

Transport
for NSW

Richmond Road Widening between M7 and Townson Road

Historical Archaeological Methodology &
Research Design

May 2025



Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which the Richmond Road Widening between M7 and Townson Road project is proposed.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



Approval and authorisation

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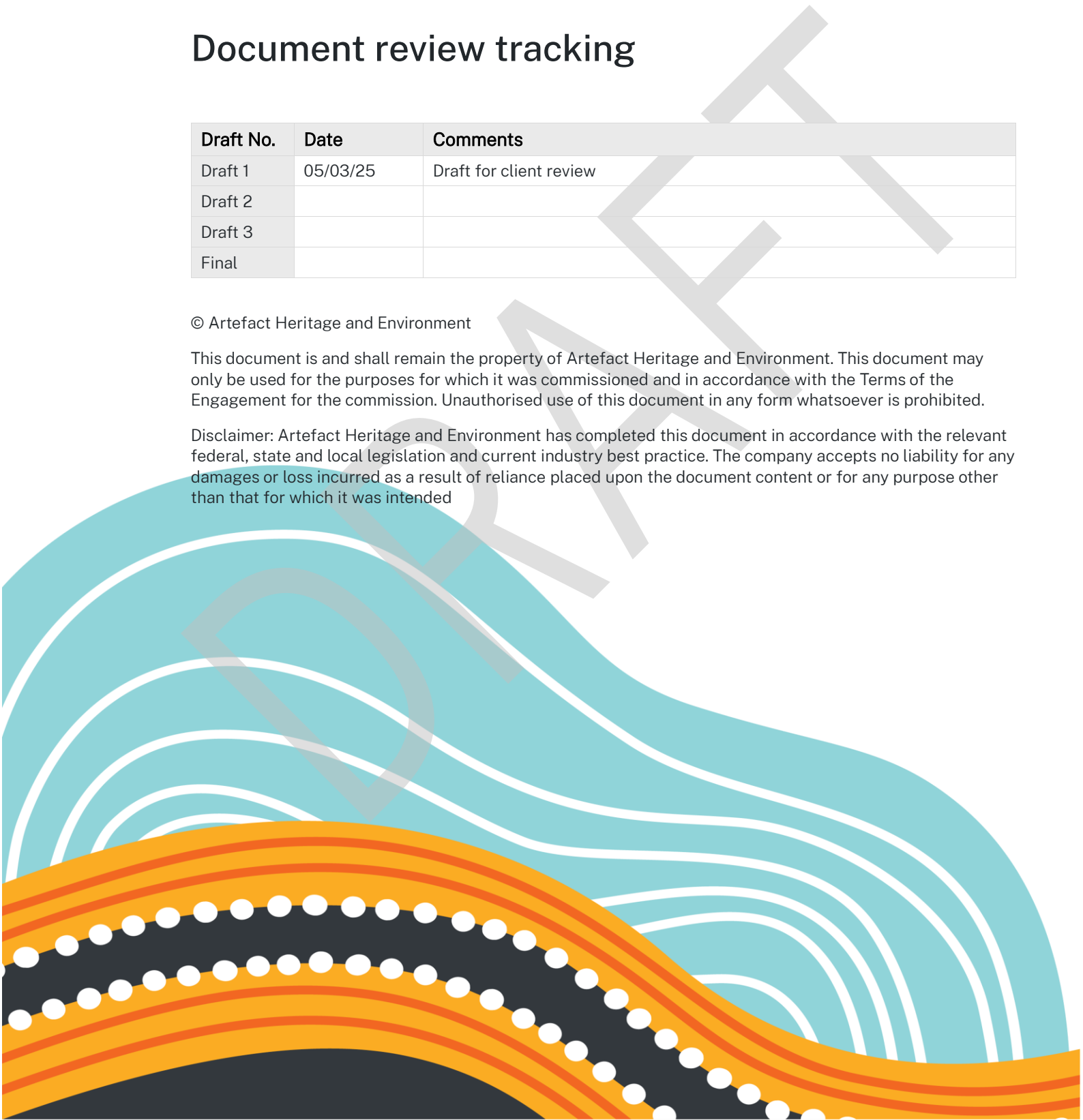


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Terms and acronyms used in this assessment

Term / Acronym	Description
AMP	Archaeological Management Plan
ARD	Archaeological Research Design
Artefact	Artefact Heritage and Environment Pty Ltd
BDCP 2015	<i>Blacktown Development Control Plan 2015</i>
BLEP 2015	<i>Blacktown Local Environmental Plan 2015</i>
BNI	Blacktown Native Institution
CMP	Conservation Management Plan
Construction boundary	Where all construction activities would be undertaken, allowing space to construct the road formation, fencing, ancillary facilities and temporary and permanent sediment basins. Refer Figure 1-1.
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Heritage Act	<i>NSW Heritage Act 1977</i>
LEP	Local Environmental Plan
LGA	Local Government Area
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NSW	New South Wales
NTHR	National Trust (NSW) Heritage Register
Operational boundary	Where all operational phase and maintenance activities would be undertaken. Refer Figure 1-1.
REF	Review of Environmental Factors
RNE	Register of the National Estate
S170	Section 170 Heritage Register under the <i>Heritage Act 1977</i>
SHR	State Heritage Register
SoHI	Statement of Heritage Impact
SSI	State Significant Infrastructure
Study area	The geographic boundary which defines the extent of the investigations supporting the proposal. Refer Figure 1-1..
The Minister	Commonwealth Minister for Environment and Water
The proposal	Richmond Road Widening between M7 and Townson Road
TISEPP	<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>

1. Introduction

1.1 Proposal identification

Transport for NSW intends to upgrade a portion of Richmond Road around the Rooty Hill Road intersection. The proposal would include:

- Six lane upgrade along Richmond Road between M7 and Townson Road
- Dual right-turn lanes from Richmond Road to Rooty Hill Road North
- Dual right-turn lanes from Richmond Road to M7 entry ramp (southbound)
- Dual, continuous left-turn lane from Rooty Hill Road North to Richmond Road (Richmond bound)
- Retained bridge structure over Bells Creek to be used for the Blacktown-bound carriageway of Richmond Road
- New adjacent bridge structure for the Richmond bound carriageway
- Relocated pedestrian bridge over Bells Creek or integrate pedestrian facilities on the new bridge for the Richmond-bound carriageway
- Widening the M7 northbound exit ramp to provide an additional right turn lane at the intersection with Rooty Hill Road North
- Exit ramp off M7

The objectives of the proposal are to:

- Reduce transport cost by improving travel times and reducing congestion.
- Support economic growth and productivity by providing road capacity for projected freight and general traffic volumes.
- Improve road safety in line with the NSW Road Safety Strategy 2012-2021, Safe System Directions and Safer Roads Key Focus.
- Improve quality of service, sustainability and liveability.
- Minimise impacts on the environment.

Ongoing consultation between Transport for NSW the Darug Strategic Management Group (DSMG) and the Aboriginal community has raised concerns regarding the potential for child burials within the State Heritage Register (SHR) listed Blacktown Native Institute (BNI).

A Statement of Heritage Impact (SoHI) prepared by Artefact Heritage and Environment (Artefact) in 2024¹ to inform the project Review of Environmental Factors (REF) included recommendations for the management of potential unidentified burials within the BNI through the implementation of an Unexpected Finds Procedure. Following submission of the REF, consultation with Heritage NSW recommended that a more proactive approach to investigating the potential of the site to contain undocumented burials be undertaken to guide the detailed design process.

This AMRD outlines an archaeological methodology for Identifying potential burial sites through archaeological testing in consultation with the Aboriginal community and other stakeholders. This document recommends a methodical and culturally sensitive approach balancing scientific investigation with ethical considerations. The proposed approach integrates traditional knowledge, historical research and stratigraphic excavation to locate and document potential burial features while minimising site disturbance.

This methodology outlines a step-by-step process for testing potential burial locations, emphasising controlled excavation and collaboration with Aboriginal communities to guide ethical and effective research.

¹ Artefact, November 2024. Richmond Road Widening between M7 and Townson Road Statement of Heritage Impact, report prepared for Transport for NSW

The study area has been assessed in an Aboriginal Cultural Heritage Assessment Report (ACHA) prepared by Kelleher Nightingale Consulting Pty Ltd (KNC) as having the potential to contain Aboriginal objects.² A separate standalone methodology for Aboriginal archaeological salvage excavation has been prepared as part of that report and will be submitted to Heritage NSW in support of an Aboriginal Heritage Impact Permit (AHIP) application under Section 90 of the *National Parks and Wildlife Act 1974* (NPW Act). A summary of the Aboriginal excavation methodology, is included in this AMRD.

This AMRD will support a staged section 60 (s60) approval application to Heritage NSW for historical archaeological testing within those portions of the study area identified as having the potential to contain human remains. Construction methodologies are yet to be determined and the results of the test excavation would be considered during detailed design. It is the intention of the project to avoid significant archaeological remains where possible.'

1.2 Study area

The project study area (Figure 1-1) encompasses Richmond Road and adjacent areas, starting just north of the Hollinsworth and Townson Road intersection with Richmond Road and continuing south just past the M7 Motorway to Yarramundi Drive.

The study area includes a portion of the SHR listed Blacktown Native Institution (SHR 01866).

Two locations have been identified by the DSMG and Aboriginal community as having the potential to contain the burials of children and babies. This includes land adjacent to Bells Creek and the north-eastern corner of the BNI.

1.3 Authorship

This AMRD has been prepared by Jenny Winnett (Technical Director) and reviewed by Sam Higgs (Team Leader - Archaeology) and Josh Symons (Technical Executive) all from Artefact Heritage.

1.4 Limitations

No external consultation was undertaken as part of this SoHI by Artefact Heritage. Consultation, including with the DSMG, as the main land holders of the Blacktown Native Institution Site, is being conducted by Transport for NSW as part of the project.

This document includes further discussion and assessment of the BNI as it relates to potential burials only. Additional historical and project context is provided in the 2024 SoHI and project REF.

² Kelleher Nightingale Consulting Pty Ltd, November 2024, *Richmond Road Upgrade M7 to Townson Road, Marsden Park Aboriginal Cultural Heritage Assessment PACHCI Stage 3*, report prepared for Transport for NSW



Figure 1-1: Location and extent of the study area

2. Legislative and policy context

2.1 Overview

Legislative and policy context applicable to this AMRD has been included below.

2.2 Identification of heritage listed items

Heritage listed items were identified through a search of relevant state and federal statutory and non-statutory heritage registers:

- National Heritage List
- State Heritage Register (SHR)
- Section 170 Heritage and Conservation Registers
- Blacktown Local Environmental Plan 2015 (BLEP 2015)
- Register of the National Estate (RNE)
- National Trust of Australia (NSW) register.

Items listed on these registers have previously been assessed against the heritage assessment guidelines relevant to their peak governing body. Items of state or local significance have been assessed against the NSW Heritage Assessment guidelines, in accordance with the *NSW Heritage Act 1977* (the Heritage Act). Assessments of heritage significance as they appear in relevant heritage inventory sheets and documents, are provided in this assessment.

There are several items of legislation that are relevant to the current study area. A summary of the relevant Acts and the potential legislative implications are provided below.

2.3 Heritage Act 1977

The *NSW Heritage Act 1977* (Heritage Act) provides protection for items of 'environmental heritage' in NSW. 'Environmental heritage' includes places, buildings, works, relics, movable objects or precincts considered significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. Items considered to be significant to the State are listed on the SHR and cannot be demolished, altered, moved or damaged, or their significance altered without approval from the Heritage Council of NSW.

2.3.1 State Heritage Register

The SHR was established under Section 22 of the Heritage Act and is a list of places and objects of particular importance to the people of NSW, including archaeological sites. The SHR is administered by Heritage NSW, and includes a diverse range of over 1,700 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW. For works to an SHR item, a Section 60 application must be prepared for works that are not exempt under Section 57(2) of the Heritage Act.

This AMRD has been prepared to address archaeological potential within the following item listed on the SHR:

- Blacktown Native Institution (SHR No. 01866).

2.3.2 Heritage Exemptions

Lot 1 DP 1043661, which is the eastern portion of the Blacktown Native Institution (SHR No. 01866) site, was granted the following site-specific exemption under subsection 57(1) of the Heritage Act in 2011:

Exemption 1. *The carrying out of road work or traffic control work, within the meaning of the Roads Act 1993, in connection with the Rooty Hill Road, Richmond Hill Road and / or the proposed Castlereagh Freeway, on land described as Lot 1 in Deposited Plan 1043661, Lot 5002 in Deposited Plan 869400 and / or Lot 5003 in Deposited Plan 869400, is exempt from*

subsection 57(1) of the Heritage Act 1977, subject to all excavation or disturbance of land being carried out in accordance with any archaeological management plan with which compliance is required by any approval for those works issued under the Environmental Planning and Assessment Act 1979.

Reason/Comment - Should archaeological relics or deposits be uncovered during excavation work, all work must cease in the immediate area. A suitably qualified and experienced archaeologist must be contacted to assess the archaeology and the Heritage Branch should be informed immediately ('Blacktown Native Institution' 2011).

Although the proposed works generally meet the criteria of this site-specific exemption (consisting of road works and facilitating activities), it has been determined in consultation with Transport that the scope and scale of the proposed works requires additional third-party assessment. This is because Transport believes that the intent of the site-specific exemption is to allow road maintenance activities and road widening activities for this part of the BNI site. When the site specific exemptions were made they focused on managing physical (archaeological) impacts to the site. Transport for NSW understands that the site contains significant cultural values and that the proposed design may intersect with the site and its cultural values which exist beyond its archaeology. Although the exemption could be pursued, Transport will seek independent approval of the application s60 for transparency. As such, the decision has been made to proceed with a Section 60 application for the project.

2.3.3 Archaeological relics and works

The Heritage Act also provides protection for 'relics', which includes archaeological material or deposits. Section 4 (1) of the Heritage Act (as amended in 2009) defines a relic as:

"...any deposit, artefact, object or material evidence that:

relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and

is of State or local heritage significance"

Sections 139 to 145 of the Heritage Act prevent the excavation or disturbance of land known or likely to contain relics, unless under an excavation permit. Section 139 (1) states:

A person must not disturb or excavate any land knowingly or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, damaged or destroyed unless the disturbance is carried out in accordance with an excavation permit.

Excavation permits are issued by the Heritage Council of NSW, or its Delegate, under Section 140 of the Heritage Act for relics not listed on the SHR, or under Section 60 for impacts within SHR curtilages. An application for an excavation permit must be supported by an Archaeological Research Design (ARD) and Archaeological Assessment prepared in accordance with the Heritage NSW archaeological guidelines. Minor works that would have a minimal impact on archaeological relics may be undertaken in accordance with the Section 139 (4) exceptions, or an exemption under Section 57 (2) of the Heritage Act.

2.3.4 Conservation Management Plans

Under Section 38A of the Heritage Act, a CMP should be prepared for items listed on the State Heritage Register. The CMP should identify the state heritage significance of the item, set out policies and strategies for the retention of its significance and be prepared in accordance with the guidelines outlined by the Heritage Council. The Heritage Act allows for CMPs to be endorsed by the Heritage Council. However, following recent policy changes, CMP endorsement is no longer undertaken except in exceptional circumstances.

There is one CMP relevant to the study area:

- GML 2023, *Dharug Nura: The Blacktown Native Institution Conservation Management Plan (Draft Report)*, prepared for the Dharug Strategic Management Group (DSMG).
- The CMP prepared in 2023 included the following as part of Policy 36:
 - *The BNI holds an unknown level of potential for post-1788 human burials, possibly associated with the BNI phase. The proposed footprint for any new development must consider this potential and implement non-invasive actions to investigate the possibility during the planning phase.*

2.3.5 Section 170 registers

Under the Heritage Act all government agencies are required to identify, conserve and manage heritage items in their ownership or control. Section 170 requires all government agencies to maintain a Heritage and Conservation Register that lists all heritage assets and an assessment of the significance of each asset. They must also ensure that all items inscribed on its list are maintained with due diligence in accordance with State Owned Heritage Management Principles approved by the Government on advice of the NSW Heritage Council. These principles serve to protect and conserve the heritage significance of items and are based on NSW heritage legislation and guidelines.

A search of the Transport for NSW (formerly Roads and Maritime modes) s170 register was conducted on 20 September 2024. The Blacktown Native Institution is listed on the s170 register.

2.4 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act), administered by Heritage NSW provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW), and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community).

Aboriginal object means 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. (NPWA Part 5(1) Definitions).

Section 86 of the NPW Act identifies that it is an offence to harm or desecrate an Aboriginal object and/or an Aboriginal place. Section 86 outlines penalty units applicable where it is identified that a person or corporation is in breach of Section 86.

The NPW Act defines harm to an object or place as any act or omission that:

- (a) destroys, defaces or damages the object or place, or
- (b) in relation to an object moves the object from the land on which it had been situated, or
- (c) is specified by the regulations, or
- (d) causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c)

An Aboriginal Heritage Impact Permit (AHIP) may be issued under section 90 of the *National Parks and Wildlife Act 1974* to allow harm to Aboriginal objects and/or places. Various factors are considered by Heritage NSW in the AHIP application process, such as site significance, Aboriginal consultation requirements, Ecological Sustainable Development (ESD) principles, project justification and consideration of alternatives.

Any excavation where Aboriginal remains (as included in the definition as Aboriginal objects) may be present will require approval under the NPWA prior to commencement.

Kelleher Nightingale Consulting Pty Ltd (KNC) was engaged by Transport to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the project, and to assist in the preparation of an Aboriginal Heritage Impact Permit (AHIP) application for Aboriginal objects would be harmed by the proposal.³

³ KNC 2024, *Richmond Road Upgrade – M7 to Townson Road: Aboriginal Cultural Heritage Assessment PACHI Stage 3*, prepared for Transport for NSW.

2.5 Environmental Planning and Assessment Act 1979 (NSW)

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits.

The EP&A Act also requires that local governments prepare planning instruments (such as Local Environmental Plans [LEPs] and Development Control Plans [DCPs]) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required. The study area falls within the boundaries of the Blacktown LGA. Schedule 5 of the *Blacktown Local Environmental Plan 2015* (BLEP 2015) includes a list of items/sites of heritage significance within this LGA.

2.5.1 Blacktown Local Environmental Plan 2015

The study area falls within the boundaries of the Blacktown Local Government Area (LGA). Heritage items listed on the BLEP 2015 are managed in accordance with the provisions of Section 5.10 Heritage Conservation of this LEP

The BNI is listed on Schedule 5 of the BLEP 2015:

- Archaeological Site – Native Institute Site (LEP No. A121).

2.5.2 Blacktown Development Control Plan 2015

The Blacktown DCP 2015 (BDCP 2015) is a supporting document that compliments the provisions contained within the BLEP 2015 and provides specific design detail in regard to sympathetic development on, or in the vicinity of, items listed on Schedule 5 of the BLEP 2015.

Part A, Section 4.4 Heritage of the BDCP 2015 includes known archaeological sites and areas of high archaeological significance and provides advice on approval pathways. This section is targeted at the protection of Aboriginal heritage sites in accordance with the provisions of the NPW Act and does not discuss historical archaeological protections. The areas of high archaeological significance noted in the DCP are along major waterways within the Blacktown City Council (BCC) boundaries.

2.6 State Environmental Planning Policy (Transport and Infrastructure) (TISEPP) 2021

TISEPP aims to facilitate the effective delivery of transport and infrastructure across NSW. The Transport and Infrastructure SEPP assists local government, the NSW Government and the communities they support, by simplifying the process for providing essential infrastructure in areas such as education, hospitals, roads and railways, emergency services, water supply and electricity delivery.

Generally, where there is conflict between the provisions of the TISEPP and other environmental planning instruments, the TISEPP prevails. While the TISEPP overrides the controls included in the LEPs and DCPs, the proponent is required to consult with the relevant local councils when development “is likely to have an impact that is not minor or inconsequential on a local heritage item (other than a local heritage item that is also a State heritage item) or a heritage conservation area”.

When this is the case, the proponent must not carry out such development until it has (TISEPP 2021 Clause 2.11.2):

(a) had an assessment of the impact prepared, and

(b) given written notice of the intention to carry out the development, with a copy of the assessment and a scope of works, to the council for the area in which the heritage item or heritage conservation area (or the relevant part of such an area) is located, and

(c) taken into consideration any response to the notice that is received from the council within 21 days after the notice is given.

As the BNI is listed on the SHR, consultation with local Council under the TISEPP is not required.

This project is proceeding under the provisions of the TISEPP, to be self-determined by Transport. It is noted the provisions of the TISEPP do not negate the requirement for approval under the Heritage Act for impacts to SHR listed items.

2.7 Summary of heritage listings

The study area encroaches on the heritage curtilage of the Blacktown Native Institution and sits adjacent to the Colebee and Nurragingy Land Grant, which are listed on multiple heritage registers. The search of relevant registers was undertaken on 19 July 2024 and 20 September 2024. The results are outlined in Table 2-1 and curtilages of these items are illustrated in Figure 2-1.

Table 2-1: Results of register searches for the study area and adjacent heritage items

Item	Address	Significance	Listing	Relationship to study area
Blacktown Native Institution	Richmond Road, Oakhurst	State	SHR No. 01866 BLEP 2015 No. A121 RNE Place ID. 159505 Transport for NSW s170 ID (unavailable)	Within

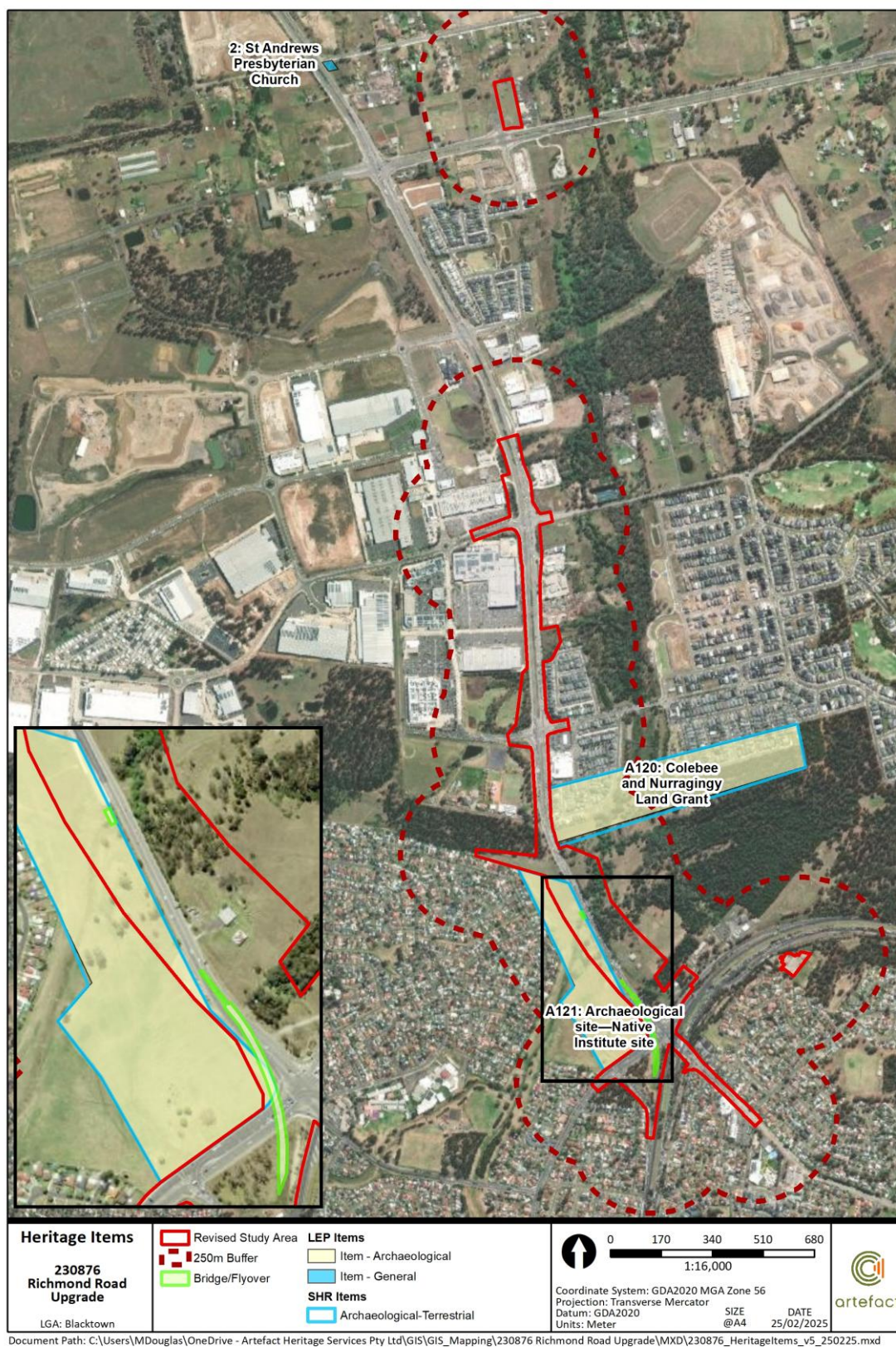


Figure 2-1: Summary of heritage items within and surrounding the proposal

2.8 Overview of legislative requirements for managing human remains

The following section provides an overview of the various legislation that would apply to the discovery and management of human remains. A discovery of suspected human remains may be subject to different Acts and requirements, thereby triggering different notification pathways based on the specific circumstances involved.

The current proposal is for archaeological testing to identify the presence/absence of potential graves only. It is not proposed to exhume or expose human remains. The disturbance/exhumation of human remains is managed under the *Public Health Regulation Act 2022* (NSW).

2.8.1 Discovery of human remains and forensic cases: *Coroners Act 2009* (NSW)

Discovery of suspected human remains less than 100 years old come under the jurisdiction of the State Coroner, under the *Coroners Act 2009* (NSW) (Coroners Act). Such a case would be considered a 'reportable death' under the provisions of the Coroners Act and subject to notification. Legal notification obligations are set out in Section 35 of the Act, which states:

35 Obligation to report death or suspected death

(1) This section applies to any person who has reasonable grounds to believe that a death or suspected death of another person:

(a) is a reportable death or occurred in circumstances that would be examinable under Division 2 of Part 3.2, and

(b) has not been reported in accordance with subsection (2).

(2) A person to whom this section applies must report the death or suspected death concerned to a police officer, a coroner or an assistant coroner as soon as possible after becoming aware of the grounds referred to in subsection (1).

Maximum penalty (subsection (2)): 10 penalty units.

(3) A police officer to whom a death or suspected death is reported under this section is required to report the death or suspected death to a coroner or assistant coroner as soon as possible after the report is made.

(4) An assistant coroner to whom a death or suspected death is reported under this section is required to report the death or suspected death to a coroner as soon as possible after the report is made.

(5) A coroner to whom a death or suspected death is reported under this section is required to inform the State Coroner of the report as soon as practicable after the report is made.

The obligation to report applies to all human remains less than 100 years old, regardless of ancestry (i.e. both Aboriginal and non-Aboriginal remains).

The date of potential internment of children within the BNI is unknown, although assumed to be contemporary with the use of the BNI i.e. c.1830s. Therefore, it is reasonable to conclude that the burials are over 100 years old and the provisions of the Coroners Act are unlikely to apply in this case.

2.8.2 Historical human remains: *Heritage Act 1977* and Guidelines for the Management of Human Skeletal Remains under the *Heritage Act 1977*

Historic burials in NSW are sometimes managed under the *Heritage Act 1977* (Heritage Act) and the *Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977*.⁴ It should be noted that the guidelines, prepared in 1998, have not been updated to reflect current statutory frameworks; in particular surrounding the definition of 'relics' under the Heritage Act.

The definition of an archaeological 'relic' under the Heritage Act changed in 2009, and no longer relates to the age, but rather the significance. A relic is now defined as:

Any deposit, artefact object or material evidence that:

Relates to human settlement of the area that comprises New South Wales, not being Aboriginal settlement; and,

Is of State or local heritage significance.

In line with the change in definition for archaeological relics, the guideline *Assessing Significance for Historical Archaeological Sites and Relics*⁵ was issued and endorsed by the Heritage Council of NSW. This document should be used to assess the level of heritage and archaeological significance of the remains. Which reference to burial grounds, objects such as headstones, grave enclosures and grave goods, as well as buried human remains, may be classified as a 'relic'.

2.8.3 Aboriginal human remains: *National Parks and Wildlife Act 1974*

Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act) provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW) under Section 90, and for Aboriginal Places (areas of cultural significance to the Aboriginal community) under Section 84.

Discovery of Aboriginal burials and/or human remains would be addressed in the Project's ACHAR.⁶ The ACHAR has been prepared in accordance with the *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*⁷, *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*⁸, *Aboriginal cultural heritage consultation requirements for proponents 2010*⁹, and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*.¹⁰

If suspected Aboriginal human skeletal remains are uncovered at any time, works must cease. Management of any human remains must be guided by consultation with the nominated Registered Aboriginal Parties (RAPs) for the Project.

Any excavation where Aboriginal remains (as included in the definition as Aboriginal objects) may be present will require approval under the NPWA prior to commencement.

⁴ NSW Heritage Office, 1998

⁵ Heritage Branch, Department of Planning, 2009

⁶ Artefact, in preparation

⁷ NSW Department of Environment and Conservation, 2005

⁸ Office of Environment and Heritage, 2011

⁹ Department of Environment, Climate Change and Water 2010

¹⁰ Office of Environment and Heritage, 2010

3. Historical Background

3.1 Introduction

A summary of the historical context of the BNI is included below.

3.2 Aboriginal history

Many Aboriginal people, like other Indigenous or First Nations people around the world, have been living on Country for ‘time immemorial’ – that they have always been here, and their origins lie in the creation of the land and animals. As Sydney Elder and Wiradjuri activist Aunty Jenny Munro expresses:

‘...from time immemorial, we believe as Aboriginal people, Australia has been here from the first sunrise, our people have been here along with the continent, with the first sunrise. We know our land was given to us by Baiami, we have a sacred duty to protect that land’¹¹

Over the last few decades, archaeologists’ knowledge of deep human time in Australia has expanded from just a few thousand years in the 1950s, to 25,000 years in the 1960s, then 40,000 years, to now around 60,000 years or more.¹²

Archaeological evidence of Aboriginal people living in the Sydney region from Shaw’s Creek west of the Dyarubbin (Nepean) River is dated at around 14,000 years ago and numerous other sites in the area have been dated at around 15,000 ago. While Cranebrook Terrace, near Penrith in Western Sydney, has been dated to 41,700 years and a site near Parramatta at 30,000 years old, there is growing consensus among archaeologists and historians that people have lived across the Sydney region from around 50,000 years ago.¹³

More ancient sites lie off the coast and in river valleys, now deep under water. Before the major sea level rise event at the end of the last ice age around 17,000 years ago, Aboriginal people living along the Parramatta River could have walked downstream along the riverbanks to the sea about 30 kilometers beyond the current day coastline. Over generations they would have watched and told stories about the gradual change as the sea rose to fill the ‘drowned river valley’ of what is now Sydney Harbour until it reached present levels around 6,000 years ago.¹⁴

¹¹ Munro, in Currie, J., ‘Bo-ra-ne Ya-goo-na Par-ry-boo-go yesterday today tomorrow an Aboriginal history of Willoughby’. (Willoughby City Council in association with the Aboriginal Heritage Office Northern Sydney Region, 2008): 4

¹² Belshaw, J, Nickel, S, and Horton, C., ‘Histories of Indigenous Peoples and Canada’, (Thompson Rivers University, 2020); Griffith, B. *Deep time dreaming: uncovering ancient Australia*. (Melbourne, Black Inc. Books, 2018): 112; Karskens, G. ‘The colony: A history of early Sydney’ (Sydney, Allen & Unwin, 2009): 25.

¹³ Attenbrow, V. ‘Sydney’s Aboriginal past, investigating the archaeological and historical records’. (2nd edn. Sydney, UNSW Press, 2010): 18-20; Attenbrow, V. 2012. ‘Archaeological evidence of Aboriginal life in Sydney’, *Dictionary of Sydney*. (Accessed online 15 Feb 2023); Karskens, G., Burnett, G., and Ross, S., ‘Traces in a Lost Landscape: Aboriginal archaeological sites, Dyarubbin/Nepean River and contiguous areas, NSW (Data Paper)’, *Internet archaeology*, No. 52 (2019): 4; McDonald, J. ‘Dreamtime Superhighway. An analysis of the Sydney basin rock art’, (Canberra, ANU Press, 2007): 4, 87-94; Nanson, G.C., Young, R.W., and Stockton, E.D., ‘Chronology and palaeoenvironment of the Cranebrook Terrace (near Sydney) containing artefacts more than 40,000 years old,’ *Archaeology in Oceania* Vol. 22 No. 2 (1987): 77; Williams, A.N., Burrow, A., Toms, P.S., Brown, O., Richards, M. and Bryant, T., ‘The Cranebrook Terrace revisited: recent excavations of an early Holocene alluvial deposit on the banks of the Nepean River, NSW, and their implications for future work in the region,’ *Australian archaeology* Vol. 83 No. 3, (2017): 100-109; Williams, A.N., Mitchell, P., Wright, R.V.S., and Toms, P.S., ‘A terminal Pleistocene open site on the Hawkesbury River, Pitt Town, New South Wales,’ *Australian archaeology* Vol. 74 (2012): 85-97;.

¹⁴ Attenbrow, V. ‘Sydney’s Aboriginal past, investigating the archaeological and historical records’ (2nd edn. Sydney, UNSW Press, 2016): 154-155; Birch, G., ‘A short geological and environmental history of the Sydney

Given the devastating impact of violent dispossession and disease upon Aboriginal people in the Sydney region during colonisation, the precise identification of language groups and historical traditional lands or Country for a given area is often difficult today. Early colonial observer Watkin Tench believed there was at the least coastal and inland dialects of the same language and, while this is challenged by some, there seems to have been an alignment with inland economies of the rivers, creeks and open forests of the Cumberland Plain, and coastal 'saltwater' focused groups.¹⁵

Prior to colonisation, Aboriginal people in the relatively resource rich Sydney region lived in extended family groups estimated at around 30 to 50 people. These groups were associated with certain territories or places that gave clan members particular social and economic rights and obligations. Each of the estimated 30 clans in the Sydney region had a name often associated with a place or resource such as the Cabro (Gabra) gal (people) at modern day Cabramatta. Clan groups moved around a defined area in response to changing seasons and the availability of food and other resources. European observers mistakenly took this as a nomadic lifestyle, when in fact they moved around a 'limited and deeply known' area. There were also forms of more sedentary agriculture and aquaculture, and villages such as those described by early colonial diarists at Kamay-Botany Bay and later accounts of '70 huts' at Bent's Basin on the Nepean River west of Sydney.¹⁶

Some areas, particularly resource rich ones, had shared boundaries or reciprocal rights with bordering and neighbouring groups. With appropriate permission and protocols, people could travel through and hunt on other groups' lands. On special occasions such as feasts associated with the beaching of a whale; a kangaroo hunt on the open forests of southwestern Sydney; trading or exchanging stone, tools and other items, as well as ceremonial occasions, people would often travel long distances around and from outside the Sydney region.¹⁷

With several rivers and estuarine coastal areas, the Sydney region sustained a large population compared to more arid inland areas. Fish and shellfish were a major part of Saltwater peoples' diets. The nawi (tied-bark canoe) was a common sight both day and night in rivers and creeks and was even dexterously paddled off the coast. There are many accounts by early colonists of Aboriginal people in canoes fishing and cooking their catch on small fires on hearth stones within the vessels. Women were the primary fishers from nawi (men usually fished with spears). Women were highly skilled with shell hooks and twine fishing lines and thus played an important economic role in Sydney. They were noted as cradling their children while fishing, as their songs floated across the waters of Sydney Harbour.¹⁸

People living inland across the Cumberland Plain focused on hunting small animals, gathering plants and catching freshwater fish and eels. Banksia flowers, wild honey, varieties of yam and burrawang nuts (macrozamia - a cycad palm with poisonous seeds that require processing to remove toxins) were recorded as important food sources. Xanthorrhoea, also known as the grass tree, had many uses - the nectar was eaten, the stalk used as a spear and the resin as a glue. Small animals such as bandicoots and wallabies were hunted

estuary, Australia' *Water wind art and debate — how environmental concerns impact on disciplinary research*, (G.Birch (ed.), Sydney, Sydney University Press, 2007): 219-219; Nunn, P.D. and Reid, N.J. 'Aboriginal Memories of Inundation of the Australian Coast dating from more than 7000 years ago', *Australian geographer*, Vol. 47 No.1, (2016): 11-47.

¹⁵Stanner, W.E.H. 'Aboriginal Territorial Organization: Estate, Range, Domain and Regime', *Oceania Vol. 36 No. 1*, (1965): 1-26; Tench, W., 'A complete account of the settlement at Port Jackson', (Sydney, Sydney University Press, 1793 [2004]): 122; Aboriginal Heritage Office, 'Filling a void: a review of the historical context for the use of the word 'Guringai'', (North Sydney, Aboriginal Heritage Office, 2015); Note: This historical overview does not seek to contest traditional or current definitions of affiliation with Country and acknowledges that multiple interpretations of such identity may exist. A frequently used indication of Country is language identity. However, far more complex factors are known to have often taken precedence over language in determining Aboriginal people's definition of Country. There is debate on the extent and name for the language itself, some preferring to use 'The Sydney Language'. Watkin Tench observed that though the coastal and inland men he met conversed and understood each other, many words for common things bore no similarity while other words were only slightly different.

¹⁶Attenbrow, V. 'Sydney's Aboriginal past, investigating the archaeological and historical records', (2nd edn. Sydney, UNSW Press, 2010): 78; Gammage, B. 'The biggest estate on earth', (Sydney, Allen & Unwin, 2012): 281-304; Gapps, S, 'Cabrogal to Fairfield City: a history of a multicultural community', (Sydney, Fairfield City Council, 2010): 26-60; Karskens, G., 'The colony: A history of early Sydney' (Sydney, Allen & Unwin, 2009): 36.

¹⁷Gammage, B. 'The biggest estate on earth', (Sydney, Allen & Unwin, 2012); Irish, P., 'Hidden in plain view: the Aboriginal people of coastal Sydney', (Sydney, NewSouth Books, 2017): 22-27.

¹⁸Attenbrow, V. 'Sydney's Aboriginal past, investigating the archaeological and historical records', (2nd edn. Sydney, UNSW Press, 2010): 38; Collins, D. 'An account of the English colony in New South Wales', (Vol 1, London, Cadell & Davies, 1789): 557; Banks, J., 'The Endeavour Journal of Sir Joseph Banks', (Project Gutenberg webpage, 1770 [2005], accessed online 15 Feb 2022).

with traps and snares. Watkin Tench noted the skill in cutting toeholds in trees to swiftly climb to hunt possums.¹⁹

The landscape and environment before Europeans arrived was a finely managed one. In 1790 John Hunter observed people ‘burning the grass on the north shore opposite to Sydney, in order to catch rats and other animals’. In 1804 Henry Waterhouse described the land around Cowpastures as ‘a beautiful park, totally divested of underwood, interspersed with rich, luxuriant grass ... except where recently burnt’.²⁰ These forests that had been managed by many generations of Aboriginal people through such methods as what is known as ‘firestick farming’. Fire was an important tool and also used to open up tracks, to ‘clean country’, drive animals into the paths of hunters, cooking, warmth, treating wood, cracking open stones and for a place to gather, dance and share stories and knowledge.²¹

The Sydney region was a landscape rich with the imprints of activity, art and culture such as rock engravings and paintings, scarred and carved trees, ceremonial rock and mound structures, cooking ovens, villages of bark huts, stone tool quarries, grinding grooves and tool-making sites, burial and other shell middens, and other artefacts. All this activity had a lasting impact on the landscape, and many elements such as rock engravings in particular survive, or have been kept intact or cared for by community members. Over time, many Aboriginal pathways were taken up by the colonists and made into roads, some still on the same routes today. ‘Kangaroo grounds’ became colonial estates, fishing creeks became drains, hills and peaks used for communication became signaling stations and lookouts, and shell middens became the limestone for the bricks and mortar of early colonial buildings.²²

The large swathes of Hawkesbury sandstone across the Sydney region were the canvas for what has been likened to an enormous open air art gallery – engravings of the outlines of spirit creatures, marsupials, birds, fish, weapons, footprints and even European boats alongside people, showing a continuity that carried on beyond the arrival of British colonisers in 1788. This Sydney art tradition was distinctive from other regions such as inland New South Wales where carved trees were more prominent, or further south where painting dominates. There are more than 4,000 known rock art sites and more than 3,000 rock shelters with pigment or painted art, often featuring hand stencils. The Sydney Basin has been compared to Kakadu National Park in terms of the vast numbers of Aboriginal sites that remain today.²³

The first encounters between the British colonists and the Sydney people were initially based in curiosity, with both sides attempting to comprehend each other. However, misunderstandings or transgressions of Aboriginal law and protocol soon escalated into violence and retribution. Unarmed convicts outside the encampment at Sydney Cove were increasingly targeted during 1788. However, in April 1789, what Sydney Aboriginal people called galgala or smallpox broke out and more than half – possibly even 80 percent – of the population around Sydney Harbour were dead within a month. Captain John Hunter wrote that ‘it was truly shocking to go round the coves of this harbour [seeing] men, women and children, lying dead’. David Collins wrote that those who witnessed the Sydney man Arabanoo’s grief and agony could never forget either – on being taken on a boat around the harbour Arabanoo ‘lifted up his hands and eyes in silent agony [and exclaimed] ‘All dead! All dead!’”²⁴

Despite such massive death and disruption to Aboriginal lives across Sydney, in 1794 resistance warfare against the colonisers began in earnest along the new settlements on the Dyarubbin (Hawkesbury) River and was to carry on through the 1790s, largely under the leadership of the famous warrior Pemulwuy. This

¹⁹Attenbrow, V. ‘Sydney’s Aboriginal past, investigating the archaeological and historical records’. (2nd edn. Sydney, UNSW Press, 2010): 41; Kohen, J.L. ‘Aborigines in the west: prehistory to the present’, (Armidale, Western Sydney Project, 1985): 9; Tench, W., ‘A complete account of the settlement at Port Jackson’, (Sydney, Sydney University Press, 1793 [2004]): 82; 230.

²⁰ Hunter, J., ‘An Historical Journal of the Transactions at Port Jackson and Norfolk Island’, (London, John Stockdale, 1793 [1968]); Waterhouse, ‘Captain Waterhouse to Captain MacArthur, 12 March 1804’, *Historical records of New South Wales (HRNSW) Vol. 5*, (Bladen, F. M. (ed.), Sydney, Government Printer, 1897): 359.

²¹ Gammage, B., ‘The biggest estate on earth’, (Sydney, Allen & Unwin, 2012): 163-185; Griffith, B., ‘Deep time dreaming: uncovering ancient Australia’, (Melbourne, Black Inc. Books, 2018): 240.

²² Attenbrow, V., ‘Archaeological evidence of Aboriginal life in Sydney’, (Dictionary of Sydney, 2012, accessed online 15 Feb 2023), Gammage, B. ‘The biggest estate on earth’, (Sydney, Allen & Unwin, 2012): xix; Griffith, B., ‘Deep time dreaming: uncovering ancient Australia’, (Melbourne, Black Inc. Books, 2018): 241.

²³ Griffith, B., ‘Deep time dreaming: uncovering ancient Australia’, (Melbourne, Black Inc. Books, 2018): 188; Karskens, G., ‘The colony: A history of early Sydney’ (Sydney, Allen & Unwin, 2009): 32; McDonald, J., ‘Dreamtime Superhighway: An analysis of the Sydney basin rock art’, (Canberra, ANU Press, 2007); Mulvaney, J. and Kamminga, J. ‘Prehistory of Australia’, (Washington DC, Smithsonian Institution Press, 1999): 284, 376-381.

²⁴ Hunter, Collins, “‘They have attack’d almost every person who has met with them” – Re-reading William Bradley’, *The Sydney Wars* (Gapps, S. (Ed.), 2019, accessed online 15 Feb 2023).

'constant sort of war' as one colonist described it, continued until Governor Macquarie ordered the now infamous military campaign across the Sydney region that ended in the Appin Massacre of April 17th 1816.²⁵

Sydney Aboriginal society was not static and did not cease after contact with Europeans. Both material and cultural traditions of Aboriginal Sydney continued after the devastation to Aboriginal society, sometimes for example, by incorporating non-Aboriginal materials in traditional elements such as using glass and ceramics to make spear points and other tools. Twenty-nine engraved and pigment art sites have been dated to the period after European arrival. Some creation and other stories told to R. H. Mathews by Gundungurra (Gandangarra) people in 1901 were carried on for generations and survive today.²⁶

Many of Sydney's roads and streets today follow the original tracks and pathways that had been used for millennia by Aboriginal people. Indeed, the shape of the city's road networks and the city itself owes a great deal to the early colonists simply taking the easiest and most practical solution in building roads along pre-existing trackways. When the colonists arrived in 1788 and began journeying out from Sydney Cove they often followed pathways, or as Surgeon John White wrote in May 1788, 'we fell in with an Indian path'. As Sydney language expert Jakelin Troy notes, it often made sense the colonists would use established pathways particularly in avoiding dense forest areas and rugged terrain. Troy has noted how these pathways were used for 'visiting family, collecting food or conducting ceremonies'. According to Paul Irish, the Europeans pronounced the local Sydney Aboriginal word for a pathway or track as 'maroo'. Many of these maroo underpin the structure of Sydney to this day.²⁷

As the Cumberland Plain became more closely settled during the 1800s, Aboriginal people continued to live near their traditional Country where they could. Some managed to live in the centre of the growing city of Sydney such as a groups of families who caught and sold fish at Circular Quay and others at Rose Bay, while other families continued to live on the outskirts of populated areas such as at La Perouse and at Salt Pan Creek on the Georges River. From the 1880s, others moved to or were forced on to reserves such as Sackville in the northwest.²⁸

Government policies of removing Aboriginal children from their parents in order to assimilate them into white society effectively began in 1814. William Shelley, a former missionary from London, proposed to Governor Macquarie a plan for the education of Aboriginal people in 'useful skills', including religion and morals, and domestic duties for women and girls in preparation for marriage. Macquarie enthusiastically agreed and established the 'Black Native Institution of NSW' at Parramatta, installing Shelley as the manager. Some children were 'selected', others coerced and others sent by their families – until they realised they could only visit them once a year at the Annual Feast. Macquarie even ordered that any children captured or orphaned during his 1816 military campaign were to be brought to the school.²⁹

Maria Lock, a child of Yarramundi who was reported as 'Chief of the Richmond Tribe' and younger sister of Colebee (who was granted land at Blacktown) was one student who excelled. In the 1819 school examinations she took out the major award, competing against almost 100 of the local European children. Maria was born at Richmond Bottoms, on the eastern floodplain of the Hawkesbury River. Her family belonged to the Boorooberongal clan of the Dharug people. On 28 December 1814 Yarramundi's clan attended the inaugural annual conference hosted for the Aborigines by Governor Lachlan Macquarie. Maria was admitted to the Native Institution, for tuition by William and Elizabeth Shelley. After winning first prize in the 1819 school examination by 1822 Maria was being 'maternally treated' by Anne, the wife of The Reverend Thomas Hassall, and living in their household at Parramatta. She married 'Dicky', a son of Bennelong and a member of the Richmond clan through his mother. He too had been in the Native Institution but had moved to the household of the Wesleyan missionary William Walker, and was baptized Thomas Walker Coke. Within weeks of his marriage he became ill

²⁵ Gapps, S., 'The Sydney Wars: conflict in the early colony, 1788-1817', (Sydney, NewSouth Books, 2018): 125-155, 226-255

²⁶ Artefact, 'Aspect Industrial Estate'. *Aboriginal Cultural Heritage Assessment Report*. (Unpublished report to Mirvac, held by Artefact Heritage and Environment, 2022): 18; Goward, T., 'Aboriginal glass artefacts of the Sydney region', (Honours Thesis, University of Sydney, 2011); Irish, P. and Gowan, T., 'Where's the evidence? The archaeology of Sydney's Aboriginal history', *Archaeology in Oceania Vol. 47 No. 2*, (2012): 61; Meredith, J. 1989, 'The Last Kooradgie: Moyengully, chief man of the Gundungurra people', (Sydney, Kangaroo Press, 1989); Smith, J. and Jennings, P., 'The petroglyphs of Gundungurra Country', *Rock art research Vol. 28 No. 2*, (2011): 241.

²⁷ Irish, P., "'Walking in their tracks": How Sydney's Aboriginal paths shaped the city', (Daniel, S. (ed.), ABC Curious webpage, Sydney, 2018, accessed online 15 Feb 2023); Troy, J., 'The Sydney Language', (Canberra, Australian Institute of Aboriginal and Torres Strait Islander Studies, 1994); White, J., 'Journal of a Voyage to New South Wales', (Project Gutenberg webpage, 1790 [2003], accessed online 15 Feb 2022).

²⁸ Irish, P., "'Walking in their tracks": How Sydney's Aboriginal paths shaped the city', (Daniel, S. (ed.), ABC Curious webpage, Sydney, 2018, accessed online 15 Feb 2023).

²⁹ Testimony given to Artefact, (Blacktown Native Institution, n.d).

and died. He was buried on 1 February 1823 at St John's Church of England, Parramatta. At the same church in 1824, Maria married Robert Lock, an illiterate, convict carpenter who had been assigned to work on the construction of the new Native Institution buildings at Black Town (Blacktown) in 1823.³⁰

When Governor Macquarie returned to England in 1821 the school suffered from lack of patronage and was moved to what became known as 'the Black's Town' (present day Blacktown) in 1823, but eventually closed in 1829.³¹

Macquarie's efforts to as he called it 'civilise' Aboriginal people also centred on the Annual Feast that began in the same year as the Institution, and with the hope of attracting parents from across the Sydney region to hand their children over to the school. People were recorded having travelled from the south coast and southern highlands in 1843 to attend the feast, which proved a more enduring institution in Parramatta than the school. By the 1830s the practice of issuing blankets at the feast had turned into a kind of census of Aboriginal people.³²

The marriage between Maria and Robert Lock was the first officially sanctioned union between a convict and an Aboriginal woman. In an unusual situation, the convict Robert was assigned to his Aboriginal wife Maria. The Locks settled on a small farm at the Native Institution, but later moved to the employ of the Reverend Robert Cartwright at Liverpool. The legacy of Maria's education became evident in March 1831, when she petitioned Governor Darling for her deceased brother 'Coley's (Colebee) grant at Blacktown, opposite the Native Institution. She believed her and her husband were entitled to earn 'an honest livelihood, and provide a comfortable home for themselves, and their increasing family'.³³ In 1831 forty acres (16.2 ha) 'as near to your present residence as suitable vacant land can be found' were granted to Robert on Maria's behalf, but Cartwright frustrated this claim, as he felt it was injurious to the established buildings on his adjoining allotment. Maria persisted, and in 1833 another forty acres was granted to her at Liverpool in Robert's name. She received Colebee's thirty-acre (12.1 ha) grant in 1843.³⁴

The Locks returned to Blacktown in 1844, acquiring a further thirty acres there. Of their ten children born between 1827 and 1844, nine survived to adulthood. Robert died in 1854. Maria died on 6 June 1878 at Windsor and was buried beside Robert at St Bartholomew's Church of England, Prospect. Her lands at Liverpool and Blacktown were divided equally among her surviving children, and were occupied by her descendants until about 1920, by which time the freehold land was considered to be an Aboriginal reserve (Plumpton), and was revoked by the Aborigines Protection Board. Dozens of families in 2005 trace their descent through Maria to Yarramundi and to his father Gomebeere, an unbroken link stretching back to the 1740s.³⁵

Descendants of Maria Lock continued to live near Blacktown carrying knowledge of their ancestors and their Country down to this day. Some Dharug families knew of their heritage but kept it hidden. Others only found out much later through family history work from the 1980s. Today revitalising of language and community continues.³⁶

3.2.1 Macquarie's assimilation policy

Following the colonisation of New South Wales by British settlers in 1788, the Aboriginal people of Sydney and the surrounding areas experienced dispossession from their traditional country and the appropriation and misuse of their land by the colonists. Natural resources were destroyed or made unavailable to Aboriginal people and land was converted in pastoral estates for grazing and crop growth, among other uses ('Colebee and Nurragingy Land Grant' 2011). The relationship between Aboriginal people and the colonists was complex, and while there are records of amicable relationships (such as Charles Throsby at Glenfield or Samuel

³⁰Parry, N., 'Lock, Maria (1805–1878)', *Australian Dictionary of Biography*, (National Centre of Biography, ANU, 2005, accessed online 16 October 2024).

³¹ Brook, J. and Kohen, J.L., 'The Parramatta Native Institution and the Black Town: a history', (Sydney, New South Wales University Press, 1991): 23, 51; Article, *The Sydney Gazette and New South Wales Advertiser (NSW, 1803-1842)*, (Trove, 17 April 1819, accessed online February 2023): 2d-3a.

³²Hassall, J. S., 'In old Australia: records and reminiscences from 1794', (Brisbane: R. S. Hews & Co., Printers, 1902): 17-20; Gapps, S. 'Cabrogal to Fairfield City: a history of a multicultural community', (Sydney, Fairfield City Council, 2010): 148-151.

³³Brook, J. and Kohen, J.L., 'The Parramatta Native Institution and the Black Town: a history', (Sydney, New South Wales University Press, 1991).

³⁴Parry, N., 'Lock, Maria (1805–1878)', *Australian Dictionary of Biography*, (National Centre of Biography, ANU, 2005, accessed online 16 October 2024).

³⁵Parry, N., 'Lock, Maria (1805–1878)', *Australian Dictionary of Biography*, (National Centre of Biography, ANU, 2005, accessed online 16 October 2024).

³⁶Goodall, H. and Cadzow, A., 'Rivers and resilience: Aboriginal people on Sydney's Georges River', (Sydney, NewSouth Books, 2009): 41; Johnson, D.D., 'Aunty Joan Cooper, through the front door: a Darug and Gundungurra story', (Lawson, Mountains Outreach Community Service, 2003); Kohen, J. L., 'Daruganora: Darug Country – the place and the people. Part 2: Darug Genealogy', (Blacktown, Darug Tribal Aboriginal Corporation, 2009).

Marsden at Mamre), much of the early 1800s on the Cumberland Plain was engaged in war. Attempts for reconciliation were made as early as 1805 in Prospect, however, these did little to resolve tensions in the long term.

Upon arrival in Sydney in 1809, Governor Macquarie was instructed to “conciliate the affection of the Aborigines and to prescribe that British subjects live in amity and kindness with them” (‘Colebee and Nurragingy Land Grant’ 2011). Reverend Samuel Marsden, a landholder in the Parish of Rooty Hill and a Christian missionary who served as the colonial leader of the Church of England, had received similar instruction, however was also encouraged to ‘reform’ the Aboriginal people through “moral and religious instruction” (‘Colebee and Nurragingy Land Grant’ 2011). In 1814 William Shelley, a former missionary from London, proposed his plan for the collective education of Sydney’s Aboriginal people, involving education in ‘useful skills’, Christian religion and morals, and domestic duties for women and girls in preparation for marriage (‘Colebee and Nurragingy Land Grant’ 2011). Macquarie enthusiastically agreed to the proposal and established the Black Native Institution of NSW at Parramatta, installing Shelley as the manager (‘Colebee and Nurragingy Land Grant’ 2011). Using what historians have termed a “language of concealment” (Gapps 2018), Macquarie founded the Native Institution while attempting to downplay the extent of conflict and tension between Australian Aboriginal people and the non-Aboriginal settlers at the time, largely exacerbated by his own military policies (Gapps 2018). Furthermore, Stephen Gapps has argued that Macquarie’s “military plans were wedded to his ideas on how to ‘civilise’” Aboriginal people (Gapps 2018).

3.3 Early land grants

The first European activity in the area was exploratory; however, this was shortly followed by settlement. The first land grants in the Blacktown region were located at Prospect Hill.

The establishment of roads towards Windsor and the greater Cumberland region allowed settlers to access newly allocated land. Many of these roads, including Richmond Road, were originally a series of tracks providing routes for horse drawn carts, foot traffic and cattle. Richmond Road linked the early settlements of Richmond and Blacktown. In 1816 William Cox was hired by Governor Macquarie to improve the colonial road system, including Richmond Road. By 1822 Richmond Road had been macadamised. These improvements further encouraged settlement of the region and several significant land grants were made.

The current study area falls within the Parish of Rooty Hill (west and south of Richmond Road). The earliest land grants were made by Governor Lachlan Macquarie from c.1816 and varied in size. On the western side of Richmond Road within the Parish of Rooty Hill (Figure 3-2) the first land grants were to:

- W. Barret, 30 acres
- Joseph McLoughlin 60 acres.

A large portion of the Rooty Hill Parish remained undedicated for several years, with the exception of William Barrett’s 30 acres and Joseph McLoughlin’s 60 acres.

Colebee and Nurragingy, two Aboriginal men, received their grant in 1816 and were the first Aboriginal people in Australia to be granted land of their choice (‘Colebee and Nurragingy Land Grant’ 2011). Following the selection of this land grant by Nurragingy, Macquarie gave the opposite grant to Joseph McLoughlin – a police constable who knew Colebee and Nurragingy well (Figure 34). The adjacent grant was given to Reverend Robert Cartwright (Figure 33), a churchman with interest in the education of Aboriginal people and the Parramatta Native Institution (GML Heritage 2012). Eight Aboriginal people who had been successfully ‘educated’ at the Parramatta Native Institution and were subsequently married (to non-Aboriginal colonists) were granted 5-acre allotments opposite the Colebee and Nurragingy grant, adjacent to McLoughlin’s land (GML Heritage 2012). Macquarie believed that Nurragingy, who farmed and domesticated animals, would be a good influence on the married couples, who he sought to assimilate (GML Heritage 2012).

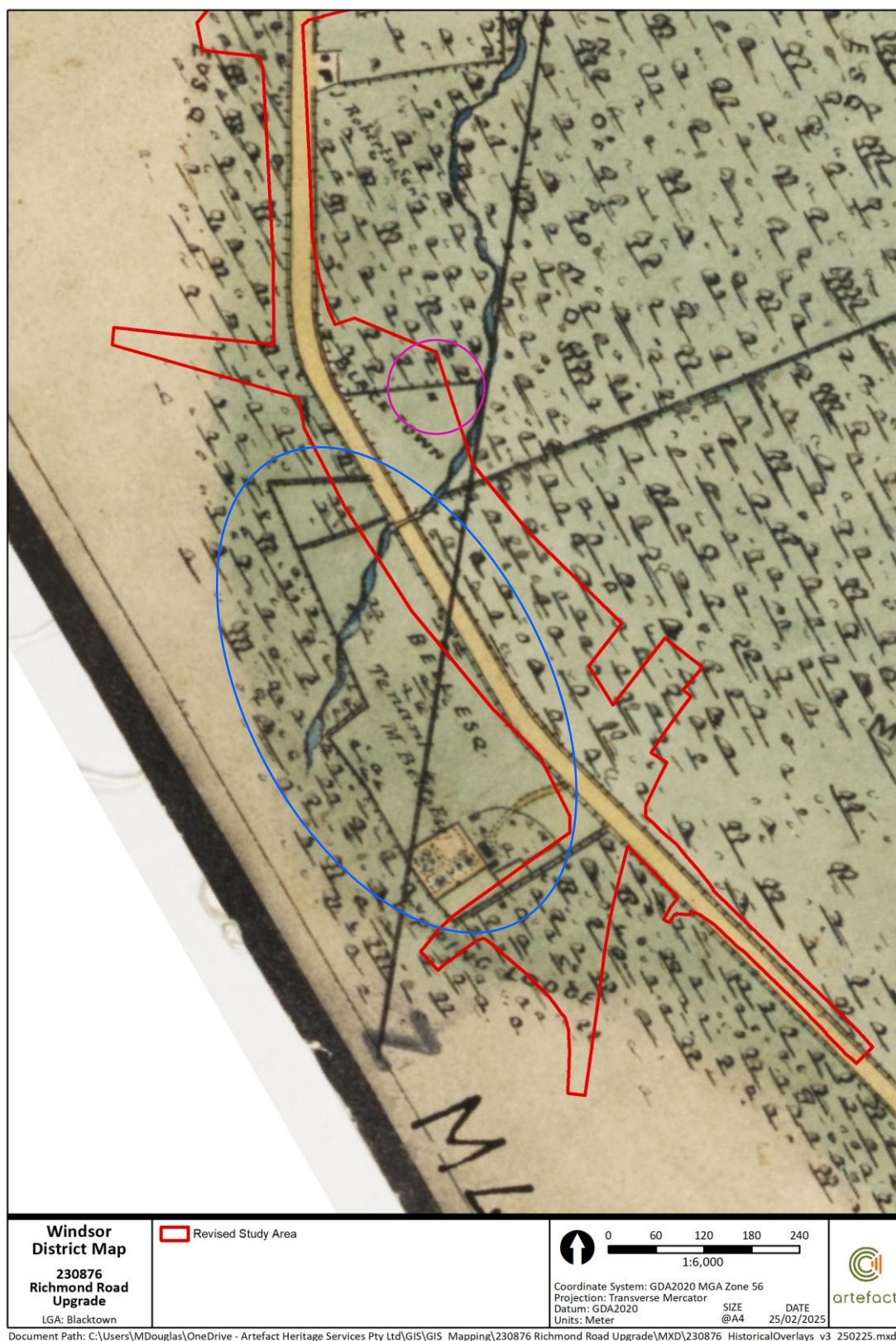


Figure 3-1: Portion of Windsor District Plan 1842 showing possible location of Nurragingy's Hut (pink) and the Blacktown Native Institution site (blue) .(Source: State Library NSW Z/M4 811.1122/1842/1 with Artefact markup)

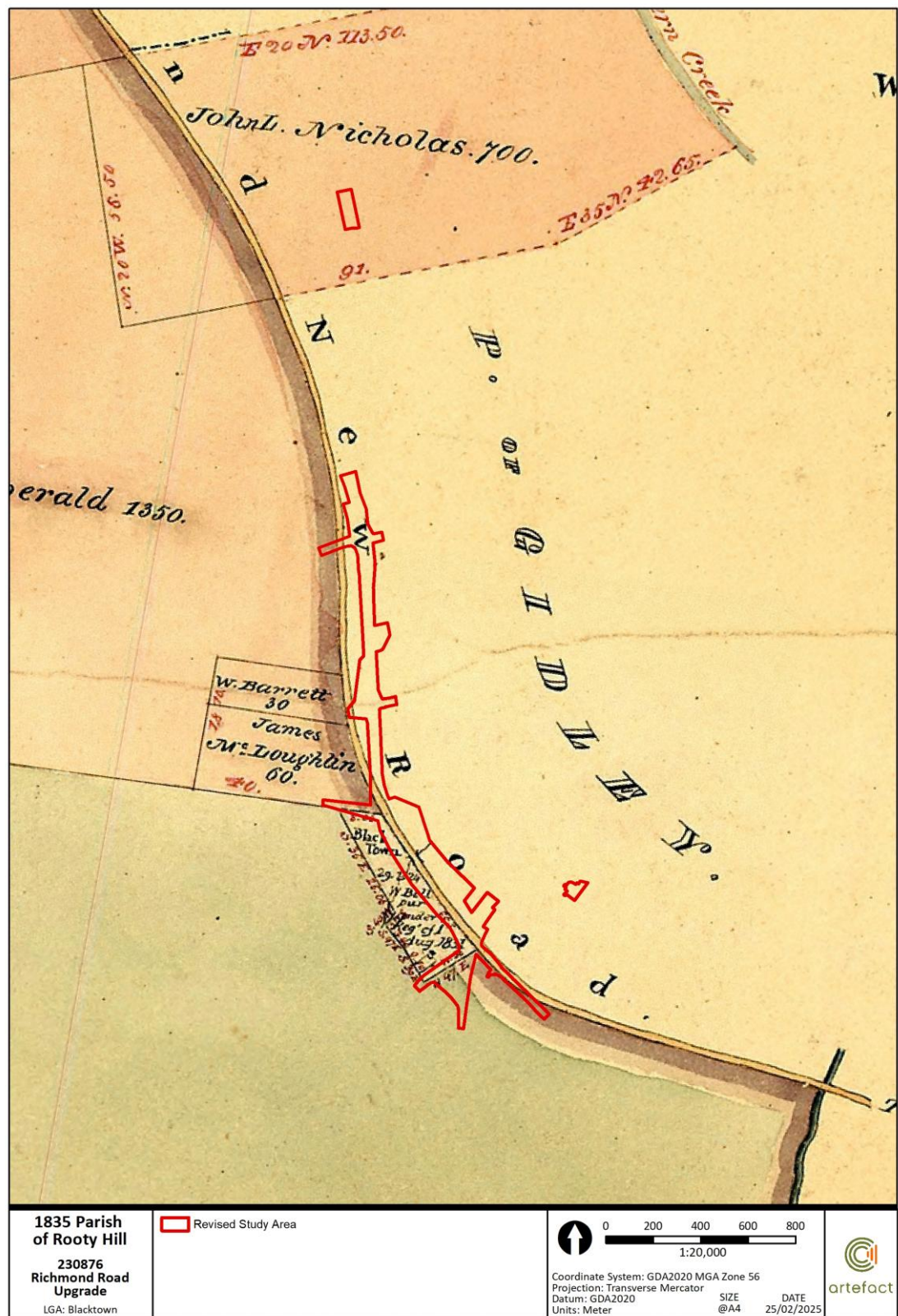


Figure 3-2: 1835 map of the Parish of Rooty Hill showing early land grants in relation to the study area (Source: Historical Lands Records Viewer with Artefact overlay)

3.4 Blacktown Native Institution

3.4.1 Aboriginal land ownership and maintenance

Aboriginal communities throughout the Blacktown area and Sydney have petitioned for the return of the Blacktown Native Institution and the Colebee and Nurragingy Land Grant to Dharug ownership for several years. Claims of the Colebee/Nurragingy land grant, both through the Darug Tribal Corporation (Norman 2015) and descendants of Colebee and Maria Lock, have been unsuccessful to date (Howden 2012). The land is also significant with contemporary Aboriginal communities as burials of Aboriginal people are believed to be located within the land (Howden 2012). The northern part of the Colebee Nurragingy land grant has been incorporated into recent residential development, however the southern half of the grant is undeveloped. The Blacktown Native Institution land has also remained undeveloped and has been involved in a series of interpretive art programs by the Blacktown Native Institution Project in conjunction with the Museum of Contemporary Art ('Blacktown Native Institution' 2011). Much of the land was returned to Aboriginal people in 2018 ('Blacktown Native Institution' 2011).



Figure 3-3: Blacktown Native Institution Project and Museum of Contemporary Art celebration with Dharug people at the Blacktown Native Institution land (Kucera 2018)

3.4.2 Foundation of the Blacktown Native Institution

The Native Institution was established in Parramatta in 1814 by Governor Macquarie and missionary William Shelley, for the education of Aboriginal children. Macquarie informed Aboriginal leaders about the Native Institution. Following a conference at the Market Place, Parramatta, in 1814, he encouraged Aboriginal parents to leave their children at the school. Four children were left at the school, including Maria, Colebee's sister, and Kitty, who later became Colebee's wife in 1822. At around 14 years of age, the female attendees were intended to leave the institution and marry Aboriginal men who Macquarie thought would adopt European lifestyles. Married couples would be provided with a farm, furniture stock and farming utensils, and huts were erected for them to live in. The area which Macquarie selected for these farms was close to the Colebee and Nurragingy Land Grant ('Blacktown Native Institution CMP, 2023).

As a result, the land granted to Colebee and Nurragingy in 1819 had led to the establishment of a significant Aboriginal community on the eastern side of Richmond Road. In 1823 the Parramatta Institute was relocated under Governor Brisbane's orders to the Parish of Rooty Hill, located almost directly opposite Colebee and Nurragingy's land grant ('Blacktown Native Institution' 2011). The proximity to the grant and the community it

had formed is likely a contributing factor to Governor Brisbane's choice to establish the Blacktown Native Institution in this location.

On 1 January 1823 the Blacktown Native Institution commenced operation as the children were transferred from Parramatta to Blacktown ('Blacktown Native Institution' 2011). From 1823 to 1829 the Blacktown Native Institution operated under the direction of the Christian Missionary Society, with Reverend Samuel Marsden the chairman, and George and Martha Clarke running the school ('Blacktown Native Institution' 2011). Rev Marsden had missionary connections with New Zealand and was responsible for bringing Maori children over to NSW and the school (Blacktown Native Institution CMP, 2023).

At the time there were 14 children housed at the institution, with a small number of sheds and a timber hut which served as a dwelling for the Clarkes ('Blacktown Native Institution' 2011). In mid-1823 a double-storey house with four upstairs bedrooms, two large rooms, four downstairs bedrooms, and outside rooms with verandahs was constructed (Figure 3-4) ('Blacktown Native Institution' 2011). The property also contained a separate kitchen, stable, and coach house and the children dug gardens as part of their useful skills educational program ('Blacktown Native Institution' 2011). The opposite land grant, formerly granted to Sylvanus Williams and used for farming, was also purchased for the Institution ('Blacktown Native Institution' 2011).

In 1824 the Institution was placed under the control of Reverend William Walker, who sought to reorganise the administration of the Institution, dismissing the Committee which managed the Institution previously ('Blacktown Native Institution CMP, 2023). However, the institution was closed by the end of that year and the remaining inhabitants sent to the Orphan School with Reverend Robert Cartwright, who held the land grant opposite the Native Institution at that time ('Blacktown Native Institution' 2011). By May 1825 the institution had reopened as a private boarding house, which was subsequently moved to Parramatta in 1827 ('Blacktown Native Institution' 2011).

Seventeen Aboriginal and 5 Māori children were housed at the Blacktown Institution in 1827. The Maori children were taken from the Parramatta school at Rev Marsden's persuasion (Blacktown Native Institution CMP, 2023). This was below the Institution's capacity of 60 (GML Heritage 2018). Stock returns from 1827-8 indicate that up to 24 cattle were kept and slaughtered on site as food for the institution during this period ('Stock Returns and associated correspondence' 1827). It has been suggested that the school had significant difficulties maintaining 'enrolments', with children frequently removed by their parents or leaving (GML Heritage 2018). In 1829 the school was again closed, and in 1831 the building was reported as being in a deteriorated state ('Blacktown Native Institution' 2011). The site was surveyed by Felton Matthew in 1833. Matthew's survey shows the location of the house, kitchens, stable, gardens and creek (Figure 3-5).

Several modern Dharug community members state a belief that burials of Aboriginal children occurred in unmarked graves within and surrounding the Blacktown Native Institution. There is no formal record of these burials, and no evidence of any unmarked graves has been identified to date. It has been suggested that if burials did occur, these would be most likely to be located along Bells Creek, on landforms north of Bells Creek, within the Colebee and Nurragingy Land Grant, or near the former Blacktown Native Institution buildings.³⁷

³⁷ GML 2023. Dharug Nura: Blacktown Native Institution Conservation Management Plan

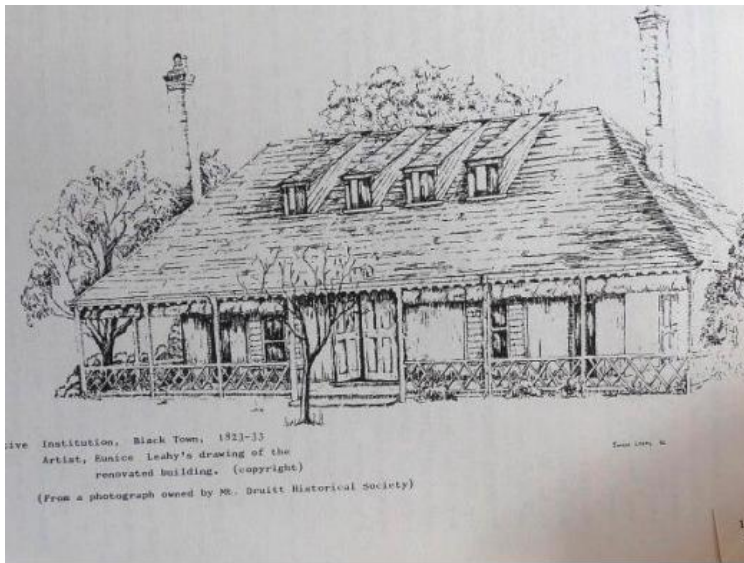


Figure 3-4: The Blacktown Native Institution Building (Source: Blacktown Native Institution Project).

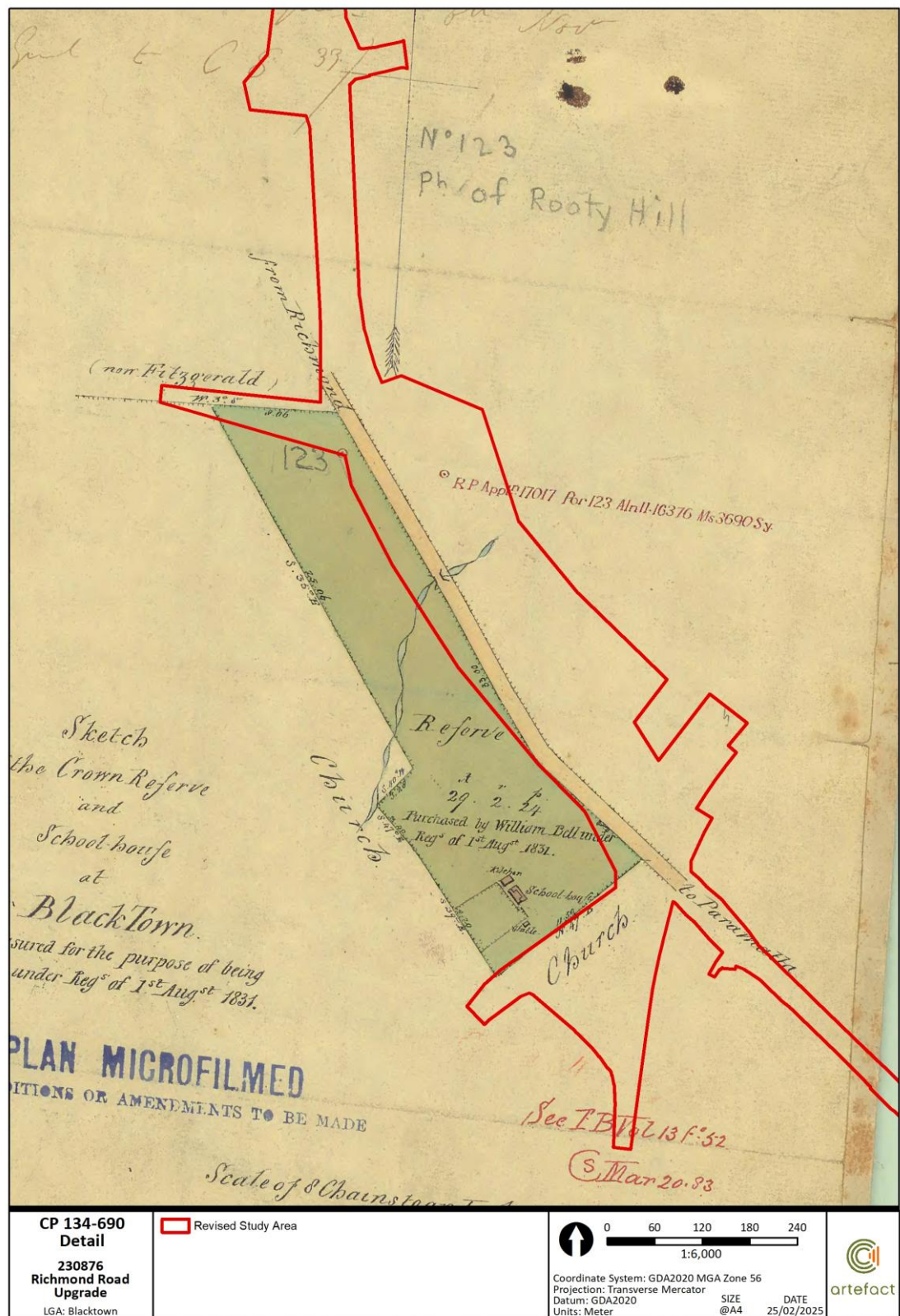


Figure 3-5: Felton Matthew's Survey of the Blacktown Native Institution, 1833 (Source: NSW Land Titles Office, 134-690)

3.4.3 Closure of the Blacktown Native Institution: Sydney Burdekin and the Aboriginal Protection Board

In 1833 the former Blacktown Native Institution site was advertised for sale: 'House and premises...together with the allotment of Land on which the same stands measuring 29 acres, 2 roods, and 24 perches'. ('Blacktown Native Institution CMP, 2023). The property was purchased at auction by William Bell who renamed the property 'Epping Lodge.' He died in 1843 and the property was inherited by his daughter Maria, who died in 1876. The 1842 Windsor plan shows that an additional garden and a driveway to Richmond Road were constructed by Bell.

In 1877 Epping Lodge was purchased by Sydney Burdekin, who named it Lloydhurst ('Blacktown Native Institution' 2011). Burdekin was a prominent colonial politician and Lord Mayor of Sydney. He modified the extant Native Institution building to include a ballroom and made improvements to the property ('Blacktown Native Institution' 2011). Burdekin had become a member of the Aboriginal Protection Board in 1887 and had been involved with the Lock family throughout much of the 1880s and 1890s when Sydney was in a depression and work was limited, especially for Aboriginal people (GML Heritage 2012). In 1887 Burdekin purchased Lot 1 from the Lock family, Lot 7 in 1892, and may have purchased Lot 8, however the Lock family continued to live on this lot until at least 1920 (GML Heritage 2012). The Lock family were reported by Burdekin as being destitute during this period and he requested government rationing be increased. Burdekin may have purchased the land from the family to provide them with funds (GML Heritage 2012).

Images of Lloydhurst from c.1900 show that the site had been expanded significantly and had been altered to include Tudor revival style facades, a latticed verandah, and symmetrical twin wings at the rear of the house with pitched ornate roofs (Figure 3-6 and Figure 3-7). In 1899 Sydney Burdekin died, and the former Blacktown Native Institution site was purchased by Robert Smith, and then by Harry Woolnough in 1910 ('Blacktown Native Institution' 2011).

William Lock leased land on the east side of Richmond Road to the Plumpton Aboriginal Mission from 1899 until 1914. The mission established a church near Bells Creek and Willow trees. His location may be marked on the 1928 Crown plan on Lot 85. (GML Heritage 2012, Figure 2.7 p. 26). In 1905 the Church was extended, and a missionary house constructed with a fenced garden. However, by 1908 there was no missionary residing at Plumpton (GML Heritage 2012).

The Lock family members had started to sell their individual allotments at Richmond Road from 1911, while other members relocated without selling and left their land unattended. By 1914 the mission had closed, and several members of the Lock family had passed away from serious illnesses (GML Heritage 2012). From 1920, the Blacktown Council resumed land with outstanding unpaid rates, including Lock land, which it transferred to ownership of the Public Trustee. The land remained in the ownership of Maria's descendants until c. 1920, when the land was determined to be an Aboriginal reserve - known as Plumpton - and was claimed by the Aboriginal Protection Board (GML Heritage 2012). Some historical records suggest only three of the nine lots - those which had been previously purchased by Sydney Burdekin - were claimed by the Board (GML Heritage 2012).

In 1914 the Blacktown Native Institution land was subdivided into five blocks and purchased by the Wardrop family in 1920 ('Blacktown Native Institution' 2011). The Native Institution building was destroyed in a fire in 1924 and a fibro house was built on its ruins ('Blacktown Native Institution' 2011).

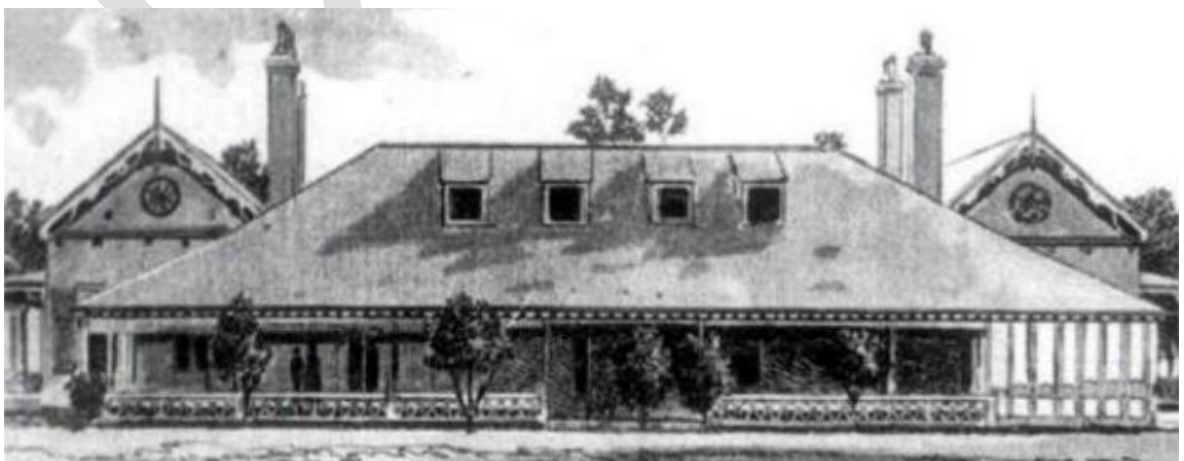


Figure 3-6: Blacktown Native Institution – now Lloydhurst in 1900 (Source: Blacktown City Library)



Figure 3-7: Lloydhurst, c.1900 (Source: Mount Druitt Historical Society)

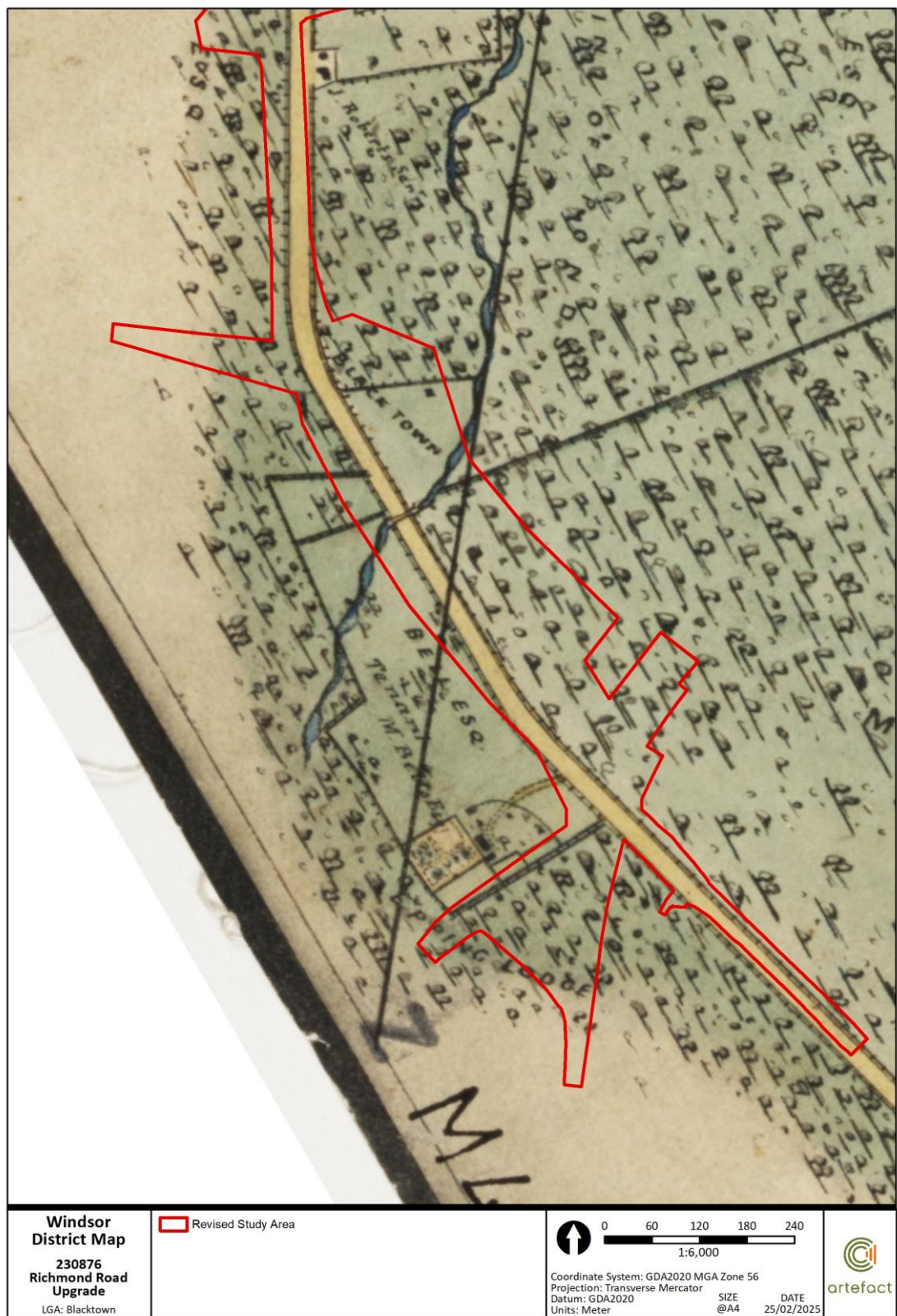


Figure 3-8: Detail of the Blacktown Native Institution - 'Epping Lodge' - in Windsor District Plan, 1842 (Source: SLNSW)

3.4.4 Wardrops and associated dairies

Following the purchase of the Blacktown Native Institution land by the Wardrop family, the land was used as a dairy farm until 1985 ('Blacktown Native Institution' 2011). It is likely that the land was used primarily for grazing and dairy, with milking facilities added to the land throughout the mid-1900s.

Aerial imagery from 1955 until 1977 showcases the gradual development of the land for agricultural purposes. The last aerial from 1977 shows the milking shed and cattle pens that had been built on the southern side of the land facing Rooty Hill Drive. To the north of the property, towards Bells Creek, an interior asphalted road with several trucks is present. Throughout the property there are several exposure patches, and a new circular driveway is evident off Rooty Hill Drive. The land was operated by Associated Dairies for some time, however in 1985 the fibro house was demolished and the land was purchased by Landcom. It was intended that the land would be incorporated into a housing development, however it has remained vacant since ('Blacktown Native Institution' 2011).

3.5 Nineteenth and Twentieth Century development

Richmond Road was subject to minimal modification throughout the nineteenth and early twentieth centuries. The roadway was not subject to considerable modification until the mid-2000s with the development of the M7 Motorway. In 2005 the M7 was opened, running on a northeast-southwest alignment along the southeast boundary of the study area, and projecting above the Richmond Road corridor. The motorway resulted in upgrades to the surrounding roads, including Richmond Road, and the construction of the Rooty Hill Road slip road. Richmond Road upgrades included conversion to a dual carriageway from the intersection with the M7 north to Townson Road. The western border of the former Colebee/Nurragingy land grant was resumed in 2007 as part of road upgrade works by the Roads and Traffic Authority (now Transport for NSW) ('Colebee and Nurragingy Land Grant' 2011). In 2011, a portion of Richmond Road was widened through the study area as a connection to the M7 Motorway and in preparation for extensive development throughout Marsden Park, which was included as a Western Sydney Growth Centre. At the northern extent of the study area extensive residential and semi-industrial/commercial development has occurred throughout the 2010s, including the opening of the Marsden Park homemaker centre.

The land to the east of Richmond Road (the Williams and Cartwright Grants) remained heavily wooded until the late 1960s. Aerial imagery from the 1960s and 1970s shows the development of an isolated dwelling within these former grant areas. The development remained dispersed, with no substantial subdivision noted in plans or imagery. The suburbs of Dean Park, Hassall Grove, and Marsden Park were developed through the 1970s and 1980s, with intensified development continuing through the 1990s and 2000s.

In 1951, the Castlereagh Freeway Corridor was gazetted for future construction. This corridor includes a connection from Richmond Road near Colebee and the Blacktown Native Institution. That alignment has remained un-developed open green space since 1951. From the 1980s the suburb of Dean Park, now located within Robert Cartwright's grant, was planned. On the western side of Richmond Road, the suburb of Hassall Grove was also developed. By 2005, satellite imagery shows that each suburb is fully established and dense residential subdivision has been built on either side of Richmond Road and Rooty Hill Road. The Blacktown Native Institution land was purchased for subdivision however has remained cleared.

4. Existing Environment

4.1 Site inspection

A site inspection was conducted on 18 August 2023 by Monika Sakal (Heritage Consultant) and Katrina Stankowski (Principal) of Artefact Heritage. The aim of the site inspection was to inspect the area of proposed impacts, inform a preliminary assessment of archaeological potential, and to identify heritage items and heritage significant fabric within and adjacent to the study area that may be affected by the project. The inspection was undertaken on foot and a photographic record was made. A second site visit was undertaken on 08 February 2024 by Monika Sakal (Heritage Consultant) and Stephanie Moore (Senior Associate) of Artefact Heritage. The inspection was undertaken on foot and a photographic record was made. The site inspection covered the remainder of the study area that was not captured in the earlier inspection.

The following includes the results from survey units 4 (Bells Creek) and unit 6 (north-east corner of the BNI). These areas have been identified as having the potential to contain evidence of burials.

4.2 Inspection Unit 4

IU4 extends from the southern boundary of IU3 to 100 metres north of the intersection of Richmond Road and Rooty Hill Road. IU4 covers the Richmond Road corridor to the eastern edge, and includes part of Lot 481 DP634363, part of Lot 1 DP792478, and Lot 1 DP1043661.

Bells Creek flows through Lot 1 DP1043661. It was noted that the creek is well vegetated with rushes and other water plants. The watercourse has been modified through the construction of the shared pathway. The areas to the north and south of the creek has been built up to facilitate the constriction of the pathway and widening of Richmond Road. The edges of the creek line appear to have been modified.



Figure 4-1: Bells Creek flowing into Lot 1 DP 1043661, view west



Figure 4-2: Lot 1 DP 1043661, cleared greenfield area, with tall overgrown grass, dense tree canopy at the northern edge, view northwest

4.3 Inspection Unit 6

IU6 includes the intersection of Richmond and Rooty Hill Roads, extending southwest approximately 300 metres along Rooty Hill Road, and encompassing a triangle of land between Rooty Hill Road, Richmond Road, and the M7 Motorway. IU6 includes the Richmond and Rooty Hill Road corridors, Lot 50, 51, and 52 DP1123597, part of Lot 53 DP1123597, part of Lot 1 DP1043661 and part of Lots 111, 112, 120, 121 and 124 DP 1109052.

Only a portion of IU6 was subject to physical inspection, due to the difficulty in accessing the large, grassed lot on foot between Rooty Hill Road and the M7 Motorway. Pedestrian survey was undertaken along Rooty Hill Road and Richmond Road, around the edge of the Blacktown Native Institution site (Figure 4-3). The area identified as having the potential to contain burials is grassed, largely flat, and shows no evidence of extensive excavation or other impacts.



Figure 4-3: View north across the Blacktown Native Institution site from Rooty Hill Road



Figure 4-4: View southwest across Blacktown Native Institution site at location of proposed flyover, looking towards M7 and Rooty Hill Road

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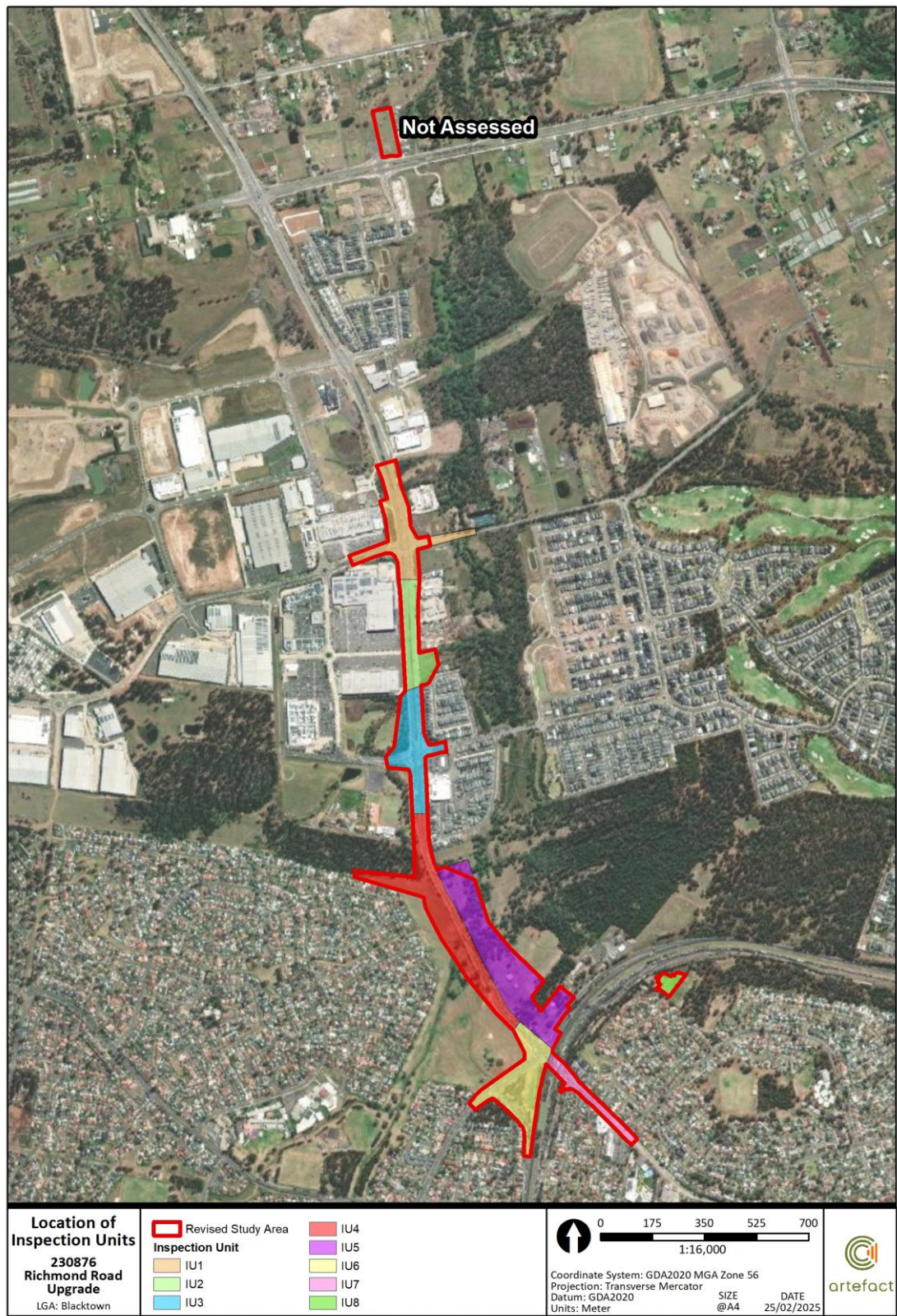


Figure 4-5: Location of Inspection Units

5. Archaeological Context

5.1 Introduction

This section discusses the BNL's potential to contain burials associated with Aboriginal children. The potential for the survival of burials is significantly affected by activities which may have caused ground disturbance, including the construction and later widening and modification of the Richmond Road corridor, and alteration to Bells Creek through the construction of culverts, widening of the road corridor, construction of the shared path and flooding. This assessment is therefore based on consideration of current ground conditions, and analysis of the historical development of the study area.

5.2 Guiding precepts

5.2.1 Aboriginal burial practices

Scholarship on Aboriginal burial practices in NSW reveals a rich diversity of customs that reflect deep cultural and spiritual beliefs. Historically, burial practices varied across different Aboriginal communities, with distinctions made based on age, status, and regional traditions. Aboriginal burial practices in NSW varied across different communities but consistently reflected deep spiritual beliefs and connections to Country. Archaeological evidence and oral histories indicate that infants and young children were sometimes buried in or near domestic areas, such as beneath hearths, within rock shelters, or near significant trees, signifying their continued presence within the community.³⁸ Some burials involved wrapping the body in bark or placing it in a hollowed-out tree, while others incorporated ochre in burial rituals.³⁹ Certain sites indicate secondary burials, where remains were later relocated or incorporated into communal burial grounds, were practised.⁴⁰ The careful placement and treatment of burials highlights the importance of ancestry, kinship, and spiritual continuity within Aboriginal cultures. However, knowledge of these practices remains incomplete due to ongoing research challenges, historical disruptions, and the private nature of such traditions, which are often preserved within Indigenous communities.⁴¹

Following the British invasion of New South Wales in 1788, Aboriginal burial practices were significantly disrupted due to displacement, violence, and the impacts of colonisation. Traditional burial customs, such as the marking of graves through carved trees,⁴² persisted where possible but forced removals and government policies often restricted cultural practices. As Aboriginal people increasingly moved to fringe camps and reserves other ways were found to commemorate those who had died. As noted by Byrne:

*New beliefs merged into Aboriginal culture, they did not replace it: smoking ceremonies were often carried out in conjunction with Christian rites and often people were buried in a crouched or sitting position rather than in the extended, horizontal Christian position. After 1788 the objects that relatives placed in the grave with the deceased reflected the new things which had become valuable in people's lives. Alongside a stone hatchet there might be pieces of bottle glass flaked into shapes useful for cutting meat and working wood; coins and crockery were sometimes placed in graves as well as clay pipes for smoking tobacco.*⁴³

Historical accounts suggest that Aboriginal people continued to bury their dead in culturally significant locations, such as near campsites or within the landscape, despite colonial authorities' attempts to control death and burial practices. In some cases, Aboriginal people adapted their customs, incorporating Christian elements while maintaining spiritual connections to Country. For a long time after 1788 Aboriginal people still

³⁸ Littleton, J. 2007. 'Time and memory: historic accounts of Aboriginal burials in south-western Australia' in *Aboriginal History* Vol. 31

³⁹ Littleton, 2007: 105

⁴⁰ Littleton, 2007: 105

⁴¹ Byrne, D. 1998 *In Sad But Loving Memory: Aboriginal Burials and Cemeteries of the Last 200 Years* in NSW, National Parks and Wildlife Service NSW

⁴² Byrne 1998: 11

⁴³ Byrne 1998: 12

wrapped the body of the deceased in bark before burial. Later, the government blanket which had kept a person warm in life was wrapped around their body in death.⁴⁴

Many burials from this period remain unrecorded due to the destruction of cultural knowledge, the forced separation of families, and the historical marginalisation of Aboriginal voices.

Archaeological discoveries continue to shed light on these practices. In 2020, up to 30 significant Aboriginal burial sites were identified around the Baryulgil Cemetery in northern NSW. The Collarenebri Aboriginal Cemetery, established in 1907, is another example of the combination of traditional Gamilaroi burial practises within a European cemetery setting. The cemetery is known for its unique grave decorations, particularly the use of "crystalled" glass — a technique involving the burning and shattering of glass bottles to adorn graves. These sites illustrate how burial customs evolved post-European colonisation, blending traditional methods with new influences.⁴⁵

5.2.2 Investigation undertaken within the BNI

The CMP notes the potential for unmarked Aboriginal burials within and surrounding the BNI site. The potential for burials is communicated by Dharug people who state their belief that the burials of Aboriginal children occurred during the operation of the BNI. As there are no formal records to indicate the location of potential burials, the location of potential human remains is unknown.⁴⁶ It has been suggested that unmarked graves may be identified along Bells Creek, on landforms north of Bells Creek, within the Colebee Nurragingy Land Grant and near the former Blacktown Native Institution buildings.⁴⁷ Gordon Morton has identified that two children who drowned in ponds were buried nearby.⁴⁸

Consultation undertaken by GML identified that members of the community know of the burial of at least two Aboriginal children within the grounds of the BNI.⁴⁹ According to Leanne Watson, Darug Custodian Aboriginal Corporation (a RAP on KNC's 2009 excavation):

Many of the Elders within our group talk about living near and visiting this area and learning from there Elders who lived here...The area along Bell Creek is also a known site of Darug Burials this area should not be touched.⁵⁰

5.2.3 ERM 2003⁵¹

ERM undertook archaeological test excavation within the former Colebee and Nurragingy land grant in 2003 (on the northern side of Richmond Road, to the north-west of the current study area). No evidence of graves was identified during the testing program. During assessment of the site, the following was noted.

It was suggested, from a number of sources, that Aboriginal children were buried along or near to Bells Creek (Lynne Wool, Registrar, Australian Heritage Commission, pers comm 21/5/03). Mrs Gates (pers comm cited in Brook & Kohen 1991:246 note 11) recalled that the new occupants of the original land grant, sold by the Aboriginal Protection Board after World War Two, were "escorted by police under instructions to ensure that there was no interference by the previous Aboriginal owners. This situation may have arisen because Aboriginal children were buried near Bells Creek" (Brook & Kohen 1991: 246). The burial of Aboriginal children along Bells Creek was also suggested by Colin Gale (pers

⁴⁴ Byrne 1998: 12

⁴⁵ National Indigenous Times, 'Important Burial Sites Found in Northern NSW.' Accessed via <https://nit.com.au/13-03-2020/280/important-burial-sites-found-in-northern-nsw>

⁴⁶ GML 2023. Dharug Nura, p. 140

⁴⁷ GML 2023. Darug Nura, p. 140

⁴⁸ GML 2023: 42

⁴⁹ GML 2023: 42

⁵⁰ GML 2023: 41

⁵¹ ERM 2005, *Test Excavation for Colebee and Nurragingy's Farm, Colebee*

comm. 22/4/03) and Edith Luke said that when she was a child someone told her that there were Aboriginal burials along Bells Creek (pers comm . 6/5/03).⁵²

5.2.4 KNC 2023⁵³

Aboriginal archaeological assessment for the current project was undertaken by Kelleher Nightingale Consultants (KNC), under the *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI) Stage 3. KNC prepared a PACHCI Stage 3 report for the Richmond Road M7 project.⁵⁴

The following discussion has been extracted from the PACHCI to outline previous assessment of the portion of the BNI identified as having the potential to contain burials.

Richmond Road Bells Creek AFT 1

The PACHCI Stage 3 report identifies one listed Aboriginal site within the area identified as having the potential to contain burials. Known as 'Richmond Road Bells Creek AFT 1 (AHIMS 45-5-5471; Figure 5-1), the site was identified during survey undertaken for the Richmond Road Upgrade project, and consisted of a silcrete flaked piece identified in an area of ground exposure. Adjacent areas were covered with dense grasses and isolated trees. The artefact was not indicative of objects associated with this use of the property during the Blacktown Native Institution and was assessed as being deposited at the site prior to the construction of the institution. The site was assessed as having moderate archaeological potential due to its elevated position above Bells Creek and the potential to provide further information relating to Aboriginal land use within the property prior to the establishment of the Blacktown Native Institution.

The significance of Richmond Road Bells Creek AFT 1 is outlined below:

Richmond Road Bells Creek AFT 1 represents a commonly occurring type of site in the region, consisting of a surface artefact scatter and associated subsurface deposit. The artefacts are typical of the region in terms of type and raw material. The site is located within the NSW State Heritage Register listed curtilage of the former the Blacktown Native Institution (SHI 01866). The Aboriginal objects present within the site are likely to predate the establishment of the Blacktown Native Institution and therefore be unconnected to the historical, associative and social significance of the property; however, further archaeological investigation of the site could contribute additional information to our understanding of Aboriginal landscape use within this property. Richmond Road Bells Creek AFT 1 is part of the same landform as Richmond Road Bells Creek AFT 2 (artificially separated by the road) and is part of the larger archaeological complex associated with Bells Creek. Based on the intactness, representativeness and research potential of the site, Richmond Road Bells Creek AFT 1 is determined to have moderate archaeological significance.

Richmond Road Bells Creek AFT 1 is part of the same landform as Richmond Road Bells Creek AFT 2 (artificially separated by the road) and is part of the larger archaeological complex associated with Bells Creek. Therefore, although not within the BNI, the results of test excavation within Richmond Road Bells Creek AFT 2 completed by KNC in August of 2023 provides insight into the ground conditions in the vicinity of Bells Creek.

Richmond Road Bells Creek AFT 2

The archaeological test excavation on the northwestern slope at Richmond Road Bells Creek AFT 2 consisted of 26 test squares (TS 1-17, TS 29, TS 33-34 and TS 36-39) that were excavated along six northeast to southwest oriented transects, and two test squares (TS 30-31) that were offset 15 metres north and south of one of the transects. The majority of test squares (n=16) were excavated across the lower slope (TS 1-14) that was approximately one metre higher than the unnamed creek and two metres higher than the channel of Bells Creek. Another seven test squares were excavated on the upper break of the slope, approximately 2 metres higher than the creek and three test squares (TS 32-34) were excavated on the upper slope approximately four metres higher than the creek.

The depth of deposit varied within the test squares excavated on the slope at Richmond Road Bells Creek AFT 2 with the majority of test squares on the lower slope and upper slope break containing deposits with depths between 10 and 20 centimetres deep while the test squares excavated on the upper slope contained shallower

⁵² ERM 2005, p.13

⁵³ KNC 2024, Richmond Road Upgrade – M7 to Townson Road: Aboriginal Cultural Heritage Assessment

⁵⁴ Kelleher Nightingale Consultants 2024. *Richmond Road Upgrade M7 to Townson Road, Marsden Park. Aboriginal Cultural Heritage Assessment, PACHCI Stage 3. Report to Transport for NSW*

deposits that were less than 10 centimetres deep. The test squares excavated on the slope at Richmond Road Bells Creek AFT 2 generally contained few indicators of subsurface disturbance beyond the deflation of the deposit within the eastern most test squares.

A total of 35 artefacts were recovered from 15 of the 26 test squares excavated on the slope at Test Excavation Area 2. Extrapolated to square metres, the mean artefact density across the entire tested area was 2.3 artefacts per square metre. The artefacts were predominantly unmodified complete flakes (n=15) and flake fragments (n=17). The artefact assemblage also contained three silcrete cores. A large proportion (n=15) of the artefacts were flake fragments (proximal, medial and distal). Non-artefactual silcrete was also noted within the test squares and was subangular or subrounded in shape.

The spatial distribution of artefacts recovered from the test squares excavated on the slope at Richmond Road Bells Creek AFT 2 was characterised by a very low to low density subsurface deposit in the southern portion of the tested area (across the lower slope and upper slope break) while an isolated very low-density deposit was identified in the eastern portion of the tested area on the upper slope landform. The results of the test excavation at Richmond Road Bells Creek AFT 2 confirm that the landform had limited subsurface disturbance and exhibited archaeological potential.

The results of the test excavations demonstrated that the spatial distribution of Aboriginal archaeological sites within the study area had been impacted by land use and natural processes; however, some spatial patterning and evidence of Aboriginal land use remained. Overall, elevated flat landforms appeared to retain the most stable soils, and subsurface archaeological deposits. Low lying landforms adjacent to Bells Creek and its tributaries were found to be vulnerable to fluvial activity resulting in the truncation and deposition of sediments and potentially Aboriginal objects.

5.2.5 LiDAR analysis

An analysis of LiDAR available for those portions of the BNI identified as having the potential to contain child burials is shown in Figure 5-2 and Figure 5-3.

Areas of higher ground are present to the north and south of Bells Creek. The southern area of elevation corresponds broadly with Richmond Road Bells Creek AFT 1 as identified by KNC. It is assumed that these areas of higher ground have been subject to less disturbance through flood events.

The north-eastern corner of the BNI slopes from higher ground in the south-east, presumably associated with the intersection of Rooty Hill and Richmond Roads, and drops in elevation by approximately 2-3 metres to the north-west.

The LiDAR results do not indicate areas of disturbed ground distinct enough to be considered child burial locations, which is not unusual based on the likely size and age of the burials, and the limitations of the LiDAR data.

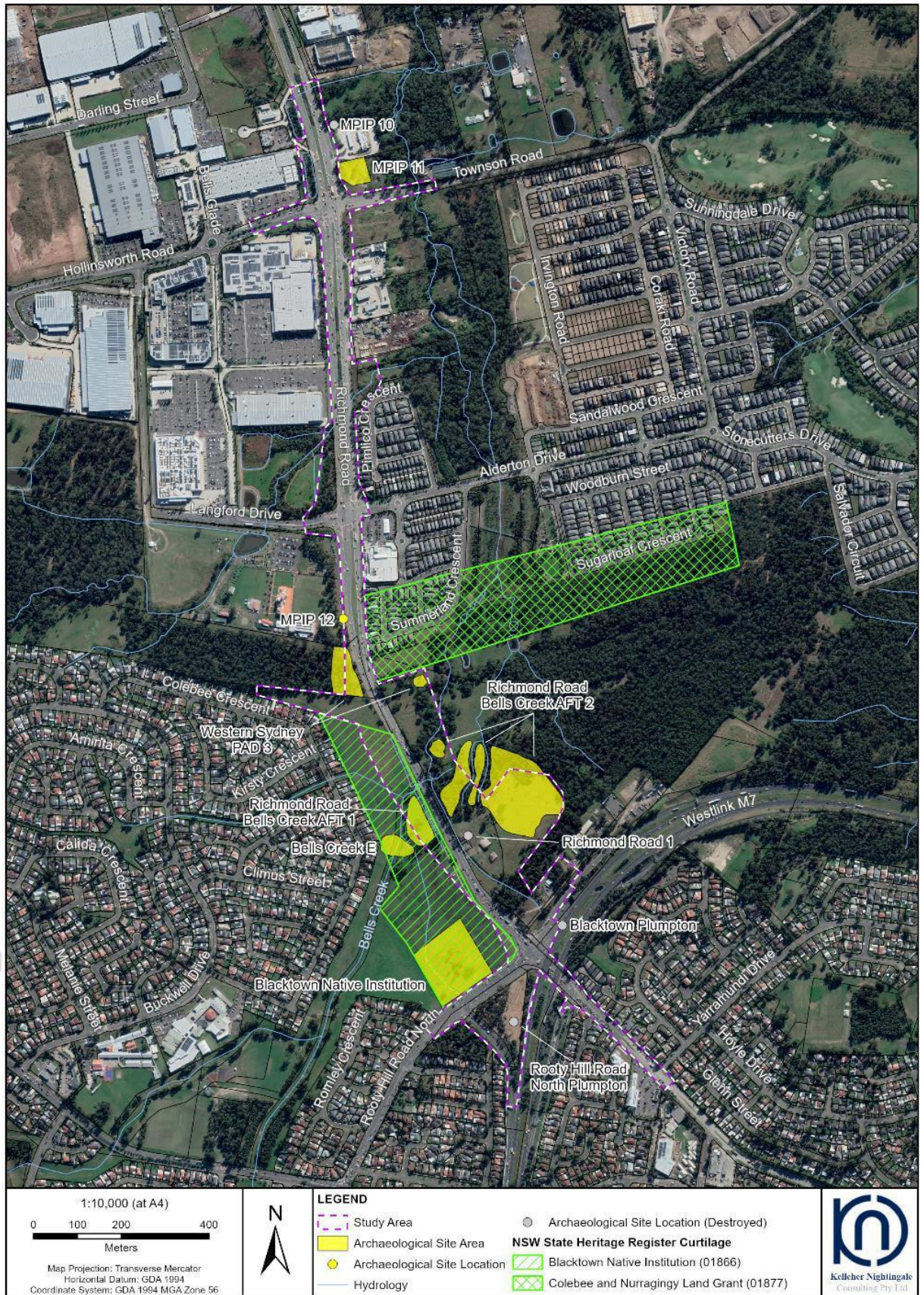


Figure 5-1: Location of Aboriginal archaeological sites within the study area (Source: KNC 2024)

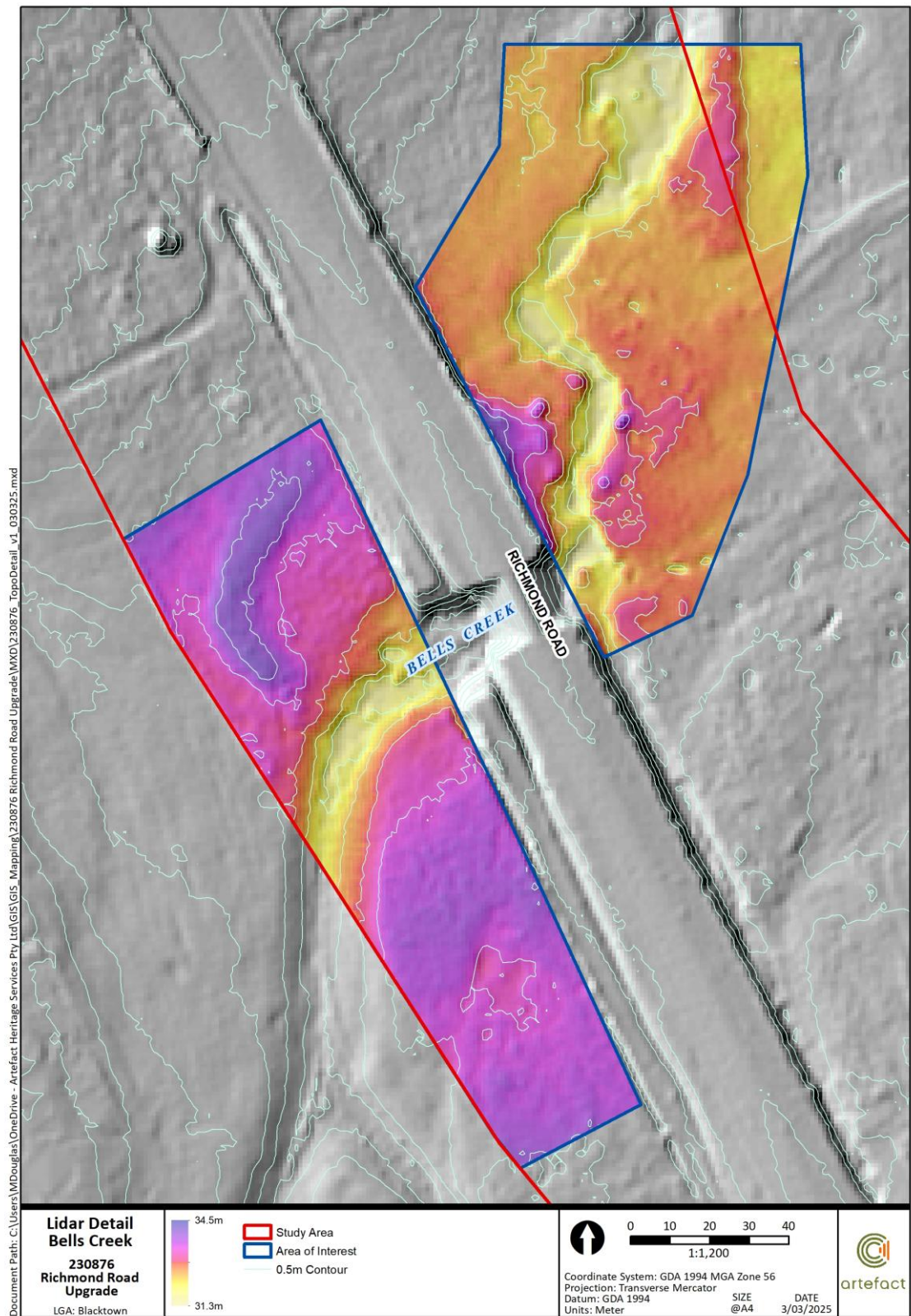


Figure 5-2: LiDAR analysis of the area in the vicinity of Bells Creek.

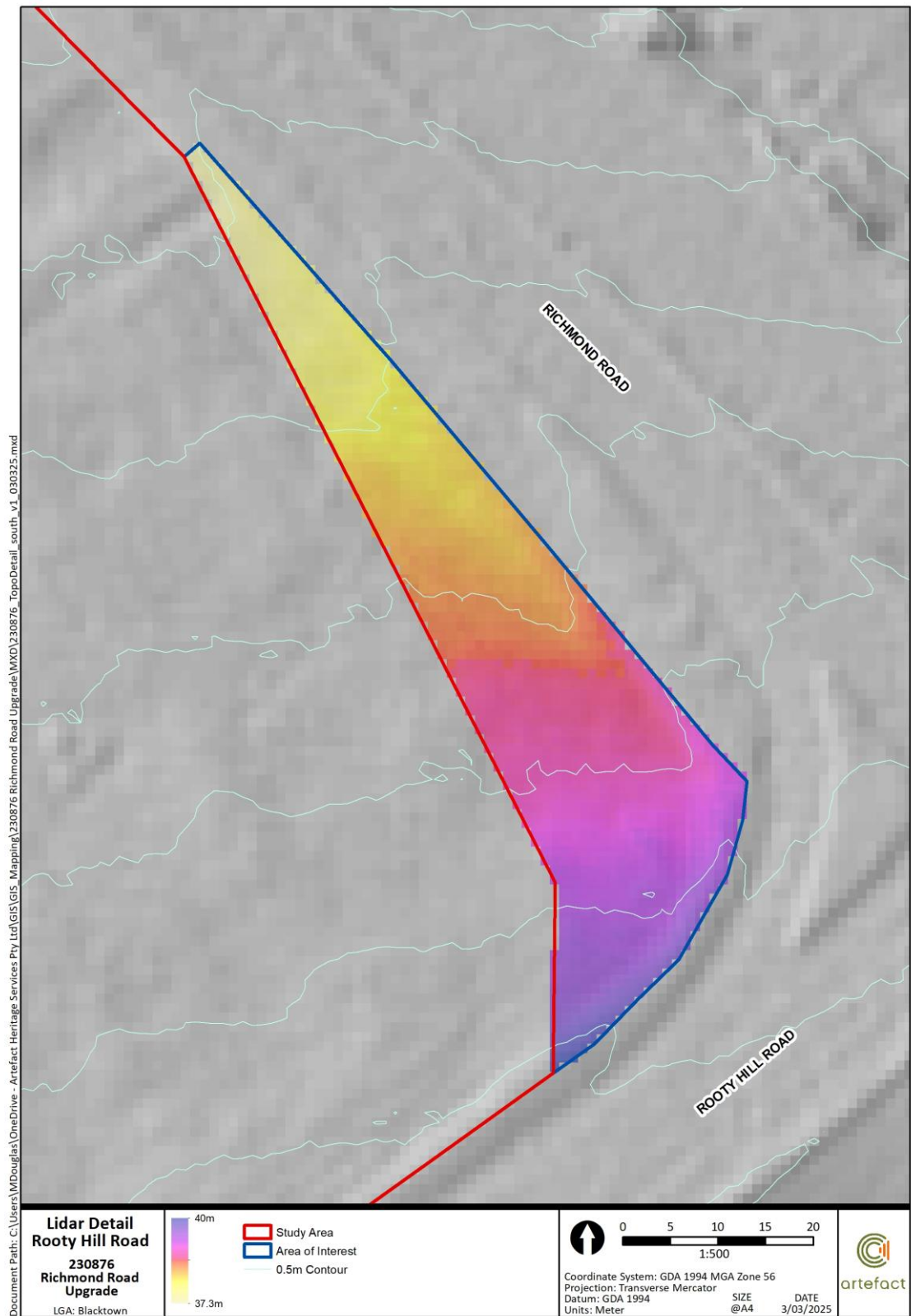


Figure 5-3: LiDAR analysis of the north-eastern corner of the BNI site.

5.2.6 Known disturbance

Those portions of the BNI with the potential to contain burials have been subject to the following levels of disturbance:

- Modification to Bells Creek through the following activities:
 - Construction of the Bells Creek culvert under Richmond Road
 - The movement of water and in-silting during flood events has infilled the multiple paleochannels originally associated with the creek
 - The channelisation of the creek line and introduction of a sewerage pipe.⁵⁵
- Construction of Richmond Road, Rooty Hill Road and associated footpaths and utilities
- The widening of the intersection of Richmond Road and Rooty Hill Roads, encroaching on the north-eastern corner of the BNI site.

5.2.7 Assessment of archaeological potential

The 2024 SoHI identified that the study area has low potential to contain archaeological evidence of unmarked burials associated with Aboriginal children. The potential location of unmarked burials is unknown but expected to be more likely along Bells Creek or the landforms to the north of Bells Creek. Oral history also suggests that baby burials may be present in the north-east corner of the BNI site, although this area is likely to have been subject to higher levels of disturbance through the construction of the intersection of Richmond Road and Rooty Hill Road North. The Ph of the soil in the vicinity of Bells Creek would also impact on the survival of burials.

Post-colonial Aboriginal graves may reflect a combination of traditional Aboriginal funerary practices and introduced European influences, depending on factors such as location, missionary involvement, and family or community customs. Below are the key elements that might be present in such a burial.

- Grave Cut and Burial Depth
 - Shallow or deep burial: Traditional Aboriginal graves were often shallow, but post-colonial burials influenced by European customs may have been deeper (e.g., 1m or more)
 - Variability in shape: Grave cuts may range from oval or irregular pits (traditional) to more rectangular cuts (European-influenced)
 - Clustered or isolated burials: Children may have been buried near family members, in dedicated mission cemeteries, or in unmarked burial areas on reserves or fringe camps.
- Coffins, Wrappings, and Burial Containers
 - Use of wooden coffins: In mission or church burials, simple wooden coffins may have been used, but in some cases, materials were improvised or absent
 - Traditional burial wrappings: Some children may have been wrapped in bark, cloth, or animal skins rather than placed in a coffin
 - European-style burial customs: If influenced by missionaries, the burial may include a coffin with nails, handles, or decorative elements
- Grave Goods and Personal Items
 - Traditional items: Some burials may include ochre, native plant materials, or small personal objects like shells or carved wooden items
 - Christian symbols: Rosary beads, small crosses, or religious items may be found in mission burials
 - Clothing remnants: In some cases, fabric remnants from burial garments may survive, reflecting colonial influences on dress.

⁵⁵ GML, 2023, P.70

- **Burial Orientation and Arrangement**
 - Christian alignment: Burials in mission cemeteries or churchyards may follow an east-west orientation (Christian burial practice)
 - Traditional orientation: Some graves may be positioned in line with local Aboriginal cultural beliefs, such as facing a significant landscape feature (e.g., a river, mountain, or culturally significant tree)
 - Multiple interments: Some graves may contain more than one individual, particularly in cases of high child mortality.
- **Grave Markers and Surface Features**
 - Unmarked or minimally marked graves: Many Aboriginal burials were left unmarked, especially in reserves or informal burial grounds
 - Wooden markers or carved posts: Some graves may have featured wooden crosses or carved burial posts, which may have since decayed
 - Stone arrangements: Traditional stone markers or small enclosures may have been used to mark the burial
 - Glass or shell decorations: In some communities, coloured glass, ceramics, or shells were placed on graves, particularly in the late 19th and early 20th centuries.
- **Evidence of Reburial or Disturbance**
 - Reused cemetery spaces: Some Aboriginal children's graves may be found in mission cemeteries that were later reused or expanded
 - Grave relocations: If the burial site was later affected by land development or government policies, there may be evidence of exhumation or relocation
 - Natural disturbance: Erosion, flooding, or animal activity may have affected the preservation of the burial.

5.3 Significance of burials within the BNI

It is acknowledged that the study area sits partially within the curtilage of the Blacktown Native Institution, a highly significant historical and cultural site. This report acknowledges the State significant values held in this place, demonstrated through physical remains and ongoing physical and spiritual connections to land and the surrounding landscape.

Any Aboriginal burials would hold exceptional heritage significance under multiple criteria. Their protection and documentation are vital for acknowledging Aboriginal history, preserving cultural identity, and advancing archaeological and historical understanding. Collaborative research with Aboriginal communities is essential to ensure respectful and ethical engagement with these sites.

These sites have the potential to provide irreplaceable knowledge about Indigenous burial practices, the effects of colonisation, and the cultural persistence of Aboriginal communities. Given their rarity and potential for further study, they warrant careful protection, respectful management, and collaborative research with Aboriginal stakeholders.

6. Research Design

6.1 Introduction

The Statement of Significance in Section 4.5.2, in combination with the NSW Historic Themes in Section 6.2 below,⁵⁶ provide the basis for the following research design framework. The development of a robust research design is fundamental to the practice of historical archaeology. As valuable archaeological resources become increasingly scarce, the results of fieldwork should contribute insight into the processes that have shaped an area.

Despite the limits of the proposed testing program, archaeological resources within the Study Area have the potential to answer several research questions, beyond a simple analysis of survival and integrity. Additional research questions may be added if the archaeological resource allows for further, or more in-depth, investigation.

6.2 Historic themes

The NSW Historic themes provide a framework for identifying important processes or activities which have significantly contributed to Australian history at a national and state level. The Heritage Council of NSW has prepared a list of state historic themes relevant to the demographic, economic and cultural development of the state. The use of these themes provides historical context to allow archaeological items to be understood in a wider historical context. Historical themes relevant to the Study Area are summarised in Table 6-1

Table 6-1: Historical Themes

Criteria	NSW Historical Theme	Explanation
Peopling Australia	Aboriginal cultures and interactions with other cultures	The presence of child burials reflects enduring Aboriginal cultural practices and beliefs about life, death, and connection to Country. Post-colonial burials may also demonstrate cultural adaptations in burial customs.
Developing Local, Regional, and National Economies	Convict	Some Aboriginal child burials may be associated with sites where Aboriginal people were confined or impacted by early colonial convict settlements, including missions, reserves, or forced removals.
Building Settlements, Towns, and Cities	Towns, Suburbs and Villages	Burials within or near settlements, missions, reserves, or fringe camps highlight Aboriginal people's presence and movement in historically significant areas post-colonisation.
Developing Australia's Cultural Life	Health	Child burials may provide archaeological evidence of historical health conditions, disease, and the impact of colonial policies on Aboriginal child mortality, malnutrition, and medical treatment.
Governing Australia	Welfare	Sites associated with Aboriginal child burials may be linked to government welfare policies, such as the forced removal of children (Stolen Generations) or mission-run orphanages.
Developing Australia's Cultural Life	Religion	Burials in mission cemeteries or churchyards reflect the influence of Christian beliefs, missionary work, and the ways Aboriginal communities incorporated or resisted religious practices in funerary traditions.
Marking the Phases of Life	Dispossession	The burial site may be evidence of displacement and loss of traditional lands, with Aboriginal communities being forced to bury their dead in designated areas such as

⁵⁶ Heritage Council of NSW 2001

Criteria	NSW Historical Theme	Explanation
Educating Australians	Social Institutions	reserves or missions instead of traditional burial grounds. Mission schools, orphanages, and reserves often had cemeteries where Aboriginal children were buried, reflecting the role of institutions in shaping Aboriginal lives and deaths.
Marking the Phases of Life	Cemeteries and Burial Places	The site itself, as a burial location, is historically significant and may contain unique mortuary practices, grave markers, or cultural adaptations in burial traditions.
Transforming the Environment	Environmental History	The choice of burial location often reflects Aboriginal environmental knowledge, such as the use of significant trees, sand dunes, or rock shelters for interments, ensuring protection and ongoing cultural connection.

6.3 Research questions

The significance of a potential archaeological resource lies in its ability to respond to research agendas in a meaningful way, rather than duplicating known information, or information that might be more readily available from other sources such as documentary records or oral history. Therefore, the aim of the following research questions is to ensure that the proposed archaeological investigation is focused on genuine research needs and will contribute meaningfully to the project.

The primary aim of the proposed testing program is to identify the presence or absence of archaeological remains in those locations proposed to be impacted by the project. The following research questions are therefore primarily theoretical as it is not anticipated an archaeological resource will be exposed to an extent that it will be able to respond to in-depth research agendas. As the results of the proposed archaeological investigation are likely to be limited due to the necessary constraints of a testing program, should the need for additional management of the archaeological resource be identified and appropriate, the following framework would be expanded to include stratigraphy, artefact analysis, geomorphological and environmental analysis, contact archaeology, and any other relevant research agendas.

The primary aim of the test excavation program is to confirm the presence or absence of potential burials within the BNI.

It is not the aim of the test excavation program to expose or remove human remains, and it is highly possible that a test excavation will not be able to respond to many of the following questions.

Exposure of grave cuts and excavation of the location has the potential to answer the following research questions:

- If present, where do cuts lie within the stratigraphic context?
- How do grave cut dimensions, orientations, and depths compare to known traditional Aboriginal burial practices?
- Is there evidence of cultural adaptations, such as a shift from traditional shallow burials to deeper, European-style interments?
- Do grave cuts suggest the presence of multiple burial phases, including secondary burials or later grave re-openings?
- Are grave cuts arranged in a formal layout (e.g., rows), or do they follow traditional Aboriginal burial site organisation?
- Is there evidence of grave markers?
- Do grave cuts suggest clustering by age, family groups, or burial chronology?
- Are grave cuts clearly distinguishable, or have natural and human processes (e.g., erosion, land modification, cemetery removals) obscured burial features?
- Is there evidence of past grave disturbances, such as reburials, looting, or modifications by later land use?

- Are grave cuts aligned with any known landmarks/landforms?
- What is the orientation of any burials? Do any burials conform to known nineteenth century burial practices? If present, can remains assist in reconstructing the layout of any informal burial ground?
- What type of fill was used within grave cuts? What can this tell us about the surrounding environment and burial practices at the time?

7. Archaeological methodology

7.1 Introduction

The study area is considered to have low potential to contain potential burials. A robust program of test excavation would provide insight into the predicted location of archaeological remains. The program would inform the final design and ensure that in-ground impacts consider and avoid significant archaeological remains. The testing program would contribute to our understanding of the site and ensure that archaeological resources are appropriately managed in accordance with their significance and integrity.

It is proposed that management of the potential archaeological resource include the following processes:

- Heritage induction
- Aboriginal salvage excavation within Richmond Road Bells Creek AFT 1 only
- Historical archaeological test excavation
- Collaborative reporting of the test excavation program, re-assessment of significance and production of updated management and design recommendations.

7.2 Proposed works with the potential to impact burials

Road widening works, the construction of the new bridge over Bells Creek and the excavation of sediment basins within the Blacktown Native Institution curtilage would be undertaken on land owned and managed by Transport. The road widening and bridge construction works would include bulk earthworks.

The proposed flyover will require the positioning of at least one pier footing within the Blacktown Native Institution site near the intersection with Rooty Hill Road North and Richmond Road. Construction of the pier footings is expected to require ground disturbance through excavation and auguring, which will result in impacts to the ground surface within the Blacktown Native Institution.

7.3 Non-invasive techniques

7.3.1 Ground-penetrating radar

Ground-penetrating radar (GPR) is a valuable tool for identifying burials, but it has limitations in certain conditions. It is less effective in highly clay-rich or waterlogged soils, where signal attenuation prevents clear imaging of subsurface features. Similarly, heavily compacted or rocky ground can distort radar waves, making it difficult to differentiate burial sites from natural geological formations. GPR also struggles in areas with extensive root systems or modern disturbances, such as construction or deep ploughing, which can obscure or destroy burial evidence. In cases where bodies were placed in shallow graves or wrapped in biodegradable materials, decomposition over time may leave little to no detectable contrast between the burial and surrounding soil. Additionally, the success of GPR relies on expert interpretation, and false positives or missed burials can occur if the data is not carefully analysed in conjunction with historical and archaeological evidence.

In this instance, the fragility of potential human remains, potential impact from the construction of Richmond Road and shared path and presence of waterlogged soils in the vicinity of Bells Creek suggest that GPR is unlikely to provide conclusive results. In addition, Heritage Council guidelines require physical testing to verify

any GPR results. It is therefore suggested that minimally invasive archaeological test excavation would be the most effective method to identify potential grave locations.

7.4 Heritage induction

Prior to test excavations commencing, a heritage induction would be carried out with personnel involved in the test excavation, including contractors. At a minimum, this would include an overview of the project's obligations, the proposed archaeological methodology, required management under the Heritage Act and NPW Act and the role of the archaeological team.

7.5 Archaeological team

The study area has potential to contain significant historical archaeological resources. The archaeological program would therefore be undertaken by an experienced team that can appropriately manage and respond to the diverse site requirements.

7.5.1 Excavation Director

Archaeological investigations would be managed by suitably qualified and experienced Excavation Directors who would meet the NSW Heritage Council criteria. The Excavation Directors would be responsible for overseeing the archaeological investigation program.

The historical archaeological Primary Excavation Director would be responsible for the overall management of the archaeological program.

7.5.2 On site archaeologists and specialists

Archaeological excavation and monitoring tasks would be conducted by appropriately trained specialists under the coordination and supervision of the Excavation Director.

Input from appropriate and experienced specialists would be sought during the archaeological program as required. This would likely include a combination of on-site specialists during the archaeological investigations and off-site specialists for analysis tasks. On-site specialists are expected to include:

- An archaeological surveyor and planner – would be involved in the archaeological recording (preparation of measured drawings as required) and surveying of identified archaeological remains
- Forensic anthropologists – would be involved if human remains are identified within grave fill

The excavation team will comprise archaeologists experienced in both the identification and excavation of contexts containing Aboriginal and historical objects. The excavation team will also include representatives of the DSMG and Registered Aboriginal Parties (RAPs).

7.6 Aboriginal salvage excavation methodology – Stage 1

The salvage methodology for Richmond Road Bells Creek AFT 1 is included as an Appendix to the Aboriginal Cultural Heritage Assessment prepared by KNC in 2024.⁵⁷ This methodology is included below to provide context to the archaeological investigations being undertaken within areas of the BNI with the potential to contain burials.

The salvage excavation program would be undertaken in two phases (Phases 1 and 2). It is anticipated that a maximum of 15 Phase 1 squares and a minimum of 25 Phase 2 squares (if warranted by the results of the Phase 1 excavation) would be excavated during the salvage excavation program. Each excavated square would be excavated by hand until basal layer or culturally sterile deposit are reached. All excavated deposit would be sieved using nested 5.0 millimetre and 2.5 millimetre sieves. Where potential microdebitage is recovered 1.0 millimetre sieves will be utilised.

⁵⁷ KNC 2024, Appendix D

7.6.1 Phase 1

The first phase of the salvage excavation would comprise a series of excavation squares that would be excavated at 15 metre intervals along one or more parallel transects. The Phase 1 transects would be sited to investigate the subsurface deposit in relation to the spatial extent of lithics, geomorphological variations and subsurface disturbance. The results of the Phase 1 excavation would be used to identify areas where Phase 2 salvage excavation would be appropriate. Statistical salvage following this method is highly beneficial because it creates a robust inter-site sample, sufficiently random, critical for regional comparative analysis.

7.6.2 Phase 2

The second phase of the salvage excavation would be undertaken if information bearing deposits were identified during the Phase 1 salvage excavation. Information bearing deposits are identified by triggers including:

- Significant quantities of artefacts
- Variations in raw material
- Unusual artefacts
- Chronological material. In this context chronologic material is anything that can be used to date artefacts or deposit: charcoal or charcoal bearing deposit (e.g., hearth ash), sandy deposit, gravels (e.g., aluminium feldspar)
- Taphonomic indicators.

Additional excavation squares, constituting an open area, will be excavated around information bearing deposits and aligned to the excavation grid. Phase 2 open area investigation would expand to encompass entire activity areas.

7.7 Non-Aboriginal test excavation methodology – Stage 2

7.7.1 Pre-excavation

Dependant on the results of the Stage 1 Aboriginal heritage test excavation program outlined in Section 7.6, the final location of test trenches would be confirmed in consultation with DSMG and the Aboriginal testing consultant, and test trench coordinates and plans showing their location within the Project Site sent to Transport for NSW and relevant contractors to allow the area to be inspected by service locator contractors to ensure that existing services would not be impacted by works. It is not the intention of the historical program to increase the overall level of impact to the study area. As such, historical testing footprint will be reduced where possible and informed by the result of the Aboriginal Phase salvage excavation works.

Any substantial changes to the trench locations outlined in this document would also be submitted to Heritage NSW for information.

PLACEHOLDER – TFNSW to confirm a condition of consent can be included in the s60 around this requirement

Should existing or unknown services be located in the proposed trenching area, the locations of test trenches may require modification. In this instance test trenches would be moved within 5 m of their original location in these circumstances.

7.7.2 Test trench locations

The testing program would aim to investigate those portions of the Study Area considered to have greater potential to contain burials, where these locations overlap with proposed project works and exclude areas previously excavated during Stage 1 of the Aboriginal testing program. These locations include higher ground to the east and west of Bells Creek, and the north-eastern corner of the BNI. See (Figure 7-1).

The proposed historical test excavation would take the form of eight 15 m x 1.5m machine scrapes or eight 15 m x 1 m hand excavated trenches throughout the areas identified as having the potential to contain burials (Figure 7-1). The machine or hand excavation of test trenches is dependent upon the results of Stage 1 Aboriginal heritage test excavation.

The locations of test benches would be confirmed in consultation the Aboriginal testing consultant and DSMG. There is the potential that the proposed test trench locations may require expansion or modification. This

requirement may arise before testing commences (i.e. in response to the location of unforeseen in-ground utilities/vegetation that must be avoided), or during the excavation program (i.e. at the request of DSMG or other stakeholder). This methodology therefore accounts for the expansion of each test trench by 15m² from all sides, and or the movement of each test trench by up to 10m from the location proposed in this methodology.

PLACEHOLDER – TFNSW/DSMG TO CONFIRM IF THIS COVERAGE IS APPROPRIATE. Should we include a trigger for the excavation of additional trenches/expansion of trenches if results are inconclusive?

7.7.3 Excavation methodology

Investigations in each area would involve the machine or hand excavation of test trenches under the supervision of the archaeological team. Machine excavation would use a 8 to 10-tonne excavator with a 1.2 m to 1.5 m flat bucket. Machine excavation would remove existing ground surfaces in shallow layers. Removed soils would be:

1. Retained on a tarp to the edge of the test trench and used to backfill trenches on finalisation of the testing program
2. For trenches within Richmond Road Bells Creek AFT 1, excavation would occur in 1 m x 1 m pits and sieved as per the methodology in Section 7.7.5.

On identification of potential historical archaeological deposits or remains, investigation would be undertaken by hand. Archaeological remains would be cleaned by hand to allow archaeologists to understand the nature of the potential archaeological resource within the trench. Archaeological deposits would be recorded by context. Should buried remains be identified as non-significant (i.e. not 'relics') machine excavation may continue in that area once the resource had been completely recorded.

Excavation of each trench area would continue until archaeological remains, or natural subsurface culturally sterile soil layers have been identified.

PLACEHOLDER – TFNSW TO CONFIRM IF THIS METHODOLOGY IS APPROPRIATE FOLLOWING CONSULTATION WITH DSMG

Should test trenches contain partial archaeological features that are unable to be conclusively identified, i.e. the edge of a cut feature, trenches would be extended to a maximum of 5 m.

The following would be taken into consideration during the test excavation program:

- It is not proposed that State significant remains or 'relics' be impacted or removed from site during the testing program. Should remains identified as being potentially State significant, manual cleaning of would continue to identify the nature and extent of the resource only
- During the test excavation program, any potential burial cuts would be exposed, cleaned and archaeologically recorded. Removal of fill material would be minimal. Fill material would only be removed in order to confirm the presence of a cut/cultural disturbance of underlying soil deposits
- *In situ* remains would be archaeologically recorded by context, photographed and their location precisely planned. Once recording had been completed, the remains would be protected by a layer of geofabric and backfilled under archaeological supervision to ensure their preservation
- Archaeological test excavation cannot exceed a safe depth. Maximum depth of excavation without shoring or increasing pit size is 1.5 m, however, the maximum safe depth in contexts with loose or unstable sediments will be less
- Water table – hand excavation beneath the water table poses a limitation for both safety and integrity of the excavation program. Where test excavation is required below the water table, a revised methodology may be required that identifies an appropriate methodology for sub-surface investigation in these contexts
- Should Aboriginal artefacts be identified during machine excavation of non-Aboriginal test trenches excavation works at that location would cease and hand excavation within 1 m x 1 m pits commence. All materials would be sieved as per the methodology in Section 7.7.5

7.7.4 Heritage NSW notification

Should grave cuts be identified during test excavation (or at any stage during project excavation works) efforts would be made to avoid impact to remains, through re-design or other protective measures.

Excavation works would be put on hold in that location and written correspondence to HNSW prepared. This correspondence would include:

- Summary results of excavation undertaken to date, including a preliminary assessment of significance for remains identified and how these remains respond to the research design included in this document
- Confirmation of next steps in consultation with the DSMG and RAPs.

Should test excavation not identify potential grave cuts, Heritage NSW would be notified through the preliminary and final reporting to be prepared on completion for the archaeological program (see Section 7.10 for post-excavation reporting requirements).

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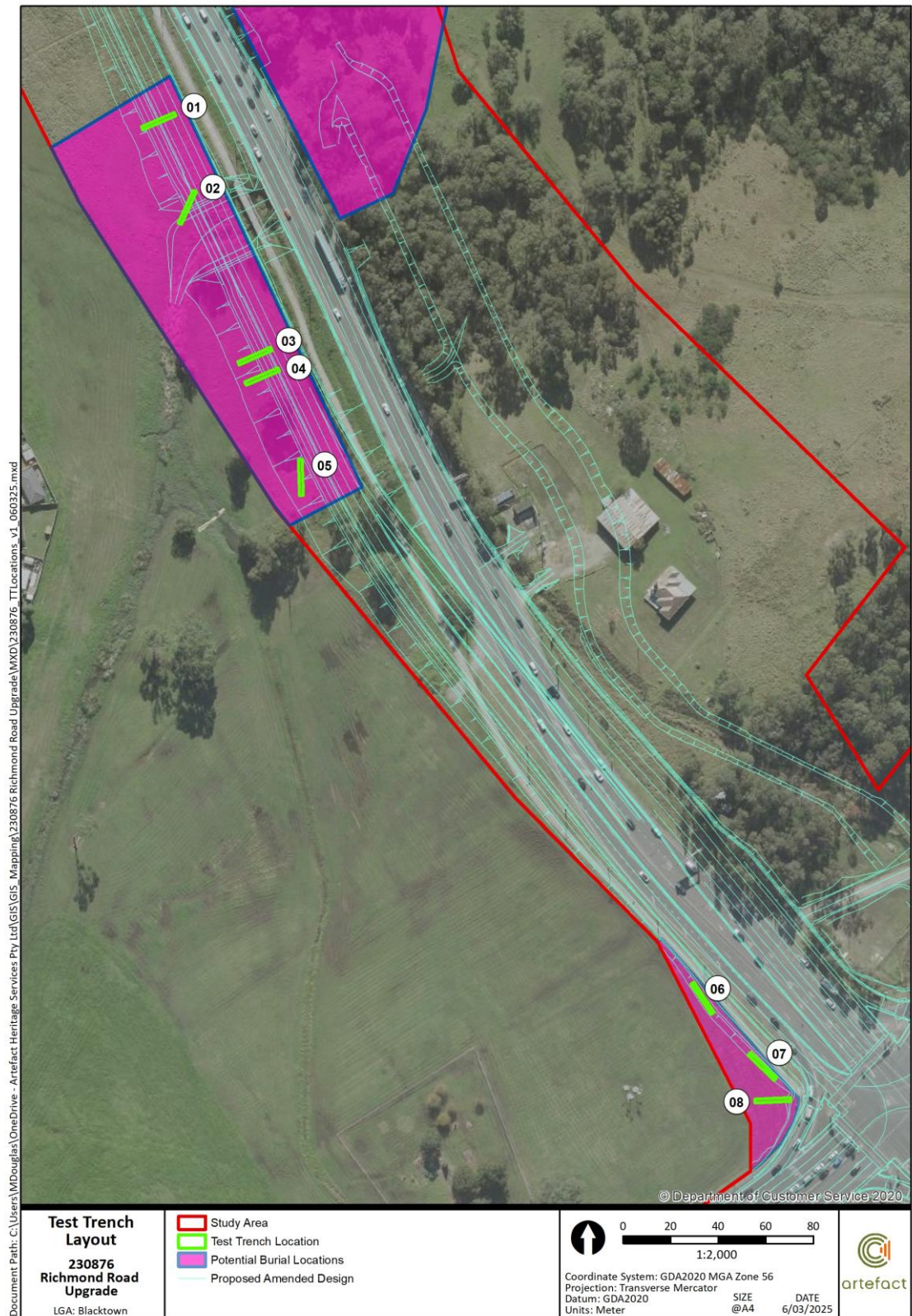


Figure 7-1: Proposed test trench locations

7.7.5 Sieving methodology

It is anticipated that material will be dry sieved on site through nested 5.0 millimetre and 2.5 millimetre sieves.

In certain circumstances it may be determined that wet sieving is more appropriate. If wet sieving is required a silt fence would be established, to stop the flow of sediment loaded water from discharging into the local watercourses.

All recovered Aboriginal and historical artefacts would be bagged and labelled with contextual information (test pits ID and spit/context number). These items would then be taken off site to be analysed in detail by relevant specialists in consultation.

7.7.6 Management of potential grave cuts and human remains

The proposed test excavation program is designed to identify grave cuts at their shallowest extent only. If potential grave cuts are identified the precautionary principal would be applied and these areas would be treated as if they contain burials. To avoid doubt, all suspected bone items must be treated as though they are human skeletal remains and all works must stop while the remains are protected and investigated.

Upon the discovery of bone (suspected human remains) all work in the area of the find **must stop**. The site must be secured, which includes the placement of physical barriers around the work site. The project archaeologist and Excavation Director must be notified, so they can make a determination about whether the find is human or not. This may involve consultation with a technical specialist, such as a biological anthropologist.

If the Excavation Director determines that the bones are likely to be human then Preliminary notification must be made to the NSW Police, NSW Coroner's Office, NSW Health, and Heritage NSW. Further work needs to be undertaken to investigate and record the find. If the find is suspected to be a historical burial, it will be managed in accordance with the procedures set out in this report. If the find is determined to be potentially a modern burial, NSW Police and the NSW Coroner's Office will lead investigation.

7.8 Interrelationship between the Aboriginal and historical testing program

There is likely to be some overlap between test trench location 3-5 and Aboriginal salvage excavation. Therefore the historical testing methodology and trench locations will be refined in consultation with the Aboriginal heritage team to ensure that the program will not result in additional in-ground impact following the Phase 1 salvage Aboriginal salvage program.

No non-Aboriginal test excavation works would commence until the Aboriginal excavation project has been completed.

The benefits of this approach are that the Aboriginal excavation program will also aid in the identification of any historical period archaeological features such as potential grave cuts or features. The placement of non-Aboriginal trenches (as shown in Figure 7-1) may be amended to account for the results of the Aboriginal heritage program. For example,

- Should Aboriginal artefacts be identified the historical test trenches may be reduced in size to account for the area already excavated
- Should an area identified as having particularly sensitive Aboriginal artefact bearing deposits be identified, historical trenching may avoid these areas
- Should historical features be identified during Aboriginal testing, the placement of proposed historical trenches may be amended to better target these features.

The implications of the Aboriginal heritage test excavation on the non-Aboriginal test excavation program are as follows:

- Machine excavation of test trenches within the AHIP area – nominated s60 test trench locations where no Aboriginal objects were retrieved from Stage 1 test excavation and in locations considered to be outside the extent of any expected sub-surface artefact distribution will be completed by machine. Machine excavation is only permitted where there are no Aboriginal objects from Stage 1

test excavation at the nominated s60 test trench location and if that area is not considered to be part of a larger site extent. For example, if the two Stage 1 test pits at a proposed s60 test trench location do not retrieve Aboriginal objects, but that area is considered to be part of an Aboriginal site extent based on the results of nearby Stage 1 testing and analysis of soils, hand excavation of the s60 trench will be required (see below)

- Hand excavation of s60 test trenches within the AHIP area – if Stage 1 Aboriginal excavation does retrieve Aboriginal objects, the remainder of that historical test trench will be completed by hand excavation. Hand excavation will be undertaken in 1 m x 1 m pits and sieving as per the strategy outlined in Section 7.7.5. The size of the s60 test trench will be refined to 1 m wide to reflect the size of the test pits

Depending on the results of the Stage 1 Aboriginal heritage test excavation, the resulting methodology for s60 test trenches within the project site may involve a combination of hand excavation of some s60 trenches and machine excavation of the remaining test trenches.

7.9 Recording and documentation procedures

A record of archaeological investigation would be made. The recording would be undertaken in accordance with best practice and Heritage Council of NSW guidelines. The recording methodology includes the following:

- A site datum would be established
- DGPS and post-processed to sub 1cm accuracy
- Each identified burial would be given a unique number (in addition to context numbers) for identification purposes. The burial number will be used to identify remains through the post excavation analysis process
- Every level taken is assigned a number and is recorded on a level sheet. All levels will be reduced to AHD and the spatial data used should be linked to GDA 2020
- A standard context recording system would be employed. The locations, dimensions in plan and characteristics of all archaeological features and deposits would be recorded on a sequentially numbered register
- Scaled section drawings where appropriate.
- Scaled trench plans would be drawn showing the location of archaeological deposits revealed by excavation.

7.9.1 Recording of contexts and spits

All soil deposits and significant features would be given a unique context number without duplication. Spit number would also be recorded where excavation is occurring in areas of PAD. Context numbers will be recorded in a register of context numbers to ensure context numbers are not duplicated. Each context is numbered sequentially.

Rubble deposits would be recorded only where they provide specific information regarding masonry and construction (i.e. wall finishes, material etc.). Fills need to be described in detail as there are varying types of fills (e.g. demolition, levelling).

All contexts would have a pre and post excavation level taken. This would be converted to AHD and included on plans produced.

Context and spits would be related to each other through the use of a Harris Matrix. The relationships between each of the contexts are recorded on the context sheet and these are also recorded in a computer program such as Stratify, which can be used for the digital production of Harris Matrices.

All graves identified would be given a unique burial number, in addition to the context numbers allocated.

7.9.2 Photography

Photographs would be recorded in a register identifying the shot number, direction and a description of the scene. All photographs would include a north arrow and scale.

Photographic recording of significant archaeological remains would be informed by the standards established in the *Photographic Recording of Heritage Items Using Film or Digital Capture* (Heritage Office 2006), accepting that parts of these guidelines are technically obsolete. Artefact Heritage would use a digital SLR camera and shoot in raw format to capture the maximum amount of information from the camera sensors. Photograph numbers will be documented on a photo register, including information such as photo direction and content.

7.9.3 Artefact management

Artefacts are unlikely to be uncovered during archaeological testing. Artefacts from secure or *in situ* contexts would be collected and recorded (by context).

Should diagnostic or significant artefacts be present within the fill layers (out-of-context), a sample would be retained as part of the archaeological record. Any discarded items will be recorded on context or discard sheets (in the case of sieving).

Artefacts would be collected by context and bagged with a label recording their registered context number, site code, date and initials of the collecting individual/s. Each artefact bag or individual artefact would be tagged with a Tyvek® tag and sealed in plastic bags. A record and description of relevant artefacts would be included in their corresponding context sheet and photographed where necessary. All artefact bags would be catalogued prior to being stored in an archival quality storage container to prevent loss or misattribution of contextual data.

7.10 Post-excavation analysis

7.10.1 Preliminary results reporting

An interim or preliminary archaeological findings report would be prepared following completion of the test excavation program and submitted to Heritage NSW within a month. This report would outline the main archaeological findings, post-excavation and analysis requirements, and would also include any further archaeological investigation requirements for the project.

7.10.2 Artefact analysis

It is not anticipated that *in situ* artefact bearing deposits would be excavated during test excavation and that detailed artefact analysis will not be required.

Human remains, if identified within grave fill, would not be removed from site.

7.10.3 Archaeological excavation report

Following the completion of on-site archaeological works, post-excavation analysis of the findings would be undertaken. An archaeological excavation report will be produced that will comprehensively describe and interpret the findings of the investigation within the context of the research design and research questions.

The document would be issued as a single report incorporating the findings of the archaeological program. This would include stratigraphic reporting, production of illustrations, detailed site plans, photographs, analysis of significant out-of-context artefactual finds and provide responses to the research questions. The report would include a reassessment of archaeological significance based on the investigation results and recommend future actions required to manage historical archaeology at the site.

The report would be prepared in accordance with any conditions included in the s60 application and AHIP.

8. Conclusion

8.1 Overview of findings

- The proposed works are within the heritage curtilage of the Blacktown Native Institution heritage item, listed on the State Heritage Register as item #01866
- The study area has low potential to contain the burials of Aboriginal adults and/or children in two locations identified through consultation with RAPs, TO's and DSMG
- The CMP prepared in 2023 included the following as part of Policy 36:
 - *The BNI holds an unknown level of potential for post-1788 human burials, possibly associated with the BNI phase. The proposed footprint for any new development must consider this potential and implement non-invasive actions to investigate the possibility during the planning phase.*
- Based on the above recommended management. Heritage NSW has requested that test excavation be undertaken to confirm the presence/absence of burials

8.2 Approval pathway

Project works within the Blacktown Native Institution require an application for an approval under s60 of the Heritage Act as outlined in Section 2.3.2 of this report.

Any excavation where Aboriginal objects and/or remains (as included in the definition as Aboriginal objects) may be present will require approval under s90 of the NPW Act prior to commencement.

It is recommended that the s60 approval and AHIP be staged to allow for a program of historical and Aboriginal test and salvage excavation, followed by the submission of revised recommendations to Heritage NSW, to inform the development of the detailed design and the DSMG working group.

8.3 Safeguards and management measures

The following non-Aboriginal archaeological safeguards and management measures are included in the project REF and should be implemented throughout the life of the project.

Table 2: Safeguards and management measures

No.	Impact	Environmental safeguards and management measures	Responsibility
		All staff involved in ground-disturbing works must receive a heritage induction as part of their general site induction. The heritage induction will make clear the responsibilities of Transport, the contractor, and workers under relevant heritage legislation.	
NA1	Non-Aboriginal Heritage	The heritage induction must provide workers with a basic understanding of the nature and appearance of Aboriginal and historical sites and artefacts and provide them with a clear understanding of the unexpected finds procedure. Additional heritage briefings would be provided on site as needed to contractors who are working in conjunction with the site archaeologists during the archaeological investigations.	Contractor

No.	Impact	Environmental safeguards and management measures	Responsibility
NA2	Non-Aboriginal Heritage	<p>Test excavation will be undertaken as described in this Archaeological Methodology and Research Design.</p> <p>The test excavation will occur after Aboriginal salvage works, and prior to any pre-construction activities, site establishment, or construction activities for the project.</p>	Transport
NA11	Non-Aboriginal Heritage	Significant archaeological remains will be recorded in accordance with the methodology described in this Archaeological Methodology and Research Design report.	Transport

9. References

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