time allowed for comment on the draft report should reflect the project's size and complexity. Comments should be provided in writing or, where provided verbally, accurately recorded.

4.4.4 After considering the comments received on the draft report the proponent must finalise the report. The final report must include copies of any submissions received, including submissions on the proposed methodology and on the draft report. The final report must also include the proponent's response to each submission. The report must then be submitted to DECCW for consideration with the proponent's application for an AHIP.

4.4.5 The proponent must provide or make available copies of the final cultural heritage assessment report and the AHIP application to registered Aboriginal parties and the relevant LALC(s) (whether or not the LALC is registered in Stage 1). The report and application must be provided or made available within 14 days of the AHIP application being made.

See Appendix B for a summary of the consultation process.

Note: Information about applying for an AHIP including application forms, supporting checklists, and other relevant information can be found at: www.environment.nsw.gov.au/licences/Section87Section90.htm.

5 Roles, responsibilities and functions

For the consultation process to be effective, all parties must appreciate and respect each other's perspective and understand each other's interests, roles and responsibilities.

5.1 Department of Environment, Climate Change and Water

The Director General of DECCW is the decision-maker who decides whether to grant or refuse an AHIP application. If an AHIP is issued, conditions are usually attached and DECCW is responsible for ensuring the AHIP holder complies with those conditions. When considering an application under Part 6 of the NPW Act, the Director General will review the information provided by proponents in line with its internal policies and procedures to assess potential or actual harm to Aboriginal objects or places (DECCW, 2009).

The Environment Protection and Regulation Group (EPRG) of DECCW is responsible for administering the regulatory functions under Part 6 of the NPW Act. A map and list of DECCW EPRG regional offices is in Appendix A.

DECCW expects proponents and Aboriginal people should:

- be aware that Part 6 of the NPW Act establishes the Director General or delegate of DECCW as the decision-maker
- recognise that the Director General's (or delegates) decisions may not be consistent with the views of the Aboriginal community and/or the proponent. However, DECCW will take into account all relevant information it receives as part of its decision-making process.

Further information about the structure of DECCW, and the roles and responsibilities of various groups and the services provided, such as EPRG, Culture and Heritage Division (CHD), and Parks and Wildlife Group (PWG) can be found at: www.environment.nsw.gov.au/whoweare/planorgs.htm

5.2 Registered Aboriginal parties

The interests and obligations of Aboriginal people relate to the protection of Aboriginal cultural heritage. It is only Aboriginal people who can determine who is accepted by their community as being authorised to speak for Country and its associated cultural heritage. Where there is a dispute about who speaks for Country, it is appropriate for Aboriginal people, not DECCW or the proponent, to resolve this dispute in a timely manner to enable effective consultation to proceed.

It is expected that DECCW, proponents and service providers that act on their behalf should:

- display a meaningful appreciation, understanding and respect for the belief system, spiritual connection and sense of belonging that Aboriginal people have to their land, people and environment, which includes plants, animals, waterways, sacred sites and other places of cultural significance and importance
- uphold and respect the traditional rights, obligations and responsibilities of Aboriginal people who hold cultural knowledge in accordance with traditional lore and custom, particularly as these relate to the cultural business of men and women
- encourage active participation of culturally experienced and appropriate Aboriginal people who hold cultural knowledge in the consultation process
- encourage opportunities for the effective transfer of cultural knowledge from older to younger generations in accordance with traditional lore and custom through the consultation process
- have an awareness and understanding of how colonisation has impacted the Aboriginal people of Australia

- have an understanding and respect for the lore and customs, cultural practices, responsibilities and obligations that Aboriginal people have toward the continued care and conservation of Aboriginal *objects* and *places*.

Aboriginal people should:

- have an awareness and understanding of the commercial environment and constraints in which proponents operate
- develop and display an awareness and understanding of the opportunities to input into regulatory processes to contribute to decision making by proponents and government authorities.

5.2.1 NSW Aboriginal Land Council and Local Aboriginal Land Councils

The NSW Aboriginal Land Council (NSWALC) and Local Aboriginal Land Councils (LALCs) have statutory functions relevant to the protection of Aboriginal culture and heritage under the NSW *Aboriginal Land Rights Act 1983*. These requirements do not extend the role of NSWALC and LALCs in the significance assessment process. That is, these requirements do not provide NSWALC and/or LALCs any additional or specific decision-making role in the assessment of significance of Aboriginal object(s) and/or place(s) that are subject to an AHIP application under Part 6 of the NPW Act.

LALCs may choose to register an interest to be involved in the consultation process, or may assist registered Aboriginal parties to participate in the consultation process established by these requirements. In order to ensure effective consultation and the subsequent informed heritage assessment, LALCs are encouraged to identify and make contact with Aboriginal people who hold cultural knowledge in their area.

For further information on LALCs and the role they can play in these requirements, see DECCWs *Fact sheet 4: Local Aboriginal Land Councils.*

5.3 Proponents

Proponents operate within a commercial environment which includes:

- financial and management issues, priorities and deadlines
- the need to obtain broad community support and acceptance in order to secure any necessary approval/consent/licence/permit to operate
- the desire for clearer processes and certainty of outcomes
- the need for suitable access to land for the purpose of their development project
- a need to work efficiently within the project's time, quality and cost planning and management parameters
- the need for culturally appropriate assessment findings relevant to their project.

Under these requirements, proponents should:

- bring the registered Aboriginal parties or their nominated representatives together and be responsible for ensuring appropriate administration and management of the consultation process
- consider the cultural perspectives, views, knowledge and advice of the registered Aboriginal parties involved in the consultation process in assessing cultural significance and developing any heritage management outcomes for Aboriginal object(s) and/or place(s)
- provide evidence to DECCW of consultation by including information relevant to the cultural perspectives, views, knowledge and advice provided by the registered Aboriginal parties
- accurately record and clearly articulate all consultation findings in the final cultural heritage assessment report

- provide copies of their cultural heritage assessment report to the registered Aboriginal parties who have been consulted
- submit an application to DECCW for an AHIP in a timely manner and with all required information.

References

Aboriginal Land Rights Act 1983 (NSW), s.4, web document, NSW Department of Aboriginal Affairs, Sydney, NSW, viewed 11 March 2010, www.daa.nsw.gov.au/landandculture/landrights.html

Ask first – a guide to respecting Indigenous heritage places and values, pdf, 2002, Australian Heritage Commission, Canberra, ACT, viewed viewed 11 March 2010, www.environment.gov.au/heritage/ahc/publications/commission/books/ask-first.html

Bowler J M, Johnston H, Olley JM, Prescott, JR, Roberts RG, Shawcross W and Spooner NA, 2003, 'New ages for human occupation and climatic change at Lake Mungo, Australia'. *Nature,* vol. 421, 30 January, pp. 837–40.

Community engagement skills profile, Engaging Queenslanders: managing community engagement, web document, Queensland Government, Brisbane, Qld, viewed 11 March 2010, www.onlinelearning.qld.gov.au/materials/ce/online/ce/info/learning/guide/t8s1.htm#act4

DECCW, 2009, *Operational policy: protecting Aboriginal cultural heritage*, Department of Environment, Climate Change and Water NSW, Sydney, viewed 11 March 2010, www.environment.nsw.gov.au/resources/cultureheritage/09122ACHOpPolicy.pdf

DECCW, 2009, *Guide to determining and issuing Aboriginal heritage impact permits* Department of Environment, Climate Change and Water NSW, Sydney, viewed 11 March 2010, www.environment.nsw.gov.au/resources/cultureheritage/09121AHIPGuide.pdf

Appendix A

DECCW EPRG regional offices

Metropolitan

Parramatta

Department of Environment, Climate Change and Water

Planning and Aboriginal Heritage Section
PO Box 668
Parramatta NSW 2124
Phone (02) 9995 5000
Fax (02) 9995 6900

North East

Coffs Harbour

Department of Environment, Climate Change and Water

Planning and Aboriginal Heritage Section
Locked Bag 914
Coffs Harbour NSW 2450
Phone (02) 6651 5946
Fax (02) 6651 6187

North West

Dubbo

Department of Environment, Climate Change and Water

Environment and Conservation Programs
PO Box 2111
Dubbo NSW 2830
Phone (02) 6883 5330
Fax (02) 6884 9382

South

Queanbeyan

Department of Environment, Climate Change and Water

Landscape and Aboriginal Heritage Protection Section
PO Box 733
Queanbeyan NSW 2620
Phone (02) 6229 7000
Fax (02) 6229 7001



Appendix B

Summary of the consultation process

Stage 1

Notification of project proposal and registration of interest

Proponents must compile a list of Aboriginal people who may have an interest in the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal *objects* and/or *places* from reasonable sources of information, which include writing to:

a. the relevant DECCW EPRG regional office
b. the relevant Local Aboriginal Land Council(s) (LALC)
c. the Registrar, *Aboriginal Land Rights Act*
d. the National Native Title Tribunal
e. Native Title Services Corporation (NTSCorp)
f. relevant local council(s)
g. relevant catchment management authorities.

Proponent writes to the Aboriginal people whose names were provided by organisations **a** to **g** and LALC(s) to notify them of the proposed project and opportunity to be involved in consultation and places notification in the local newspaper.

The notification by letter and in the newspaper must include:

a. the name and contact details of the proponent
b. a brief overview of the proposed project that may be the subject of an application for an AHIP, including the location of the proposed project
c. a statement that the purpose of community consultation with Aboriginal people is to assist the proposed applicant in preparing an application for an AHIP and to assist the Director General of DECCW in his or her consideration and determination of the application
d. an invitation for Aboriginal people who hold knowledge relevant to determining the cultural significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation with the proposed applicant regarding the proposed activity
e. a closing date for the registration of interests.

Aboriginal people have a minimum of 14 days after the letter was sent or the notice was published in the newspaper to register an interest.

Proponent records names of Aboriginal people who have registered an interest in being involved in consultation – the 'registered Aboriginal parties'.

Stage 2

Presentation of information about the proposed project

Proponent presents and/or provides proposed project information to registered Aboriginal parties.

Proponent may create an opportunity for registered Aboriginal parties to visit the proposed project site.

Proponent provides a copy of the notification and record of the registered Aboriginal parties to DECCW and relevant LALC within 28 days of the closing date for registering an interest.

Proponent records or documents that information on the proposed project has been presented. This record or documentation should include any agreed outcomes and/or contentious issues that may require further discussion (where applicable).

Proponent should provide a copy of this record or documentation to registered Aboriginal parties.

Stage 3

Gathering information about cultural significance

Proponent presents and/or provides the proposed methodology(s) for the cultural heritage assessment to the registered Aboriginal parties for comment.

Registered Aboriginal parties have a minimum of 28 days after the proponent provides the methodology(s) to provide written or oral comment.

Proponent considers input provided by registered Aboriginal parties and finalises methodology for implementation. Proponent documents how the input has been considered.

Proponent seeks information from registered Aboriginal parties to identify:

a. whether there are any Aboriginal objects of cultural value
b. whether there are places of cultural value (whether or not they are Aboriginal places declared under Section 84 of the NPW Act).

Proponent seeks input from registered Aboriginal parties on potential management options.

Stage 4

Review of draft cultural heritage assessment report

Proponent prepares draft cultural heritage assessment report and provides it to the registered Aboriginal parties for review and comment.

Registered Aboriginal parties have a minimum of 28 days after the proponent provides the draft report to review and provide written or oral comment.

Proponent finalises cultural heritage assessment report. The final report is submitted to DECCW for consideration with the proponent's AHIP application.

Proponent provides/makes available the final cultural heritage assessment report and AHIP application to the registered Aboriginal parties and relevant LALCs within 14 days of an AHIP application being made to DECCW.



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