



Westmead Redevelopment

Central Acute Services Building - Heritage Assessment

Prepared by:

RPS AUSTRALIA EAST PTY LTD

Level 9, 17 York Street,
Sydney NSW 2000

T: 02 9248 9800
F: 02 9248 9810
E: sydney@rpsgroup.com.au

Prepared by: Deborah Farina
Reviewed: Erin Williams
Approved: Deborah Farina
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HEALTH INFRASTRUCTURE

PO Box 1060
NORTH SYDNEY NSW 2060

T: +61 2 9978 5402
F: +61 2 8904 1377

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1 Introduction

RPS Australia East Pty Ltd has been commissioned by Health Infrastructure New South Wales (“the Proponent”) to prepare an assessment of Aboriginal and non Aboriginal heritage ahead of the construction of the main hospital building as part of the Westmead Redevelopment (“the project”). Since the commencement of the Westmead Redevelopment, RPS has prepared the following heritage assessments and plans:

- Opportunities and Constraints for Aboriginal and non Aboriginal heritage within the Westmead and Cumberland Precincts (2014);
- Statement of Heritage Impact for concept design of Westmead precinct (2014);
- Aboriginal Cultural Heritage Assessment Report for Westmead Precinct (2014);
- Statement of Heritage Impact for Early Enabling Works (2015);
- Updated Aboriginal Cultural Heritage Assessment Report for Early Enabling Works (2015);
- Statement of Heritage Impact for Multi Storey Car Park (2015);
- Aboriginal Heritage Management Plan for Early Enabling Works (2015);
- Heritage Management Plan for Early Enabling Works (2015);
- Heritage Induction for staff and contractors engaged in Early Enabling Works (2015).

This report draws on the information and research presented in these earlier papers in its assessment of the heritage values and potential impact on those values in the construction of the main building.

1.1 Study area

The Central Acute Services Building (CASB) is proposed to be constructed to the north east of the current main building at the Westmead Hospital Precinct, Westmead (see Figure 1 for study area). Its main frontage will be along Hawkesbury Road and will be located adjacent to the Millennium Institute.

This portion of the hospital precinct is located on a ridge to the west of the World Heritage listed Parramatta Park and Old Government House.

1.2 Overview of Westmead Redevelopment

The Western Sydney Local Health District (WSLHD) has the second largest population in NSW and is projected to grow to more than 1 million by 2031. It employs almost 9,500 people across more than 100 sites including five hospitals and an extensive network of community health centres.

The Westmead Hospital is a key part of that health network. It is also part of one the largest health, research, and education precincts in the world. No other hospital precinct in NSW includes the co-location of adult, children's, oral and mental health hospitals alongside research and education facilities.

The redevelopment proposed for Westmead Hospital will transform the iconic, but ageing, facility into a world class centre for knowledge, skills and care. It will be the largest capital health project for the NSW Government in 10 years.

This report relates to the construction of a new CASB.

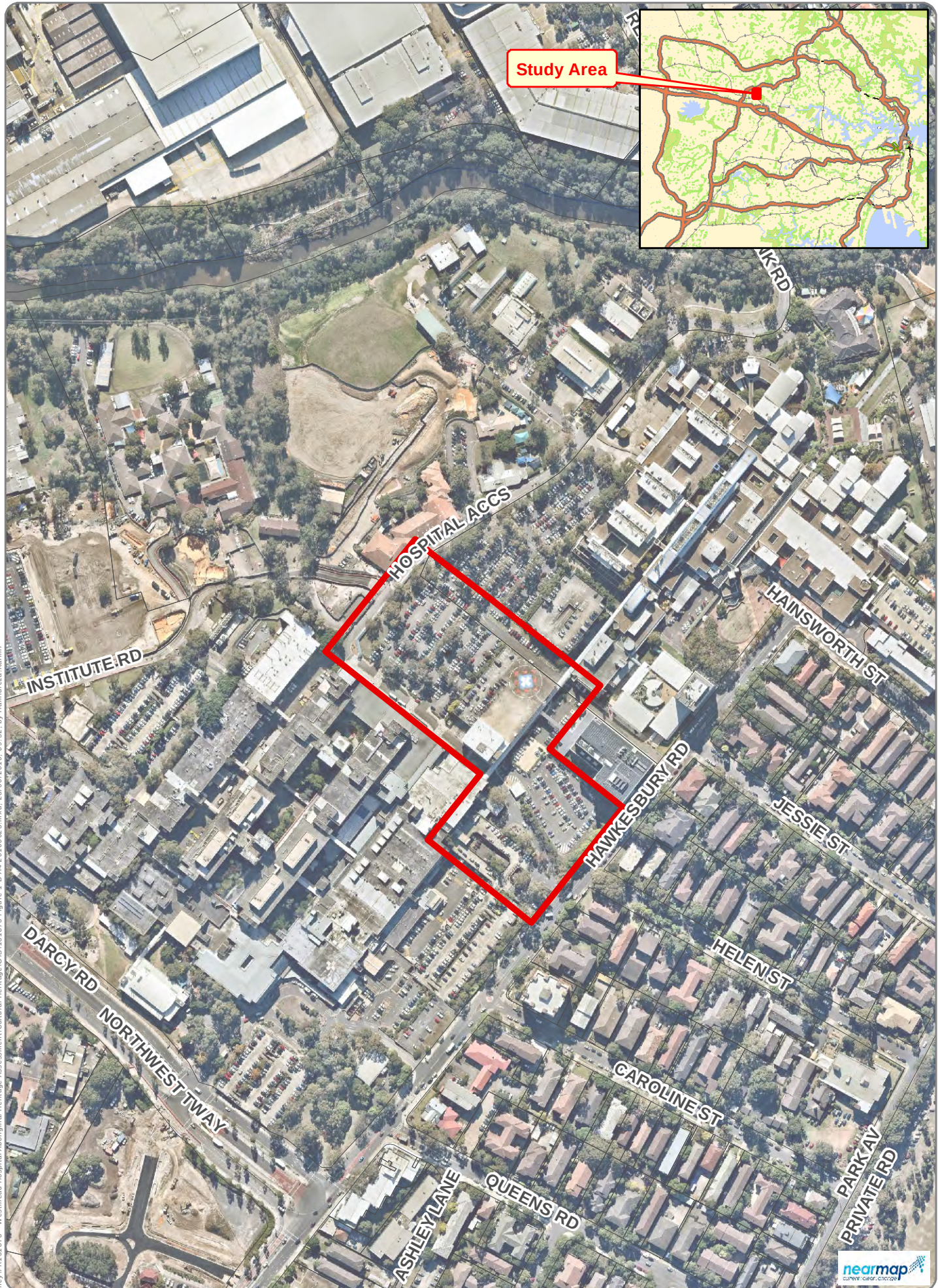
1.3 Methodology

As noted above, this assessment covers both Aboriginal and non Aboriginal heritage. This report broadly follows the principles encapsulated in the *Burra Charter* (Australia ICOMOS 2013). The non Aboriginal heritage portion of this report follows the best practice standards set by the NSW Heritage Division of the Office of Environment and Heritage. These best practice guidelines includes the publications *Assessing Heritage Significance* (NSW Heritage Office 2001) and *Statements of Heritage Impact* (Heritage Office and Department of Urban Affairs and Planning 2002).

The Aboriginal heritage portion of this report broadly complies with the publications released by the Office of Environment and Heritage *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Department of Environment Climate Change & Water 2010) and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (Department of Environment Climate Change & Water 2010).

1.4 Authorship

This report has been prepared by RPS Heritage Manager Sydney CBD, Deborah Farina, and reviewed by RPS Senior Heritage Manager, Erin Williams. Assistance has also been provided by Hamidreza Karimi, GIS Specialist.



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2 Legislative Context

The following section provides an overview of the legislative framework relating to the protection and management of heritage in New South Wales. This overview is provided solely as information for the client rather than as legal advice.

2.1 Aboriginal heritage

Aboriginal cultural heritage in NSW is primarily protected under two Acts:

- *National Parks and Wildlife Act 1974.*
- *Environmental Planning and Assessment Act 1979.*

National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) is overseen by the Office of Environment and Heritage (OEH), now a part of the Department of Premier and Cabinet. The NPW Act provides statutory protection of Aboriginal heritage (places, sites and objects) within NSW.

Part 6 of the NPW Act defines an Aboriginal object 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.

Protection of Aboriginal heritage is outlined in section 86 of the Act, as follows:

- “A person must not harm or desecrate an object that the person knows is an Aboriginal object” s86(1).
- “A person must not harm an Aboriginal object” s86(2).
- “A person must not harm or desecrate an Aboriginal place” s86(4).

The *NPW Amendment (Aboriginal Objects and Places) Regulation 2010* came into effect on 1 October 2010. This provided a series of mechanisms for the management and protection of Aboriginal heritage places and objects. As part of these amendments, new offences relating to harm to, or desecration of an Aboriginal object or declared Aboriginal Place were introduced.

The penalty for knowingly harming an Aboriginal object (s86[1]) and/or an Aboriginal place (s86[4]) is up to \$550,000 for an individual and/or imprisonment for two years; and in the case of a corporation the penalty is up to \$1.1 million. The penalty for a strict liability offence (s86[2]) is up to \$110,000 for an individual and \$220,000 for a corporation.

Harm under the NPW Act is defined as any act that; destroys defaces or damages the object, moves the object from the land on which it has been situated, causes or permits the object to be harmed. However, the strict liability offence for harming an Aboriginal object or Aboriginal Place has a number of defences. Two defences are relevant to the proposed development which includes:

- The statutory Due Diligence defence. If the proponent exercised due diligence in respect to Aboriginal heritage.
- That harm was authorised under the statutory Aboriginal Heritage Impact Permit (AHIP) and the permit was properly followed.

The ‘due diligence’ defence (s87(2)), states that if a person or company has exercised due diligence to ascertain that no Aboriginal object was likely to be harmed as a result of the activities proposed for the study

area (subject area of the proposed activity); then liability from prosecution under the NPW Act 1974 will be removed or mitigated if it later transpires that an Aboriginal object was harmed. If any Aboriginal objects are identified during the activity, then works should cease in that area and OEH notified (DECCW 2010:13). The due diligence defence does not authorise continuing harm.

Notification of Aboriginal Objects

Under section 89A of the NPW Act Aboriginal objects and sites must be reported to the Director-General of OEH within a reasonable time, unless it has previously been recorded and submitted to AHIMS. Penalties of \$11,000 for an individual and \$22,000 for a corporation may apply for each object not reported.

The investigation and assessment of Aboriginal cultural heritage is undertaken to explore the harm of a proposed activity on Aboriginal objects and places. There are a number of guidelines and procedural publications governing archaeological practice relating to Aboriginal cultural heritage. The publications relevant to this investigation and assessment include:

- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).
- *The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (the Code) (DECCW 2010).
- *The Aboriginal cultural heritage consultation requirements for proponents* (ACHCR) (DECCW 2010).

Under the Code, a number of requirements are set out by OEH to ensure a standardisation of archaeological investigation of Aboriginal objects is undertaken in NSW. Section 90 of the NPW Act states that only the Director General may issue an AHIP and that an AHIP may be issued either with or without specific conditions. An AHIP may relate specifically to an Aboriginal object or place or a specific area, activity or person. Therefore where there is a possibility that Aboriginal objects and/or places may be harmed; the requirements set out in the Code must be followed in order to comply with the requirements of the NPW Act.

The ACHCR codifies a staged process of consultation with Aboriginal people. These requirements flow from the fulfilment of the objects of the NPW Act, which seek, *inter alia*, to conserve objects places or features of significance to Aboriginal people. To this end, Aboriginal people are included in the consultation process to provide feedback on the cultural significance of Aboriginal objects and places in an study area.

Environmental Planning and Assessment Act 1979

This Act regulates a system of environmental planning and assessment for New South Wales. Land use planning requires that environmental impacts are considered, including the impact on cultural heritage and specifically Aboriginal heritage. Assessment documents prepared to meet the requirements of the *Environmental Planning and Assessment Act 1979* including Reviews of Environmental Factors, Environmental Impact Statements and Environmental Impact Assessments should address Aboriginal heritage, and planning documents such as Local Environment Plans and Regional Environmental Plans typically contain provisions for Aboriginal heritage where relevant.

Aboriginal Land Rights Act 1983

The purpose of this legislation is to provide land rights for Aboriginal people within NSW and to establish Local Aboriginal Land Councils (LALC). The land able to be claimed by Aboriginal Land Councils on behalf of Aboriginal people is certain Crown land that (s36):

- (a) Is able to be lawfully sold, leased, reserved or dedicated.
- (b) Is not lawfully used or occupied.
- (c) Will not, or not likely, in the opinion of the Crown Lands minister, be needed for residential purposes.
- (d) Will not, or not likely, be needed for public purposes.

(e) Does not comprise land under determination by a claim for native title.

(f) Is not the subject of an approved determination under native title.

Claims for land are by application to the Office of the Registrar, *Aboriginal Land Rights Act 1983*.

Native Title Act 1993

The Commonwealth Government enacted the *Native Title Act 1993* to formally recognise and protect native title rights in Australia following the decision of the High Court of Australia in *Mabo and Ors v Queensland [No 2] (1992) 175 CLR 1* (Mabo).

Although there is a presumption of native title in any area where an Aboriginal community or group can establish a traditional or customary connection with that area, there are a number of ways that native title is taken to have been extinguished. For example, land that was designated as having freehold title prior to 1 January 1994 extinguishes native title, as does any commercial, agricultural, pastoral or residential lease. Land that has been utilised for the construction or establishment of public works also extinguishes any native title rights and interests for as long as they are used for that purpose. Other land tenure, such as mining leases, may be subject to native title, depending on when the lease was granted. There are no Native Title claims within the study area.

2.2 Non Aboriginal heritage

Heritage Act 1977 and the NSW Heritage Division

Historical archaeological relics, buildings, structures, archaeological deposits and features are protected under the *Heritage Act 1977* (and subsequent amendments) and may be identified on the State Heritage Register (SHR) or by an active Interim Heritage Order.

The Heritage Council of NSW, constituted under the *Heritage Act 1977*, is appointed by the Minister and is responsible for heritage in NSW. The Council reflects a cross-section of community, government and conservation expertise with the NSW Heritage Division being the operational arm of the Council. The work of the NSW Heritage Division includes:

- Working with communities to help them identify their important places and objects;
- Providing guidance on how to look after heritage items;
- Supporting community heritage projects through funding and advice; and
- Maintaining the NSW Heritage Database, an online list of all statutory heritage items in NSW

The 1996 NSW Heritage Manual, published by the NSW Heritage Division, then Department of Urban Affairs and Planning, provides guidelines for conducting assessments of heritage significance. The Manual includes specific criteria for addressing the significance of an item and this assessment has been completed in accordance with those guidelines. These criteria are addressed more fully in Section 7 of this report.

Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) regulates a system of environmental planning and assessment for NSW. Land use planning requires that environmental impacts are considered, including the impact on cultural heritage. Assessment documents prepared to meet the requirements of the EP&A Act, including Reviews of Environmental Factors and Environmental Impact Statements, should address heritage issues where relevant. Statutory planning documents such as Local Environment Plans and State Environmental Planning Policies typically contain provisions for heritage.

The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013

The *Burra Charter* is a set of best practice principles and procedures for heritage conservation. It was developed by Australia ICOMOS (International Council for Monuments and Sites), the Australian group of the international professional organisation for conservation. Although without statutory weight, the *Burra Charter* underpins heritage management in New South Wales and Australia. The policies and guidelines of the Heritage Council of NSW and the NSW Heritage Office are consistent with and guided by the *Burra Charter*.

3 Environmental Context

An understanding of the environmental context is important for the predictive modelling and interpretation of Aboriginal objects and places. The local environment provided resources for Aboriginal people, such as stone (for manufacturing stone tools), food and medicines, wood and bark (for implements such as shields, spears, canoes, bowls, shelters, amongst others), as well as areas for camping and other activities. The nature of Aboriginal occupation and resource procurement is related to the local environment and it therefore needs to be considered as part of the cultural heritage assessment process. The reporting of environmental context is a requirement under the Code of Practice.

3.1 Geology and Soils

Aboriginal people made stone tools using siliceous, metamorphic or igneous rocks and therefore understanding the local geology can provide important information regarding resources in the study area. The nature of stone exploitation by Aboriginal people was dependent on the characteristics of the source, for example whether it outcropped on the surface (a primary source), or whether it occurred as gravels as a secondary source (Doelman, Torrence et al. 2008).

The project area is situated within the Sydney Basin. The Sydney Basin is a structural basin containing a Permian-Triassic (290-200 million years old) sedimentary sequence that is part of the larger Sydney-Gunnedah-Bowen Basin. The Sydney Basin resulted from a marine transgression at the end of the Late Palaeozoic glaciation, followed by a marine regression in the Late Permian and Triassic. The lowest division is the Narrabeen group, which is overlain by Hawkesbury sandstone. The Wianamatta group is uppermost (Branagan, Herbert et al. 1976:28).

Most of the project area is underlain by Wianamatta group shale (Ashfield shale). Ashfield shale consists of dark-grey to black claystone-siltstone and fine sandstone-siltstone laminate (Clark and Jones 1991).

The northern part of the project area is underlain by Hawkesbury sandstone. Hawkesbury sandstone consists of medium to very coarse-grained quartz sandstone, minor laminated mudstone and siltstone lenses (Clark and Jones 1991). Hawkesbury sandstone is a fairly friable medium, and when weathered, forms cavernous overhangs suitable for Aboriginal occupation. It also occurs as outcrops (of various dimensions) and boulders. Outcropping sandstone provided a surface for engravings and pigment images, and on which ground-edged implements could be shaped and sharpened. Small quartz pebbles, commonly used for flaked artefacts, also occur in Hawkesbury sandstone. These pebbles (10-50 millimetres) erode to the ground surface, or may have been collected from stream beds, or chipped out of the sandstone (Attenbrow 2010:43).

The soil landscape represented within the project area is the Blacktown soil landscape. The Blacktown soil landscape includes shallow to moderately deep (less than 100 centimetres) hardsetting, mottled texture contrast red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and drainage lines (Bannerman and Hazelton 1990:28-31). The implication of the Blacktown soil landscape is that the nature and extent of archaeological features and materials may have changed, or been removed through erosion.

3.2 Topography and Hydrology

The project area is situated on relatively low-lying land. The Westmead Hospital (Adults) and the Westmead Children's Hospital are situated on land sloping to the north and west from Hawkesbury Road. The property on which the Cumberland Hospital is situated slopes towards the bisecting Parramatta River.

The availability of water has implications for the range of resources available and the suitability of an area for occupation. The eastern portion of the project area is bisected by Parramatta River. The river would have provided Aboriginal people with a combination of freshwater and saltwater resources, as the river is tidal in its lower reaches. The freshwater streams entering the Parramatta River supported mullet, crayfish, shellfish and turtles, while the river proper supported saltwater sources of food including fish, shellfish, molluscs and eels (Kass, Liston et al. 1996:6). Investigations of shell middens in the upper estuarine reaches of the Parramatta River indicates that shell fish procured by Aboriginal people included rock oysters and cockles, and to a lesser extent, Hercules whelks, mud oysters, spiny oysters, winks and horn shells (Attenbrow 1991:49).

The topography and hydrology of the study area demonstrates that the landscape may have been habitable for past populations; the area would have provided sufficient water resources and been fertile enough to sustain human occupation.

3.3 Flora and Fauna

The purpose of this section is to provide an indication of the types of flora and fauna resources which were likely to have been available to Aboriginal people in the past. It is based on broad-scale vegetation mapping for NSW (Keith 2006) and does not replace more detailed studies undertaken for the study area.

The project area is situated within the mapped extent of Northern Hinterland Wet Sclerophyll Forests and Coastal Valley Grassy Woodlands. Northern Hinterland Wet Sclerophyll Forests have a prominent grassy ground cover under an open layer of both mesophyllous and sclerophyllous shrubs. The tree layer is open and tall, and includes a variety of eucalypts that may exceed 40 metres (Keith 2006:70-71). The Northern Hinterland Wet Sclerophyll Forests contain an extensive, variable and diverse range of flora. Indicative species include tallowwood, blackbutt, grey gum and grey ironbark, and narrow-leaved orange bark, dogwood, prickly shaggy pea and tree heath, as well as spiny haired mat rush, wiry panic and blade grass (Keith 2006:71).

Coastal Valley Grassy Woodlands include a diverse range of plant assemblages. Forest red gum is dominant, standing 20-30 metres tall, and occurring in abundance with a number of other species. The understory has dispersed and clumped shrubs, most of which are sclerophyllous. Indicative species include blackthorn, which may occur as thickets, hickory wattle, gorse bitter pea and prickly beard-heath (Keith 2006:87). There is a dense ground cover with a diverse range of perennial tussock grasses, scrambling twiners, and perennial herbs, periodically supplemented by flushes of geophytic orchids and lilies in good seasons or after fire (Keith 2006:86-87).

These vegetation communities provide habitat for a variety of fauna, and would have provided potential food and raw material sources for Aboriginal people. Fauna inhabiting these vegetation communities include kangaroos, wallabies, possums, and echidnas, a variety of lizards and snakes and birds. The bones of these fauna have been recovered from archaeological investigations, indicating that they were sources of food, although the hides, bones and teeth of some of the larger mammals may have been used for clothing, ornamentation, and other implements.

3.4 Landuse History

The above information demonstrates the environmental context of the study area prior to European colonisation. This subsection details the land use since European colonisation in order to identify areas of least disturbance and thereby determine the potential for Aboriginal objects to remain *in situ*.

In 1810, Governor Macquarie resumed a large parcel of land, including the area comprising the Westmead Hospital campus, and declared it as the Government Domain. The land making up the Westmead Hospital area was initially known as the Domain's 'West Meadow'. The 'West Meadow' remained part of the

Government Domain until approximately 1859, when the northern and western meadows were subdivided off, from which time they became known as 'Northmead' and 'Westmead' respectively. Small private holdings took up much of the subdivided land, and Westmead became known for its orchards.

The original alignment of the Old Windsor Road was originally constructed to enable the new settlement of Windsor access to Parramatta and Sydney. The road originally commenced at the Great Western Highway near Parramatta and cutting through the Old Government Domain, followed the current alignments of Hawkesbury Road and Darcy Road, before turning to Fulton Road, (Office of Environment & Heritage 2009). The original road alignment now borders the current study area as Darcy Road.

In 1902 a branch line was constructed between Westmead and Baulkham Hills, known as the "Rogan's Hill Line". A station at Mons Road (the north western boundary of the current study area), was added to the route in 1923, amongst others. This part of the line traversed from south west to north east through the study area to Northmead. The line was not successful, having to compete with road transport and was closed in 1932. An aerial photograph from 1943 clearly shows the remnants of the tramline running through the study area before crossing Toongabbie Creek (Plate 1). The only remaining above-ground evidence of the line in the vicinity of the project area is a sandstone pier for the bridge crossing the Toongabbie Creek (NSW Rail NSW Rail Network ud.). The 1943 aerial also shows the former Westmead Showground and a vehicle access track within the study area.

After local petitioning, the land for the showground was granted in 1931. The "Show and Sports Ground at Parramatta" hosted shows by the Parramatta Agricultural Horticultural and Industrial Society as well as events such as racing.

Owing to a dramatic rise in the population in Western Sydney in the 1960s, the old Parramatta Hospital which had operated at its location since 1789 was by then operating well beyond its capacity. The NSW Government announced the need to construct a new hospital complex to augment services provided by Parramatta Hospital. Following a grant from the Federal Government in 1974, construction began on the hospital. The Westmead Hospital was opened in 1978, and became the first tertiary referral health centre in the outer suburbs of Sydney. It was also the first teaching hospital to be built in Sydney since the Royal Prince Alfred Hospital at Camperdown in 1882.

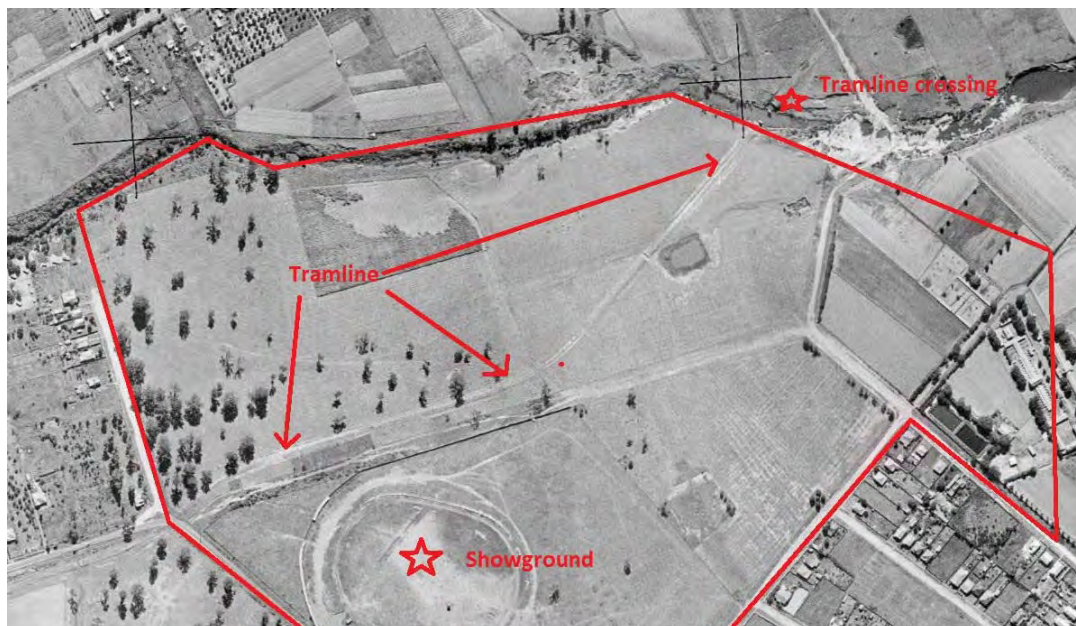


Plate 1 1943 Aerial showing project area outline with former tramline and showground.

3.5 Summary

The environmental context above relates to how the land would have appeared in its natural state. However, since 1788 the project area has undergone extensive modification through vegetative clearance, agriculture, landscaping and construction of the various institutions, hospitals and infrastructure. There is very little native vegetation remaining, with the exception of areas along the banks of Toongabbie Creek.

The various land uses across the project area since 1788 and primarily during the mid to late twentieth century, have resulted in the modification of natural land form units and surfaces. In some cases, large areas have been excavated to create level surfaces, whilst fill deposits appear to have been laid to raise the level of other surfaces.

Given the extensive disturbance through agricultural and modern urban land uses, there remains little potential for any evidence of Aboriginal occupation to remain.

4 Ethno-historical Context

In line with the OEH reporting requirements (DECCW 2010c), this section synthesises information pertaining to the history and ethnography of the regional and local area. This information has been drawn upon from historical, Ethno-historical and previous archaeological assessments.

Aboriginal tribal boundaries within Australia have been reconstructed, primarily, based on surviving linguistic evidence and are therefore only approximations. Social interaction, tribal boundaries and linguistic evidence may not always correlate and it is likely boundaries and interaction levels varied and fluctuated over time.

The property now encompassing the Master Planning – Project Area formed part of the traditional lands of the Burramattugal clan of the Darug people. The Darug language group extended from the coast between Port Jackson and Botany Bay, over the Cumberland Plain to the Blue Mountains. The Darug language comprised two dialects: a coastal dialect spoken within Sydney (north of Botany Bay, south of Port Jackson and west to Parramatta), as well as to the north of Port Jackson; and a hinterland dialect, spoken on the Cumberland Plain from Appin in the south to the Hawkesbury River in the north and west of the Georges River, Parramatta and on the Lane Cover Rive and Berowra Creek (Attenbrow 2010:34).

4.1 Aboriginal Land Use and Social Organisation

The social organisation of Aboriginal people in Sydney was observed as named groups associated with designated tracts of land. Land custodianship and ownership therefore, centred on clan groups. It was normal practice to disallow intermarriage within immediate lineage groups, and as such a number of groups would have travelled together making up larger units, often referred to as bands (Attenbrow 2010).

Groups were delineated by physical boundaries within the landscape, such as watercourses and landform features. Individuals were usually united by a common dialect, descent, history, and a shared ‘Dreaming’ ancestor, with each group led by influential individuals. In the Sydney area, spiritual attachment and allegiance to land was centred on the clan. Bands formed part of a larger language group, whose estate would have represented the extent of the land occupied by that larger group of people with economic and ritual rights (Attenbrow 2010).

The complexity of the relationship within and between clan groups and bands was not recorded, nor was the relationship between these groups and the wider Aboriginal population. Numerous assumptions have been made regarding Aboriginal occupation of the Sydney area based on ethnographic observations elsewhere. The degree of interaction between groups depended on general environmental conditions, seasonal produce and abundance, population density, and a tendency towards the conservation of effort (Peterson 1976:58). Localised seasonal abundances, as evidenced in annual bird migrations, would have encouraged interaction, as would have the less predictable resources such as beached whales reported in the Sydney region (Attenbrow 2010).

Documentation of Aboriginal land use indicate that Aboriginal people moved from place to place for variety of reasons, including hunting and gathering of food and other resources, and participating in rituals and ceremonies. Colonists’ accounts however, indicate that there was limited interaction between coastal and inland groups. This was based on differences in economic practices, and on the finding that the Aboriginal people of Port Jackson had no knowledge of the area north or west of Parramatta, or south of the Georges River (Tench 1789 ; Barrallier 1802).

Colonists’ accounts described the use of bark huts as dwellings in the Sydney area. The coastal versions of these were described as being larger than the inland ones, being “formed of pieces of bark from several trees put together ... large enough to hold six to eight people” (Collins 1798:460). On a short trip west of Rose Hill (later Parramatta), Governor Arthur Phillip reported sighting bark huts, fire places, and the results

of plant collecting and hunting (fern roots, shells, animal bones, and the fur of a 'flying squirrel' or possum, and scarred and burning trees). He noted that "the hut may, perhaps, only be intended to hide them from the animals they lay in wait for" (Phillip 15 May 1788, cited in Attenbrow 2010:48).

Observers also noted the use of sandstone overhangs or shelters:

"They appear to live chiefly in the caves and hollows of the rocks, which nature had supplied them with, the rocks about the shore being mostly shelving and overhanging so as to afford a tolerable retreat" (Barrington 1802:20).

Aboriginal people actively managed the natural environment so as to provide themselves with a diverse and consistent supply of food and other resources. On an exploration of the Rhodes area in 1788 Phillip noted:

"We proceeded to the beginning of the flats, where we landed and went 2 or 3 miles into the country. Found the trees a considerable distance apart and the soil in general good... [the] grass [was] very good and [there was] no underwood. After dinner went in the smallest boat over the mudflats past a mangrove island and followed a creek some distance westward" (Bradley 1788:76).

This landscape reflected Aboriginal burning. Systematic and low intensity burning was used as a way to maximise environmental diversity and productivity. Other productivity initiatives included the deliberate discard of seeds of fruits and other plants close to regular campsites and the construction of fish traps to a design which allowed fish to survive and be harvested when needed.

Edible and useful plants were distributed through the different vegetation communities of the Sydney area, which were principally eucalypt woodlands but also heaths, freshwater swamps, and estuarine saltmarsh and mangrove communities. These included the roots of ferns and orchids, yams, figs, mistletoe, geebung, apple berries, native currants, native cherries and native raspberries, banksia flowers. These vegetation communities were also inhabited by a large number of different fauna. These included kangaroos, wallabies, possums, gliders, bandicoots, wombats, fruit bats and numerous bird species (Attenbrow 2003:62-84).

The main sources of stone materials in the Sydney area were gravel beds of watercourses and conglomerate pebbles in Hawkesbury sandstone. The Cumberland Plain appears to have had a greater number and wider distribution of resource locations and a greater range of stone types suitable for the manufacture of tools, than the coastal area. Silcrete and basalt were available in the coastal zone, in addition to the sandstone quartz conglomerate described above (Attenbrow 2003:43-44).

4.2 Post Contact Ethno-historical Context

On establishing a settlement at the Crescent at Rose Hill, later Parramatta, a garrison detachment was sent to erect temporary quarters, store buildings and minor fortifications (a redoubt) to guard the settlement against a possible incursion by Aboriginal people. Despite these initial fears, there appears to have been little conflict between Aboriginal people and settlers at Rose Hill up to the early 1790s (Kass, Liston et al. 1996:26). Aboriginal people and settlers were often engaged in trade with David Collins recording the nature of these transactions:

"Since the establishment of that familiar intercourse which now subsisted between us and the natives, several of them have found it in their interest to sell or exchange fish among the people of Parramatta; they being contented to receive a small quantity of either bread or salt meat in barter for mullet, bream and other fish. To the officers who resided there this proved a great convenience, and they encouraged the natives to visit them as often as they could bring them fish" (Collins 1798:137).

Tensions however, soon mounted as disputes over traditional lands and resources increasingly arose. The opening up of the Toongabbie Ponds (north-east of Parramatta) and Prospect areas to settlement in the

early 1790s (Collins 1975:144), led to increased land exploitation in the form of clearing, grazing and cultivation, and as a consequence the resource area available to Aboriginal people reduced.

Phillip reinstated the detachment at Rose Hill on 15 September 1790 (Tench 1789) with Collins describing the events which led to a decline in relations at Rose Hill in June 1791:

There were, however, among the convicts some who were so unthinking, or so depraved as wantonly to destroy a canoe belonging to a fine young man, a native, who had left it at some distance from the settlement and as he hoped out of the way of observation, while he went with some fish to the huts. His rage at finding his canoe destroyed was inconceivable; and he threatened to take his own revenge... Three of the six people who had done him injury, however, were so well described by someone who had seen them, that, being closely followed, they were taken and punished, as were the remainder a few days after.

The instant effect of all this was, that the natives discontinued to bring up fish; and Bal-loo-der-ry (Bolloderree), whose canoe had been destroyed, although he had been taught to believe that one of the six convicts had been hanged for the offence, meeting a few days afterwards with a poor wretch who had strayed from Parramatta as far as the flats, he wounded him in two places with a spear. This act of Bolloderree's was followed by the Governor's strictly forbidding him to appear again in any of the settlements; the other natives, his friends, being alarmed, Parramatta was seldom visited by any of them and all commerce with them was destroyed. How much greater claim to the appellation of savages had the wretches who were the cause of this, than the native who was the sufferer? (Collins 1798:138-139).

By the late 1790s, Aboriginal and settler relations had declined to such an extent that active guerrilla campaigns were waged against settlers in Parramatta and Sydney by organised groups of Aboriginal people.

Hostilities between Aboriginal people and settlers began to decline by the 1810s. Devastated by dislocation and depopulation Aboriginal people became more dependent on settlers to provide them with food, clothing and shelter. While traditional lifestyle continued in some more remote areas, many remnant bands of Aboriginal people began to congregate on the fringes of settlements. In the early 1810s, government and religious attempts to Anglicise Aboriginal people commenced. Governor Lachlan Macquarie, from 1810 to 1821, pursued a policy of assimilation which aimed at encouraging Aboriginal people to abandon traditional culture and adopt a colonial life.

In January 1815 Macquarie established the Native Institution at Parramatta. The Native Institution aimed to prepare Aboriginal children for colonial life. The children learnt religion, reading, writing and arithmetic. The boys were taught agricultural principles and practices, and the girls were taught needlework. The children demonstrated their skills at the annual Native Feast (Attenbrow 2010:84).

On 10 December 1814 Macquarie had called for a meeting in Parramatta, to be held on the 28 December, requesting the attendance of all Aboriginal people living between Port Jackson and the Blue Mountains. Macquarie hoped to instigate and promote a government sanctioned 'Native Feast', designed to attract Aboriginal people to the Native Institution. The feast took place behind Saint John's Church and was attended by around 60 Aboriginal people of different affiliations. Aboriginal attendance at the feast grew in the following years, with some 300 people in attendance in 1818 (Dallas 2003:51-52) (Plate 2). Though the last time the children presented their accomplishment at the Native Institution was in 1822, the feast was retained as a demonstration of the Governments goodwill towards Aboriginal people. Diminishing attendance in the late 1820s led Governor Richard Bourke to abolish the event in 1835 (Dallas 2003:54).



Plate 2 Augustus Earle *The annual meeting of the native tribes at Parramatta* (Courtesy, National Library of Australia, Rex Nan Kivell Collection NK 12/57)

5 Historical context

5.1 Broad Historical Context

Governor Phillip arrived in the Parramatta area by river in November, 1788 with a small retinue of 11 soldiers and 10 convicts to establish a new outpost to the fledgling colony. His first act was to establish a Redoubt, a military enclosure to protect the soldiers, convicts and supplies, on a prominent hill near the Parramatta River and immediately south-west of the current study area, which was subsequently named 'Rose Hill' (Plate 3). Judge Advocate David Collins described the Redoubt in 1789 as being built "only of posts and shingles fastened with pegs on battens". The future Governor John Hunter described the Redoubt as being "on elevated ground which joins to a very fine Crescent ... On the opposite side of the brook is a farmhouse ... the convicts houses form a line at some distance in front of the barracks" (Parramatta Park Trust 2012). The convict houses mentioned by Hunter were on the other side of Parramatta River, in the grounds of what is now Parramatta Stadium.



Plate 3 : Map of the settlement at Rose Hill, as surveyed by William Bradley in 1789 (Courtesy, State Library of NSW)

Following the failure of grain crops at Sydney Cove, Governor Phillip ordered that the new settlement at Rose Hill to be used for agriculture. Convicts were used to clear land and plant crops. Seventy acres were initially planted, with a barn, a house and a granary also built. The first crop was successful however the bulk was used as seed for future crops. By 1790, Governor Phillip wrote that approximately 100 convicts were employed in the clearing and cultivation of the Rose Hill farm, on the grounds of what is now Parramatta Stadium (Parramatta Park Trust 2012).

By 1790, a single storey cottage of lath and plaster was constructed for the Governor. The cottage was small (44 feet x 16 feet) and demolished by Governor Hunter in 1799. In around 1791, the Government Farm was extended to the Westmead area. Smaller holdings were also granted to free settlers, with Collins referring to the new area as 'the new grounds' in August 1791 (Parramatta Park Trust 2012). By this time, 500 convicts, housed in 13 large tent huts, cleared 134 acres (54 hectares) which was then sown for maize (see Plate 4). Karskens notes Tench's comment that (unusually) the convict's labour was "unassisted by any liquor but water" (Parramatta Park Trust 2012). The site of the "new grounds" is currently occupied by Westmead Children's Hospital and remnants of the Psychiatric Centre Farm (Office of Environment and

Heritage 2012). Plate 4 below shows two rows of convict huts by the banks of Toongabbie Creek. The location of the huts on that map corresponds with the area in the vicinity of the current Care Flight helipad in the north of the current study area.



Plate 4 : Map from 1790 showing location of maize crops in the West Meadow, and potential location of convict huts (Courtesy, Bonwick Transcripts, State Library of NSW)

In 1810, Governor Macquarie resumed a large parcel of land, including the smaller holding grants and the current study area, and declared it as the Government Domain, with the current Government House built in its centre on the slopes of Rose Hill. The land making up study area was initially known as the Domain's 'West Meadow', with the name truncated before subdivision to 'Westmead'.



Plate 5 : Undated Parish of St John map showing Government Domain prior to subdivision (courtesy: Parish Preservation Project, NSW Land & Property Information).

The 'West Meadow' remained part of the Government Domain until approximately 1859, when the northern and western meadows were subdivided off, from which time they became known as 'Northmead' and 'Westmead' respectively. Small private holdings took up much of the subdivided land, and Westmead became known for its orchards.

5.2 Historical Development of the Site

From 1794, land grants were being made at "Green Hills" (now known as "Windsor") to encourage agriculture. By the end of the year over 100 grants had been made. With Government stores, soldiers' barracks and a government cottage also built at the new township, a road between Parramatta and Windsor became necessary. The original alignment of the Old Windsor Road initially commenced at the Great Western Highway near Parramatta and, cutting through the Old Government Domain, followed the current alignments of Hawkesbury Road and Darcy Road, before turning to Fulton Road, through the Toongabbie Government Farm settlement, then joining up with the current alignment of Old Windsor Road at Hammers Road, Constitution Hill (Office of Environment & Heritage 2009)

In 1822, at the Red Cow Inn at Parramatta, the Agricultural Society of NSW (later the "Royal Agricultural Society of NSW") came into being, with Governor Thomas Brisbane appointed as Patron. The first show, known as the "Parramatta Fair", was held in 1823 in Parramatta Park, between the current western boundary of Parramatta Park and the Westmead (St Vincent's) Boys Home on Hawkesbury Road (SMH, Sydney Morning Herald (1927:19). It was described more as a sheep show. The Society held its following agricultural shows in other venues in Parramatta until 1870, when it was moved to Prince Alfred Park in Sydney (Royal Agricultural Society of NSW).

As agriculture was the primary industry in the Parramatta area, a push came from local landowners to secure an area for a showground following the subdivision of the Government Domain in 1859. Landowners such as George Oakes, who along with his brother Francis had substantial land grants in the Parramatta/Westmead area, actively petitioned the government to allow a percentage of the subdivision for

public use. The land, however, had been reserved for use by the Lunatic Asylum at Parramatta and was known as “Hospital Paddocks”.

In 1902 a branch line was constructed between Westmead and Baulkham Hills, known as the “Rogan’s Hill Line.” A station at Mons Road (on the corner of Old Windsor Road), along with other stations was added to the route in 1923. This part of the line traversed from south west to north east through the current study area to Northmead. The line was not successful, having to compete with road transport, and was closed in 1932. An aerial photograph from 1943 clearly shows the remnants of the tramline running through the paddocks of the current study area before crossing Toongabbie Creek (see Plate 6). The only remaining above-ground evidence of the line in the vicinity of the study area is a sandstone pier for the bridge crossing the Toongabbie Creek (NSW Rail NSW Rail Network ud.).

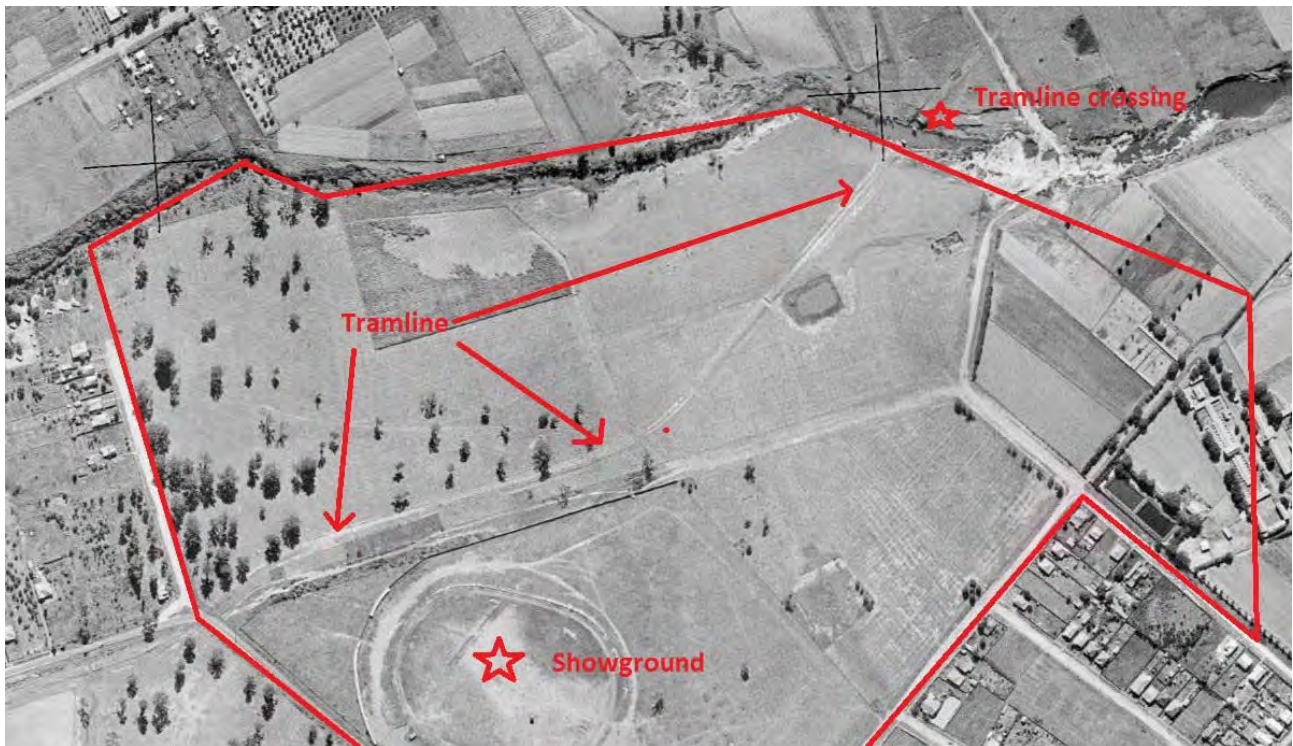


Plate 6 : 1943 Aerial showing study area outline with former tramline and showground.

The land for the showground was eventually granted in 1931 to Henry Ohlsen, Timothy Lockett, James Joys McKay, Samuel Alfred Hanscombe, George Henry Mobbs, William Robert Hulks and Michael Benedict Donnellan as Portion 262 in the Parish of St John. It is described on the plan as a proposed “Show and Sports Ground at Parramatta”. The showground hosted shows by the Parramatta Agricultural Horticultural and Industrial Society as well as events such as racing.



Plate 7 : Crown Plan of Portion 262 in the Parish of St John. Note that Darcy Road is indicated as “Old Windsor Road” (Courtesy: NSW Land & Property Information).

Owing to a dramatic rise in the population in Western Sydney in the 1960s, the old Parramatta Hospital which had operated at its location since 1789 was by then operating well beyond its capacity. The NSW Government announced the need to construct of new hospital complex to augment services provided by Parramatta Hospital. Following a grant from the Federal Government in 1974, construction finally began on the hospital. It opened in 1978, and became the first tertiary referral health centre in the outer suburbs of Sydney. Prior to Westmead, all referral services were provided by inner city health providers. It was also the first teaching hospital to be built in Sydney since the Royal Prince Alfred Hospital at Camperdown in 1882.

6 Archaeological assessment

In order to assess the potential for significant archaeological remains to exist within the study area, it is first necessary to establish what items have been recorded and what previous archaeological investigations have been undertaken in both the study area and in its immediate vicinity. In relation to Aboriginal archaeology, this should be read in conjunction with the environmental context in section 3 above.

6.1 Recorded Aboriginal heritage

A search of the Aboriginal Heritage Information Management System administered by the Office of Environment & Heritage on 31 May 2016 revealed a total of 25 Aboriginal objects have been recorded within the searched area. The search area comprises an approximately 1 kilometre square around the main hospital site with the coordinates (GDA Zone 56) Eastings 312940-314940 and Northings 6256776-6258776 with a fifty metre buffer (**Appendix B**).

Table 1 : Aboriginal objects within the searched coordinates

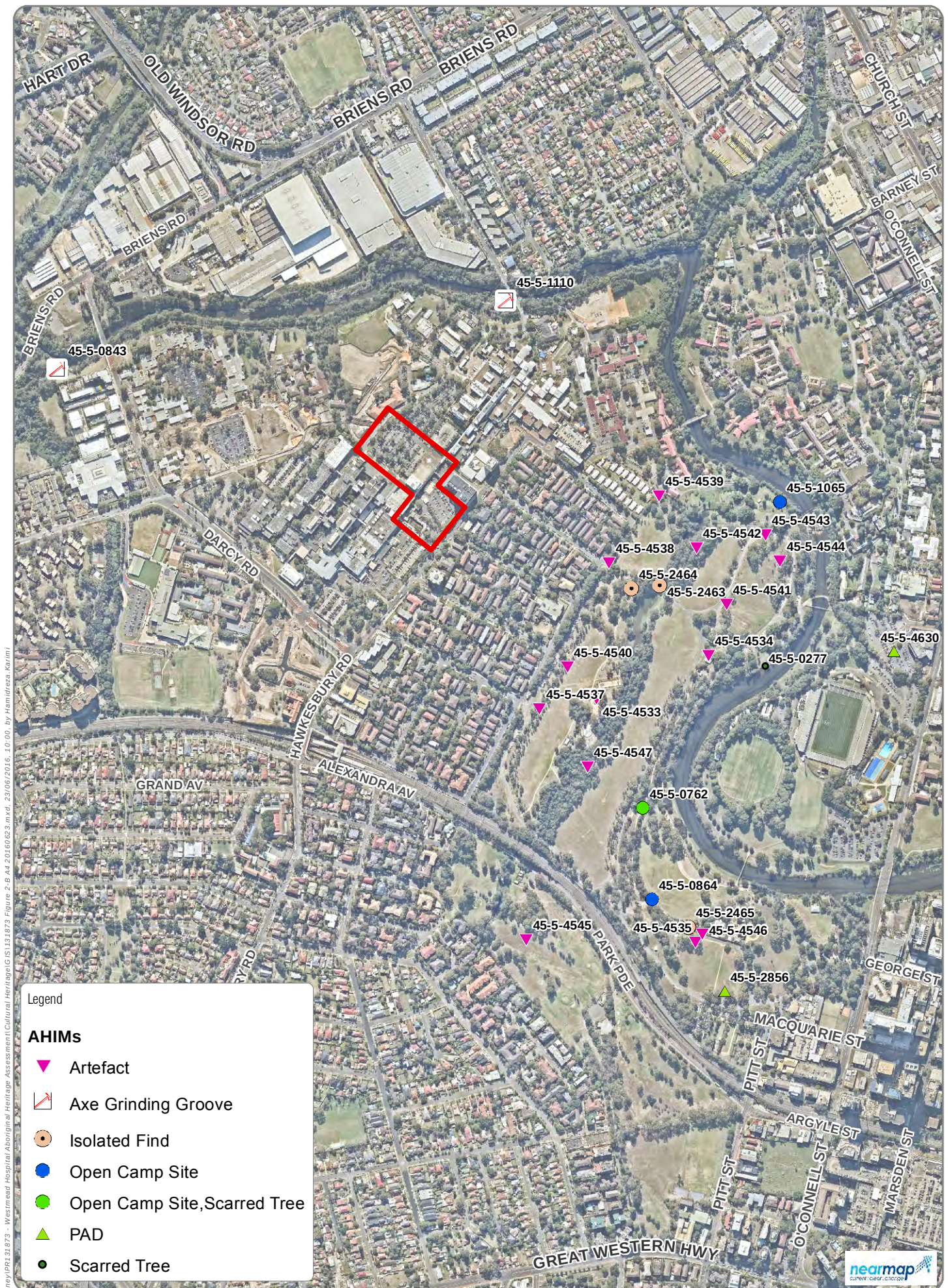
Site type	Frequency	Percent
Non specified artefact sites	17	68%
Axe grinding grooves	2	8%
Potential archaeological deposits	2	8%
Artefact scatters	2	8%
Artefact scatter/modified trees	1	4%
Modified tree	1	4%
Total	25	100

There were no Aboriginal sites recorded within the study area. AHIMS 45-5-1110 (Redbank) was first recorded in June 1997 by M.Guider as a grinding groove. Further assessment of the site undertaken by Mary Dallas and Paul Irish in July 2001 identified the grooves as non-cultural. An update to the site card was made and is included in the Aboriginal cultural heritage study (Dallas 2003). AHIMS 45-5-1110 (Redbank) is described as four weathered axe grinding grooves on flat sandstone platforms in the centre of Toongabbie Creek. The Aboriginal cultural heritage study noted that it was possible that the grinding grooves had been misidentified, and that the grooves recorded in 1997 were weathered and worn. RPS inspected the features in 2014 and concurred with Dallas and Irish that the marks were not culturally made.

6.2 Non Aboriginal heritage searches

Acknowledged heritage items and places are recorded in statutory and non-statutory registers held at the Federal, State and local level depending on their level of significance. Internationally significant sites of 'outstanding universal value' are inscribed in the World Heritage List (WHL) and in turn, such sites are usually recognised through their inclusion on Federal and state-level registers.

Federal designations include the National Heritage List (NHL) and the Commonwealth Heritage List (CHL) created by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Both registers are maintained by the Department of the Environment and are available to view on an online database, the Australian Heritage Database. The NHL includes natural, historic and Indigenous places that are of outstanding national heritage value to the Australian nation. The CHL protects natural, Indigenous and historic heritage places on land owned or leased by the Commonwealth or a Commonwealth Authority. To



reach the threshold for the NHL, a place must have 'outstanding' heritage value to the nation whereas to be entered on the CHL, a place must have 'significant' heritage value.

Heritage places of state significance are included on the State Heritage Register (SHR) maintained by the Heritage Division of the Office of Environment and Heritage. Places included on the SHR are available on an online database, the NSW Heritage Inventory database; however, it should be noted that the inventory includes items of state and local significance in NSW, it may not necessarily be comprehensive and inclusion on the inventory does not carry statutory weight in its own right. In order to reach the threshold for inclusion in the SHR, a place needs to meet one of more of the heritage criteria identified by the Heritage Council of NSW. The ultimate decision on whether a place is included on the State Heritage Register is made by the Minister for Heritage.

Places of local significance are included in heritage schedules in Local Environmental Plans (LEPs).

World Heritage

There are **no World Heritage Sites** ('WHS') located within the study area. However one item, the Old Government House and Government Domain is approximately 820 m to the south east of this study area.

National and Commonwealth Heritage

A search of the Australian Heritage Database was undertaken on 31 May 2016 which indicates that there are **no items within the study area included on the NHL or CHL**. However, there are two sites within the vicinity of the study area which are listed on the National Heritage List:

Table 2 : Items of National significance within the vicinity of the study area

Item	Place ID	Location	Listing	Distance from study area
Old Government House and the Government Domain	105957	O'Connell Street, Parramatta	National Heritage List (listed)	Approximately 820 m to the SW
Former Female Factory Parramatta	106234	Fleet Street, Parramatta	National Heritage List (nominated)	1.2 km E

State Heritage

A search of the State Heritage Inventory database on 31 May 2016 found **no items or places included on the SHR** and **no items subject to an interim, or authorised interim heritage order**. There are, however, a number of items of State significance within the vicinity of the study area. None of these will be affected by the proposed works.

Table 3 : Items of State Significance on the State Heritage Register (SHR)

Item	Address	Heritage Listing	Significance
Cumberland District Hospital group	00820	5 Fleet Street, Parramatta	1.2 km E
Norma Parker Correctional Centre	00811	1 Fleet Street, Parramatta	Immediately south of the Cumberland East Precinct

Parramatta Correctional Centre	00812	73 O'Connell Street, Parramatta	Immediately east of the Cumberland East Precinct
Parramatta Park and Old Government House	00596	O'Connell Street, Parramatta	Immediately south of the Cumberland West Precinct

Section 170 Registers

Section 170 of the *Heritage Act 1977* requires State Government Agencies to keep records of heritage items owned or operated by it. These registers can be found on the NSW Heritage Inventory. A search of this inventory was carried out on 31 May 2016. **No items were identified as being located within or in the vicinity of the study area.**

Local Heritage

A search of Schedule 5 of the Parramatta LEP 2011 and the Parramatta City LEP 2007 identified the following local heritage items within the vicinity of the study area. **None of the items will be affected by the proposed works.**

Table 4 : Items of local significance within the vicinity of the study area

Item	Place ID	Address	Significance	Distance from Stage 1 study area
Cumberland District Hospital (including Wisteria Gardens)	I00820	5A Fleet Street, North Parramatta; 1 Hainsworth Street, Westmead	State	1.2 km E
Former tramway pier	I445	ID Redbank Road	Local	Adjacent (northern boundary)
Heritage brick drain	I360	1A, 1C and 5A Fleet Street, 1 Fennell Street and 73A O'Connell Street	Local	Immediately on the eastern boundary of the Cumberland East Precinct
Stone kerbing and tree planting	I362	Fleet Street (both sides)	Local	Immediately on the eastern boundary of the Cumberland East Precinct
Stone fence	I358	Fleet and Albert Streets (east side – between 2B Fennell Street (Fleet Street face) and 4 Fleet Street)		Immediately on the eastern boundary of the Cumberland East Precinct
Parramatta Correctional Centre	I00812	73-73A O'Connell Street	State	Immediately east of the Cumberland East Precinct
Parramatta Girls' Training School	I00811	1A and 1C Fleet Street	State	Immediately south of the Cumberland

Item	Place ID	Address	Significance	Distance from Stage 1 study area
(Norma Parker Correctional Centre)				East Precinct
University of Western Sydney	I628	158-164 Hawkesbury Road	Local	Immediately south-west of the study area
Victorian Residence (in grounds of UWS)	I629	158-164 Hawkesbury Road	Local	Immediately south-west of the study area
Cottage	I446	22A Redbank Road	Local	180 metres north of the study area

6.3 Archaeological Management Units

The State Heritage Inventory, maintained by the Heritage Division of the Office of Environment & Heritage, was searched on 31 May 2016. It lists three Archaeological Management Units (AMUs) covering parts of the study area. The AMUs are in part captured by Section 3.5.2 of the Parramatta Development Control Plan 2011 and the Parramatta Historical Archaeological Landscape Management Study (PHALMS) (see Table 5, Plate 8).

A review of the PHALMS shows that the potential for archaeological deposits within the study area varies between exceptional (Cumberland East Precinct), to moderate (Westmead Precinct, Cumberland West Precinct) (Plate 8). The banks along Toongabbie Creek were assessed as being of high potential (Plate 8). Parts of Separable Portion 1.1 of the Stage 1 Early Works will impact on this area.

Table 5 : Archaeological Management Units listed on the State Heritage Inventory recommended to be included in the Parramatta Development Control Plan 2011

Item	Address	Area Covered
Parramatta Archaeological Management Unit 2890	Darcy Road, Westmead	Blocks bounded by Darcy Road to the south, Mons Road to the east, Cardillo Street to the northeast, Milson and Toongabbie Creek, reserve on the north
Parramatta Archaeological Management Unit 2891	Darcy Road, Westmead	Blocks bounded by Darcy Road, UWS Westmead campus, Westmead Residential Complex and the railway line
Parramatta Archaeological Management Unit 2893	6a Hawkesbury Road, Westmead	Bounded by Hawkesbury Road and Darcy Road, Parramatta Marist High on the west and the railway line

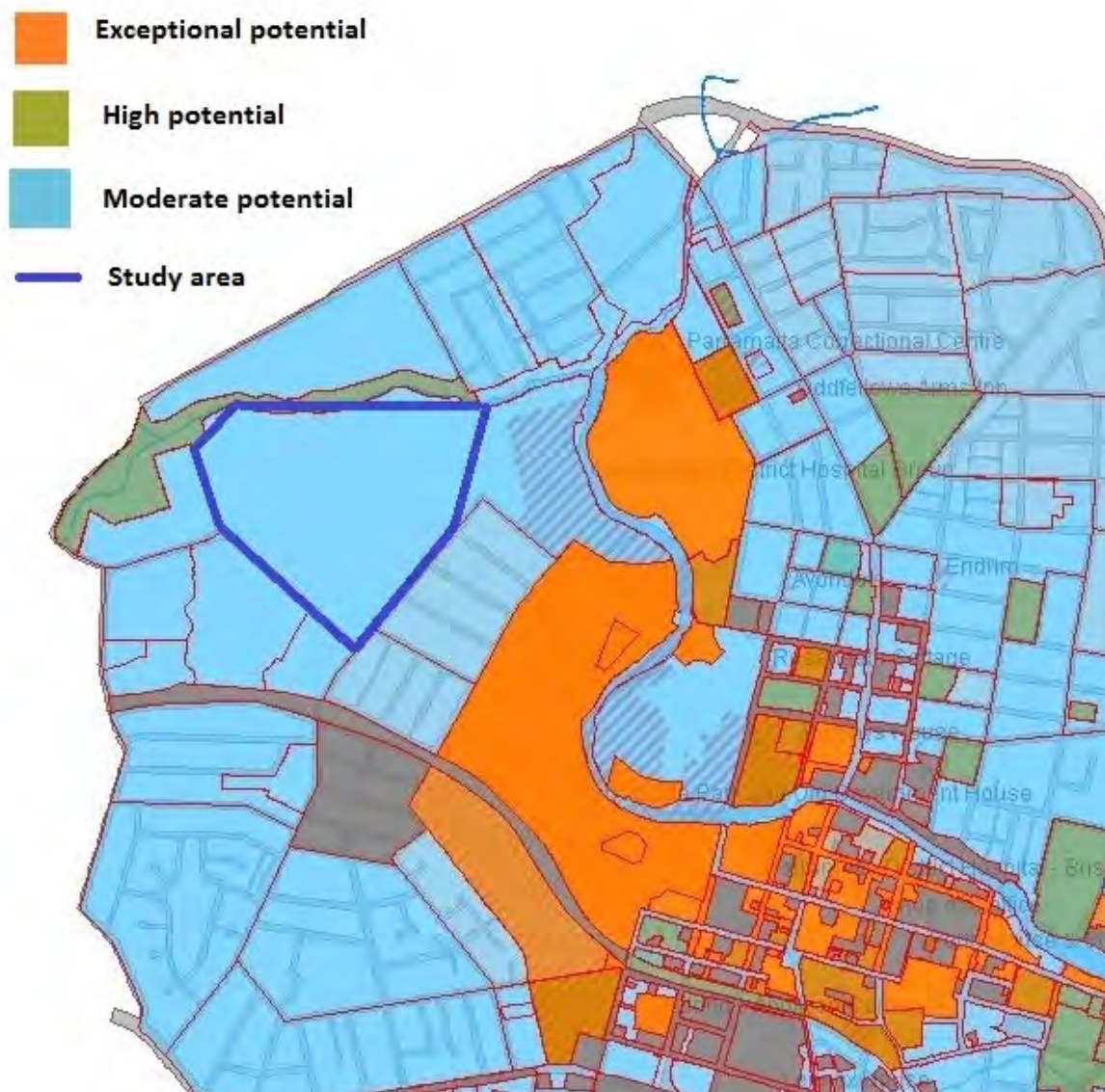


Plate 8 : Parramatta Historical Archaeological Landscape Management Study sensitivity map. Striped areas show State heritage items. (Courtesy Timemaps.net).

6.4 Literature review

Regional literature review

Dallas, M. (2003) Aboriginal cultural heritage study, Parramatta

In 2003 Parramatta City Council commissioned an Aboriginal cultural heritage study to inform future land planning and development control processes, and to ensure ongoing protection and management of Aboriginal heritage places.

The study determined that stone artefacts were the most commonly recorded Aboriginal object within the Parramatta Local Government Area (LGA) (64 per cent). The study noted that the low number of shelters recorded within Parramatta LGA (19 per cent) is a result of the underlying shale, which does not form stone overhangs suitable for habitation. Where such stone formations do occur, on the northern side of the Parramatta River, the relief is, in general, less than that further north and east. The study noted that the low number of grinding grooves remaining within the Parramatta LGA is likely the result of hydraulic action and

flooding. Grinding grooves are often located within or adjacent to flowing water, which may result in weathering through hydraulic action. In addition slight increases in water level (resulting from damming of creeks and changed drainage patterns) may have drowned some grinding grooves. In addition, suitable sandstone platforms are uncommon within the LGA. The study also noted that the low number of scarred trees present within the Parramatta LGA (five per cent) is a result of clearing in the historic period.

Trends and predictions for Aboriginal heritage were considered as part of the study. These include:

- A large number of stone artefacts (scatters and isolated finds) have been recorded within the Parramatta LGA. Most of these have been recorded west of Parramatta, on the Cumberland Plain. Surface scatters tend to be heavily disturbed and contain a small number of artefacts. When excavated however, areas with little or no surface expression, contained substantial archaeological deposits with artefacts. Those artefacts that have been recorded on or near permanent water sources tend to be more complex than those recorded on ephemeral streams. In addition, while artefacts have been found on a range of landforms, most have been recorded on or near water sources.
- Middens are largely absent from the Parramatta LGA. The lack of middens is attributed to riverside reclamation of land and industrial development, and to the association of middens with rocky shore environment, which is not found within the LGA.
- Given the number of previous archaeological investigations within the Parramatta LGA, the potential for finding further shelters or engravings is low.
- Grinding grooves are vulnerable to water erosion. Given the modification of water flow within the Parramatta LGA, it is possible that further grooves are present underwater.
- Due to level of clearing and development within the Parramatta LGA, the potential for the identification of further scarred trees is low. There are however, several areas of potential remnant forest (near Lake Parramatta Reserve) that have not been extensively surveyed and may contain previously unidentified scarred trees.

The study identified a number of places of Aboriginal heritage significance within Parramatta. These were places where Aboriginal people had early contact with settlers and government officials and which underwent significant change as a result of official and unofficial government policy and dominant socio-political doctrine. Such places may or may not retain archaeological evidence that reflects the true Aboriginal cultural significance of that location. Identified places included Parramatta Park, the Parramatta Native Institution, the Female Orphan Institution, A'Becketts Creek, Clay Cliff Creek, the Camellia Peninsula, the Parramatta Market Place, burial grounds, gaols and Saint John's Church.

The study included Aboriginal heritage sensitivity mapping for the Parramatta LGA. The following levels of sensitivity were identified:

- High: Known Aboriginal heritage, high archaeological potential, undisturbed natural landscape.
- Moderate: Some archaeological potential, partially disturbed landscape.
- Low: Largely disturbed landscape.
- None: Completely disturbed landscape or reclaimed land.

The current Project Area was identified as being of low sensitivity. The 2003 mapping has since been revised and an updated map is included in the Parramatta DCP 2011. The only portion of the Westmead Hospital campus identified as having high sensitivity is along Toongabbie Creek while the remainder of the campus was identified as having low sensitivity. The current Project Area is located well outside of that area of high sensitivity.

AHMS (2011) Aboriginal and historical preliminary archaeological impact assessment, 330 Church Street, Parramatta

This report details the results of a preliminary Aboriginal cultural heritage and historical heritage assessment prepared as part of the proposed development of 330 Church Street, Parramatta. The AHMS study area is located within the centre of Parramatta City and along the edges of the Parramatta River and is approximately 1.6 kilometres south east of the current Area.

The assessment included the review of background data, the AHIMS database and a site survey. The assessment identified that the location of 330 Church Street was within 200 metres of freshwater resources, is located within a Pleistocene sand sheet known as the Parramatta Sand Body and along a Holocene alluvial floodplain. Concurrently, the assessment identified that the study area had been subject to varying levels of modern disturbances. The assessment identified that the sand body, if identified below areas of disturbance, may have archaeological deposits up to 2 metres deep. More intact areas with lower disturbance are also likely to have potential for Aboriginal archaeological deposits.

The assessment identified two areas of high Aboriginal archaeological sensitivity. A large portion of the study area was identified as having low to nil Aboriginal archaeological sensitivity, with the central portion of the site identified as having moderate Aboriginal archaeological sensitivity. The assessment identified that the proposed four level sub-surface car park would impact upon areas of the Pleistocene sand sheet and Holocene alluvial floodplain. These areas had been identified as having high and moderate Aboriginal archaeological sensitivity.

Artefact Heritage (2014) Aboriginal archaeological assessment, 'Riverside' Parramatta Development Project: 12–14 Phillip Street and 333-339 Church Street Parramatta

This report details the results of a preliminary Aboriginal cultural heritage and historical heritage assessment prepared as part of the proposed residential and commercial re-development of the site. The 12–14 Phillip Street and 333-339 Church Street, Parramatta study area is located approximately 1.4 kilometres south east of the current Project Area.

The assessment undertook a search of the AHIMS database which did not identify previously recorded Aboriginal objects within the study area, however, 38 were identified within a kilometre radius of the site. The assessment identified that part of the study area located along the Parramatta Sand Body as having high Aboriginal archaeological sensitivity within the Parramatta DCP. Geo-technical investigations across the site confirmed the presence of the Parramatta Sand Body.

The assessment identified that the study area had been subject to moderate levels of disturbance. The assessment concluded that the areas adjacent to the Parramatta River had low archaeological potential while the remainder of the site had high levels of potential for sub-surface Aboriginal archaeological material. Further archaeological assessment was recommended in order to fully understand the nature and extent of potential Aboriginal archaeological resource.

Archaeological Literature Review of the Westmead Hospital precinct

A review of previous archaeological and heritage reports within the Westmead Redevelopment study area has been undertaken, the results of which are summarised below.

RPS (2014/2015) Aboriginal Cultural Heritage Assessment Report, Westmead Hospital Redevelopment

This assessment was initiated in 2014 ahead of the proposed redevelopment of Westmead Hospital. The purpose of the 2014 investigation was to identify as many risks to Aboriginal heritage within the boundaries of the Westmead Hospital campus as possible so as to inform the planning of the redevelopment. The report was updated in 2015 to include early works in the northern part of the site near the existing helipad. Each

stage of the investigation was undertaken in consultation with Registered Aboriginal Parties in compliance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010).

No Aboriginal objects or places were identified within the Westmead Hospital campus. One recorded site was noted on a rock shelf beneath the Redbank Road bridge, however as noted above, Dallas and Irish concluded that this was not a cultural mark. RPS agreed with this conclusion.

Although no sites were identified during the 2014 investigation, the presence of an area of high sensitivity was noted along the southern banks of Toongabbie Creek, outside of the Westmead Hospital fence. This area was designated as being of high sensitivity because of the known presence of Aboriginal people in the Westmead and Parramatta areas from historical sources and the relatively undisturbed nature of the creek banks. It was recommended that no earthworks take place in this area during the redevelopment of Westmead Hospital and that a Cultural Heritage Management Plan be developed to manage this area of sensitivity during the life of the redevelopment.

Comber Consultants (2011) Aboriginal cultural heritage assessment, Cumberland Hospital, Westmead

This report details the results of an Aboriginal cultural heritage assessment prepared ahead of an upgrade of electrical infrastructure within the Cumberland Hospital, Hainsworth Street and Park Avenue, Westmead and Dunlop Street, New Street, Factory Street and Fleet Street, North Parramatta. The assessment was undertaken in accordance with the *Code of Practice* (DECCW 2010).

The assessment included a search of the AHIMS database. No Aboriginal objects were identified within the Cumberland Hospital or adjoining areas. The assessment also considered the Aboriginal heritage sensitivity (as identified in the Aboriginal cultural heritage study) of the Cumberland Hospital and adjoining areas. The eastern campus of Cumberland Hospital was identified to be of high sensitivity and the western campus (including the current Project Area) of low sensitivity.

The assessment concluded that much of the area under investigation was located within a long established hospital campus, containing numerous built structures, underground services much of which had been landscaped. The remainder of the area was located within road reserves. The assessment concluded that, due to the level of disturbance within the Cumberland Hospital and adjoining areas, this area possessed low to nil Aboriginal archaeological potential (Comber Consultants 2011).

Higginbotham 2009

Previous historical archaeological investigations (Higginbotham 2009) indicate that a sand body may be present within Westmead. Deep sand deposits have been identified in photographs of an historic archaeological feature within the eastern campus of the Cumberland Hospital (Higginbotham 2009:100). The sand deposit in the photograph has been sealed beneath a layer of fill.



Plate from Higginbotham, 2009 (page 100), showing section of trench from excavations within the Cumberland east precinct. Note sand body beneath dark soil cut feature (Higginbotham, 2009:100)

6.5 Synthesis of Heritage Context

Aboriginal

A review of the AHIMS and previous archaeological investigations suggests that the Parramatta and Westmead areas were populated by a significant Aboriginal population until European settlement in 1788. This is confirmed by the AHIMS data and by historical and ethnographic data collected shortly after European settlement. The mix of site types in the vicinity of the Project Area suggests it was utilised for various purposes.

Non Aboriginal

A review of Federal, State and local heritage databases indicate that there are no known heritage items recorded within the current study area. The archaeological management units (AMUs) cover the former Government domain and the AMU covering the study area has been assessed to have moderate potential. However, given the extent of the modification to the natural land surface it is considered unlikely that any remains associated with the former Government domain will have survived the previous land uses.

6.6 Predictive Model

As there are no records of historic built heritage being located within area comprising the proposed main hospital building, it is unlikely that any subsurface non Aboriginal heritage would be disturbed. The following assessment affects Aboriginal heritage only.

A predictive model is created to provide an indication of Aboriginal objects likely to occur in the Project Area. It draws on the review the regional and local archaeological context, as well as, the environmental context. The predictive model is necessary to formulate appropriate field methodologies, as well as, providing information for the assessment of archaeological significance.

There are a number of factors which influence Aboriginal occupation of an area. These include essential subsistence resources such as food (flora and fauna), as well, as freshwater. However, other resources such as stone raw materials, wood and bark, animal skins, reeds for uses such as basket weaving, string, clothing and similar were also used. Landscape features such as ridges, flat elevated areas, shelters and similar, may have also influenced Aboriginal occupation of an area. In addition, cultural activities may have also taken place at certain locations in the landscape for example corroborees, mythological places, initiation places and similar.

Cumberland Plain Predictive Model

The OEH AHIMS database has over 4000 previously recorded Aboriginal archaeological sites identified across the Cumberland Plain. Of the sites previously recorded across the Cumberland Plain, the vast majority are stone artefact sites. Previous archaeological evidence suggests that Aboriginal archaeological sites are likely to occur in various manifestations across the entire Cumberland Plain, with areas of archaeological potential identified wherever there has been limited prior surface disturbance.

Beth White and Jo McDonald have recently contributed to the debate over site prediction in their discussion on the nature of Aboriginal site distribution across the Cumberland Plain (White and McDonald 2010). The paper provides a spatial and distributive analysis of Aboriginal objects in relation to freshwater resources and along varying landform units. The study highlighted the relationship between the proximity to freshwater and Aboriginal land use. The following predictive statements can therefore be made:

- In the headwaters of upper tributaries (i.e. first order creeks) archaeological evidence will be sparse and represent little more than a background scatter.
- In the middle reaches of minor tributaries (second order creeks) will be archaeological evidence for sparse but focussed activity (e.g. one-off camp locations, single episode knapping floors);
- In the lower reaches of tributary creeks (third order creeks) will be archaeological evidence for more frequent occupation. This will include repeated occupation by small groups, knapping floors (perhaps used and re-used), and evidence of more concentrated activities;
- On major creek lines such as the lower reaches of Second Ponds and Caddies Creeks (fourth order) will be archaeological evidence for more permanent or repeated occupation. Sites will be complex and may even be stratified.
- Creek junctions may provide foci for site activity; the size of the confluence (in terms of stream ranking nodes) could be expected to influence the size of the site;
- Although occupation in the area is likely to have commenced c.14,000 years ago (Kohen *et. al.*, 1981) most sites on the Cumberland Plain have been dated to the late Holocene.

Following excavations at the Rouse Hill project area which adopted the above model it was found that the above predictive model was limited, thus it was augmented to reflect better accuracy (McDonald, 2009) with the following:

- Most areas – even those with sparse or no surface manifestations of cultural material – contain sub-surface archaeological deposits;
- Where open sites are found in aggrading and stable landscapes, some are intact and have the potential for structural integrity. Sites in alluvium possess potential for stratification.
- While ploughing occurs in many areas of the plan, this only affects the deposit up to 30 cm deep, and even then ploughed knapping floors have been located which are still relatively intact.
- Contrary to earlier models for open sites, many sites contain extremely high artefact densities with variability appearing to depend on the range of site types present.
- The complexity of the archaeological record is also far greater than was previously identified on the

basis of surface recording and more limited test excavation. Intact knapping floors, backed blade manufacturing sites, heat treatment locations, a number of apparently specialised tool types and general camp sites were all found.

- Two Early Bondian dates (between 5,000 – 3,000 BP) provide a context for some backed blade manufacture;
- Generally, sites on permanent water are more complex (i.e. they represent foci for larger groups or are used repeatedly by smaller groups over a longer period of time) than sites on ephemeral or temporary water lines (McDonald, 1996:115).

6.7 Predictive Model for Aboriginal heritage

The Westmead Precinct is largely occupied by the existing Westmead Hospital and Westmead Children's Hospital, with very little remaining natural land surfaces. The areas of least disturbance border Toongabbie Creek, which is located outside the study area. As noted above, the current study area chiefly comprises access roads and an at-grade car park located to the north east of the current main hospital building.

Potential Impact of Former Land Uses

The study area, like the wider Westmead Precinct, has been subject to substantial levels of disturbance. Disturbances across the Westmead Precinct relate to the construction of the Westmead Hospital and associated buildings, services and infrastructure. Bulk excavations including benching and mass filling have occurred across the Westmead Redevelopment area. In addition, many of the existing buildings, including the current main building, have subsurface levels, including basement levels and tunnels linking various buildings within the complex.

In addition, it is known that the former Parramatta Showground, on which Westmead Hospital was built, was also used by James Hardie for the disposal of asbestos. The method of disposal was often carried out by excavation of large, deep pits, burying the asbestos then capping the pit with fill. A report from the Environmental Protection Agency notes that Parramatta Showground was used for asbestos disposal, however does not state exactly the location within Parramatta Showground where the asbestos was dumped (EPA 2010).

As noted above, the most common site type in the area is artefact sites, either as a scatter or in isolation. The landscape does not support other site types, such as rock engravings, shelters and scarred trees, which require rock platforms, rock overhangs and old growth trees.

On the Cumberland Plain artefact sites are generally found either on the ground's surface or in the top soil. As indicated in Section 3 above, top soil in the Blacktown soil landscape generally has a depth of under one metre. Given this, it is almost certain that artefact scatters would not have survived the benching and bulk excavations associated with the construction of the hospital.

Aboriginal heritage potential

Because of the extensive disturbances to the study area, **it is not anticipated that any archaeological material of Aboriginal origin will be disturbed by the proposed works**. However, as Aboriginal material can be encountered in almost any context, the following predictions were made in 2014 for the Westmead Precinct on the basis of the environmental context, available historic observations of Aboriginal people in the region, previous archaeological investigations, the results of an AHIMS search, Aboriginal community consultation, and geotechnical investigations.

- Artefact sites are possible in the vicinity of Toongabbie Creek and Parramatta River. Superficial disturbances may have removed any surface artefacts, however, subsurface artefacts are possible in these zones.

- Stone artefacts are the most common site type across the Cumberland Plain and within the local area. It is therefore predicted that stone tools will be the most likely physical remnants of past Aboriginal land use.
- Complex artefact scatters are more likely given that Toongabbie Creek and Parramatta River are high order streams. It is also likely that complex artefact scatters will be located within the vicinity of the confluence of the two watercourses.
- Previous assessments and AHIMS results have identified that silcrete artefacts dominate the archaeological record. As such, if artefacts are identified, it is predicted the vast majority will be of silcrete raw material.
- Natural sand sheets may have been capped with rubble fill. It is therefore predicted that natural soil landscapes may be located in parts of the Hospital grounds that have been capped with fill.

7 Assessment of Significance

In order to develop appropriate heritage management outcomes, it is necessary for the significance of heritage items and places to be assessed. It should be noted that Aboriginal heritage may be significant for cultural and/or archaeological reasons and that Aboriginal people are best placed to assess cultural significance and are therefore, consulted in the heritage management process. Archaeological significance is assessed against archaeological criteria outlined in the *Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales* (DECCW 2010).

In relation to non Aboriginal heritage and in line with the *Burra Charter*, before making decisions about the future of a heritage item it is first necessary to understand its heritage significance and the values it embodies. As noted above, **there are no built heritage items within the study area**, however, the following section contains an assessment of the heritage significance of items within the vicinity of the study area to examine whether the proposed works will indirectly impact upon these heritage items. An additional aim of the significance assessment is to assess the heritage values embodied by the heritage items adjacent to and within the vicinity of the study area.

The NSW state significance heritage criteria as explained in *Assessing Heritage Significance* (Heritage Office (former), 2001) are used to assess the heritage significance. Consideration is also given to the integrity and intactness of the items. As identified above, the following heritage items are adjacent to or in the vicinity of the study area:

- University of Western Sydney (Westmead campus);
- Victorian Residence (in grounds of UWS).

It should be noted that the above features are **not** within the impact zone of the current proposed works. Also considered below are the former tramline and archaeological management units (AMU) 2890, 2891 and 2893 identified in the PHALMS (2000) noted above. These are important archaeological management units that have a high potential to yield archaeological data, however the same criteria, the *archaeological significance* will be assessed for the AMUs rather than the *heritage significance* assessment as used for built heritage items.

The following assessments were made for the Westmead Precinct in 2014.

7.1 Aboriginal Heritage Significance Assessment

Aboriginal objects or places may hold cultural significance. In line with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011), assessing cultural significance involves:

- Identifying the values of the Westmead Precinct;
- Assessing the significance of values.

Cultural Heritage Value

Cultural heritage value refers to the spiritual, traditional, historical or contemporary associations and attachments a place has for Aboriginal people (OEH 2011:8). There is not always consensus about the cultural value of a place as people experience places and events differently, and in some instances cultural values may be in direct conflict. Cultural significance can only be determined by Aboriginal people, and is identified through Aboriginal community consultation.

The cultural value of the Westmead Precinct was discussed with RAPs who attended the archaeological surveys of the study area.

All RAPs were invited to comment on the cultural significance of the Westmead Precinct following review of the draft report.

Field Survey 1, 12 August

During the survey Mr Williams identified the flat sandstone outcrops directly west of the old train bridge. Tony informed Joshua Madden of RPS that he and his father before him used to use an eddy and flat outcrop to create fishtraps. The fish would be lured with bread into the shallower waters where a series of temporary rock and stone walls would be constructed to stop the fish re-entering the main creek area. At this point the boys would enter the fish trap area and catch the trapped fish.

Mr Morton of the Darug Aboriginal Cultural Heritage Assessments and Mr Workman of Darug Land Observations agreed with Tony in regards to the fish traps used along the Toongabbie Creek.

Field Survey 2, 25 September

During the second field survey, the RAPs agreed that the area in and around the Westmead Precinct would have been an area of Aboriginal activity due to the proximity to the Toongabbie Creek. As such, any works that would impact previously undisturbed ground would have the potential to impact upon Aboriginal heritage values and cultural material.

The survey group noted the presence of large Ironbark trees, in particular, it was believed that these would predate the construction of the hospital buildings. It was discussed that these trees represent a remnant of the type of vegetation that would have characterised the area before European settlement.

The location of previously recorded grinding grooves (AHIMS 45-5-1110) along Toongabbie Creek, which have been subsequently identified as not being an archaeological site, was visited by the survey group. Whilst no Aboriginal cultural evidence could be identified, it was noted by the survey participants that it was likely that Aboriginal people would have utilised the creek for a variety of reasons including hunting.

No ethnographic sites were identified by the survey group.

Historic Value

Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community (OEH 2011:9).

The historic value of the Westmead Hospital campus was discussed with representatives of RAPs who attended the archaeological survey of the Hospital grounds.

Mr Williams, Mr Morton and Mr Workman provided information about the historic use of the Toongabbie Creek. Flat rock outcrops were utilised for the placement of fish traps with Mr Williams undertaking the placement of fish traps within the creek as a child.

Mr Williams further identified that he and other Aboriginal boys were taken from their homes to Westmead Home, opposite the current location of Westmead Hospital. Mr Williams also mentioned that the current location of Westmead Hospital was utilised by Aboriginal women as a camp in order to be closer to their children within the Westmead Home. Mr Williams also explained to Joshua that his father had told him that after WW1 and during the Great Depression, Aboriginal people used the showground (currently Westmead Hospital) as a camp.

Aesthetic Value

Aesthetic value refers to the sensory, scenic, architectural and creative aspects of a place. It may consider form, scale, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use (OEH 2011:9).

The aesthetic value of the Westmead Precinct was discussed with representatives of RAPs who attended the archaeological survey.

Statement of Significance

All RAPs were invited to comment on the cultural significance of the Westmead Precinct following review of the draft report.

7.2 Archaeological Significance Assessment

Archaeological significance is determined by assessing Aboriginal objects against archaeological criteria. The assessment of archaeological significance is used to develop appropriate heritage management and impact mitigation strategies. The archaeological significance of the Westmead Precinct has been assessed according to the criteria outlined in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*.

Scientific Value

Archaeological or Scientific value refers to the importance of a landscape, area, place or object based on its rarity, representativeness, and the extent to which it may contribute to further understanding and information about past Aboriginal occupation (OEH 2011:9).

The assessment of previous archaeological reports and the field survey of the Westmead Precinct identified two levels of archaeological potential; High and Low-nil. Given that no Aboriginal sites were identified in the Westmead Precinct, the table presented below is indicative only of how site significance can be levied.

Table 6 Archaeological significance assessment criteria

Criteria	Description
Rarity	This criterion examines the frequency of the identified site types with others previously recorded in the local or regional landscape.
Representativeness	All sites are representative of a site type, however, some sites may be in better condition, or demonstrate more clearly a particular site type. Representativeness is based on the understanding of extant sites in the local or regional landscape and the purpose of this criterion is to ensure a representative sample of sites area conserved for future generations.
Integrity	This refers to site intactness. A site with contextual integrity can provide information relating to chronology, social systems, tool technology, site formation processes, habitation, frequency of use as well as other occupation indicators. Moderate to high levels of disturbance will generally result in low integrity.
Connectedness	Relates to inter-site relationships that are whether a site can be linked to an archaeological complex, or where sequence of activities can be discerned. For example, a quarry (stone extractions site), may be linked to an adjacent heat treatment pit and knapping floor, these site thus could be linked as part of a stone tool production sequence.
Complexity	Refers to the contents of the site, such as, the variety and nature of features and/or of artefacts present. For example, rock art sites with many motifs may be ranked highly in terms of complexity, or artefact scatters with a wide variety of raw materials and/or or tool types may be more complex than surrounding sites.
Research Potential	This criteria is used to identify whether a site has the potential to contribute new information which to the interpretation of Aboriginal occupation in the area.

Assessment of Archaeological Significance

Based on previous assessments and regional Aboriginal archaeological models (Section 7.4 of this report) the Toongabbie Creek and associated slopes have been identified as having high archaeological potential (**Figure 6**). The archaeological value of sand bodies within the Sydney area is significant, with significant temporal and spatial data collected from both the Parramatta and Pitt Town Sand Bodies. Sand bodies provide the opportunity to recover significant archaeological and cultural material such as stone artefacts or charcoal that can be dated, through to Aboriginal burials. The areas of least disturbance border Toongabbie Creek and hold the greatest potential for subsurface archaeological deposits. This has been captured in the area of high sensitivity (Figure 6).

The remainder of the Westmead Precinct is largely occupied by the existing Westmead Hospital and Westmead Children's Hospital, with very little remaining natural land surfaces and hence it is for the most part designated as low – nil for archaeological sensitivity. **The current study area is within this low-nil area.**

7.3 Non Aboriginal heritage

Historical Themes in Evidence

National and state-level patterns of historical development are useful in determining the historical value of a site. Nine historical themes have been developed and adopted by NSW Heritage Council. They are derived from the Australian historical themes prepared by the Australian Heritage Commission. The following table notes the NSW historical themes considered to be in evidence in the study area.

Table 7 Historical Themes Considered to be in Evidence

Australian Theme	NSW Theme	Comment regarding the study area
Peopling Australia	Convict	The study area was once part of the Government Domain and was one of the first successful farms supplementing the food source for the new colony. Convicts worked the farm and maps from 1789 show a number of convict huts within the study area
Developing local, regional and national economies	Agriculture	As noted above, the study area was once part of the Government Domain and an early farm. Following subdivision in 1859, a number of orchards were located in Westmead. Bayley's cottage, in the grounds of UWS, was one such orchard.
Developing local, regional and national economies	Transport	The Rogans Hill branch line ran from Westmead to Rogans Hill (near Castle Hill) from the early 20 th century until the 1930s. The only physical evidence remaining of that line in the Westmead area is a pier in Toongabbie Creek, once a support for the railway bridge. The actual tramline, however, ran close

Australian Theme	NSW Theme	Comment regarding the study area
		to Institute Road to the north west of the study area.
Building settlements, towns and cities	Accommodation	The archaeological resource around Bayley's Cottage (Victorian Residence) is an example of this theme.
Building settlements, towns and cities	Education	The former St Vincent's Boys' Home was also an industrial school where the boys would learn trades.
Governing	Welfare	The former St Vincent's Boys' Home was a home for delinquent, orphaned, neglected and homeless boys set up by the St Vincent de Paul Society and Marist Brothers
Developing Australia's culture life	Sport	The former Westmead Showground was the venue for many agricultural shows from the mid 19 th century and became a speedway in the 20 th century. It was located where the main Westmead adult's hospital building now stands. No evidence of the Showground or speedway is expected to have survived the construction of Westmead Hospital.

Heritage Significance Assessment

The following assessment uses the NSW State Significance Criteria as set out in *Assessing Heritage Significance* ((former) Heritage Office, 2001). With reference to the SHR citation the tramway pier and University of Western Sydney (Westmead campus) are assessed as follows:

University of Western Sydney (Westmead campus)



Plate 9 St Vincents Boys Home shortly after opening (L) and today (R) (Courtesy Care Leavers Australia Network (CLAN) and RPS 2014).

Historical Significance (SHR Criteria A) – An item is important in the course, or pattern, of NSW's cultural history (or the cultural or natural history of the local area)

Originally the St Vincent's Boys' Home, the now University of Western Sydney (Westmead campus) was built in 1896 to house delinquent and orphan boys and remained in operation until around 1985. The boys' home was initially located at Redfern from 1891, before being moved to Redfern the following year, Five Dock the year after then settled at Westmead in 1896.

Associative Significance (SHR Criteria B) – An item has strong or special association with the life or works of a person, or a group of persons, of importance in NSW's cultural or natural history

This item has a strong association with the Catholic Church in western Sydney, in particular to the St Vincent de Paul Society, who established the first refuge, in a joint venture with the Marist Brothers. It also has a strong association with the works of those two societies in their care of delinquent, neglected and orphaned boys over a period of nearly 100 years. However, given the number of items in the local and wider area associated with these organisations, its significance under this criterion is assessed as low local.

Aesthetic Significance (SHR Criteria C) – An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement

The former boys' home is assessed as being of aesthetic significance to a moderate degree. The State Heritage Inventory listing describes the building as "a relatively rare three-storey institutional building with elements of Anglo-Dutch architectural style". It occupies an elevated location on a ridge facing east toward Parramatta, adjacent to the main western railway line and Westmead station. It is therefore a prominent and recognisable landmark in Westmead. It is assessed on this basis as being of moderate aesthetic significance.

Social Significance (SHR Criteria D) – An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons

The St Vincent's Boys' Home ran for nearly 100 years and there are over 8,000 entries relating to boys who resided there over that time (Find and Connect 2014). It also has a special connection with the Aboriginal community as many boys from homes in western NSW were sent to this boys' home upon reaching the age of 12 (Australian Catholic Social Welfare Commission and Australian Conference Leaders of Religious Institutes 1999). It is likely that the former boys' home would have social significance for all former residents however the level of social significance should be established by community engagement and consultation.

Research Potential (SHR Criteria E) – An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history

The boys' home structure itself is unlikely to have sufficient potential for future research. However, the site may contain archaeological evidence of buildings or structures located on the site prior to the construction of the boys' home, although it is likely that the construction would have destroyed much of this evidence. Nonetheless, PHALMS listed the area as having moderate archaeological potential. In addition, records of the residents would be of outstanding research potential.

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

The building is reflective of its original institutional function and is not considered rare for local or State significance.

Representativeness (SHR Criteria G) – An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's) cultural or natural places; or cultural or natural environments

The former boys' home is highly representative of late 19th/early 20th century institutional facilities.

Integrity

The former boys' home has undergone several extensions and renovations, losing some of the intactness of the original structure. However, later additions and extensions appear to have been done quite sympathetically so as to not lose its original architectural character. Its integrity is therefore high. It is currently used as a teaching facility for the University of Western Sydney.

Statement of Heritage Significance

Overall, the former St Vincent's Boys' Home is considered to be of moderate local historical and aesthetic significance.

Victorian Residence in Grounds of UWS



Plate 10 : Victorian Residence in Grounds of UWS (RPS, 2014).

Historical Significance (SHR Criteria A) – An item is important in the course, or pattern, of NSW's cultural history (or the cultural or natural history of the local area)

This late Victorian residence is currently within the grounds of the University of Western Sydney's Westmead campus, approximately ten metres to the north of the St Vincents Boys' Home complex assessed in Section 6.1.2.1 above. Built in c. 1880, subdivision maps from that time describe the property as an orchard belonging to "M. Bayley". Previous land use in the area indicates the prevalence of orchards from the mid 19th century, however the Bayley's cottage is one of the last physical remains associated with those orchards, as well as providing a rare physical reminder of the long history of European settlement within the area. The item is therefore assessed as being of low-moderate historical significance.

Associative Significance (SHR Criteria B) – An item has strong or special association with the life or works of a person, or a group of persons, of importance in NSW's cultural or natural history

There is no known association with a person or group of persons sufficient to attract significance pursuant to this criterion.

Aesthetic Significance (SHR Criteria C) – An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement

The item is of moderate-high aesthetic significance. The State Heritage Inventory describes the Victorian residence as a “two storey rendered masonry late Victorian residence with hipped roof clad with galvanised iron. Two-storey section has hip roof with single storey skillions either side of (the) building. Indented decoration above single-storey segmented bay with hip corrugated iron roof... Verandah floor with sandstone flagging.” (Office of Environment and Heritage Online). The residence also has turned, chamfered verandah posts, crossed timber balustrade and a mature maple tree near the front elevation. These Victorian Georgian elements and their rarity in both in the immediate area and Westmead generally serve to elevate the aesthetic significance under this criterion.

Social Significance (SHR Criteria D) – An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons

There is no known social significance of this item, however, community consultation should be conducted to establish this.

Research Potential (SHR Criteria E) – An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history

The item has very low potential to yield research information. Although one of the last surviving examples of Georgian architecture in the area, this type of architecture is relatively common in the wider Sydney region. It therefore does not satisfy this criterion. Archaeologically, however, it is located on an area assessed in the PHALMS as being of moderate potential, with temporary/substantial remains possible in the curtilage, and pollen evidence providing information regarding the original vegetation and early crops when the land was part of the domain.

Rarity (SHR Criteria 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)

As noted above, the item is a rare example of Victorian Georgian architecture in the Westmead area and also one of the last properties associated with the earlier orchards in the vicinity. It is therefore assessed to be of low significance under this criterion.

Representativeness (SHR Criteria G) – An item is important in demonstrating the principal characteristics of a class of NSW’s (or the local area’s) cultural or natural places; or cultural or natural environments

The item is representative of Victorian Georgian architecture.

Integrity

The exterior of the item retains many original features. Although the item has been restored over the years, the restoration has been sympathetic and many like-to-like fixtures installed. Although modern materials have been used, this has ensured the integrity of the item.

Statement of Heritage Significance

Overall, the Victorian Residence is considered to be of moderate local historical, aesthetic and rarity significance.

Archaeological Management Units 2890, 2891 and 2893 – Archaeological Significance Assessment

Historical Significance (SHR Criteria A) – An item is important in the course, or pattern, of NSW's cultural history (or the cultural or natural history of the local area)

As noted in the Historical Context above, the land comprising Westmead Hospital was once part of the larger Government Domain, now confined to the extent of nearby Parramatta Park. The land was subdivided in 1859 and then developed in 20th century. The Westmead Hospital was built in 1978. Although much of the archaeological resource would have been removed during the 20th century developments and the construction of Westmead Hospital, particularly cutting and filling to provide level surfaces and basements for the various buildings, there are pockets of land that have not been extensively disturbed and may therefore retain some archaeological integrity. Any evidence regarding the convict use of the land would be considered to be of exceptional historical significance. The potential in some areas is clearly nil, such as beneath the main hospital buildings, however there are some areas, particularly closer to Toongabbie Creek, where the potential is considered high.

Associative Significance (SHR Criteria B) – An item has strong or special association with the life or works of a person, or a group of persons, of importance in NSW's cultural or natural history

There is a known association between potential archaeological information and early convict farming of the Westmead land. Again, any archaeological evidence linking the convicts to the farming practices could be considered to satisfy this criterion.

Aesthetic Significance (SHR Criteria C) – An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement

Not applicable.

Social Significance (SHR Criteria D) – An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons

Not applicable.

Research Potential (SHR Criteria E) – An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history

As noted above, the item has varied potential to yield research information. Information regarding the original vegetation and early crops when the land was part of the Government Domain is highly significant. As noted above, early maps indicate the presence of convict huts near Toongabbie Creek. Any evidence of these would again, be highly significant. In addition, any evidence of the former tramway/railway would yield important research information regarding engineering and construction techniques relating to those forms of transport.

The item therefore satisfies this criterion to an exceptional degree.

Rarity (SHR Criteria 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)

Not applicable.

Representativeness (SHR Criteria G) – An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's) cultural or natural places; or cultural or natural environments

Not applicable.

Integrity

Much of the study area comprising the archaeological management units have been previously developed and therefore of little archaeological integrity. There are, however, areas where development has protected some archaeological resource areas. Areas where concrete has been laid with no bulk excavation has sealed the archaeological resource and therefore protected it. Other areas have been protected because of their landscape, i.e., areas along Toongabbie Creek, whilst others have been protected by fill introduced and overlain natural ground surfaces. It is assumed that these protected areas retain their archaeological integrity.

Statement of Heritage Significance

Overall, the archaeological management units are of high archaeological significance, with the potential to retain evidence of exceptional significance. These areas were identified as part of the Site Investigation Report (RPS 2014).

8 Assessment of Impact of Proposed Works

The purpose of an Aboriginal Heritage Impact Assessment is to identify whether any adverse impact to Aboriginal objects, sites and/or places will occur as a result of the proposed works. This section contains management and mitigation measures relating to Aboriginal cultural heritage. These measures have been produced in consultation with RAPs.

In general, the conservation of Aboriginal objects and places and Aboriginal heritage values is the recommended heritage outcome. Conservation is considered to be a deliberate response to avoid impacts to Aboriginal cultural heritage. Where conservation is not practicable, measures to mitigate impacts to Aboriginal cultural heritage are recommended.

8.1 Summary of Proposed Activity

The Westmead Precinct

The Westmead Precinct is located some 26 kilometres west of the Sydney CBD and two kilometres west of Parramatta. The main entrance to Westmead Hospital is located on Darcy Road, Westmead. The entrance to the current Emergency Department is located on Hawkesbury Road, Westmead.

The proposed main building will be located to the south west of the existing Westmead Institute building and will be 13 stories plus a helipad. A helipad will be located on the roof of the building allowing for air transport of patients. The location of the proposed main building is currently an at-grade car park.

This assessment was based on the following drawings:

Table 8 : Drawings

Drawing ID	Title
CASB-HDR-AR-DG-DA1000	-
CASB-HDR-AR-DG-DA1001	Location Plan
CASB-HDR-AR-DG-DR1931	GFA Calculations Sheet 2
CASB-HDR-AR-DG-DR1932	GFA Calculations Sheet 3
CASB-HDR-AR-DG-DR1933	GFA Calculations Sheet 4
001	Westmead Hospital Photomontage Location Plan

8.2 Potential for Impact by Proposed Activity

As with the proposed works across most of the Hospital, the proposed works are being undertaken in an area of high disturbance. Aside from the construction of main hospital building, the land has previously been used as an at-grade car park, access roads, a Showground, a speedway and was subject to asbestos disposal. Cutting and benching for the construction of various hospital buildings and facilities have also occurred in the vicinity.

As such, this impact assessment has found that it is unlikely that the proposed construction of the multi storey car park will harm any Aboriginal places and/or objects. As noted in the predictive model above, the areas of undisturbed creek banks or those covered with fill along the creek banks contain the highest potential for Aboriginal archaeological objects and/or material. None of those landforms are within the footprint or vicinity of the current study area.

8.3 Visual Impact

However, in relation to non Aboriginal heritage, the proximity of the World Heritage Listed Parramatta Park and Old Government House and the State heritage listed Female Factory and Glengariff House/Wisteria Gardens in the Cumberland Hospital Precinct was identified as having a potential issue with viewsheds. As a result, RPS provided a number of photomontages from these locations with the proposed hospital design superimposed on those views in order to establish whether there would be any impact on these viewsheds.

Six locations were selected for assessment, being:

- The corner of Darcy Road and Institute Road, Westmead (Site 1)
- The Hawkesbury Road frontage of the University of Western Sydney (Westmead Campus)/former St Vincents Boys Home (Site 2)
- The Bath House, Old Government House, Parramatta Park (Site 3)
- The Dairy Precinct, Old Government House, Parramatta Park (Site 4)
- Glengariff House/Wisteria Gardens, Cumberland Hospital precinct (Site 5)
- The former Female Factory (Site 6).

Selection of sites

The Bath House and Dairy Precincts were identified following the review of Planisphere's report to Parramatta City Council, *"Development In Parramatta City and the Impact on Old Government House and Domain's World and National Heritage Listed Values"* (Planisphere 2012). Consideration of development in Westmead was included in this report and as a result, a number of viewsheds were identified that had the potential to be impacted by development in the Westmead area. The tallest building at the time, at 181 Hawkesbury Road, Westmead, opposite the site of the current main building, was used as a visual marker to assess the significance and impact of views from Westmead (Planisphere 2012:58). As a result of Planisphere's assessment, the Bath House and Dairy Precincts were identified as being vulnerable to visual impact as a result of the proposed main hospital building.

The Female Factory and Glengariff House/Wisteria Gardens sites were selected because of their high heritage significance and their proximity to the Bath House and Dairy Precincts. The University of Western Sydney (Westmead campus) was selected as it is the closest heritage item to the study area. The corner of Darcy Road and Institute Road was selected merely as an example of the general visual impact from the west, as all of the heritage items were located to the east and south of the study area.

For the locations of the sites in relation to the study area, please see Figure 2.



REVISIONS				
No.	DATE	REVISION DETAILS	DRAWN	CHK
A	16.05.2016	INITIAL VERSION	ZHY	ST

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V: N/A



Level 9, 17 York Street
Sydney, NSW 2000
(GPO BOX 4401, Sydney, NSW 2001)
t: 02 9248 9800
f: 02 9248 9810

CLIENT		RICE DAUBNEY	
■ SURVEY:	ZHY	DATE OF SURVEY:	12.05.2016
■ DRAWN:	ZHY	DATE OF PLAN:	16.05.2016
■ CHECKED:		DATE LAST SAVED:	17.05.2016
■ APPROVED:	ST	DATE APPROVED:	17.05.2016

■ TITLE
WESTMEAD HOSPITAL PHOTMONTAGE
LOCATION PLAN

■ JOB No
PR131873

■ DWG No
001

■ SHEET 1 OF 7 SHEETS

■ ISSUE
A

■ SIZE
A3

8.4 Assessment of Visual Impact

Site 1 (The corner of Darcy Road and Institute Road)

This area is an urbanised area to the west and just outside the Westmead precinct. The Westmead Private Hospital is located to the north of this site and the Mother Theresa Primary School to the south. It is at the base of a broad and gentle, north-west trending slope, with the main hospital building located approximately 475 metres to the west on the high ground of the slope.

Figure 3 shows the current view from site 1 west towards the proposed main hospital building with a photomontage of this view with the proposed main hospital building.

As can be seen, there is **no visual impact** on any heritage items.

EXISTING



PROPOSED



NOTE: PROPOSED STRUCTURES HAS BEEN RECEIVED FROM RICE DAUBNEY ON 06/05/2016.

REVISIONS						■ TITLE		■ SCALE:		■ DATUM:		■ PREPARED BY		■ JOB No		■ ISSUE			
						WESTMEAD HOSPITAL PHOTOMONTAGE		■ SURVEY: ZHY		DATE OF SURVEY: 12.05.2016		 rpsgroup.com		PR131873		A			
						LOCATION 1		■ DRAWN: ZHY		DATE OF PLAN: 16.05.2016				■ DWG No					
						INTERSECTION OF DARCY RD AND MONS RD		■ CHECKED:		DATE LAST SAVED: 17.05.2016				001					
						■ CLIENT: 		■ APPROVED: MGL		DATE APPROVED: 17.05.2016		Level 9, 17 York Street Sydney, NSW 2000 (GPO BOX 4401, Sydney, NSW 2001) t: 02 9248 9800 f: 02 9248 9810		SHEET 2 OF 7 SHEETS		■ SIZE A3			
A 16.05.2016 INITIAL VERSION					ZHY	ST													
No. DATE REVISION DETAILS					DRAWN	CHK	APP												

Site 2 (University of Western Sydney Westmead Campus)

This item is listed as a locally significant heritage item owing to its construction and past use as a boys' home. An adjacent Victorian residence is also locally listed. It is located along the ridge Hawkesbury Road follows and on which the frontage of the main hospital building will be located. The main hospital building frontage is to be located approximately 295 metres to the north east.

As can be seen from Figure 4 below, the proposed main hospital building will be located in relatively close proximity to the UWS campus. It is however separated by a large block containing the Victorian residence and at-grade car park on both corners of Darcy Road and Hawkesbury Road. There is also a line of mature eucalypts interrupting the view corridor between the two buildings, thus softening the impact of the new building.

As stated in the significance assessment in Section 7.2 above, this item is primarily significant for its moderate historical and aesthetic significance, occupying an elevated position with relatively little visual interruptions in its surroundings. Based on the photomontages it is suggested that the proposed main building will have some visual impact on the setting of the item, however this impact is acceptable given the distance between the two buildings. It is considered that this impact is insufficient to cause any deterioration to the heritage significance of the item.

EXISTING



LOCATION 2

PROPOSED



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REVISIONS					■ TITLE		■ SCALE:		■ DATUM:		■ PREPARED BY		■ JOB No		■ ISSUE			
					WESTMEAD HOSPITAL PHOTOMONTAGE		■ SURVEY: ZHY		DATE OF SURVEY: 12.05.2016		 rpsgroup.com		PR131873		A			
					LOCATION 2		■ DRAWN: ZHY		DATE OF PLAN: 16.05.2016				■ DWG No					
					CNR OF HAWKESBURY RD AND RAILWAY PDE		■ CHECKED:		DATE LAST SAVED: 17.05.2016				001					
■ CLIENT: 					■ APPROVED: MGL		DATE APPROVED: 17.05.2016		Level 9, 17 York Street Sydney, NSW 2000 (GPO BOX 4401, Sydney, NSW 2001) t: 02 9248 9800 f: 02 9248 9810		■ SHEET 3 OF 7 SHEETS							
No. DATE REVISION DETAILS					DRAWN: ZHY		CHK: ST		APP: ST		■ SIZE							
											A3							

Site 3 (Bath House – Old Government House)

The Bath House forms part of the Old Government House & Domain, which itself forms part of the World Heritage Listed Convict Sites. The Bath House is located on a hill top approximately 200 metres west of Old Government House and 975 metres south east of the proposed main hospital building.

Planisphere assessed the significance of the views from the Bath House as “moderate”, citing the “views towards the ‘English’ landscaped setting of broad lawns and mature trees” as the reason for its significance (Planisphere 2012:58). The building at 181 Hawkesbury Road, Westmead could be seen at that time above the canopy of trees on the horizon.

As can be seen in Figure 5 below, the proposed main hospital building cannot be seen through the canopy. It is therefore concluded that there is **no impact** on the heritage significance of Old Government House and Domain.